Sent: Thu, 21 Sep 2017 06:40:35 -0700
Subject: Re: Request for information for Breakthrough Action/ Sierra Leone
From: Brian Bird <bhbird@ucdavis.edu>
To: Jonna Mazet <jkmazet@ucdavis.edu>
Cc: David J Wolking <djwolking@ucdavis.edu>, Leilani Francisco <francisco@ecohealthalliance.org>

Thanks. I'll add in this flyer and the website with the EHP document and send those back to Andrew, Kama, et al for sharing on with the BTA folks. I also agree it makes sense to show them the bat book during the face to face meetings. I don't understand why some folks at USAID don't want that to be shared... isn't that the whole point!?!

Anyways, would any of you have any problems with me showing the SL and Guinea teams the bat book during my upcoming trip/training? I think their feedback might be quite helpful to hone the messages and the graphics? If it's okay I'll add in a session in the training agenda for it for discussions.

-b

From: [redacted] on behalf of Jonna Mazet <jkmazet@ucdavis.edu>
Date: Wednesday, September 20, 2017 at 4:32 PM
To: Brian Bird <bhbird@ucdavis.edu>
Cc: David J Wolking <djwolking@ucdavis.edu>, Leilani Francisco <francisco@ecohealthalliance.org>
Subject: Re: Request for information for Breakthrough Action/ Sierra Leone

Please add the flyer attached to the packet for them. I also think you should bring all of the bat technical material, including the current version of the bat book. Also, direct them www.predict.global for more information?
Thanks,
J

On Wed, Sep 20, 2017 at 12:30 PM, Brian Bird <bhbird@ucdavis.edu> wrote:
FYI- I took Andrew off this email reply.

My thought would be we could send them the four-pager that we wrote for EHP (see attached GHSA-ified scoping document),

During the face to face meeting, I was hoping to present some of the slides that I showed at the NYC meeting plus the general PREDICT intro slides in Sierra Leone. I looked at that presentation just now wondering if we could share it straight away, but I think without someone actually talking through the slides the messages are a bit hard to follow if you aren't familiar with the project or not an emerging infectious disease wonk.

I don't think I've seen a short overall PREDICT intro document... although I'll bet one exists. If so, we could send that too?

-b

From: Andrew Clements <aclements@usaid.gov>
Date: Wednesday, September 20, 2017 at 11:54 AM
To: Brian Bird <bhbird@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Leilani Francisco <francisco@ecohealthalliance.org>
Subject: Request for information for Breakthrough Action/ Sierra Leone

See request below. Thanks!

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov
Begin forwarded message:

From: Kama Garrison <kgarrison@usaid.gov>

Date: September 20, 2017 at 6:11:44 PM GMT+2
To: Andrew Clements <AClements@usaid.gov>, Shana Gillette <sgillette@usaid.gov>
Cc: Anton Schneider <aschneider@usaid.gov>
Subject: Breakthrough Action/ Sierra Leone

I have in my notes from the call the other day to ask if you all have any overall presentations about PREDICT (their approach, outcomes etc) and anything specific to the work they are doing in Sierra Leone (reports or presentations) that can be sent to BT-A just so they have some sort of idea of what PREDICT does. This will be new for them so anything to give them some overview before they arrive on Sunday would be helpful.

--

Kama G. Garrison, MPH
Sr. Social Behavior Change Advisor
USAID/GH/MCHN/RPD
Ph: 571.551.7379
M: REDACTED

From: Andrew Clements <aclements@usaid.gov>
Sent: Fri, 22 Sep 2017 12:43:26 +0200
Subject: Fwd: Triangulated Surveillance, FrontLines Story
To: David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>
Cc: PREDICTMGT <predictmgt@usaid.gov>

Hi David and Jonna,

I got this request from the public affairs person in the RDMA mission. He is writing a piece on EPT for the Agency's newspaper (Frontlines) and would like the following cumulative totals (
across
Burma, Thailand, Cambodia, China, Laos, Indonesia, Malaysia, and Vietnam) for PREDICT-2 (2014-2017):

people t
rained
animals sampled
Labs supported
tests conducted
Viruses detected (separate existing and new if you have it; otherwise just total number).

Other questions:

- USAID PREDICT talks about a worldwide pool of 320,000 viruses. Is this still accurate?
- A Scientific American article said each USAID PREDICT bat sample (in DRC) cost $43.40. Is that the same cost in Thailand? And is that not/a good thing to mention?

If any of these are difficult/time-consuming to get, let me know.

He requested the information

by COB Monday if possible.

Please let me know if you have any questions.

Thanks!

Andrew

---------- Forwarded message ----------
From: **Andrew Clements** <aclements@usaid.gov>
Date: Fri, Sep 22, 2017 at 12:17 PM
Subject: Re: Triangulated Surveillance, FrontLines Story
To: Richard Nyberg <rnyberg@usaid.gov>
Cc: Daniel Schar <dschar@usaid.gov>, Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>

Hi Richard,

I'll ask PREDICT for a break-out for the SEA Region. Unless I hear otherwise, I'll assume you want the following countries included:

Burma, Thailand, Cambodia, China, Laos, Indonesia, Malaysia, and Vietnam.

Andrew

On Fri, Sep 22, 2017 at 11:23 AM, Richard Nyberg <rnyberg@usaid.gov> wrote:

Hi Andrew,
I've pulled together a lot of material for the FrontLines story, but I could use some more stats for Southeast Asia. For example, I was wondering if you could pull out numbers that relate to our accomplishments to date for the ASEAN region (SE Asia) for the attached, which I took from the USAID PREDICT website.

Trained xxx
Sampled xxx
Labs
Viruses detected

- Also, USAID PREDICT talks about a worldwide pool of 320,000 viruses. Is this still accurate?

- Finally, I saw a Scientific American piece that said each USAID PREDICT bat sample (in DRC) cost $43.40. Is that the same cost in Thailand? And is that not/a good thing to mention?

If there is anything else in terms of numbers for SE Asia you think might be good to mention, and you have it at your fingertips, please send along -- but please don't spend much time on it.

I'm on a rather tight deadline, so if possible, could you send whatever you can

by COB Monday?

Many thanks and have a nice weekend.

Best,

Richard

On Thu, Sep 14, 2017 at 2:26 PM, Andrew Clements <aclements@usaid.gov> wrote:

Thanks, Dan (and Richard)!

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health

U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Sep 14, 2017, at 3:35 AM, Daniel Schar <dschar@usaid.gov> wrote:

Dear Andrew and Lindsay,

I wanted to let you know our wonderfully supportive DOCS team lead, Richard Nyberg, has successfully pitched the triangulated surveillance partnership to be profiled in USAID FrontLines. The pitch is attached here.

The story would focus on PREDICT 2 and FAO's work in partnership with the governments of Thailand and Laos in realizing the synchronized surveillance paradigm and the expected benefits that will yield. Likely, it would be timed for the November issue to coincide with global OH day.

We also have cued up a shorter, visual-laden version of the story to appear on the USAID Stories website. That will likely go live in the coming weeks. We will let you know once this is online and as the FrontLines story develops.

Best,
Dan

<DRAFT FrontLines Pitch Sampling Bats Pigs and People to Net New Viruses .docx>

RICHARD NYBERG
Senior Regional Communications Advisor
U.S. Agency for International Development
Regional Development Mission for Asia (USAID/RDMA)
[redacted] | rnyberg@usaid.gov | USAID.gov/asia-regional
Follow us: | @USAIDAsia | Facebook: USAIDAsia | Flickr: USAIDAsia /YouTube: USAIDRDMA

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2

Andrew Clements, Ph.D.
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For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2

From: Molly Turner <turner@ecohealthalliance.org>
Sent: Thu, 21 Feb 2019 17:20:37 -0500
Subject: Re: OHW-NG scope of work
To: Woutrina A Smith <wasmith@ucdavis.edu>
Cc: Peter Daszak <daszak@ecohealthalliance.org>, Matthew Blake <mblake@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Elizabeth Leasure <ealeasure@ucdavis.edu>

Hi Woutrina,
Sorry for the delay, Peter's been traveling and will have a response to you on Monday morning.

Regards,
Molly

On Tue, Feb 19, 2019 at 2:57 AM Woutrina A Smith <wasmith@ucdavis.edu> wrote:

Hi Peter,

Thanks for your leadership in bringing EHA into the OHW-NG consortium, we are happy to be moving forward together. Some parts of the org structure for OHW-NG will be similar to PREDICT, others will be different based on the NOFO focus and our implementation ideas. Here is our current thinking for EHA scope that may be of interest to you, so please let us know if this is agreeable or if you'd like to propose something different for discussion. I know you'll want to start costing estimates for your team to accomplish your scope, and Liz will be sending out official forms and guidance on that this week.

1. Country oversight for OHW-NG capacity building activities:
Our top priority unit of focus for OHW-NG is the OHCEA and SEAOHUN network level, and secondarily the member countries (existing and new). For current OHCEA and SEAOHUN activities, the networks support in-country costs for conducting trainings, supporting trainees, etc., while the global prime supports global team and country oversight activities, sending external SMEs to participate in trainings, etc. Per the NOFO, at least 50% of the overall budget has to go to OHCEA/SEAOHUN as a subaward, and increasing the proportion of funds going to the in country networks as of Yr 3. For this reason, a difference from PREDICT is that the funds UCD would send to EHA are for your global team, not for flow through to in-country teams, as those in-country activity funds will be in the OHCEA/SEAOHUN subs from UCD.

Country leadership:
For each OHW-NG country, we can have an animal health and public health lead in our global consortium. It is fine to have one EHA person responsible for multiple countries, as the level of effort for oversight and coordination will be lower than PREDICT was given the focus on sending in-country fellows to regional hub training activities and conducting some specific in-country training activities, but not conducting an intensive research program in all countries. ICAP will fill the global lead roles for the public health side for most of the countries, and for the animal health side I need to know which countries you feel EHA could provide country leadership, as we will divide those countries among EHA, UCD, and possibly WCS/SI based on our needs. Here is the list of countries, made up of some as existing OHCEA/SEAOHUN countries that are prioritized for work per the NOFO, and some that we can suggest as limited engagement to try to bring them into the OHCEA/SEAOHUN networks as an expansion effort. **Please indicate which countries you would like EHA to be considered for in providing animal health country leadership within your global team:**

SEAOHUN current countries: Thailand, Indonesia, Malaysia, Vietnam
SEAOHUN expansion countries: Bangladesh, Cambodia, Laos, Myanmar

OHCEA current countries: Uganda, Tanzania, Ethiopia, Kenya, Rwanda, DRC, Cameroon, Senegal;
OHCEA expansion countries: Ivory coast, Liberia, Guinea, Sierra Leone

Training activities:
Research hubs - we are hoping to propose two research training hub countries per OHCEA and SEAOHUN network, where we could conduct some aligned surveillance activities as an opportunity to include regional trainees who want to get experience in fieldwork, labwork, data analysis, and communications. Given the NOFO details on priority vs limited engagement countries, the likely research hub countries will be Thailand and Vietnam for SEAOHUN, and Senegal and

Tanzania for OHCEA. If your team is providing country leadership for one of the hub countries, that level of effort will need to be higher than for non-hub countries given the extent of in-country activities to be coordinated. We should discuss to what extent the budget for research supplies can be managed through the OHCEA/SEAOHUN in country budgets as compared to requiring global team ordering and provision of supplies, as ideally it would be the former but realistically it is probably some of both, and we may want to budget accordingly to accommodate that. **The final country leadership from #1 above will drive who should budget for extra research costs.**

Small grants program - We also hope to have a competitive small grants program that OHCEA and SEAOHUN would operate, which could result in small research projects for various countries, and that grant development process could involve mentoring and partnership between in-country and global team staff. **We may look to allocate a set small amount of money per country for global team leads to manage in addition to the OHCEA/SEAOHUN in-country budgets to support small grants** given the need to provide research supplies from our global team ordering side to complement what the in-country teams can order in a timely manner.

Workshops - A variety of training formats can be used for training hub countries and other in-country capacity building activities to a lesser extent. Ideally the in-country focal contacts (like our PREDICT country coordinators) would work with the global country team lead in planning priority training activities based on the capacities and needs identified. Per the current OHCEA structure, the country focal contact proposes training activities to the OHCEA board for approval, and when approval is received, planning of the activity can commence. In our proposal we will likely have a more structured cycle and mechanism for proposing and approving training activities, perhaps semi-annual, as we want to coordinate the menu of offerings within the needs of the One Health Academy and Certificate Program to build One Health competencies across the region. For training activities, EHA could provide the SMEs where relevant based on country and topic. **Please identify SME topics and personnel names that you might want to list from your EHA team so that you can eventually budget for having EHA experts on hand to participate in regional and country activities where relevant per your geographic scope of work.**

2. Global OHW-NG working groups and core partner activities:

Beyond the value your EHA team can add with leadership of in-country oversight and participation in trainings specifically, we would welcome representation on the three objective working group teams longitudinally. This would likely involve monthly 1 hr objective working group meetings for each objective you want to have someone involved with over the course of the project, as well as having them attend a semi-annual core partners meeting and an an annual OHCEA and/or SEAOHUN conference for all partners to be involved, if those are of interest. We should also plan on a weekly global management team meeting for higher level coordination with USAID needs and developments. This communication structure is similar to PREDICT. **Please consider who you would want to name for these activities.**

There may be some specific global team leadership roles of interest to EHA that are separate from the activities described above. For example having Billy in the external liaison role in PREDICT has led to good synergies. I'm open to exploring what the most important roles might be and who would be excellent among our consortium, so **please give a bit of thought to these key staff role possibilities and know that I will be sharing org chart figures for discussion next week.**

Please feel free to share your thoughts via email or we can set a time next week to discuss on a call. Please start considering your costing estimates to give us a ballpark number representing your needs and we can hone in on what is possible based on balancing the various requests and ideas that are coming in from partners.

Best wishes from Addis Ababa, Woutrina

--
Molly Turner
Federal Grants Coordinator
EcoHealth Alliance Operations

EcoHealth Alliance
460 West 34th Street, Suite 1701
New York, NY 10001

1.212.380.4469 (office)

REDACTED (mobile)
www.ecohealthalliance.org

EcoHealth Alliance leads cutting-edge scientific research into the critical connections between human and wildlife health and delicate ecosystems. With this science, we develop solutions that prevent pandemics and promote conservation.

From: Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>
To: Andrew Clements <aclements@usaid.gov>
CC: Katherine Leasure <kaleasure@ucdavis.edu>;Schar, Daniel (RDMA/OPH) <dSchar@usaid.gov>;PREDICTMGT <predictmgt@usaid.gov>;Predict inbox <predict@ucdavis.edu>;Jonna Mazet <Jkmazet@ucdavis.edu>
Sent: 6/27/2019 10:18:15 AM
Subject: Re: Change to Pending ITA - D. McIver (Laos Postponed)

Thank. RDMA is aware of Dave's postponed TDY to Lao PDR.

Best regards,
Sudarat

Sent from my mobile.

On Jun 27, 2019, at 3:41 PM, Andrew Clements <aclements@usaid.gov> wrote:

Thanks, Katie.

Dan/Sudarat: see below.

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2

On Wed, Jun 26, 2019 at 11:16 PM Katherine Leasure <kaleasure@ucdavis.edu> wrote:
Hi Andrew. Per Metabiota, the below travel for David McIver to Laos has been postponed, with new dates TBD. A new ITA will be submitted when the rescheduled travel dates have been confirmed. Based on Tone's response to the request for concurrence, it appears that the Laos Mission is already aware of this, but I will follow-up on that email chain to confirm that David's trip is being rescheduled. Please let me know if you have any questions. Thank you!

Metabiota would like to request travel approval for Dr. David McIver, Epidemiologist, to travel from Nanaimo, Canada to Vientiane, Laos from June 28 to July 6, 2019 to hold PREDICT2 wrap up meetings with in-country partners.

Trip purpose: In Vientiane, Dr. McIver will coordinate and participate in national-level meetings with PREDICT2 partners including the Ministry of Health, the Ministry of Livestock and Fisheries, as well as USAID members from the embassy. Following these meetings, Dr. McIver will travel to Champasack province for similar meetings with provincial and district governments, as well as partner hospitals and communities. These meetings are intended to be a part of the final, program close-out activities for the PREDICT2 program. Results from the global and local programs will be presented to all partners and local results will be shared as appropriate with hospitals and communities. In Vientiane, Dr. McIver will also arrange to meet with mission representatives at the US embassy to debrief on PREDICT2 as the EPT2 program comes to a close.

--
Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
530-752-7526

--
You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.

To unsubscribe from this group and stop receiving emails from it, send an email to predictmgt+unsubscribe@usaid.gov.
To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CAD6-xMKniG3Jsrf4G%3DVZm-_NzAeV06FKMEsg9_0uruopZTJw%40mail.gmail.com.

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Diego Montecino <dmontecino@ucdavis.edu>
Sent: 11/18/2019 2:55:41 PM
Subject: Fwd: Predicting Ebola virus disease risk and the role of African bat birthing - ScienceDirect

See article below about bat birthing.
J

---------- Forwarded message ---------
From: **Andrew Clements** <aclements@usaid.gov>
Date: Sun, Nov 17, 2019 at 12:24 PM
Subject: Fwd: Predicting Ebola virus disease risk and the role of African bat birthing - ScienceDirect
To: Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, <daszak@ecohealthalliance.org>, William Karesh <Karesh@ecohealthalliance.org>
Cc: <predictmgt@usaid.gov>

FYI

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

Begin forwarded message:

From: Ricardo Echalar <rechalar@usaid.gov>
Date: November 17, 2019 at 5:59:50 PM GMT+1
To: Andrew Clements <aclements@usaid.gov>, Cara Chrisman <cchrisman@usaid.gov>, pshetty@usaid.gov, Lindsay Parish <lparish@usaid.gov>, pbright@usaid.gov, "Tiffany D'mello" <tdmello@usaid.gov>
Subject: Predicting Ebola virus disease risk and the role of African bat birthing - ScienceDirect

https://www.sciencedirect.com/science/article/pii/S1755436519300222

Sent from my iPhone

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Wed, 8 Jan 2020 12:36:18 -0800
To: Kevin Olival <olival@ecohealthalliance.org>
Cc: David J Wolking <djwolking@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, Jon Epstein <epstein@ecohealthalliance.org>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Noam Ross <ross@ecohealthalliance.org>, Emma Mendelsohn <mendelsohn@ecohealthalliance.org>
Subject: [predict] Re: PREDICT EB call next week Tuesday January 7th @ 9:30AM Pacific

Thanks Kevin, Noam, Emma, and Evan!!! At a glance this is really cool. I'll dive in and spend a bit more time exploring as it is so dense.
Also for Kevin - not sure why you were dropped from the EB listserv but you're back on it now.

Cheers,

David

On Wed, Jan 8, 2020 at 11:59 AM Kevin Olival <olival@ecohealthalliance.org> wrote:

> David and all,
> Link below for an example output (Thailand) of the country-level risk analyses for P2 animal data that the M&A team put together. The goal was a tool to support country-level teams understanding their data and general risk assessments, but great if we can use these figures our outputs as part of our final reporting. *Please do not distribute this example any further as it shows all of Thailand's data (this was last run in Sept I think and most of which should be gov't approved now, but best to be safe).*

[redacted]

A few important points to note:

1. We developed these analyses drawing data directly from EIDITH with a general code base using the EIDITH package, so they can rapidly be run or continuously updated for each P2 country (possible some tweeting is required) with little work.
2. We're happy to share code (we already have with some partners like WCS to run Vietnam data).
3. None of these reports have been made public, but versions were shared with all EHA country teams
3. Where relevant, information about viral detections in *other countries* are provided for general context and **only include government-approved data**.
3. The .html file can be opened in any browser, and includes interactive components - searchable tables, interactive maps, etc. Hense why we did not generate this a static PDF.
4. Noam, Emma, and Evan did the heavy lifting on this - and I'm cc'ing Noam and Emma so they're in the loop that we may want to run these for all countries soon. Caveat is that we may have limited bandwith for troubleshooting and support, but hopefully there isn't much of that.

Cheers,
Kevin

Kevin J. Olival, PhD
Vice President for Research

EcoHealth Alliance
460 West 34th Street – 17th floor
New York, NY 10001

1.212.380.4478 (direct)
[redacted] (mobile)
1.212.380.4465 (fax)
www.ecohealthalliance.org

On Jan 8, 2020, at 1:48 PM, David J Wolking <djwolking@ucdavis.edu> wrote:

Hey Kevin,
Just following up from the EB call yesterday. Can you share the Thailand report you mentioned that has the risk analyses with HP3 and hotspot maps, etc.? I'm working this week with Chris and her Nepal team to finalize their Nepal country report for the close-out meeting on Jan 16th, so will share that PDF (along with Metabiota's Laos report which is also final) for other examples.

Cheers,

David

On Tue, Jan 7, 2020 at 1:11 PM David J Wolking <djwolking@ucdavis.edu> wrote:

Hi there,
Here is a link to a Google Sheet for consortium authors (P1 and 2). I've worked quickly to populate some of the affiliations that I'm 100% certain of, but would appreciate consortium team input to clean this up, add affiliations for your organizations and country partners, and remove duplicates or those at this point shouldn't be included as authors. Please retain the rows and simply make notes on removing individuals so it is easier for me to track changes. If we can work on this and share input before our next EB call in 2 weeks, that would be amazing.

Thanks!

David

On Fri, Jan 3, 2020 at 7:02 AM David J Wolking <djwolking@ucdavis.edu> wrote:

Hi there,
Below is the agenda and Zoom details for next week's call.

Enjoy the weekend!

David

PREDICT Executive Board Meeting Notes
Tuesday, January 7, 2020
9:30-10:30AM PST/12:30-1:30pm EST
Zoom link: REDACTED
Additional Zoom info below agenda

1. Brief recap from USAID Management Team call

2. Close-out - standing item
On equipment...
On finances and subawards...
On viruses and data...

- Virus sequences, final interpretations, and government reports (final government reports, changes in species, negative finding reports, P1 data in Spillover MS, etc.)
  - Deadline for P1 data approvals - January 15 2020.
  - Deadline for P2 data approvals - February 28 2020
- *Status of open data plans ...*

Others as needed

3. Final Report
Vol 1 - Global report - teams and deadlines

- Capacity - draft received
- EHP - draft received
- Behavior - draft received but needs input from surveillance and M&A teams
- IM - infographic on EIDITH planned for January
- M&A - January 24th
- Surveillance - January 24th
- Virus Detection - January 24th

Vol 2 - Country reports

- Virus table updates planned for this month
- Risk analyses plans - who needs support?

4. Technical teams - brief updates (All leads)

5. Mission, partner communications & country roundup essentials

6. Publication, media, and conference updates

- On Publications & consortium authorship:
  - Action item from 12.10.19 call: please look over and approve the P2 author list

- 19th International Congress on Infectious Diseases, Kuala Lumpur (February 20-23, 2020)
- PMAC, Bangkok, Thailand (January 28-31, 2020)

7. AOB

Zoom Call-in info
Topic: PREDICT EB Call
Join Zoom Meeting REDACTED

Meeting ID: REDACTED

One tap mobile
+16699006833, REDACTED US (San Jose)
+16468769923, REDACTED US (New York)

Dial by your location
+1 669 900 6833 US (San Jose)
+1 646 876 9923 US (New York)
Meeting ID: REDACTED

On Thu, Jan 2, 2020 at 9:11 AM David J Wolking <djwolking@ucdavis.edu> wrote:

> Happy New Year!
> Just a reminder about our scheduled PREDICT EB call next week Tuesday January 7th @ 9:30AM Pacific. I'll follow-up with the agenda before the call.

Best,

David

From: Woutrina A Smith <wasmith@ucdavis.edu>
To: Corina Grigorescu Monagin <cgmonagin@UCDAVIS.EDU>;Oladele Oguseitan <oladele.oguseitan@uci.edu>;Peter Daszak <daszak@ecohealthalliance.org>;William B. Karesh <Karesh@ecohealthalliance.org>;mr84@columbia.edu' <mr84@columbia.edu>;alexandra zuber <alexandrazuber@atahealthstrategies.com>;Matthew Blake <mblake@ucdavis.edu>;Tracey Goldstein <tgoldstein@ucdavis.edu>;David John Wolking <djwolking@ucdavis.edu>;Terra Kelly <trkelly@ucdavis.edu>;Jaber Amine Belkhiria <jabelkhiria@ucdavis.edu>;Elizabeth Leasure <ealeasure@UCDAVIS.EDU>;Jonna Mazet <jkmazet@ucdavis.edu>;McNeil, Carrie S. <csmcne@sandia.gov>;Jutta Lehmer <JLehmer@salud.unm.edu>;Omar Romero-hernandez <oromero@haas.berkeley.edu>;Bruce Baird Struminger <BStruminger@salud.unm.edu>;Federico Castillo <f.castillo@berkeley.edu>;Ndola PRATA <ndola@berkeley.edu>;Tiffany Harris, PhD, MS' <th2604@columbia.edu>;Costa, Cristiane <co123@cumc.columbia.edu>;Amaya, Idalia M. <ima2107@cumc.columbia.edu>;Sam Halabi <sfh9@georgetown.edu>
CC: onehealthnextgen Sympa List <onehealthnextgen@ucdavis.edu>;Carolyn Forlee <cforlee@ucdavis.edu>
Sent: 3/19/2020 4:32:14 PM
Subject: OHW-NG COVID-19 ECHO flyers

Hi OHW-NG Executive Board,

Attached are slightly updated flyers for the Monday/Tuesday COVID-19 One Health ECHO sessions. Please share with your networks this week and encourage early registration, as there is no cost but there is a limit of 500 zoom line connections I think. For the AFROHUN session we have a number of regional SMEs on tap, but for SEAOHUN region we could use a few more to represent regional experiences. Do any of you have folks to recommend that you know can participate?

Best wishes, Woutrina

Woutrina Smith, DVM, MPVM, PhD
Professor of Infectious Disease Epidemiology
Associate Director, UCD One Health Institute
Technical Director, USAID One Health Workforce - Next Gen
Co-Director, UCGHI Planetary Health Center of Expertise
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FROM THE AMERICAN PEOPLE

SEAOHUN
Southeast Asia One Health University Network

COVID-19 ONE HEALTH UPDATE

ECHO Session for SEAOHUN Members and Stakeholders

MONDAY, MARCH 23 & TUESDAY, MARCH 24, 2020

The Southeast Asia One Health University Network (SEAOHUN) and the One Health Workforce–Next Generation (OHW-NG) consortium are pleased to host a special online 90-minute interactive ECHO webinar style session for SEAOHUN network members and other interested stakeholders. This forum, which will provide participants with the most current information related to the COVID-19 pandemic, will include expert presentations and audience discussion. The USAID One Health Workforce–Next Generation Project supports One Health university networks such as SEAOHUN in Southeast Asia and AFROHUN in Africa to enhance professional training with transdisciplinary skills to address complex global issues.

AGENDA

- Introductions [Vipat Kuruchittham, PhD – SEAOHUN Secretariat; Jonna Mazet, DVM, MPVM, PhD – UC Davis]
- COVID-19 **Global Epidemiology** [Minesh Shah – Africa Regional Lead, International Task Force, CDC COVID-19 Response]
- COVID-19 **Laboratory Diagnostics** [Christina Scheel, PhD – CDC]
- COVID-19 **Infection Prevention and Control** [Kathryn Wilson – Infection Prevention and Control Deputy Lead, International Task Force, CDC COVID-19 Response]
- COVID-19 **One Health Perspective** [Brian Bird, DVM, MSPH, PhD – UC Davis]
- Plus updates from international and regional partners
- Q&A

FACILITATORS

- Woutrina Smith, DVM, MPVM, PhD – UC Davis
- Bruce Struminger, MD, MA – ECHO Institute, UNM

SOUTHEAST ASIA SESSION [90 minutes]

MONDAY MARCH 23 (USA)
& TUESDAY, MARCH 24 (SE Asia)

USA 9:00 pm EDT, 7:00 pm MDT, 6:00 pm PDT
SE Asia 8:00 am ICT, 9:00 am MYT, 9:00 am PHT

ACCME

The University of New Mexico School of Medicine, Office of Continuing Medical Education is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The Office of Continuing Medical Education designates this live activity for a maximum of 1.5 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Visit our website for free pre-registration and connection information: ohwng.org

Questions? Contact onehealthnextgen@ucdavis.edu

UC DAVIS One Health Institute · CDC · SEAOHUN · EcoHealth Alliance · One Health Strategies · ICAP · Berkeley · ECHO · UCI

UNE SEULE SANTÉ POUR LE COVID-19: MISE À JOUR

Session ECHO pour les membres et les parties prenantes d'AFROHUN

LUNDI 23 MARS 2020

Le Réseau Universitaire Une Seule Santé d Afrique (AFROHUN, anciennement OHCEA) et le consortium Personnel Une Seule Santé - Prochaine Génération (OHW-NG) sont heureux d'accueillir une session séminaire en ligne ECHO de 90 minutes pour les membres du réseau AFROHUN et les autres parties prenantes intéressées. Ce forum, qui fournira aux participants les informations les plus récentes sur la pandémie de COVID-19, inclura des présentations d'experts et des discussions avec l'audience. Le projet USAID Personnel Une Seule Santé - Prochaine Génération soutient les réseaux universitaires Une Seule Santé tels que AFROHUN en Afrique et SEAOHUN en Asie du Sud-Est pour améliorer la formation des professionnels avec des compétences transdisciplinaires pour répondre aux problèmes mondiaux complexes.

ORDRE DU JOUR

- Introductions [William Bazeyo, MS, DrPH – AFROHUN Secretariat; Jonna Mazet, DVM, MPVM, PhD – UC Davis]
- COVID-19 Épidémiologie Globale [Minesh Shah - Responsable régional pour l'Afrique, Groupe de travail international, Réponse du COVID-19 pour le CDC]
- Diagnostique de laboratoire du COVID-19 [Christina Scheel, PhD – CDC]
- COVID-19 Prévention et Contrôle des Infections [Kathryn Wilson – Chef adjointe de la prévention et du contrôle des infections, Groupe de travail international, Réponse du COVID-19 pour le CDC]
- COVID-19 Perspective Une Seule Santé [Brian Bird, DVM, MSPH, PhD – UC Davis]
- COVID-19 Africa CDC Experience [Jay Varma, MD – Africa CDC]
- COVID-19 Infection Control Africa Network Experience [Shaheen Mehtar, MD – ICAN]
- Q&R

FACILITATEURS

- Woutrina Smith, DVM, MPVM, PhD – UC Davis
- Bruce Struminger, MD, MA – ECHO Institute, UNM

SESSION AFRIQUE [90 minutes]

LUNDI 23 MARS

États-Unis 9h30 EDT | 7h30 MDT | 6h30 PDT
Afrique 13h30 GMT | 14 h 30 WAT | 15h30 CAT & SAST | 16h30 EAT

L'Ecole de médecine de l'Université du Nouveau-Mexique, Office de la formation médicale continue, est accréditée par le Conseil d'accréditation pour la formation médicale continue pour dispenser une formation médicale continue aux médecins. L'Office de la formation médicale continue délègue cette autorité en direct pour un maximum de 1,5 crédit en catégorie 1 AMA PRA.** Les médecins doivent indiquer le crédit proportionnellement à l'étendue de leur participation à l'activité.

Prière de visiter notre site web pour plus d'informations sur la connexion à la session d'information: ohwng.org

Des questions? Contactez-nous sur notre email: onehealthnextgen@ucdavis.edu

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FROM THE AMERICAN PEOPLE

OHCEA

COVID-19 ONE HEALTH UPDATE

ECHO Session for AFROHUN Members and Stakeholders

MONDAY, MARCH 23, 2020

The Africa One Health University Network (AFROHUN, formerly OHCEA) and the One Health Workforce – Next Generation (OHW-NG) consortium are pleased to host a special online 90-minute interactive ECHO webinar style session for AFROHUN network members and other interested stakeholders. This forum, which will provide participants with the most current information related to the COVID-19 pandemic, will include expert presentations and audience discussion. The USAID One Health Workforce – Next Generation Project supports One Health university networks such as AFROHUN in Africa and SEAOHUN in Southeast Asia to enhance professional training with transdisciplinary skills to address complex global issues.

AGENDA

- Introductions [William Bazeyo, MS, DrPH – AFROHUN Secretariat; Jonna Mazet, DVM, MPVM, PhD – UC Davis]
- COVID-19 Global Epidemiology [Minesh Shah – Africa Regional Lead, International Task Force, CDC COVID-19 Response]
- COVID-19 Laboratory Diagnostics [Christina Schiel, PhD – CDC]
- COVID-19 Infection Prevention and Control [Kathryn Wilson – Infection Prevention and Control Deputy Lead, International Task Force, CDC COVID-19 Response]
- COVID-19 One Health Perspective [Brian Bird, DVM, MSPH, PhD – UC Davis]
- COVID-19 Africa CDC Experience [Jay Varma, MD – Africa CDC]
- COVID-19 Infection Control Africa Network Experience [Shaheen Mehtar, MD – ICAN]
- Q&A

FACILITATORS

- Woutrina Smith, DVM, MPVM, PhD – UC Davis
- Bruce Strumingar, MD, MA – ECHO Institute, UNM

AFRICA SESSION [90 minutes]

MONDAY, MARCH 23

USA 9:30 am EDT | 7:30 am MDT | 6:30 am PDT
Africa 1:30 pm GMT | 2:30 pm WAT | 3:30 pm CAT & SAST | 4:30pm EAT

The University of New Mexico School of Medicine, Office of Continuing Medical Education is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The Office of Continuing Medical Education designates this live activity for a maximum of 1.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Visit our website for free pre-registration and connection information: ohwng.org

Questions! Contact onehealthnextgen@ucdavis.edu

Sent: Wed, 25 Jan 2017 19:59:16 -0800
Subject: Re: Reminder: PREDICT EB call this Friday (January 27, 2017) from 9-11AM PST/12-2PM EST
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: David J Wolking <djwolking@ucdavis.edu>
Cc: Elizabeth Leasure <ealeasure@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>
PREDICT EB Agenda (1.27.17) JM.docx

Looks right on target -- a couple of edits on the attachment.
Thanks,
J

On Wed, Jan 25, 2017 at 7:44 PM, David J Wolking <djwolking@ucdavis.edu> wrote:

Here's a draft agenda for Friday's EB meeting. Including our larger team as these last few weeks before and after the Pacifica meeting have been pretty scattered with a lot of moving parts and rapid/intense communications across partners and with USAID.
D

Executive Board Meeting

Friday, January 27, 2017

9:00am PST/12:00pm EST

#800-444-2801, Access code [redacted]

International Dial-in number: [redacted] **(toll charges apply)**

Agenda

1. **Management team and admin updates**

   USAID team news

   Subaward updates and status

   Senior behavioral risk coordinator and timeline

   Best Practices for Subcontract/Subaward Monitoring and Mentoring, as well as Volunteers

2. **Follow-up from Semi-annual Consortium meeting**: (link to all PPTs on Box: [redacted])

3. **GHSA meeting read-out and implications (Jonna)**

4. **Outbreak updates (HPAI round-up, saiga dieoff in Mongolia, others?) - All**

5. **Mission communications round-up (All)**

    a. **West Africa**

    b. **Other regions**

6. **Global Virome Project update (Jonna/Peter/Eddy)**

7. **EPT partner coordination updates (Billy)**

8. **Operations Team updates:**

Surveillance (Chris)

Lab (Tracey & Simon)

Behavior (Karen)

M&A (Peter)

Capacity (Woutrina)

IM (Damien)

EHP (Brian, Jon, Karen/Eddy)

9. **Other recent meeting updates?**

- REDISSE meetings in West Africa
- Zoonotic Disease Prioritization Workshop meetings
- Others?

Standing Items:

ResearchGate update…

Publications?

Related grant proposals or conferences?

- Call for Abstracts: 60th Annual American Society for Biological Safety (ABSA) Conference

On Wed, Jan 25, 2017 at 9:25 AM, Jonna Mazet <jkmazet@ucdavis.edu> wrote:

Let's make sure that Best Practices for Subcontract/Subaward Monitoring and Mentoring, as well as Volunteers, get on the EB agenda.
Thanks,

J

On Tue, Jan 24, 2017 at 8:18 PM, David J Wolking <djwolking@ucdavis.edu> wrote:

Hi EB,
Just a reminder about this week's PREDICT call on a rather unorthodox day (Friday January 27th at 9AM PST/12PM EST).

I'll follow up with an agenda soon but if you have any items you would like to bring to my attention, please share them by Wednesday COB.

Cheers,

David

Executive Board Meeting
Friday, January 27, 2017
9:00am PST/12:00pm EST
#800-444-2801, Access code REDACTED
International Dial-in number: REDACTED **(toll charges apply)**

Agenda

1. **Management team and admin updates**
   USAID team news
   Subaward updates and status
   Senior behavioral risk coordinator and timeline
   Best Practices for Subcontract/Subaward Monitoring and Mentoring
   Volunteers

2. **Follow-up from Semi-annual Consortium meeting:** (link to all PPTs on Box:
   REDACTED

3. **GHSA M&E meeting read-out and implications (Jonna)**

4. **Outbreak updates (HPAI round-up, saiga dieoff in Mongolia, others?) - All**

5. **Mission communications round-up (All)**
   a. **Communicate, communicate, communicate!**
   b. **West Africa**
   c. **Other regions**

6. **Global Virome Project update (Jonna/Peter/Eddy)**

7. **EPT partner coordination updates (Billy)**

8. **Operations Team updates:**
   Surveillance (Chris)
   Lab (Tracey & Simon)
   Behavior (Karen)
   M&A (Peter)
   Capacity (Woutrina)
   IM (Damien)
   EHP (Brian, Jon, Karen/Eddy)

9. **Other recent meeting updates?**
   - REDISSE meetings in West Africa
   - Zoonotic Disease Prioritization Workshop meetings
   - Others?

Standing Items:
ResearchGate update…
Publications?
Related grant proposals or conferences?
- Call for Abstracts: 60th Annual American Society for Biological Safety (ABSA) Conference

UCDUSR00003241

From: Jon Epstein <epstein@ecohealthalliance.org>
Sent: Tue, 31 Jan 2017 10:16:03 -0500
To: predict-outbreak@ucdavis.edu
Cc: Mindy Rostal <rostal@ecohealthalliance.org>, Emily Hagan <hagan@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>, "William B. Karesh, D.V.M" <karesh@ecohealthalliance.org>, Ariful Islam <arif@ecohealthalliance.org>
Subject: [predict] [predict-outbreak] Bangladesh outbreak report - Jan 31st update
Crow die off_PREDICT Bangladesh_Dhaka_Jan 31 2017.doc

Jonna,
Attached is today's update. New information is at the end. Number totals are updated earlier in the document and noted in the margins. There is only an update for Dhaka activities, not for Rajshahi.

Cheers,
Jon

--

Jonathan H. Epstein DVM, MPH

Vice President for Science and Outreach

EcoHealth Alliance
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New York, NY 10001

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REDACTED (mobile)

web: ecohealthalliance.org

Twitter: @epstengpx

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

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Section 8.4 Appendix I. PREDICT OUTBREAK RAPID REPORT

Today's Date: 31st January 2017

Please describe the disease signs and symptoms and species affected (humans, domesticated animals, wildlife).

On 14th January, the PREDICT field team (team members who were not directly involved in investigating the crow die-off in Rajshahi) was sampling bats and observed unusual mortality of crows (Corvus splendens) on the premises of Mohakhali Wireless, Dhaka City. The team observed the crows suddenly falling from trees; and clinical signs of: circling, inability to fly, lethargy, torticollis, tremors, and diarrhea. No history or clinical signs were reported or noted in other domesticated animals or people.

Location
Country: Bangladesh
District: Dhaka (This is 245km from Rajshahi)
Village/Town: Dhaka city: Wireless Mohakhali, Ramna Park, Sohrawardi uoddan, Dhaka University, and Modumoti Model Town
GPS Coordinates (if known):
Mohakhali Wireless
N23 47.010
E90 24.289
Ramna Park:
N23 44.347
E90 23.969
Dhaka University:
N2344.087
E9023.499
Date that first case(s) of illness occurred (if known or estimate): January 14, 2017
Date that PREDICT was first notified of outbreak: January 14, 2017

Key Information	Description of Findings/Actions/Outcomes
How many affected individuals?	Human: Suspected 0 Confirmed 0 Deaths__0____ Domestic animal: Suspected 0 Confirmed 0 Deaths___0___ Wild animal: House crows (Corvus splendens) Suspected 126 Confirmed 0 Deaths _126__
How was outbreak first noticed?	The PREDICT-2 team was conducting routine bat sampling in Dhaka. On January 14, 2017, Country Coordinator, Dr. Ariful Islam, reported observing 4 sick or dying crows on the premises of a telecommunications company where PREDICT was also conducting bat sampling. The Country Coordinator notified the Director of the Institute of Epidemiology, Disease Control & Research (IEDCR) about a second crow die-off (*see also PREDICT's report on the concurrent Rajshahi outbreak*) on the premises of the telecommunication company.

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	Mohakhali Wireless. The Director of IEDCR then informally and verbally requested the PREDICT-2 team to extend their Rajshahi outbreak response efforts to also investigate the crow die-off in Dhaka. When asked, local residents stated that the crow die-off had started in the beginning of January. IEDCR expressed interest in understanding the geographical distribution, cause and extent of this outbreak and find any epidemiological links between these two outbreak sites (Dhaka and Rajshahi).
Where was the first reported case? What is/was the extent of geographic spread? Include comments on the apparent speed of spread.	The crow die-off was first observed at Mohakhali wireless. An additional 4 crow roosts were observed by the PREDICT team that also had evidence of crow morbidity and mortality approximately 7km from Mohakhali at Ramna Park, Suhrawardy Uddan, Modumoti Model Town and Dhaka University. The team searched Dhaka city for other crow roosts and observed apparently healthy crows at 7 additional roosts. Discussions with local residents and additional field observations indicated there was no further evidence of crow mortality events or unusual illness at these other roosts.
Has the country requested support from PREDICT (include date of request)?	The Director of IEDCR requested PREDICT's support in this outbreak on January 14, 2017, as part of the official request for the ongoing Rajshahi outbreak. The director of IEDCR officially acknowledged the outbreak on January 15, 2017.
If so, which government agency requested PREDICT support?	Institute of Epidemiology, Disease Control and Research (IEDCR) and One Health Secretariat of Bangladesh under Ministry of Health and Family Welfare, Government of the people's Republic of Bangladesh
When was PREDICT response initiated (date)?	January 14, 2017
Are other EPT partners involved in the response (which ones and how)?	On 18 January, IEDCR provided an update of the investigation at the National Influenza Technical Steering Committee coordination meeting. FAO and P&R were present. On the 25th, there was a second meeting to discuss the outbreak and FAO presented data from ongoing, routine live bird market (LBM) surveillance.

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PREDICT OUTBREAK RAPID REPORT (Page 2)

The following information may not be known initially. Please fill in as information becomes available.

What type of assistance did PREDICT provide? Which PREDICT personnel were involved?	PREDICT was engaged at the start of outbreak response, since the team reported the unusual deaths and clinical signs. At IEDCR's request, the team immediately collected crow samples and provided technical advice to IEDCR. The team surveyed nearby crow roosts (within 7 km) and found 4 additional sites where crows had clinical signs and mortality. The PREDICT team visited 14 live bird markets and sampled poultry offal. These markets are in Dhaka close to the outbreak site and are not under routine surveillance by FAO. PREDICT conducted wild bird and feral dog sampling; environmental crow and poultry fecal sample collection; qualitative interviews; transported personnel; transported samples from the field to the PREDICT lab at icddr,b and the DLS National Laboratory – The Central Disease Investigation Laboratory (CDIL). Diagnostic analyses are being conducted by the Ministry of Livestock and Fisheries reference lab as well as the reference lab at the Bangladesh Livestock Research Institute (BLRI) and icddr,b. The PREDICT team included Dr. Ariful Islam, PREDICT-2 country coordinator; one veterinary research officer; one anthropologist; one field research assistant; and two field technicians who have wildlife expertise. At icddr,b, lab testing was overseen by PREDICT Bangladesh lab lead, Dr. Zia Rahman and conducted by 2 research officers.
When was the first official acknowledgement of the outbreak (by which government agency or other reputable body and date)? When was a response initiated and by whom? Which agencies were involved? Who was in charge of the national response?	The Director Institute of Epidemiology, Disease Control & Research (IEDCR) first officially acknowledged the crow die-off on January 15, 2017. The response was initiated by the Director of IEDCR on January 14, 2017. In this outbreak response, the Ministry of Health & Family Welfare, Ministry of Forest and Environment, and Ministry of Fisheries and Livestock were each involved as part of the Government of Bangladesh response. icddr,b was involved as a PREDICT lab partner to support preliminary sample testing. For the Dhaka crow die-off investigation, the Bangladesh Livestock Research Institute (BLRI) and the Central Diagnostic Investigation Laboratory (CDIL) serve as official reference labs (under Ministry of Fisheries and Livestock) and are performing confirmatory testing for a subset of samples screened at icddr,b. BLRI and CDIL will report the official laboratory results on behalf of the Government of Bangladesh, once diagnostic testing is completed. Prof. Dr. Meerjady Sabrina Flora, Director, IEDCR is in charge of the national response.

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UCDUSR00003245

Was the cause of the outbreak confirmed by a laboratory? If so, give details, including cause, species, specimen types tested and dates of testing if known.	The etiology of outbreak was preliminarily identified by laboratory testing, and confirmatory testing is on-going. Note: The PREDICT team has been actively sampling sick or dead crows in Dhaka from Jan 14th, and the outbreak remains active. Below is a detailed summary of PREDICT field activities and samples submitted to lab partners for analysis. On 15th January, PREDICT-2 submitted 12 samples (oral and cloacal swab samples in VTM) from 6 crows to the laboratory at icddr,b. These samples were screened by real time PCR for the M gene, H5, H7, and H9. The preliminary results were sent to IEDCR on same day, and IEDCR shared with the Department of Livestock Services and the Forest Dept. On 18th January, PREDICT submitted samples from an additional 27 crows to icddr,b . A duplicate set of samples from these 27 crows was sent to BLRI for testing for H type (H5, H7, H9) and additional testing for N1, N2, N6, and N8. On January 22nd, PREDICT icddr,b completed preliminary analyses on the 27 samples at icddr,b. The confirmatory laboratory testing at BLRI is ongoing. On January 22nd , PREDICT submitted additional samples from 9 crows to the Central Disease Investigation Laboratory (CDIL), who performed rapid diagnostic tests (ELISA based) and are now using the samples for molecular testing and results are pending. PREDICT performed necropsy examinations on the crows at CDIL and collected tissue samples in formalin for pathological investigation in the future. On January 26th, PREDICT submitted an additional 165 samples consisting of 78 crow samples (cloacal and oropharyngeal), 41 poultry offal samples (from the 14 live bird markets), 40 environmental fecal samples and 6 feral dog samples to the PREDICT lab at icddr,b. These samples are being processed, and test results are pending. As of January 30th, lab samples submitted on the 26th are still pending. On 30th January , PREDICT's anthropologist performed observational and informal interviews at one live bird market neighboring Mohakhali outbreak site. The team sampled 12 dead crows from two locations (7 from Mohakhali wireless, and 5 from Ramana Park) and safely packed and shipped carcasses to CDIL for safe disposal. 12 swab samples from the crows were shipped to icddr,b lab for testing. PREDICT team also found 7 new crow roosts with apparently healthy crows and no history of crow die-off according to local residents. The anthropology team has one more field site visit and then then will finalize their report. Laboratory diagnostics are ongoing.

UCDUSR0003246

Where was the laboratory testing performed (name of laboratory)?	icddr,b, Bangladesh Livestock Research Institute(BLRI), and Central Disease Investigation laboratory (CDIL)
Number of days between initiation of government response and lab confirmation of laboratory results.	Confirmed diagnostic results from the Government of Bangladesh have not been released.
Are/were other EPT partners involved in the response (which ones and how)?	FAO and P&R were notified through meetings on the 18th of January. They have continued to discuss results at meetings following the initial disclosure.
Summary of the Outbreak:	[To be updated after active outbreak activity has concluded] Crow morbidity and mortality was observed by PREDICT in Dhaka city. This activity was concurrent with an investigation of a crow die-off in Rajshahi. Five crow roosts in Dhaka city were observed to have sick and dying crows (three are ongoing), while other crow roosts investigated in the city so far, have showed no evidence of morbidity or mortality. IEDCR under the Ministry of Health & Family Welfare requested that PREDICT support an investigation of the Dhaka crow die-off by collecting samples and screening them for influenza A (H5, H7, H9). The Government of Bangladesh is supporting further diagnostic testing of crow and poultry fecal samples from live bird markets at two national reference labs under the Ministry of Fisheries and Livestock: BLRI and CDIL. The investigation is ongoing and test results remain pending.
Working name of the outbreak (e.g., Yellow Fever - DRC)	Crow die-off in Dhaka, Bangladesh
Total number of cases:	Human: Suspected 0 Confirmed 0 Deaths_0____ Domestic animal: Suspected 0 Confirmed: pending Deaths_0____ Wild animal: Wild animal: House crow (Corvus splendens) Suspected 126 Confirmed: pending Deaths: _126__
Summary of PREDICT Team response activities	Since January 14, 2017, after receiving a verbal request from the Director of IEDCR (the official acknowledgement of the die-off was on the 15th of January), the PREDICT team has been continuing its field investigations and as of January 30th has sampled a total of 132 crows, 81 live bird market environmental samples, 40 poultry offal samples, 6 feral dog samples and captured 13 wild birds that are co-roosting with crows (species ID pending). We submitted all the samples to icddr,b lab and a subset of samples were submitted to BLRI for confirmatory testing. The qualitative team performed their observational and informal interviews in the outbreak area, live bird markets and poultry farms. The PREDICT team has continued to sample wild crows, as of January 30th, at three of the sites with ongoing crow mortality: Wireless Mohakhali, Ramna Park, Sohrawardi uddan. The anthropology team has one more field site visit and then then will finalize their report. Laboratory diagnostics are ongoing.

UCDUSR0003247

	January 31st: PREDICT collected observational behavioral data and conducted informal interviews with vendors at a live bird market neighboring Ramna Park outbreak site. The team sampled 9 dead crows from two locations (7 from Mohakhali Wireless, and 2 from Ramna Park) and safely packed and shipped the carcasses to CDIL for disposal via incineration. Cloacal and oropharyngeal swab samples from 9 crows were shipped to icddr,b lab for preliminary testing. The PREDICT team identified 5 additional crow roosts with apparently healthy crows and no history of recent crow die-off according to local residents. Laboratory diagnostics are ongoing.

UCDUSR0003248

Section 8.4 Appendix II. PREDICT Response Timeline

The Outbreak Action Timeline should be updated to include details of each significant event related to the outbreak.

Key Events:

Date	Day #	Notification or Action Taken
January 14, 2017	1	First notification of unusual disease activity by PREDICT team
[See Rajshahi report]		CC notification to PREDICT lead partner
January 14, 2017	1	Unofficial request from the government for the PREDICT team
January 14, 2017	1	First deployment of PREDICT teams to outbreak field site – PREDICT team was already deployed to the site sampling bats
January 14, 2017	1	First specimen collection
January 14, 2017	1	First specimens delivered to laboratory
January 15, 2017	2	Invitation to assist from government received by PREDICT team
January 15, 2017	2	First Outbreak Taskforce meeting attended by PREDICT CC or PREDICT team members
January 15, 2017	2	First laboratory preliminary results
January 16, 2017	3	First report of preliminary results to government and taskforce by IEDCR
PENDING		First notification to USAID of government cleared laboratory results

UCDUSR0003249

From: Elizabeth Leasure <ealeasure@ucdavis.edu>
To: PREDICTMGT <predictmgt@usaid.gov>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Katherine Leasure <kaleasure@ucdavis.edu>
Subject: PREDICT International Travel Requests
Sent: Sat, 11 Feb 2017 00:00:59 +0000

Please find below international travel requests for your review and approval. Please let me know if you have any questions. Thanks!!

Estimated Costs:

1. Johnson (Nepal): $7,500 airfare (*business class required due* [redacted]/$257 (Kathmandu) max daily per diem
2. Doyle, Pandit (Nepal): $4,000 airfare each/$257 (Kathmandu) max daily per diem
3. Enkhtuvshin, Ariunbaatar (Laos): $1,380 airfare each/$212 (Vientiane) max daily per diem
4. Van Long (Laos): $330 airfare/$212 (Vientiane) max daily per diem
5. Latinne (Thailand): $200 airfare/$246 (Bangkok) max daily per diem
6. Zambrana-Torrelio (Italy): $2,000 airfare/$471 (Rome) max daily per diem
7. Gutierrez-Jimenez (Nepal, Malaysia, Bangladesh): $3,600 airfare/$257 (Kathmandu), $140 (Sabah), $290 (Dhaka), $144 (Madaripur) max daily per diems
8. Charkraborty (Nepal, Bangladesh): $1,300 airfare/$257 (Kathmandu), $290 (Dhaka), $144 (Madaripur) max daily per diems
9. Islam, Islam, Rahman (Nepal): $600 airfare each/$257 (Kathmandu) max daily per diem
10. Epstein (Nepal): $1,400 airfare/$257 (Kathmandu) max daily per diem
11. Mann (Nepal): $400 airfare/$257 (Kathmandu) max daily per diem
12. Rostal (Malaysia, Bangladesh): $2,355 airfare/$140 (Sabah), $290 (Dhaka), $144 Madaripur max daily per diems
13. Zimmerman (Kenya): $1,500 airfare/$410 (Nairobi) max daily per diem

Travel Requests:

1. UC Davis would like to request travel approval for Dr. Christine Kreuder Johnson to travel from Davis, California, USA to Kathmandu, Nepal from March 10-17, 2017 to plan PREDICT ongoing surveillance activities.

Trip purpose: As surveillance lead, Dr. Johnson will work with our implementing partner to assess surveillance and pathogen detection activities to date, participate in government meetings to report findings and coordinate future activities and collaborative efforts, and plan remaining activities. Additionally, she will participate in the "Workshop on Zoonotic Disease Pandemic Preparedness for South Asia, Using a One Health Platform" in Nepal on March 13-15, 2017.

2. UC Davis would like to request travel approval for Dr. Pranav Pandit and Ms. Megan Doyle to travel from Davis, CA, USA to Kathmandu, Nepal from March 9-21, 2017 to assist with PREDICT project in-country and regional coordination.

Trip purpose: Pranav Pandit, project scientist for PREDICT, and Megan Doyle, staff research associate for PREDICT, will be traveling to Nepal to work with the PREDICT Nepal team on human-primate interaction data collection, outbreak preparedness, test results reporting, and animal and human data storage in alignment with PREDICT SOPs. Additionally, they will be working closely with the team on data analysis, including visualization of animal, test, and site specific results and characterization of risk using a new EIDITH package for R (developed at UCD). Megan and Pranav will participate in the "Workshop on Zoonotic Disease Pandemic Preparedness for South Asia, Using a One Health Platform" in Nepal on March 13-15, 2017 and will lead a participatory workshop session on regional data sharing and risk characterization using statistical software. **On the return leg of his trip, Pranav will have a 2-week layover in India for visa purposes; costs for this portion of his trip will not be billed to PREDICT.*

3. Wildlife Conservation Society (WCS) would like to request travel approval for Dr. Shiilegdamba Enkhtuvshin and Mr. Barkhasbaatar Ariunbaatar, to travel from Ulaanbaatar, Mongolia to Vientiane, Laos to attend a Disease Outbreak Investigation Training supported by WCS from March 13-17, 2017.

Trip purpose:The purpose of the trip is for Dr. Enkhtuvshin, PREDICT Mongolia Country Coordinator, and Mr. Ariunbaatar, PREDICT Mongolia Avian Specialist, to attend a training focused on Disease Outbreak Investigation and the critical skills needed to assess wildlife morbidity and mortality in a One Health context. The training will be comprehensive and in depth and will advance skills and competency in outbreak investigation broadly. The training will be focused on investigating morbidity and mortality in wildlife, determining the impacts of the disease/etiology identified on wildlife populations, assessing the risks to public health, and informing disease management and mitigation. PREDICT staff will improve their own capacity and be better positioned to provide critical support and contribute to national capacity for outbreak response and pandemic disease surveillance in Mongolia. *The cost of accommodation per participant is $30/night, and the cost of meals is $20/day, well below per diem for this location. All costs of*

the training itself (materials, venue, supplies) and trainers will be covered by WCS. This travel will support PREDICT's national capacity building objectives.

4. Wildlife Conservation Society (WCS) would like to request travel approval for Mr. Nguyen Van Long, to travel from Hanoi, Viet Nam to Vientiane, Laos to attend a Disease Outbreak Investigation Training supported by WCS from March 13-17, 2017.

Trip purpose: The purpose of the trip is for Mr. Long, PREDICT Viet Nam Surveillance Coordinator, to attend a training focused on Disease Outbreak Investigation and the critical skills needed to assess wildlife morbidity and mortality in a One Health context. The training will be comprehensive and in depth and will advance skills and competency in outbreak investigation broadly. The training will be focused on investigating morbidity and mortality in wildlife, determining the impacts of the disease/etiology identified on wildlife populations, assessing the risks to public health, and informing disease management and mitigation. PREDICT staff will improve their own capacity and be better positioned to provide critical support and contribute to national capacity for outbreak response and pandemic disease surveillance in Viet Nam. *The cost of accommodation per participant is $30/night, and the cost of meals is $20/day, well below per diem for this location. All costs of the training itself (materials, venue, supplies) and trainers will be covered by WCS. This travel will support PREDICT's national capacity building objectives.*

5. EcoHealth Alliance would like to request travel approval for Dr. Alice Latinne to travel from Jakarta, Indonesia to Bangkok, Thailand from March 10-16, 2017 for meetings with in-country partners.

Trip purpose: Dr. Latinne will meet with PREDICT-2 in-Country Coordinator, Dr. Supaporn Wacharapluesadee, and her team to coordinate viral testing and DNA barcoding of bat and rodent specimens.

6. EcoHealth Alliance would like to request travel approval for Carlos Zambrana-Torrelio to travel from New York, New York, USA to Rome, Italy from March 12-28, 2017 to collaborate with Dr. Carlo Rondinini of the Department of Biology and Biotechnology, Sapienza University of Rome.

Trip purpose: Mr. Zambrana-Torrelio will work with Dr. Rondinini on PREDICT modeling and analyses.

7. EcoHealth Alliance would like to request travel approval for Dr. Leticia Gutierrez- Jimenez to travel from New York, NY, USA to Katmandu, Nepal from March 11-15, 2017 to attend the One Health Regional Meeting. From Kathmandu, Nepal she will travel to Sabah, Malaysia from March 16-21, 2017 to participate in field work and training. From Sabah, Malaysia, she will travel to Dhaka and Madaripur, Bangladesh from March 22-April 30, 2017 to conduct training and field sampling, and meet with the PREDICT-2 Bangladesh team.

Trip Purpose: Nepal – Dr. Guitierrez-Jimenez will be attending the One Health Regional Meeting in Nepal to represent PREDICT-2 goals as field veterinarian, to participate at the workshop on Zoonotic Disease Pandemic Preparedness for South Asia, be privy to reporting on activities using the One Health Platform, and to liaise with Country Coordinators from India and Bangladesh regarding PREDICT-2 field activities. Malaysia – Dr. Gutierrez- Jimenez will meet with PREDICT-2 Malaysia Country Coordinator Tom Hughes to participate in bat and rodent sampling training. Bangladesh – Dr. Guitierrez-Jimenez will travel to Dhaka to meet with the PREDICT-2 Bangladesh team, conduct multiple trainings, complete rodent and bat field sampling, and work on data entry. In Madaripur, Bangladesh, she will conduct macaque sampling under the tutelage of Bangladesh Country Coordinator Dr. Ariful Islam.

8. EcoHealth Alliance would like to request travel approval for Dr. Debapriyo Chakraborty to travel from Lucknow, India to Katmandu, Nepal from March 11-15, 2017 to attend the One Health Regional Meeting. From Kathmandu, Nepal he will travel to Dhaka and Madaripur, Bangladesh from March 20-April 30, 2017 to conduct training and field sampling, and meet with the PREDICT-2 Bangladesh team. **Dr. Chakraborty will be taking a personal holiday from March 16-19, during which he will be covering his own expenses.*

Trip Purpose: Nepal – Dr. Chakraborty will be attending the One Health Regional Meeting in Nepal to represent PREDICT-2 goals as PREDICT-2 Field Coordinator, participate at the workshop on Zoonotic Disease Pandemic Preparedness for South Asia, be privy to reporting on activities using the One Health Platform, and liaise with Country Coordinators from PREDICT-2 Bangladesh regarding PREDICT-2 field activities. Bangladesh – Dr. Chakraborty will travel to Dhaka to meet with the PREDICT-2 Bangladesh team, conduct multiple trainings, complete rodent and bat field sampling, and work on data entry. In Madaripur, Bangladesh, he will conduct macaque sampling under the tutelage of Bangladesh Country Coordinator Dr. Arif Islam.

9. EcoHealth Alliance would like to request travel approval for Ariful Islam, Shariful Islam and Zia Rahman to travel from

Dhaka, Bangladesh to Katmandu, Nepal from March 12-15, 2017 to attend the One Health Regional Meeting.

Trip purpose: Dr. Ariful Islam, Shariful Islam, and Zia Rahman will be attending the One Health Regional Meeting in Nepal to represent PREDICT-2 goals as PREDICT-2 Bangladesh Country Coordinator, PREDICT-2 Bangladesh field lead, and PREDICT-2 Bangladesh lab lead respectively, participate at the workshop on Zoonotic Disease Pandemic Preparedness for South Asia, be privy to reporting on activities using the One Health Platform, and liaise with regional partners.

10. EcoHealth Alliance would like to request travel approval for Dr. Jonathan Epstein to travel from New York, NY, USA to Katmandu, Nepal from March 12-15, 2017 to attend the One Health Regional Meeting.

Trip purpose: Dr. Jonathan Epstein will be attending the One Health Regional Meeting in Nepal to represent PREDICT-2 goals, participate at the workshop on Zoonotic Disease Pandemic Preparedness for South Asia, be privy to reporting on activities using the One Health Platform, and liaise with regional partners.

11. EcoHealth Alliance would like to request travel approval for Harjeet Mann to travel from Lucknow, India to Katmandu, Nepal from March 12-15, 2017 to attend the One Health Regional Meeting.

Trip purpose: Harjeet Mann will be attending the One Health Regional Meeting in Nepal to represent PREDICT-2 goals as PREDICT-2 India Lab lead, participate at the workshop on Zoonotic Disease Pandemic Preparedness for South Asia, be privy to reporting on activities using the One Health Platform, and liaise with regional partners.

12. EcoHealth Alliance would like to request travel approval for Dr. Melinda Rostal to travel from Amsterdam, Netherlands to Sabah, Malaysia from March 14-22, 2017, and from Sabah, Malaysia to Dhaka, Bangladesh, from March 22-29, 2017 to train the newly hired field veterinarian and meet with country coordinators and project partners.

Trip Purpose: Malaysia – Dr. Rostal will supervise the training of the new EHA field veterinarian in animal safe-capture, biological sampling techniques, and in-situ PREDICT operating procedures. She will also be assisting the field team with sampling of bats and rodents. Additionally, this trip will provide valuable time to discuss collaborative efforts with international team members. Bangladesh – Dr. Rostal will join the team for macaque capture, immobilization, sampling, recovery and release. She will be ensuring that the team is continuing to use good practices and teach the new field veterinarian and Indian field coordinator how to work with these animals. Dr. Rostal will also meet with important partners, including the PREDICT laboratory partner, government partners and the USAID Mission.

13. Smithsonian Institution would like to request travel approval for Dr. Dawn Zimmerman to travel from Washington, DC, USA to Nairobi, Kenya for the period March 17 - April 3, 2017 to train project staff, conduct animal sampling in the field, and meet in-country partners.

Trip purpose: To work with the PREDICT Kenya team on training and field sampling of non-human primates, bats, rodents, and camels, as well as attend meetings with partners including International Livestock Research Institute, Department of Veterinary Services, Kenya Wildlife Service, Insect Physiology and Ecology (ICIPE), Mpala Ranch, and the Institute of Primate Research. **an eCC will be submitted once AOR approval is received.*

From: Jon Epstein <epstein@ecohealthalliance.org>
Sent: Fri, 17 Feb 2017 07:38:53 -0500
Subject: Re: itinerary for Liberia
To: Jonna Mazet <jkmazet@ucdavis.edu>

I know Jim's been in phone contact with Monica a few times this week discussing meeting times. I'll ask him today to send the most current, essentially final itinerary.
-Jon

On Feb 16, 2017 6:56 PM, "Jonna Mazet" <jkmazet@ucdavis.edu> wrote:

Thank you for the information.
What have you conveyed to the Mission regarding confirmed and still pending meetings?
Jonna

On Thu, Feb 16, 2017 at 2:19 PM, Jon Epstein <epstein@ecohealthalliance.org> wrote:

Jonna and Peter,

Peter asked me to write to confirm which lab meetings we've set for next week. We're currently confirmed to visit the National Reference Lab at Phoebe hospital on Tuesday from 2:30-5:30 and meet with the lab Director as well as the NAMRU 3 Lab lead there; on Thursday evening we're confirmed to visit the main LIBR lab and the main National Reference Lab (co-located at LIBR. Tomorrow Jim will confirm the time for a visit to the Ministry of Ag lab for next Friday morning, (this was waiting for non-lab meetings to be confirmed to make sure Friday was free). The remaining non-lab meeting to be confirmed is a one-on-one with MoH (we have a confirmed group meeting with them on Tuesday at 10AM). Based on our discussion today with Jim, I expect that these two remaining meetings will be confirmed tomorrow.

Thanks,
Jon

--

Jonathan H. Epstein DVM, MPH

Vice President for Science and Outreach

EcoHealth Alliance
460 West 34th Street – 17th floor
New York, NY 10001

1.212.380.4467 (direct)
REDACTED mobile)

web: ecohealthalliance.org

Twitter: @epstein[illegible]

-

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

From: David J Wolking <djwolking@ucdavis.edu>
To: David J Wolking <djwolking@ucdavis.edu>
CC: Professor Kazwala [redacted], Prof. Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 2/24/2017 8:26:01 PM
Subject: Re: Tanzania: request for HPAI preparedness from PMO

Hi Prof,

Just checking in to see if we can connect some time soon to discuss this request letter. I can make myself available at anytime.

Enjoy the weekend,

David

On Wed, Feb 22, 2017 at 11:53 AM, David J Wolking <djwolking@ucdavis.edu> wrote:
Hi Prof,

Just looping you in, Jonna and I talked today and decided to forward the PMO's letter to USAID with the caveat that we were still exploring with you how best to manage the request and potential OHCU expectations. Perhaps you and I could talk tomorrow about the letter, context, and possible next steps?

Hope the meetings are going well in Dar and thanks for joining the RIFA interview today...

Best,

David

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From: **David J Wolking** <djwolking@ucdavis.edu>
Date: Wed, Feb 22, 2017 at 11:50 AM
Subject: Tanzania: request for HPAI preparedness from PMO
To: "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Shana Gillette <sgillette@usaid.gov>
Cc: "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Elizabeth Leasure <ealeasure@ucdavis.edu>

Hi Andrew, Alisa, and Shana,

Yesterday Jonna received a letter from the Prime Minister's Office in Tanzania (attached) that by appearance was intended for broad distribution to solicit support for preparedness and response activities for HPAI. The letter included a list of activities and projected costs.

We are in the process of following up with our Principle Investigator/Country Coordinator Professor Kazwala, who has been involved with the One Health Coordination Unit leading the preparedness and response efforts to determine if there are any in-country sensitivities or expectations for PREDICT involvement in particular. Prof is in meetings in Dar this week and has been in contact with OHCU members.

In our opinion, the request is more aligned with P&R and FAO's scope, though we would be happy to discuss more active PREDICT involvment if you feel it is warranted, perhaps on our next management team call or earlier if a quicker turnaround is deemed appropriate.

Please let us know how you would like to proceed and we will of course pass on additional information when available.

Best,

David

To: David J Wolking <djwolking@ucdavis.edu>
Cc: "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>
From: Rudovick Kazwala <[redacted]>
Subject: RE: Tanzania: request for HPAI preparedness from PMO
Sent: Sat, 25 Feb 2017 13:38:28 +0300

Hi David
Do want to loop even Saturday morning PST
If have have specific time. I am flexible.
Thanks

From: David J Wolking
Sent: 2/25/2017 12:26 AM
To: David J Wolking
Cc: Professor Kazwala; Prof. Jonna Mazet
Subject: Re: Tanzania: request for HPAI preparedness from PMO

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Best,

David

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Sat, 25 Feb 2017 19:06:55 +0000
Subject: Re: Tanzania: request for HPAI preparedness from PMO
To: David J Wolking <djwolking@ucdavis.edu>, Rudovick Kazwala < REDACTED
Cc: "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>

Hi Prof,

Pole sana just seeing this message, I can connect with you tomorrow morning my time around 7am PST if that works. Otherwise Monday morning your time Sunday evening for me, is also an option if you prefer that.

Asante and enjoy the weekend,

David

On Sat, Feb 25, 2017 at 02:39 Rudovick Kazwala < REDACTED > wrote:

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Thanks

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Best,

David

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Sent from Gmail Mobile

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Mon, 27 Feb 2017 03:54:38 +0000
Subject: Re: Tanzania: request for HPAI preparedness from PMO
To: David J Wolking <djwolking@ucdavis.edu>, Rudovick Kazwala < REDACTED
Cc: "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>

Excellent Prof, let me know what time is good for you and I'll be on Skype.

David

On Sun, Feb 26, 2017 at 02:10 Rudovick Kazwala < REDACTED wrote:

Hi David,
I suggest we do Sunday evening your time. Monday morning Tanzania.
Have a nice weekend too!

From: David J Wolking
Sent: 2/25/2017 10:07 PM
To: David J Wolking; Rudovick Kazwala
Cc: Prof. Jonna Mazet

Subject: Re: Tanzania: request for HPAI preparedness from PMO

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David

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Sent from Gmail Mobile

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Sent from Gmail Mobile

Sent: Mon, 27 Feb 2017 12:51:00 -0800
Subject: Re: Tanzania: request for HPAI preparedness from PMO
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: David J Wolking <djwolking@ucdavis.edu>
Cc: Rudovick Kazwala REDACTED, Elizabeth S Chase <eschase@ucdavis.edu>

Thanks, David,
Letter looks nice. I completely defer to Prof on content suggestions. I think we should also check in with the Mission (and hopefully DC will respond). They may need to know that we are writing a letter to the PM's office to encourage rapid action.
Small edit -- it's Principal Investigator, rather than Principle Investigator (Principal is your Pal).
Really appreciate your excellent action on this sensitive issue,
Jonna

On Mon, Feb 27, 2017 at 8:20 AM, David J Wolking <djwolking@ucdavis.edu> wrote:

> Jonna and Prof,
> Prof and I had a chance to catch up yesterday evening about how to handle the PMO's letter for HPAI support. He recommended drafting a letter indicating that we were in the process of determining how best to proceed with USAID and EPT partners. I've drafted a letter here (signed of course by you as PREDICT's Global Director) for both of you to look over and adapt, Prof in particular, to ensure we are using appropriate messaging with this request, both culturally in consideration of the PMO's official letter, and programmatically in compliance with our best practices for outbreak engagement with USAID.

I'm happy to adapt further if needed and I believe Prof would like to share the letter with the Dr. Mwinyimvua early this week.

Asante sana,

David

Liz Chase - please put this on Jonna's task list...

On Sun, Feb 26, 2017 at 9:37 PM, Rudovick Kazwala REDACTED wrote:

> Hi David,
> if ready we can link up now.

Rudovick R. Kazwala
Professor Ecosystems and Public Health
Department of Veterinary Medicine and Public Health
REDACTED
Phone: REDACTED
Email REDACTED

On 27 February 2017 at 06:54, David J Wolking <djwolking@ucdavis.edu> wrote:

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Best,

David

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Sent from Gmail Mobile

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From: Rudovick Kazwala [redacted]
Sent: Tue, 28 Feb 2017 15:57:59 +0300
Subject: Re: Tanzania: request for HPAI preparedness from PMO
To: David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>
Cc: Elizabeth S Chase <eschase@ucdavis.edu>

Hi David,
The letter is fine, so if no further corrections I will forward to PMO One Health Coordination Unit.
Thanks

Rudovick R. Kazwala
Professor Ecosystems and Public Health
Department of Veterinary Medicine and Public Health
[redacted]
Phone [redacted]
Email

On 27 February 2017 at 23:51, Jonna Mazet <jkmazet@ucdavis.edu> wrote:

> Thanks, David,
> Letter looks nice. I completely defer to Prof on content suggestions. I think we should also check in with the Mission (and hopefully DC will respond). They may need to know that we are writing a letter to the PM's office to encourage rapid action.
> Small edit -- it's Principal Investigator, rather than Principle Investigator (Principal is your Pal).
> Really appreciate your excellent action on this sensitive issue,
> Jonna

On Mon, Feb 27, 2017 at 8:20 AM, David J Wolking <djwolking@ucdavis.edu> wrote:

> Jonna and Prof,
> Prof and I had a chance to catch up yesterday evening about how to handle the PMO's letter for HPAI support. He recommended drafting a letter indicating that we were in the process of determining how best to proceed with USAID and EPT partners. I've drafted a letter here (signed of course by you as PREDICT's Global Director) for both of you to look over and adapt, Prof in particular, to ensure we are using appropriate messaging with this request, both culturally in consideration of the PMO's official letter, and programmatically in compliance with our best practices for outbreak engagement with USAID.

I'm happy to adapt further if needed and I believe Prof would like to share the letter with the Dr. Mwinyimvua early this week.

Asante sana,

David

Liz Chase - please put this on Jonna's task list...

On Sun, Feb 26, 2017 at 9:37 PM, Rudovick Kazwala [redacted] wrote:

> Hi David,
> if ready we can link up now.

Rudovick R. Kazwala
Professor Ecosystems and Public Health

Department of Veterinary Medicine and Public Health
REDACTED
Phone: REDACTED
Email:

On 27 February 2017 at 06:54, David J Wolking <djwolking@ucdavis.edu> wrote:

Excellent Prof, let me know what time is good for you and I'll be on Skype.

David

On Sun, Feb 26, 2017 at 02:10 Rudovick Kazwala REDACTED wrote:

Hi David,
I suggest we do Sunday evening your time. Monday morning Tanzania.
Have a nice weekend too!

From: David J Wolking
Sent: 2/25/2017 10:07 PM
To: David J Wolking; Rudovick Kazwala
Cc: Prof. Jonna Mazet

Subject: Re: Tanzania: request for HPAI preparedness from PMO

Hi Prof,

Pole sana just seeing this message, I can connect with you tomorrow morning my time around 7am PST if that works. Otherwise Monday morning your time Sunday evening for me, is also an option if you prefer that.

Asante and enjoy the weekend,

David

On Sat, Feb 25, 2017 at 02:39 Rudovick Kazwala < REDACTED wrote:

Hi David
Do want to loop even Saturday morning PST
If have have specific time. I am flexible.
Thanks

From: David J Wolking
Sent: 2/25/2017 12:26 AM
To: David J Wolking
Cc: Professor Kazwala; Prof. Jonna Mazet
Subject: Re: Tanzania: request for HPAI preparedness from PMO

Hi Prof,
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Enjoy the weekend,

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Hope the meetings are going well in Dar and thanks for joining the RIFA interview today...

Best,

David

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From: **David J Wolking** <djwolking@ucdavis.edu>
Date: Wed, Feb 22, 2017 at 11:50 AM
Subject: Tanzania: request for HPAI preparedness from PMO
To: "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Shana Gillette <sgillette@usaid.gov>
Cc: "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Elizabeth Leasure <caleasure@ucdavis.edu>

Hi Andrew, Alisa, and Shana,
Yesterday Jonna received a letter from the Prime Minister's Office in Tanzania (attached) that by appearance was intended for broad distribution to solicit support for preparedness and response activities for HPAI. The letter included a list of activities and projected costs.

We are in the process of following up with our Principle Investigator/Country Coordinator Professor Kazwala, who has been involved with the One Health Coordination Unit leading the preparedness and response efforts to determine if there are any in-country sensitivities or expectations for PREDICT involvement in particular. Prof is in meetings in Dar this week and has been in contact with OHCU members.

In our opinion, the request is more aligned with P&R and FAO's scope, though we would be happy to discuss more active PREDICT involvment if you feel it is warranted, perhaps on our next management team call or earlier if a quicker turnaround is deemed appropriate.

Please let us know how you would like to proceed and we will of course pass on additional information when available.

Best,

David

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Sent from Gmail Mobile

--
Sent from Gmail Mobile

UCDUSR00003268

From: Rudovick Kazwala <[redacted]
Sent: Wed, 1 Mar 2017 08:59:17 +0300
Subject: Re: Tanzania: request for HPAI preparedness from PMO
To: David J Wolking <djwolking@ucdavis.edu>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, Elizabeth S Chase <eschase@ucdavis.edu>

Hi David,
I will miss the call due to another engagement which I can not skip, therefore I will ask Abel to represent and I will ask him to inform Lisa on our engagement with PMO and a request has been sent already to PREDICT.
Best regards

Rudovick R. Kazwala
Professor Ecosystems and Public Health
Department of Veterinary Medicine and Public Health
[redacted]
Phone: [redacted]
Email: [redacted]

On 28 February 2017 at 19:14, David J Wolking <djwolking@ucdavis.edu> wrote:

Great Prof,
Please use the attached letter. Also tomorrow there is an EPT-2 parter coordination call (details below) that USAID/Tanzania will likely join if you would like to mention your involvement with the OHCU on HPAI.

Please advise how you would like to reach out to the USAID Mission (e.g. Ezra and Lisa Kramer) on all of this, including the PMO request, as Jonna very wisely suggested.

Best,

David

****

Hello everyone,

This is a reminder that the Tanzania EPT-2 partner coordination call will be held tomorrow. As usual we'll discuss updates from different projects, and also discuss the zoonotic disease prioritization workshop taking place in Dar the week of March 20th. I hope someone from each project will be able to be on this important call tomorrow.

Please note the conference line info below:
US/Canada: [redacted]
International: [redacted]
Participant Pin: [redacted]

Thanks! Look forward to talking to everyone tomorrow!

Ashna

Tanzania Monthly EPT2 Coordination call
CONFERENCE LINE INFORMATION:

US/Canada: [redacted]
International: [redacted]
Participant Pin: [redacted]

Host PIN [redacted] (Ashna will initiate call)

Standing Agenda for 60 minute call:
1. USAID updates
2. Project updates (5 min each):
-P&R
-PREDICT
-FAO
-OHW
3. Coordination issues and next steps

On Tue, Feb 28, 2017 at 4:57 AM, Rudovick Kazwala REDACTED wrote:

Hi David,
The letter is fine, so if no further corrections I will forward to PMO One Health Coordination Unit.
Thanks

Rudovick R. Kazwala
Professor Ecosystems and Public Health
Department of Veterinary Medicine and Public Health
REDACTED
Phone REDACTED
Email:

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Please let us know how you would like to proceed and we will of course pass on additional information when available.

Best,

David

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Sent from Gmail Mobile

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Sent from Gmail Mobile

From: Elizabeth Leasure <ealeasure@ucdavis.edu>
To: PREDICTMGT <predictmgt@usaid.gov>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Katherine Leasure <kaleasure@ucdavis.edu>
Subject: Change to approved ITA: M. Rostal departing from New York, not Amsterdam
Sent: Sat, 4 Mar 2017 00:19:24 +0000

Hi Andrew. Please note that Mindy Rostal will be departing for Malaysia from New York City, NY, not Amsterdam. The rest of the ITA remains the same.

Thanks,
Liz

EcoHealth Alliance would like to request travel approval for Dr. Melinda Rostal to travel from Amsterdam, Netherlands to Sabah, Malaysia from March 14-22, 2017, and from Sabah, Malaysia to Dhaka, Bangladesh, from March 22-29, 2017 to train the newly hired field veterinarian and meet with country coordinators and project partners.

Trip Purpose: Malaysia – Dr. Rostal will supervise the training of the new EHA field veterinarian in animal safe-capture, biological sampling techniques, and in-situ PREDICT operating procedures. She will also be assisting the field team with sampling of bats and rodents. Additionally, this trip will provide valuable time to discuss collaborative efforts with international team members. Bangladesh – Dr. Rostal will join the team for macaque capture, immobilization, sampling, recovery and release. She will be ensuring that the team is continuing to use good practices and teach the new field veterinarian and Indian field coordinator how to work with these animals. Dr. Rostal will also meet with important partners, including the PREDICT laboratory partner, government partners and the USAID Mission.

Elizabeth Leasure
One Health Institute
University of California, Davis
530-754-9034 (office)
REDACTED (cell)

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: William B. Karesh <karesh@ecohealthalliance.org>
CC: Peter Daszak <daszak@ecohealthalliance.org>;Catherine Machalaba <machalaba@ecohealthalliance.org>
Sent: 5/1/2017 9:48:57 PM
Subject: Re: Photo from Twitter

Good job, you, too, Billy!!!!
J

On Mon, May 1, 2017 at 2:46 PM, Jonna Mazet <jkmazet@ucdavis.edu> wrote:
Thanks, just spoke to Dennis and confirmed the $72.5M, as well as an extra $70M in emergency funds.
Good job, Dennis,
Jonna

On Mon, May 1, 2017 at 12:00 PM, William B. Karesh <karesh@ecohealthalliance.org> wrote:

From: Cara Chrisman <cchrisman@usaid.gov>
Sent: Fri, 30 Jun 2017 10:25:15 -0400
Subject: Re: Bulletin of the WHO article
To: Peter Daszak <daszak@ecohealthalliance.org>
Cc: "Dennis Carroll (DCarroll@usaid.gov)" <DCarroll@usaid.gov>, "Jonna Mazet (jkmazet@ucdavis.edu)" <jkmazet@ucdavis.edu>, Brooke Watson <watson@ecohealthalliance.org> REDACTED

Thanks so much Peter for all your work on finalizing this - could you send along how names & affiliations should look for any EHA authors?

Cara J. Chrisman, PhD
Senior Infectious Diseases Technical Advisor
Emerging Threats Division
Office of Infectious Disease
Bureau for Global Health
U.S. Agency for International Development (USAID)

Desk: (202) 712-1161
Cell: REDACTED
E-mail: [redacted]

On Thu, Jun 29, 2017 at 8:01 PM, Peter Daszak <daszak@ecohealthalliance.org> wrote:

Hi everyone – sorry for the delays on this.

First thing I did was accept all changes from all of you, then concentrated on making sure we don't use the exact same phrases as in the Science paper. Actually it was pretty different – being based on the first version of the GVP paper which was more relaxed style.

I then reformatted the refs for Bull WHO, and removed some repetition in the last few paras of the paper from the earlier text.

Looks great and well done all!!

Cheers,

Peter

Peter Daszak

President

EcoHealth Alliance

460 West 34th Street – 17th Floor

New York, NY 10001

Tel. +1 212-380-4473

www.ecohealthalliance.org

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.

From: Brian Bird <bhbird@ucdavis.edu>
To: Andrew Clements <aclements@usaid.gov>;Chittenden, Kendra (Jakarta/Health) <kchittenden@usaid.gov>;Jonna Mazet <jkmazet@ucdavis.edu> Khadijat Mojidi <kmojidi@usaid.gov>;Saad El-Din Hassan <shassan@usaid.gov>;Dorothy Peprah <dpeprah@usaid.gov>
CC: Pereira, Alisa (GH/HIDN) <apereira@usaid.gov>;Shana Gillette <sgillette@usaid.gov>
Sent: 7/6/2017 1:02:10 PM
Subject: Re:

Thanks Andrew for the updates/addition, I think that will work for us.

-Brian

From: Andrew Clements
Date: Wednesday, July 5, 2017 at 4:02 PM
To: "Chittenden, Kendra (Jakarta/Health)" , Brian Bird , Jonna Mazet , Khadijat Mojidi , Saad Hassan , Dorothy Peprah
Cc: "Pereira, Alisa (GH/HIDN)" , Shana Gillette
Subject: Re:

here's an updated version to address 2 comments from PREDICT.

On Mon, Jul 3, 2017 at 6:42 PM, Andrew Clements <aclements@usaid.gov> wrote:
Hi all,

I've drafted a letter related to revising the Predict SLA for Sierra Leone.

Please take a look and let me know if it needs any adjustments.

Thanks!

1-571-345-4353
aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2

--

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4353
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2

From: "William B. Karesh" <karesh@ecohealthalliance.org>
To: Andrew Clements <AClements@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>
Cc: Predict inbox <predict@ucdavis.edu>, Ava Sullivan <sullivan@ecohealthalliance.org>, Patrick Dawson <dawson@ecohealthalliance.org>
Subject: 4th of July in Jordan
Sent: Thu, 6 Jul 2017 14:22:08 +0000

Nice note from Dr. Ehab.
BK

Begin forwarded message:

From: Ehab Abu-Basha [redacted]
Subject: Re: Staff for human feild and lab
Date: July 6, 2017 at 2:31:53 AM EDT
To: Patrick Dawson <dawson@ecohealthalliance.org>, "William B. Karesh" <karesh@ecohealthalliance.org>
Cc: Ava Sullivan <sullivan@ecohealthalliance.org>

Dear Patrick, Ava and Billy,

First of all Happy 4th of July. I had a good time last night at the US embassy and we celebrated the 4th of July at the Ambassador house in the embassy. It was great and Maysa introduced me to several people from the USAID in different sections. It seems everyone knows the PREDICT project and they are all excited about it and wanted to go out for a trip to a camel farm. I met also Dr. Lewis Tatem/ Deputy Mission Director and asked me about the progress of PREDICT. In addition to many others including the Jordanian Minister of Health. So I was on behalf of PREDICT.

It was great night in all aspect good Food, Music and Finally ended with magnificent Fireworks.

Yours,

Ehab

Ehab Abu-Basha, DVM, MSc., Ph.D
Professor of Pharmacology and Toxicology
Faculty of Veterinary Medicine
Jordan University of Science and Technology
REDACTED

From: Andrew Clements <aclements@usaid.gov>
Sent: Tue, 11 Jul 2017 21:44:47 +0200
Subject: Re:
To: Dorothy Peprah <dpeprah@usaid.gov>
Cc: Brian Bird <bhbird@ucdavis.edu>, "Chittenden, Kendra (Jakarta/Health)" <kchittenden@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, Khadijat Mojidi <kmojidi@usaid.gov>, Saad El-Din Hassan <shassan@usaid.gov>, "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>, Shana Gillette <sgillette@usaid.gov>

Thanks, Dorothy.

Looks good to me.

Brian: can you confirm that UCD is the lead implementing partner in 19 Predict countries? Sounds a little high to me so just want to be sure.

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Adviser
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Jul 11, 2017, at 3:15 PM, Dorothy Peprah <dpeprah@usaid.gov> wrote:

> Andrew,
> I have revised this letter per the attached.

Thanks,
Dorothy

On Thu, Jul 6, 2017 at 1:02 PM, Brian Bird <bhbird@ucdavis.edu> wrote:

> Thanks Andrew for the updates/addition, I think that will work for us.
>
> -Brian
>
> ---
>
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> **Date:** Wednesday, July 5, 2017 at 4:02 PM
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> **Cc:** "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>, Shana Gillette <sgillette@usaid.gov>
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Thanks!

Andrew

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Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health

U.S. Agency for International Development

Mobile phone: 1-571-345-4253
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--

Dorothy Pepnah, *Ph.D., MPH*
Global Health Security Agenda Advisor
U.S. Agency for International Development (USAID)-Sierra Leone

REDACTED [Email: dpeprah@usaid.gov

<PREDICT change letter for Sierra Leone, ver 2_DP 10th July 2017.docx>

Sent: Thu, 13 Jul 2017 06:52:39 -0700
Subject: Re: [predict] Ept2 eval
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: David J Wolking <djwolking@ucdavis.edu>
Cc: Elizabeth Leasure <ealeasure@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>

Good idea!
J

On Wednesday, July 12, 2017, David J Wolking <djwolking@ucdavis.edu> wrote:

Jonna,
Beyond sharing with global leads and country coordinators, do you want me to share with EB and poll folks to see who has been contacted for interviews? So far I've only seen your request for an interview come through the predict@ address.

D

On Tue, Jul 11, 2017 at 12:48 PM, Ashna Kibria <akibria@usaid.gov> wrote:

Hi PREDICT + Alisa
Just noticed that my original email didn't get forwarded in Alisa's email, so now including below.

Thanks!
Ashna

On Tue, Jul 11, 2017 at 1:33 PM, Alisa Pereira <apereira@usaid.gov> wrote:

(I apologize if you are receiving this message twice).

Dear Colleagues,

Please see the email update below on the EPT2 external evaluation, and share it with your country coordinators. We would like for everyone to be aware that this evaluation is underway and be prepared to support it as needed.

In addition to interviews by phone, the evaluation team plans to visit the following three countries:

- Uganda visit --July 10th (next week)
- Vietnam --Sep 5th week
- RDMA --Sep 11th week

Please direct any questions concerning the evaluation to Ashna Kibria (akibria@usaid.gov) with a cc to the USAID predict management team.

Thanks
Alisa

Sent from my iPhone

-------- Forwarded message --------
From: **Ashna Kibria** <akibria@usaid.gov>
Date: Fri, Jul 7, 2017 at 1:58 PM
Subject: Information on the EPT-2 Program Evaluation
To: ETD Global <ghsdglobal@usaid.gov>
Cc: "GHSD Unit Mail List (USAID)" <ghsdunitmaillistusaid@usaid.gov>

Dear EPT2-Colleagues:

USAID's Emerging Threats Division has just begun conducting a mid-term evaluation of the **Emerging Pandemic Threats 2 (EPT2) Program**. This evaluation will be important in informing the future direction of the program, and serve as an important resource for the ETD unit and Global Health bureau.

The evaluation will review the overall progress of the program, identify how the EPT2 program has contributed to the knowledge base, implementation and sustainability of efforts to prevent, detect and respond to emerging pandemic threats, through a "One Health" approach. It will also cover how EPT2 has engaged or coordinated with international organizations, donors, and technical partners, and the contributions of EPT2 in achieving the objectives of Global Health Security Agenda (GHSA).

We are pleased to have an experienced external evaluation team, led by **Constance A. Carrino**, Ph.D., formerly Director of USAID's Office of HIV/AIDS and senior foreign service officer. Team members include Daniel R. Lucey, M.D., M.P.H., with the Department of Medicine-Infectious Diseases at Georgetown University and Marguerite Pappaioanou, D.V.M.,M.P.V.M., Ph.D., of the Department of Environmental and Occupational Health Sciences, School of Public Health, University of Washington.

The evaluation team will be interviewing a wide range of USAID, USG and implementing partner representatives along with other key stakeholders. Connie and Dan will visit Uganda, Vietnam and Thailand, and additionally conduct in-depth reviews (via phone interviews) of other EPT2 countries (to be selected). There will also be short surveys for in-country academics and government officials involved in One Health activities, as well a quick set of questions for USAID EPT2 and GHSA points of contact on EPT2's contributions to GHSA. In the upcoming weeks, you and your colleagues may be contacted by the evaluation team lead Connie Carrino.

If you have any questions, concerns or need for more information - please reach out to **Ashna Kibria** (me!) at akibria@usaid.gov. Thank you in advance for your participation and input!

Warm regards,

Ashna

Ashna Kibria, MPH
Public Health Advisor
Emerging Threats Division
USAID/Washington, Bureau for Global Health
Phone: 202.712.1210 (office) | [redacted] (cell)
Email: akibria@usaid.gov

From: David J Wolking <djwolking@ucdavis.edu>
To: Andrew Clements <aclements@usaid.gov>
CC: Elizabeth Leasure <ealeasure@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>;Alisa Pereira <apereira@usaid.gov>;Cara Chrisman <cchrisman@usaid.gov>;Shana Gillette <sgillette@usaid.gov>
Sent: 8/14/2017 11:32:16 PM
Subject: Re: Sep 12 meeting

Hi Andrew,

Mandy has been included on our management team list the last few times when the NYC meeting was on the agenda for discussion so I was simply sharing the invite with that full group for inclusivity sake. We defer to your guidance on who from your USAID team should attend for a successful meeting.

Thanks so much!

David

On Mon, Aug 14, 2017 at 4:00 PM, Andrew Clements <aclements@usaid.gov> wrote:
Hi David,

On August 4, you sent out an email to a group of people at USAID regarding the change of dates for the Predict management meeting.

We noticed that Mandy was on the list. Did you specifically want her or someone from GHSA to attend? I'm not sure their presence is necessary and am concerned it may slow things down because of them not being totally familiar with the project.

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

From: Andrew Clements <aclements@usaid.gov>
To: David J Wolking <djwolking@ucdavis.edu>
CC: Elizabeth Leasure <ealeasure@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>;Alisa Pereira <apereira@usaid.gov>;Cara Chrisman <cchrisman@usaid.gov>;Shana Gillette <sgillette@usaid.gov>
Sent: 8/15/2017 5:45:58 PM
Subject: Re: Sep 12 meeting

Thanks, David.

I will highlight to the GHSA team that this is an internal project management meeting.

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Aug 14, 2017, at 7:32 PM, David J Wolking <djwolking@ucdavis.edu> wrote:

Hi Andrew,

Mandy has been included on our management team list the last few times when the NYC meeting was on the agenda for discussion so I was simply sharing the invite with that full group for inclusivity sake. We defer to your guidance on who from your USAID team should attend for a successful meeting.

Thanks so much!

David

On Mon, Aug 14, 2017 at 4:00 PM, Andrew Clements <aclements@usaid.gov> wrote:
Hi David,

On August 4, you sent out an email to a group of people at USAID regarding the change of dates for the Predict management meeting.

We noticed that Mandy was on the list. Did you specifically want her or someone from GHSA to attend? I'm not sure their presence is necessary and am concerned it may slow things down because of them not being totally familiar with the project.

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Thu, 17 Aug 2017 09:58:59 -0700
Subject: Reminder - PREDICT Management Team Call Monday August 21 @ 10AM PDT/1PM EDT
To: Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Cassandra Louis Duthil <clouisduthil@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Eddy Rubin <erubin@metabiota.com>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Leilani Francisco <francisco@ecohealthalliance.org>, Lindsay Parish <lparish@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Shana Gillette <sgillette@usaid.gov>, William Karesh <karesh@ecohealthalliance.org>
Cc: Ava Sullivan <sullivan@ecohealthalliance.org>, Brooke Genovese <bgenovese@ucdavis.edu>, Evelyn Luciano <luciano@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Catherine Machalaba <Machalaba@ecohealthalliance.org>, Molly Turner <turner@ecohealthalliance.org>, PREDICTMGT <predictmgt@usaid.gov>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Amanda Andre <amanda.andre@ecohealthalliance.org>

Hi PREDCT Management Team,
Just sharing a reminder about our call on Monday August 21 @ 10AM PDT/1PM EDT. I will share the calendar invite and agenda soon.

Best,

David

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Mon, 21 Aug 2017 12:05:11 -0700
Subject: Re: Reminder - PREDICT Management Team Call Monday August 21 @ 10AM PDT/1PM EDT
To: David J Wolking <djwolking@ucdavis.edu>
Cc: Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Cassandra Louis Duthil <clouisduthil@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Eddy Rubin <erubin@metabiota.com>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Leilani Francisco <francisco@ecohealthalliance.org>, Lindsay Parish <lparish@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Shana Gillette <sgillette@usaid.gov>, William Karesh <karesh@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, Brooke Genovese <bgenovese@ucdavis.edu>, Evelyn Luciano <luciano@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Catherine Machalaba <Machalaba@ecohealthalliance.org>, Molly Turner <turner@ecohealthalliance.org>, PREDICTMGT <predictmgt@usaid.gov>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Amanda Andre <amanda.andre@ecohealthalliance.org>
PREDICT NYC Semi-annual meeting agenda (Sept 12, 2017).docx

Hi there,
As requested I'm attaching the most recent version of our September 12th agenda for the semi-annual meeting in New York. We may make a few additional changes to sessions but the general tone and structure will remain the same.

Please let me know if you have any questions.

David

On Fri, Aug 18, 2017 at 3:05 PM, David J Wolking <djwolking@ucdavis.edu> wrote:

Hi again,
Below is a short though dense agenda for Monday's call.

Best,

David

PREDICT Management Team Agenda

Monday, August 21, 2017

10:00-11:00PM PDT/1:00-2:00pm EDT

#800-444-2801, Access code REDACTED

International Dial-in number: REDACTED **(toll charges apply)**

Standing items

USAID Updates

1. **Administrative items**
   a. Budget planning and next steps
   b. Y4 workplan discussion
   c. EPT-2 external evaluation updates
   d. September 2017 semi-annual consortium meeting plans
   e. Upcoming call cancellations
2. **Guinea feedback from Mandy's visit**
3. **Sierra Leone campaign strategy and Breakthrough-ACTION coordination updates**

On Thu, Aug 17, 2017 at 9:58 AM, David J Wolking <djwolking@ucdavis.edu> wrote:

Hi PREDCT Management Team,
Just sharing a reminder about our call on Monday August 21 @ 10AM PDT/1PM EDT. I will share the calendar invite and agenda soon.

Best,

David

USAID | PREDICT

Global Health Security Agenda

PREDICT Semi-Annual Consortium Meeting
American Marketing Association (AMA)
1601 Broadway, New York, NY
September 12, 2017

September 12th

9:00 am	**Welcome, agenda overview & goals for meeting (Jonna)**
9:15 am	**Evolving planning landscape for 2017-2018**
9:45 am	**One Health surveillance (Chris & Country Leads)**
10:45 am	**Break**
11:15 pm	**Investigating behavioral risk & engaging communities to share results & reduce risks (Leilani)**
12:00 pm	**Working lunch onsite & Information Management team (Damien)**
1:00 pm	**Lab capacity & testing strategy to inform on risk (Tracey & Simon)**
1:30 pm	**Results communication & data sharing discussion**
2:15 pm	**Modeling & Analytics (Peter & Kevin)**
3:00 pm	**Break**
3:15 pm	**Ebola Host Project (Brian et al)**
3:45 pm	**One Health partnerships & coordination (Billy & Catherine)**
4:15 pm	**Discussion of what we will accomplish by the end of P-2**
5:00 pm	**Telling our story – M&E, GHSA, & beyond?**
7:00 pm	**Group dinner (optional)**

From: Andrew Clements <aclements@usaid.gov>
To: <undisclosed-recipients:>
Sent: 8/28/2017 8:55:13 PM
Subject: August 28, 2017 Emerging Pandemic Threats update

Summary: 39 poultry outbreaks, 7 wild bird outbreaks, and 43 human infections with 9 pathogens (various avian and swine influenza viruses, MERS-CoV) were reported by 12 countries between July 31 and August 28, 2017. These outbreaks/infections occurred between April and August 2017.

Specific pathogens and countries affected:

H1N2v Swine Influenza – 1 human case (USA)
A total of 11 human infections (0% average case fatality rate) have been reported by 2 countries between 2007 and 2017.

H3N2v Swine Influenza – 6 human cases (USA)
A total of 392 human infections (0.3% average case fatality rate) have been reported by 3 countries between 2009 and 2017.

H5N1/Asia Highly-Pathogenic Avian Influenza (HPAI) – 7 poultry outbreaks (Burma/Myanmar, China, Laos)
A total of 23,559 bird outbreaks (more than 250 million birds affected) and 879 human infections (52% average case fatality rate) have been reported by 67 countries between 1997 and 2017.

H5N2 HPAI – 4 poultry outbreaks (China)
A total of 1,043 bird outbreaks (more than 72.0 million birds affected) have been reported by 4 countries between 2012 and 2017; no human infections reported to date.

H5N6/Asia HPAI – 3 poultry outbreaks (Philippines)
A total of 680 bird outbreaks (more than 29.2 million birds affected) and 17 human infections (35% average case fatality rate) have been reported by 7 countries between 2014 and 2017.

H5N8 HPAI – 25 poultry outbreaks and 7 wild bird outbreaks (Italy, Russia, South Africa, Switzerland, UK)
A total of 3,004 bird outbreaks (more than 25.5 million birds affected) have been reported by 50 countries between 2013 and 2017; no human infections reported to date.

H7N9/Asia LPAI and HPAI – 3 human infections (China)
A total of 23 bird outbreaks (1.0 million birds affected) and 1,557 human infections (38% average case fatality rate) have been reported by 3 countries between 2013 and 2017.

H9N2 LPAI – 1 human infection (China)
A total of 30 human infections (3% average case fatality rate) have been reported by 3 countries between 1999 and 2017.

MERS-CoV – 32 human infections (Saudi Arabia, UAE)
A total of 29 camel outbreaks and 2,077 human infections (35% average case fatality rate) have been reported by 27 countries between 2012 and 2017.

Data sources:

http://www.who.int/csr/don/en/
http://www.who.int/influenza/human_animal_interface/en/
http://www.afro.who.int/en/clusters-a-programmes/whe/outbreaks-and-other-emergencies-updates.html
http://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI

http://empres-i.fao.org/eipws3g/
https://www.cdc.gov/flu/weekly/index.htm
http://www.moh.gov.sa/en/CCC/pressreleases/pages/default.aspx

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Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4245
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/ept2

Detection of Specific Zoonotic Viruses that have Potential to Directly Spread within Human Populations^

Nov 2015-Oct 2016

Nov 2016-Oct 2017

- = H5N1/Asian lineage HPAI* (poultry, wild birds, humans)
- = H7N9 LPAI ** (poultry, wild birds, or humans)
- = other HPAI or LPAI (humans)
- = other HPAI including H5N1/Eur. lineage, H5N1/NA lineage (poultry, wild birds)
- = H1N1v, H1N2v, and H3N2v swine influenza (humans)
- = Ebola (humans)
- = Marburg (humans)
- = Lassa (humans)
- = Nipah (humans)
- = Middle East Respiratory Syndrome-Coronavirus (humans or animals)
- = monkeypox (primates, humans)

Sources = OIE, WHO, CDC, Ministry of Agriculture/FAO (Egypt, Indonesia), and IEDCR (Bangladesh) reports between 11/1/15 and 8/28/17. ^ While these reports reflect known infections with these viruses, there may be additional viral circulation in these and other countries that is not detected due to limitations in surveillance and/or detection. All of these viruses are from viral families with at least one member that is capable of infecting people and spreading directly from person to person without using food, water or insects as vectors. * Highly-pathogenic avian influenza. ** Low-pathogenicity avian influenza. ▭ = countries (including eastern/southeastern China, northeastern India, and most of Indonesia) using USAID avian influenza, Ebola, or other emerging pandemic threats funding between FY2015 and FY2017 for prevention, detection, and response. ★ = location where a new virus first detected.

USAID
FROM THE AMERICAN PEOPLE
Global Health/Emerging Threats Division

UCDUSR0003293

From: "Katherine Leasure" <kaleasure@ucdavis.edu>
To: "PREDICTMGT" <predictmgt@usaid.gov>
Cc: "Predict inbox" <predict@ucdavis.edu>, "Jonna Mazet" <jkmazet@ucdavis.edu>
Subject: PREDICT International Travel Requests
Sent: Wed, 30 Aug 2017 16:48:50 -0700

Please find below international travel requests for your review and approval. Our apologies for the late submission of David McIver's ITA. Metabiota submitted to us last Friday, and we just the new USAID Laos travel guidance. Please let me know if you have any questions. Thanks!

1. Bird (Sierra Leone): $2,500 airfare/$319 (Freetown), $221 (Makeni) max daily per diems
2. Smith (Ethiopia): $4,000 airfare/$400 (Addis Ababa) max daily per diem
3. [redacted] (USA): $1500 airfare/$179 (Davis) max daily per diem
4. McIver (Laos): $1400 airfare/$212 (Vientiane) max daily per diem
5. Gutierrez-Jimenez (Bangladesh, India): $4,000 airfare/$290 (Dhaka), $291 (Lucknow), $400 (New Delhi) max daily per diem

Travel Requests –

1. UC Davis would like to request travel approval for Dr. Brian Bird to travel from Redmond, Oregon, USA to Freetown and Makeni, Sierra Leone from September 26 to October 6, 2017 for meetings with in-country staff and US Mission representatives, and training of field technical staff.

Trip purpose: In Freetown, Dr. Bird will meet with in-country staff and US Mission representatives to discuss upcoming year four PREDICT activities, communications plans, and management transition in Sierra Leone. In Makeni, Sierra Leone, he will conduct trainings for field technical staff to conduct safe and secure field-sampling and animal handling activities at the University of Makeni and at field sites in-country.

2. UC Davis would like to request travel approval for Dr. Woutrina Smith to travel from San Francisco, CA, USA to Addis Ababa, Ethiopia from September 30 to October 5, 2017 for project planning meetings.

Trip purpose: Dr. Smith, PREDICT Capacity Team Lead and Country Lead for Ethiopia, will travel to Ethiopia for PREDICT country activity planning meetings with local partners. **A portion of the trip will also be to work on USAID Livestock Systems Innovation Lab REACH project activities. Dr. Smith is PI for the REACH grant, thus a portion of her travel costs will be covered by that project.*

3. UC Davis would like to request travel approval for [redacted] to travel from Southwater, England to Davis, CA, USA from September 29 to October 9, 2017 for meetings with the PREDICT global team at UC Davis.

Trip purpose: [redacted] will conduct meetings with a website developer, Dr. Jonna Mazet, and colleagues at UC Davis in order to develop a risk ranking application for PREDICT viruses.

4. Metabiota would like to request travel approval for Dr. David McIver, Asia Regional Coordinator to travel from Nanaimo, British Columbia, Canada to Vientiane, Laos from September 25 to October 6, 2017 to finalize human surveillance training in hospital and community settings, as well as provide additional trainings on animal field data collection.

Trip purpose: In Vientiane, Dr. McIver will finalize trainings for human surveillance for the PREDICT program. This training will occur at the Khong District Hospital, in Champasak Province, and will cover core Ebook modules and CITI trainings, so that members are fully prepared for surveillance implementation. Dr. McIver will cover some re-trainings on the selection and enrollment of participants to the PREDICT program, data collection and interviewing techniques, data upload to the EIDITH database, and biological sample collection in the community setting. During this trip, Dr. McIver will trial the sample shipment logistics that have been planned to retrieve biological samples from the remote Khong District Hospital to the National Center for Laboratory and Epidemiology, in Vientiane.

5. EcoHealth Alliance would like to request travel approval for Dr. Leticia Gutiérrez Jiménez to travel from New York City, NY, USA to Dhaka, Bangladesh from September 17-19,2017 for the 9th One Health Bangladesh Conference. From Dhaka, Bangladesh she will travel to Lucknow, India from September 19 to October 15, 2017 to conduct training and field sampling, and for meetings with the PREDICT-2 India team. ** Dr. Gutierrez-Jimenez will stay 1 night in New Delhi on both legs of her trip as part of her connecting flights.*

Trip purpose: Bangladesh – Dr. Gutiérrez-Jiménez will be attending the 9th One Health Bangladesh Conference in Dhaka to

represent PREDICT-2 goals as field veterinarian, be privy to reporting on activities using the One Health Platform, and to liaise with the Country Coordinator from Bangladesh regarding PREDICT-2 field activities. India – Dr. Gutiérrez-Jiménez will meet with PREDICT-2 India Country Coordinator, Rajesh Bhatia, and with implementing partners at Sanjay Gandhi Postgraduate Institute of Medical Sciences to coordinate surveillance activities. In Maharajganj, Uttar Pradesh, Dr. Gutiérrez-Jiménez and PREDICT-2 India Field Coordinator, Debapriyo Chakraborty, will to carry out bat and rodent sampling and training.

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

From: Andrew Clements <aclements@usaid.gov>
Sent: Thu, 31 Aug 2017 17:48:22 +0700
Subject: Re: PREDICT International Travel Requests
To: Katherine Leasure <kaleasure@ucdavis.edu>
Cc: PREDICTMGT <predictmgt@usaid.gov>, Predict inbox <predict@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>

[redacted] travel approved.

All other travel approved subject to mission concurrence.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Aug 31, 2017, at 6:47 AM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Please find below international travel requests for your review and approval. Our apologies for the late submission of David McIver's ITA. Metabiota submitted to us last Friday, and we just the new USAID Laos travel guidance. Please let me know if you have any questions. Thanks!

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3. UC Davis would like to request travel approval for REDACTED to travel from Southwater, England to Davis, CA, USA from September 29 to October 9, 2017 for meetings with the PREDICT global team at UC Davis.

Trip purpose: REDACTED will conduct meetings with a website developer, Dr. Jonna Mazet, and colleagues at UC Davis in order to develop a risk ranking application for PREDICT viruses.

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Katherine Leasure
HR/Payroll/Financial Assistant
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530-752-3318 FAX
kaleasure@ucdavis.edu

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You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
To unsubscribe from this group and stop receiving emails from it, send an email to
predictmgt+unsubscribe@usaid.gov.
To post to this group, send email to predictmgt@usaid.gov.
To view this discussion on the web visit
https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/04d001d321ca%2440250c30%24c06f2490%24%40ucdavis.edu.

From: Andrew Clements <aclements@usaid.gov>
Sent: Fri, 8 Sep 2017 08:31:54 +0200
Subject: Re: EPT-2 Meeting in Lao PDR
To: Elizabeth Leasure <ealeasure@ucdavis.edu>
Cc: David John Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Cara Chrisman <cchrisman@usaid.gov>, Shana Gillette <sgillette@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, "predict@ucdavis.edu" <predict@ucdavis.edu>

Got it. Thanks, Liz.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Sep 7, 2017, at 10:44 PM, Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:

The NCLE subaward approval is currently wrapped up in the ceiling increase process. We were planning to obtain approval for the new NCLE subaward through the ceiling increase, so until the ceiling increase budget and narrative with the new NCLE subaward included is approved, we are unable to move forward with establishing a subaward with NCLE. Same story as with the new EHA subwards for leadership transition in CDI and RoC.

Elizabeth Leasure
One Health Institute
University of California, Davis
530-754-9034 (office)
REDACTED (cell)

From: Andrew Clements [mailto:aclements@usaid.gov]
Sent: Thursday, September 07, 2017 8:09 AM
To: David John Wolking; Elizabeth Leasure
Cc: Jonna Mazet; Cara Chrisman; Shana Gillette; Alisa Pereira
Subject: Fwd: EPT-2 Meeting in Lao PDR

Hi David and Liz,

What is the status of the Laos/NCLE award? Anything I can do to move it along?

Thanks!

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov
Begin forwarded message:

From: David McIver <dmciver@metabiota.com>
Date: September 7, 2017 at 4:38:11 PM GMT+2
To: Soubanh Silithammavong <sSilithammavong@metabiota.com>, "Sudarat Damrongwatanapokin" <sdamrongwatanapokin@usaid.gov>
Cc: "Clements, Andrew(ANE/TS)" <AClements@usaid.gov>, "Corwin, Andrew Lee" <CorwinAL@state.gov>, Daniel Schar <dSchar@usaid.gov>, Anchalee Jatapai

<ajatapai@usaid.gov>, PREDICTMGT <predictmgt@usaid.gov>
Subject: Re: EPT-2 Meeting in Lao PDR

Hello Sudarat,

Unfortunately, I don't think there is much we can do about this from our end. To my understanding, there are many of these agreements that USAID Washington is working on right now, for many different countries. I think we just need to wait until we get some sort of confirmation from the Washington office, which will come to us through UC Davis. Thank you very much for the offer.

Thanks,
Dave

—
David McIver, PhD
PREDICT Asia Regional Coordinator | Epidemiologist
Metabiota

e: dmciver@metabiota.com
c: REDACTED

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On Sep 7, 2017, 3:21 AM -0300, Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>, wrote:

Dear Dave and Soubanh,

Since you mentioned that you are "still waiting for final USAID approval for contract agreements with NCLE, you haven't been able to move forward with human sample testing yet".

Is there anything that we can help follow up with Andrew, P2 AOR, and PREDICT Management team in DC to speed up the process?

Best regards,
Sudarat Damrongwatanapokin, D.V.M., Ph.D.
Regional Animal Health Advisor
USAID Regional Development Mission Asia
REDACTED
E-mail: sdamrongwatanapokin@usaid.gov
Tel: REDACTED Fax: REDACTED

On Thu, Sep 7, 2017 at 4:11 AM, David McIver <dmciver@metabiota.com> wrote:
Hi Andy,

In terms of data sharing and virology surveillance, we have worked on a separate document that outlines rules and regulations surrounding sharing of data, samples, results, and the release of test results. In addition to the PREDICT-standardized data sharing agreements, our Lao PDR PREDICT team also went a step further to create a document that specifically states when, and under which circumstances, data can be shared or viewed, and by whom. This document has been signed by representatives from PREDICT, DLF, DCDC, and FAO. I'll be happy to share copies of all these agreements with you when I'm in Laos, if you like.

While we have already collected some human samples already, testing has not yet begun. Since we're still waiting for final USAID approval for contract agreements with NCLE, we've haven't been able to move forward with testing yet. Right now, we have about 180 human samples frozen in LN2

at NCLE. We're all very eager to get started on testing!

I'm looking forward to catching up with you in October, and I'll be happy to share our updates with you.

Thanks for your help,

Dave

David McIver, PhD
PREDICT Asia Regional Coordinator | Epidemiologist
Metabiota

e: dmciver@metabiota.com
c: REDACTED

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On Sep 5, 2017, 10:49 PM -0300, Corwin, Andrew L <CorwinAL@state.gov>, wrote:

Thanks David and Sudarat for the clarification. While there is an MoU arrangement between the MoH and MoAF, I thought the focus of the agreement was on information sharing and a one Health approach to outbreak investigations. I have not heard before of an arrangement in which MoAF provides permission on behalf of the MoH in terms of virological surveillance with associated laboratories diagnostics. But there may be indeed just such an agreement.

Have you already begun collecting human specimens and testing at NCLE? I would suggest scheduling a meeting with Dr Reiko who has replaced Dr Dapeng at WHO LAOS, if you have not already communicated with her. I would also be happy to brief her regarding this activity. It should be noted that all the virological work up at NCLE is supported by WHO Laos visa vi laboratory expertise and oversight.

With regards to your Lao travel, I will be available to meet with you the first week of October (except the 6th), and possibly the early afternoon of the 29th. We are all very excited to learn how this Activity is progressing.

Please address your request for Mission Concurrence to Alex Huerta, the Lao Country Representative.

Best regards,

Andy

From: David McIver <dmciver@metabiota.com>
Date: September 5, 2017 at 8:37:59 PM GMT+7
To: Damrongwatanapokin, Sudarat (RDMA/OPH) <sdamrongwatanapokin@usaid.gov>, Corwin, Andrew L <CorwinAL@state.gov>
Cc: Anchalee Jatapai <aatapai@usaid.gov>, Schar, Daniel (RDMA/OPH) <dschar@usaid.gov>, Karen Saylors <ksaylors@metabiota.com>, Clements, Andrew (GH/HIDN) <aclements@usaid.gov>, Kongchay, Vongsaiya (USAID) <KongchayV@state.gov>, Ricardo Echalar <rechalar@usaid.gov>, Bounheuang, Kounnavong <BounheuangK@state.gov>, , <predict@ucdavis.edu>, predict@ucdavis.edu <predict@ucdavis.edu>, Martz, Robin (USAID) <rmartz@usaid.gov>, Soubanh Silthammavong <sSilthammavong@metabiota.com>, Huerta, Alexandria I <AHuerta@state.gov>
Subject: Re: EPT-2 Meeting in Lao PDR

Hi Andy and Sudarat,

Sudarat is correct, in that the MOU was signed between Metabiota and the DLF/MoAF with the intention that they would subcontract to NCLE as the coordinator of the human surveillance portion of the program. To

the best of my understanding, no further MOUs are required and human surveillance in the Khong District Hospital is ready to begin as soon as we have final approval from USAID Washington.

We do plan to make a visit to Champasack while I am in Laos, but we are not certain yet of the days - it will likely be the last week of September. I will work on processing a USAID Mission Concurrence Request and send that along to Alex. And of course, we'll be more than happy to be at an EPT meeting and give everyone an update on the PREDICT program.

Thanks very much,
Dave

David McIver, PhD
PREDICT Asia Regional Coordinator | Epidemiologist
Metabiota

e: dmciver@metabiota.com<mailto:dmciver@metabiota.com
c: REDACTED

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On Sep 5, 2017, 7:15 AM -0300, wrote:

USAID Mission Concurrence Request

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Fri, 15 Sep 2017 14:39:19 -0700
Subject: Reminder: PREDICT Management Team call - Tuesday September 19, 2017 @ 10AM PDT/1PM EDT
To: Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Cassandra Louis Duthil <clouisduthil@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Eddy Rubin <erubin@metabiota.com>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Leilani Franciso <francisco@ecohealthalliance.org>, Lindsay Parish <lparish@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Shana Gillette <sgillette@usaid.gov>, William Karesh <karesh@ecohealthalliance.org>, PREDICTMGT <predictmgt@usaid.gov>
Cc: Ava Sullivan <sullivan@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Amanda Andre <amanda.andre@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, Molly Turner <turner@ecohealthalliance.org>, Brooke Genovese <bgenovese@ucdavis.edu>, Catherine Machalaba <Machalaba@ecohealthalliance.org>

Hi there,
Just a friendly reminder that we have our first Tuesday management team call next week (September 19, 2017 from 10-11 PDT/1-2PM EDT). I'll share the calendar invite next and the agenda early next week before the call.

Enjoy the weekend,

David

From: "William B. Karesh" <karesh@ecohealthalliance.org>
To: James Ayukekbong <jayukekbong@metabiota.com>, Karen Saylors <ksaylors@metabiota.com>
Cc: Brian Bird <bhbird@ucdavis.edu>, "predict-outbreak@ucdavis.edu" <predict-outbreak@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, "David Wolking" <djwolking@ucdavis.edu>, Eddy Rubin <erubin@metabiota.com>
Subject: Re: [predict-outbreak] Gorilla mortality in Cameroon
Sent: Sat, 16 Sep 2017 20:02:54 +0000

It would be good to link with Fabian Leendertz. We worked with him on a small gorilla die-off in the same region previously and he found the new Anthrax that he recently published about in Chimps. Our testing will not pick up on it and loks to be more common and widespread than anyone thought.

BK

William B. Karesh, D.V.M
Executive Vice President for Health and Policy

EcoHealth Alliance
460 West 34th Street - 17th Floor
New York, NY 10001 USA

+1.212.380.4463 (direct)
+1.212.380.4465 (fax)
www.ecohealthalliance.org

President, OIE Working Group on Wildlife

Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

On Sep 15, 2017, at 7:11 PM, James Ayukekbong <jayukekbong@metabiota.com> wrote:

Thanks Brian,
We will continue to provide more updates and we learn more.

Kind regards,

J. A

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From: Brian Bird <bhbird@ucdavis.edu>
Sent: Friday, September 15, 2017 4:07:56 PM
To: Karen Saylors; predict-outbreak@ucdavis.edu; Jonna Mazet; David John Wolking
Cc: James Ayukekbong; Eddy Rubin
Subject: Re: [predict-outbreak] Gorilla mortality in Cameroon

Thank you, Karen and James. Here is an updated Outbreak form edited for clarity. Please use this version going forward for updates.

Looking forward to hearing more, have a good weekend!

-Brian

From: Karen Saylors <ksaylors@metabiota.com>
Date: Friday, September 15, 2017 at 3:45 PM
To: Brian Bird <bhbird@ucdavis.edu>, PREDICT-outbreak <predict-outbreak@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>
Cc: James Ayukekbong <jayukekbong@metabiota.com>, Eddy Rubin <erubin@metabiota.com>
Subject: Re: [predict-outbreak] Gorilla mortality in Cameroon

Hi Brian.

You got that right, there is an old copy paste remnant from our last North Cameroon bat die off days. Sorry about that! This is a gorilla in East Cameroon.

Correct, we have no clarification on how many animals were involved.

Jim is in Cameroon and will follow up on Monday.

Best,

Karen

From: Brian Bird <bhbird@ucdavis.edu>
Date: Friday, September 15, 2017 at 3:35 PM
To: Karen Saylors <ksaylors@metabiota.com>, "predict-outbreak@ucdavis.edu" <predict-outbreak@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>
Cc: James Ayukekbong <jayukekbong@metabiota.com>, Eddy Rubin <erubin@metabiota.com>
Subject: Re: [predict-outbreak] Gorilla mortality in Cameroon

Thank you, Karen for this update.

I'm working through the outbreak form and making a few changes for clarity before sending up the chain for approval/awareness from USAID-Washington. It seems there might be a typo on the last page of the report where it states that on 14 Sept 2017 Colonel Eitel notified PREDICT of a "bat" dieoff? I'm guessing this was meant to be "gorilla"?

It seems also at this time we have no idea how many gorillas are involved?

Thanks!

-b

From: <predict-outbreak-request@ucdavis.edu> **on behalf of Karen Saylors** <ksaylors@metabiota.com>
Date: Friday, September 15, 2017 at 2:47 PM
To: PREDICT-outbreak <predict-outbreak@ucdavis.edu>, **Jonna Mazet** <jkmazet@ucdavis.edu>, **David J Wolking** <djwolking@ucdavis.edu>
Cc: James Ayukekbong <jayukekbong@metabiota.com>, **Eddy Rubin** <erubin@metabiota.com>
Subject: [predict-outbreak] Gorilla mortality in Cameroon

Hi everyone.
A colleague from the Research Center for Emerging and Re-emerging Diseases at CREMER notified us about a gorilla die off in the east of Cameroon. They've requested that PREDICT conduct the analysis and is arranging to ship us samples in the coming days. Please see the official request attached.

Thanks,
Karen

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Mon, 18 Sep 2017 20:23:35 -0700
Subject: Re: Reminder: PREDICT Management Team call - Tuesday September 19, 2017 @ 10AM PDT/1PM EDT
To: Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Leilani Francisco <francisco@ecohealthalliance.org>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Eddy Rubin <erubin@metabiota.com>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, William Karesh <karesh@ecohealthalliance.org>
Cc: Cassandra Louis Duthil <clouisduthil@usaid.gov>, Lindsay Parish <lparish@usaid.gov>, Shana Gillette <sgillette@usaid.gov>, PREDICTMGT <predictmgt@usaid.gov>, Ava Sullivan <sullivan@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Amanda Andre <amanda.andre@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, Molly Turner <turner@ecohealthalliance.org>, Brooke Genovese <bgenovese@ucdavis.edu>, Catherine Machalaba <Machalaba@ecohealthalliance.org>, Karen Saylors <ksaylors@metabiota.com>
PREDICT MT Agenda (9.19.17).docx

Hi there,
Attached and below for quick reference is the agenda for tomorrow's management team call.

Talk soon....

David

PREDICT Management Team Agenda

Tuesday, September 19, 2017

10:00-11:00PM PDT/1:00-2:00pm EDT

#800-444-2801, Access code REDACTED

International Dial-in number: REDACTED **(toll charges apply)**

Standing items

USAID Updates

1. **Administrative items**
   a. Budget planning and next steps for core workplan
   b. NYC semi-annual meeting feedback

2. **Breakthrough Action coordination call feedback**

3. **Outbreak updates** (suspected Ebola in DRC; gorilla die off in Cameroon; anthrax in TZ, others?)

4. **Mission communications roundup** (Uganda GHSA meeting and revamped coordination, P&R and Rwanda, Laos PDR, others?)

5. **EPT partner collaboration/coordination updates (Billy)**

6. **Publication, media, and conference updates**
   - Marburg filovirus meeting
   - MERS meeting
   - PREDICT participation in PMAC and One Health Saskatoon meetings (RDMA requests for participant contact information, concept note submission deadline October 15, 2017)
   - Cameroon JEE (September 25-29, 2017)

On Fri, Sep 15, 2017 at 2:39 PM, David J Wolking <djwolking@ucdavis.edu> wrote:

Hi there,
Just a friendly reminder that we have our first Tuesday management team call next week (September 19, 2017 from 10-11 PDT/1-2PM EDT). I'll share the calendar invite next and the agenda early next week before the call.

Enjoy the weekend,

David

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Tuesday, September 19, 2017
10:00-11:00PM PDT/1:00-2:00pm EDT
#800-444-2801, Access code REDACTED
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From: Andrew Clements <aclements@usaid.gov>
Sent: Wed, 20 Sep 2017 20:54:14 +0200
Subject: Request for information for Breakthrough Action/ Sierra Leone
To: Brian Bird <bhbird@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, francisco@ecohealthalliance.org

See request below. Thanks!

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

Begin forwarded message:

From: Kama Garrison <kgarrison@usaid.gov>
Date: September 20, 2017 at 6:11:44 PM GMT+2
To: Andrew Clements <AClements@usaid.gov>, Shana Gillette <sgillette@usaid.gov>
Cc: Anton Schneider <aschneider@usaid.gov>
Subject: Breakthrough Action/ Sierra Leone

I have in my notes from the call the other day to ask if you all have any overall presentations about PREDICT (their approach, outcomes etc) and anything specific to the work they are doing in Sierra Leone (reports or presentations) that can be sent to BT-A just so they have some sort of idea of what PREDICT does. This will be new for them so anything to give them some overview before they arrive on Sunday would be helpful.

--
Kama G. Garrison, MPH
Sr. Social Behavior Change Advisor
USAID/GH/MCHN/RPD
Ph: 571.551.7379
M: REDACTED

Sent: Wed, 20 Sep 2017 12:30:12 -0700
Subject: Re: Request for information for Breakthrough Action/ Sierra Leone
From: Brian Bird <bhbird@ucdavis.edu>
To: David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, <francisco@ecohealthalliance.org>
PREDICT West Africa - Sierra Leone-Guinea-Liberia-GHSA scoping document_FINAL.pdf

FYI- I took Andrew off this email reply.

My thought would be we could send them the four-pager that we wrote for EHP (see attached GHSA-ified scoping document),

During the face to face meeting, I was hoping to present some of the slides that I showed at the NYC meeting plus the general PREDICT intro slides in Sierra Leone. I looked at that presentation just now wondering if we could share it straight away, but I think without someone actually talking through the slides the messages are a bit hard to follow if you aren't familiar with the project or not an emerging infectious disease work.

I don't think I've seen a short overall PREDICT intro document... although I'll bet one exists. If so, we could send that too?

-b

From: Andrew Clements <aclements@usaid.gov>
Date: Wednesday, September 20, 2017 at 11:54 AM
To: Brian Bird <bhbird@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Leilani Francisco <francisco@ecohealthalliance.org>
Subject: Request for information for Breakthrough Action/ Sierra Leone

See request below. Thanks!

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov
Begin forwarded message:

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Date: September 20, 2017 at 6:11:44 PM GMT+2
To: Andrew Clements <AClements@usaid.gov>, Shana Gillette <sgillette@usaid.gov>
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Kama G. Garrison, MPH
Sr. Social Behavior Change Advisor
USAID/GH/MCHN/RPD
Ph: 571.551.7379
M: REDACTED

USAID | PREDICT
FROM THE AMERICAN PEOPLE

PREDICT in Ebola-affected West African countries (Sierra Leone, Guinea, and Liberia)

PREDICT, a project of USAID's Emerging Pandemic Threats (EPT) program, was initiated in 2009 and is working to strengthen global capacity for detection and discovery of zoonotic viruses with epidemic and pandemic potential, including viruses related to the Ebola, influenza, and Zika viruses that have been recent causes of devastating disease and necessary impetuses of dramatic and resource-intensive responses. The project is actively and diligently implementing Global Health Security Agenda (GHSA) activities in target countries aimed at developing and operationalizing strategies to improve disease surveillance and detection in the short term and reduce zoonotic pathogen spillover, amplification, and spread in the long term, through improved public health policies and risk mitigation efforts. In every country of engagement, we work hand-in-hand with governmental and non-governmental stakeholders to develop and implement activities that are designed to strengthen surveillance and laboratory capabilities and ensure lasting positive effects from our engagements.

Nowhere are the overarching goals of PREDICT and GHSA more relevant than in Sierra Leone, Guinea, and Liberia. The devastation left by an unprecedented Ebola virus outbreak between 2013 and 2016 revealed the urgent need for increased animal and public health sector capacity strengthening at all levels. Put into historical context, this single outbreak where over 28,000 cases and 11,323 deaths occurred was more than 60 times larger than any previous Ebola outbreak, had cases spread to 7 additional countries for the first time, and stretched in-country and international emergency response efforts to the utmost limits of capacity.

Due to the impact on these three countries, PREDICT is engaged in a focused effort to better address the needs posed by the threat of Ebola by understanding the virus's animal origins, while strengthening capacity to build and reinforce emerging disease surveillance and detection systems. PREDICT is specifically working to improve our understanding of the wildlife reservoir, spillover hosts, and origins of Ebola virus; ascertain the potential of virus-spillover during the outbreak into other non-typical hosts such as livestock or companion animals; gain a greater understanding of high-risk human behavioral activities, and improve disease surveillance and laboratory capacities through workforce development in line with GHSA priorities.

Although 2015 saw the halt of human-to-human transmission of Ebola virus, the virus may have become endemic, and potentially may be circulating among animal hosts. Without determining which animals may serve as reservoirs of infection, prevention programs to reduce transmission from animals to people will have limited impact, and it is likely that future spillover of ebolaviruses from animals into humans will continue to occur. As we have seen over the years in Central and Eastern Africa where filovirus outbreaks have repeatedly occurred, effective control of these rare "spillover" events is possible and, when the right technical capacities are in place, can even be limited to a small number of human cases. The challenge in controlling future Ebola virus outbreaks in West Africa, is dependent on how widely distributed the virus may be across the region and which animal populations are now involved as hosts.

In Central Africa, a number of different bat species have been proposed as reservoir hosts for the virus. Similarly, in West Africa, the current epidemic is thought to have been triggered by a spillover event from an infected bat. In addition, given the wide exposure other animal populations, both wild and domestic, may have had across West Africa, largely through direct or indirect contact with Ebola-infected humans, there is the risk that the host range of the virus has expanded to now include domestic animals, such as dogs and cats, goats, and pigs, as well as other wildlife.

USAID | UC DAVIS VETERINARY MEDICINE | WCS | EcoHealth Alliance | METABIOTA

Despite several high-quality studies in specific geographic areas over the last 2 decades, a comprehensive, long-term, simultaneous, multi-country coordinated investigation into the origins of Ebola, including a wide taxonomic range of potential virus hosts, has never been conducted. The purpose of PREDICT activities in this area is to determine how widely distributed the virus may be among animal populations, and how this host distribution will affect the risks of future outbreaks. This comprehensive, multi-year effort in Liberia, Sierra Leone, and Guinea is designed to identify a range of possible animal hosts for all filoviruses and other priority pathogens that could serve as a source of human infections, as well as the behaviors and conditions associated with increased likelihood of another outbreak[1] – information that is key to reducing the risk of future outbreaks.

PREDICT'S FOCUSED APPROACH IN THE EBOLA OUTBREAK AFFECTED COUNTRIES

ZOONOTIC DISEASE SURVEILLANCE AND PREPAREDNESS:

PREDICT will be conducting biological sampling **of animals** in Sierra Leone, Guinea, and Liberia. Unlike other PREDICT engagement countries, no collection of biological specimens from humans will be conducted. The project has been focusing on four domestic species (dogs, cats, domestic pigs, goats) and three broad wildlife taxa (rodents, non-human primates, and bats) in the region and with the goal of sampling approximately 54,000 animals over an approximately two-year period once sample collection has been initiated, a scale that is unprecedented. Analyses of available data on all ebolaviruses and sampling and testing conducted by PREDICT-2 throughout the world are being used to optimize sampling design, including targeting of species, geographic focus, and temporal range. In each country, PREDICT Consortium members in collaboration with local in country partners have established and trained multiple field-investigation teams to conduct animal sampling following established PREDICT protocols and standard operating procedures including: biosafety, animal sampling, specimen transport and cold chain, and basic laboratory practices.

To identify behavioral risks and mitigation and intervention points, PREDICT uses a multidisciplinary approach to identify groups of populations at highest risk of exposure to emerging pathogens. Our teams assess community perceptions of animal exposure and disease risk and evaluate widely held assumptions of community practices (e.g. high risks from bushmeat hunting). In the three most Ebola-affected countries, PREDICT will use behavioral surveys and/or detailed interviews with persons in the region to identify potential contact with wildlife or other animal sources of the virus and document individual history of Ebola infection in people owning animals targeted for sampling. These methods will lead to a more comprehensive understanding of behaviors that could lead to Ebola virus spillover and potential for transmission to animals, essential to the design and evaluation of mitigation interventions, and to inform policy decisions by identifying barriers to change and acceptable alternatives.

Using data generated in this project, PREDICT will be able to use state-of-the-art modeling and analytic approaches to help further guide Ebola virus surveillance and help these three countries develop disease control and prevention strategies. Using these tools, PREDICT will evaluate epidemiologic patterns in ebolavirus distribution and produce fine-scale hotspot maps of potential Ebola virus spill-over, combining in-country data on land use, socioeconomic, and agricultural changes with data from our human behavioral risk assessment teams to further refine and identify where Ebola virus spill-over might be most likely to occur, where it might amplify, and who is at most risk.

[1] As conducted at the Ebola Risk Mapping Symposium hosted by USAID on May 11, 2015, that included representatives from the U.S. Centers for Disease Control and Prevention, the Center for International Forestry Research, EcoHealth Alliance, the Global Environment Facility, the University of California-Davis, the U.S. Agency for International Development, the U.S. Department of Defense, the U.S. Fish and Wildlife Service, and the US Forest Service.

Our surveillance activities are designed to focus on three critical factors that have potential influence on ebolavirus transmission dynamics in the region.

1. Geographic distribution. The unprecedented geographic spread of the virus among human populations across multiple countries in West Africa raises the prospect that the Ebola virus could have "spilled back" from people into previously unaffected animal populations — wildlife, companion animals, and livestock— resulting in a broader geographic distribution of the virus. As a result, PREDICT efforts to monitor Ebola virus risk will be more expansive and cover the entire three country region to more fully understand the extent of the potential risk.
2. Distribution among host species. In other parts of the world, some filoviruses are known to naturally infect wildlife (bats, non-human primates) and domestic pigs (specifically, *Reston ebolavirus*). In order to more fully understand the range of animals possibly infected by ebolaviruses in West Africa, it will be necessary to collect samples from a variety of wildlife and domestic animal populations across the region during the project. Importantly, the scale of the most recent epidemic has potentially led to higher rates of exposure to the virus by novel animal species as a result of poor sanitary conditions and open defecation or vomiting by infected individuals. In theory, this widespread exposure could have resulted in new host/reservoir dynamics which may have a substantial impact on future outbreaks and risk mitigation strategies. In light of this risk, PREDICT is actively engaged in each of the three countries to conduct biological surveillance among potential wildlife reservoirs and domesticated animals such as pigs, goats, dogs and cats.
3. Seasonality. Increasing evidence shows that many zoonotic viruses, such as avian influenza, Marburg virus, and MERS coronavirus appear to have increased transmission during specific times of the year when there is heightened shedding in animal hosts, optimal environmental conditions, and/or human behaviors facilitating contact. As a result, the viruses cannot always be detected continuously throughout the year. To date, "one-off" efforts to detect active shedding of Ebola virus in animals have not been successful, suggesting that this virus may also have a seasonal pattern. To address this gap in key knowledge, PREDICT is engaged in longitudinal surveillance activities over multiple years to collect samples from all targeted animals repeatedly at sites. During the first year of surveillance, efforts are focused on detecting virus shedding and sampling in subsequent years will serve to validate seasonal patterns and identify risk factors associated with animal-human contact at these particular times of year. Obtaining this information quickly is critical for targeting surveillance for the following year and developing more specific prevention and control measures needed to prevent the future spillover of the virus from animals. This prevention approach has helped to successfully mitigate some avian influenza viruses and other emerging diseases.

LABORATORY SYSTEMS STRENGTHENING:
In the region, PREDICT will provide the materials (including optimized assays), SOPs, and protocols for training in laboratory safety and best practices for sample handling and transport and will continue to conduct basic and follow-up trainings for lab staff in methods for viral detection (where feasible, focusing on Ebola and other filoviruses), management of data, tracking of laboratory sample and results data, interpretation of data, and analysis of results. PREDICT's testing success in other countries relies on the use of broadly reactive consensus (genus/family level) RT-PCR supplemented with high throughput sequencing. These powerful tools produce specific, high resolution data allowing for the rapid detection of known and new potential pathogens. In the three most Ebola-affected countries a similar approach will be conducted with a specific focus on filovirus and other priority pathogen detection. Thus, specimens will be collected from the approximately 54,000 animals for testing by both conventional PCR to detect all filoviruses and other priority pathogens, as well as highly specific real-time (qRT-PCR) to detect Zaire ebolavirus, to provide evidence of active infections by PCR-based testing and prior infections by serological tests under development.

BIOSAFETY AND BIOSECURITY:
Biosafety is paramount to successful implementation of One Health disease surveillance activities especially in this 3-country region. Core to PREDICT's approach to zoonotic disease surveillance is an emphasis on strengthening local capacity for safe sample collection, handling, transport, and storage of potentially hazardous and infectious materials across the full-spectrum of surveillance activities. PREDICT has developed protocols and training materials emphasizing biosafety. In addition to providing these training materials to PREDICT in-country staff, partners, and ministry and university stakeholders for use, all individuals participating in sampling or lab activities, irrespective of employer, are required to meet our training and preventive vaccine standards, including district-level medical, veterinary, and wildlife professionals.

REPORTING AND INFORMATION MANAGEMENT:
Central to the effective operationalization of a One Health Platform is the sharing of information and coordination of reporting across sectors via multi-sectoral technical working groups. PREDICT is working with ministry partners in the region to enhance information and reporting flows across human and animal health sectors and encourage dialogue concerning potential zoonotic disease threats. Given the heightened sensitivities of Ebola-related data in the 3-country region, PREDICT will work closely with host governments and partners to interpret and share information through systems designed to protect and ensure data quality and accuracy. Test results are interpreted in light of all available scientific literature by PREDICT virologists. After interpretation, results are provided to host governments for examination, to inform policy, and for approval for public release through the PREDICT data site powered by HealthMap. This open access platform allows users to visualize PREDICT data along with disease events worldwide (http://data.predict.global). It is important to note that no data will be publically released by PREDICT before receiving host government approval.

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Preparing for emerging disease threats, like Ebola, requires investments in infrastructure, institutions, and human resources across a broad array of health and social systems to operationalize One Health approaches and platforms. In collaboration with country governments and EPT partners, PREDICT is committed to assist with developing the core skills and capabilities required by tomorrow's One Health workforce. In each country, core teams with local partners are being established and obtaining training in biosafety, field surveillance, basic laboratory safety, the social sciences, and behavioral risk investigations. To date over fifty (50) in-country personnel have been trained and are actively working on PREDICT activities in the three-country region.

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Sent: Thu, 21 Sep 2017 08:41:50 -0700
Subject: Re: Request for information for Breakthrough Action/ Sierra Leone
From: Brian Bird <bhbird@ucdavis.edu>
To: Andrew Clements <aclements@usaid.gov>, Kama Garrison <kgarrison@usaid.gov>
Cc: David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, <francisco@ecohealthalliance.org>
PREDICT Global Flyer(1).pdf
PREDICT West Africa - Sierra Leone-Guinea-Liberia-GHSA scoping document_FINAL.pdf

Hi Andrew and Kama,

We thought that these two introductory documents would help orient the BTA teams to the flavor of PREDICT activities overall and the EHP specifically.

You can also refer them to our general website at: www.predict.global

I'm looking forward to meeting with them and discussing things further in my upcoming trip to SL.

Hope you are both doing great!

-Brian

Brian H. Bird DVM, MSPH, PhD
Global Lead Sierra Leone and
Multi-Country Ebola operations
PREDICT-USAID

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1089 Veterinary Medicine Dr.
School of Veterinary Medicine
University of California, Davis
Email: bhbird@ucdavis.edu
Skype: brianhbird1
http://www.vetmed.ucdavis.edu/ohi/predict/index.cfm

From: Andrew Clements <aclements@usaid.gov>
Date: Wednesday, September 20, 2017 at 11:54 AM
To: Brian Bird <bhbird@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Leilani Francisco <francisco@ecohealthalliance.org>
Subject: Request for information for Breakthrough Action/ Sierra Leone

See request below. Thanks!

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov
Begin forwarded message:

From: Kama Garrison <kgarrison@usaid.gov>
Date: September 20, 2017 at 6:11:44 PM GMT+2
To: Andrew Clements <AClements@usaid.gov>, Shana Gillette <sgillette@usaid.gov>

Cc: Anton Schneider <aschneider@usaid.gov>
Subject: Breakthrough Action/ Sierra Leone

I have in my notes from the call the other day to ask if you all have any overall presentations about PREDICT (their approach, outcomes etc) and anything specific to the work they are doing in Sierra Leone (reports or presentations) that can be sent to BT-A just so they have some sort of idea of what PREDICT does. This will be new for them so anything to give them some overview before they arrive on Sunday would be helpful.

--

Kama G. Garrison, MPH
Sr. Social Behavior Change Advisor
USAID/GH/MCHN/RPD
Ph: 571.551.7379
M: REDACTED

USAID | PREDICT

FROM THE AMERICAN PEOPLE

REDUCING PANDEMIC RISK, PROMOTING GLOBAL HEALTH

PREDICT, a project of USAID's Emerging Pandemic Threats (EPT) program, was initiated in 2009 to strengthen global capacity for detection and discovery of zoonotic viruses with pandemic potential. Those include coronaviruses, the family to which SARS and MERS belong; paramyxoviruses, like Nipah virus; influenza viruses; and filoviruses, like the ebolavirus.

PREDICT has made significant contributions to strengthening global surveillance and laboratory diagnostic capabilities for new and known viruses.

Now working with partners in 31 countries, PREDICT is continuing to build platforms for disease surveillance and for identifying and monitoring pathogens that can be shared between animals and people. Using the One Health approach, the project is investigating the behaviors, practices, and ecological and biological factors driving disease emergence, transmission, and spread. Through these efforts, PREDICT will improve global disease recognition and begin to develop strategies and policy recommendations to minimize pandemic risk.

SURVEILLANCE

PREDICT's surveillance for emerging pathogens focuses on areas of the world at the highest risk for zoonotic disease emergence. The goal is to move countries away from a reactive post-outbreak response to a proactive approach in which pathogens of pandemic potential are discovered at their source before large-scale epidemics occur in people.

PREDICT's disease surveillance strategy is based on the inextricable link between animals, humans, and the environment. Rather than prescribing an across-the-board surveillance plan, PREDICT works in each focus country to cultivate targeted, measurable, adaptive, and responsive approaches that are integrated across health and environmental sectors.

CAPACITY STRENGTHENING

Preparing for emerging disease threats requires investments in infrastructure, institutions, and human resources across a broad array of health and social systems to operationalize One Health platforms. In collaboration with country governments and EPT partners, PREDICT is committed to developing the infrastructure and core skills and capabilities required by tomorrow's One Health workforce.

Through PREDICT, more than 2,500 people (and counting) have been trained in biosafety, field epidemiology and surveillance, laboratory diagnostics, social sciences and behavioral risk investigations, and modeling and analytics, creating an extensive network of global One Health professionals to support long-term zoonotic disease surveillance.

PATHOGEN DISCOVERY & DIAGNOSTICS

PREDICT's diagnostic success lies in the use of broadly reactive consensus (genus/family level) PCR supplemented with high throughput sequencing. These powerful tools produce specific, high-resolution data allowing for rapid detection of known and new potential pathogens. To date, PREDICT has developed and optimized detection protocols and capacities in laboratories in all of the countries in which we have engaged, ensuring regional capacity to detect pandemic threats.

The PREDICT approach is especially important for the diagnosis of mystery illnesses in medical hospitals and veterinary labs where testing options are often limited. By testing targeted samples based on the circumstances that promote disease transmission and the route of exposure, PREDICT can detect known and novel pathogens in tandem, rather than sequentially.

BEHAVIORAL RISK

PREDICT uses a multidisciplinary approach to identify groups of populations at highest risk of exposure to emerging pathogens, and the 'how' and the 'why' of risk.

Our teams assess community perceptions of animal exposure and disease risk and evaluate widely held assumptions of community practices (e.g., high risks from bushmeat hunting). PREDICT is identifying and monitoring the risk factors for zoonotic diseases with pandemic threat potential.

Our methods will lead to well-rounded understanding of disease spillover and transmission dynamics, essential to the design and evaluation of mitigating interventions, and to informing policy by identifying barriers to change and acceptable alternatives.

MODELING & ANALYTICS

PREDICT will use state-of-the-art modeling and analytic approaches to guide surveillance and help countries develop disease control and prevention strategies. PREDICT is producing next-generation, fine-scale hotspots maps, combining in-country data on land use, socioeconomic, and agricultural changes with surveys of human behavior, market value chains, and livestock production to identify where zoonoses will spillover, where they will amplify, and who is at risk.

By using data direct from PREDICT viral testing and conducting outbreak scenario modeling, PREDICT will provide information on which pathogens are most likely to become pandemic and which control and mitigation strategies can be most effective.

INFORMATION MANAGEMENT

PREDICT works closely with host governments and partners to interpret and share information through systems designed to protect and ensure data quality and accuracy. PREDICT data are managed in a purposefully-designed internal information management system, in which all data undergo a rigorous quality control process. Diagnostic test results are interpreted in light of all available scientific literature by PREDICT virologists.

After interpretation, results are provided to host governments for examination, to inform policy, and for approval for public release through the PREDICT data site powered by HealthMap. This open access platform allows users to visualize PREDICT data along with disease events worldwide (http://data.predict.global).

ONE HEALTH PARTNERSHIPS

PREDICT at its core is built upon One Health partnerships. Cross-disciplinary collaborations are critical for gaining a more full understanding of the integral links between human, animal, and environmental health that can provide opportunities for prevention or early detection and control of disease threats. By working across sectors and including a diverse range of stakeholders and expertise, PREDICT helps operationalize efforts that promote public health, effective natural resource management, and development.

On a country basis and at a global level, PREDICT enables and supports implementation of One Health practices. Toward this goal, PREDICT has worked closely with a wide range of government ministries, scientific institutions, local organizations, and other stakeholders to further One Health initiatives. These have taken the form of inter-ministerial data sharing and interpretation, interdisciplinary capacity building and surveillance, and coordinated outbreak response activities. Building on these best practices, PREDICT is working with Emerging Pandemic Threats program partners to develop an evidence base to demonstrate the value of the One Health approach.

Website: http://predict.global | Email: predict@ucdavis.edu

USAID | PREDICT
FROM THE AMERICAN PEOPLE

PREDICT in Ebola-affected West African countries (Sierra Leone, Guinea, and Liberia)

PREDICT, a project of USAID's Emerging Pandemic Threats (EPT) program, was initiated in 2009 and is working to strengthen global capacity for detection and discovery of zoonotic viruses with epidemic and pandemic potential, including viruses related to the Ebola, influenza, and Zika viruses that have been recent causes of devastating disease and necessary impetuses of dramatic and resource-intensive responses. The project is actively and diligently implementing Global Health Security Agenda (GHSA) activities in target countries aimed at developing and operationalizing strategies to improve disease surveillance and detection in the short term and reduce zoonotic pathogen spillover, amplification, and spread in the long term, through improved public health policies and risk mitigation efforts. In every country of engagement, we work hand-in-hand with governmental and non-governmental stakeholders to develop and implement activities that are designed to strengthen surveillance and laboratory capabilities and ensure lasting positive effects from our engagements.

Nowhere are the overarching goals of PREDICT and GHSA more relevant than in Sierra Leone, Guinea, and Liberia. The devastation left by an unprecedented Ebola virus outbreak between 2013 and 2016 revealed the urgent need for increased animal and public health sector capacity strengthening at all levels. Put into historical context, this single outbreak where over 28,000 cases and 11,323 deaths occurred was more than 60 times larger than any previous Ebola outbreak, had cases spread to 7 additional countries for the first time, and stretched in-country and international emergency response efforts to the utmost limits of capacity.

Due to the impact on these three countries, PREDICT is engaged in a focused effort to better address the needs posed by the threat of Ebola by understanding the virus's animal origins, while strengthening capacity to build and reinforce emerging disease surveillance and detection systems. PREDICT is specifically working to improve our understanding of the wildlife reservoir, spillover hosts, and origins of Ebola virus; ascertain the potential of virus-spillover during the outbreak into other non-typical hosts such as livestock or companion animals; gain a greater understanding of high-risk human behavioral activities, and improve disease surveillance and laboratory capacities through workforce development in line with GHSA priorities.

Although 2015 saw the halt of human-to-human transmission of Ebola virus, the virus may have become endemic, and potentially may be circulating among animal hosts. Without determining which animals may serve as reservoirs of infection, prevention programs to reduce transmission from animals to people will have limited impact, and it is likely that future spillover of ebolaviruses from animals into humans will continue to occur. As we have seen over the years in Central and Eastern Africa where filovirus outbreaks have repeatedly occurred, effective control of these rare "spillover" events is possible and, when the right technical capacities are in place, can even be limited to a small number of human cases. The challenge in controlling future Ebola virus outbreaks in West Africa, is dependent on how widely distributed the virus may be across the region and which animal populations are now involved as hosts.

In Central Africa, a number of different bat species have been proposed as reservoir hosts for the virus. Similarly, in West Africa, the current epidemic is thought to have been triggered by a spillover event from an infected bat. In addition, given the wide exposure other animal populations, both wild and domestic, may have had across West Africa, largely through direct or indirect contact with Ebola-infected humans, there is the risk that the host range of the virus has expanded to now include domestic animals, such as dogs and cats, goats, and pigs, as well as other wildlife.

USAID | UC DAVIS VETERINARY MEDICINE | WCS | EcoHealth Alliance | METABIOTA

Despite several high-quality studies in specific geographic areas over the last 2 decades, a comprehensive, long-term, simultaneous, multi-country coordinated investigation into the origins of Ebola, including a wide taxonomic range of potential virus hosts, has never been conducted. The purpose of PREDICT activities in this area is to determine how widely distributed the virus may be among animal populations, and how this host distribution will affect the risks of future outbreaks. This comprehensive, multi-year effort in Liberia, Sierra Leone, and Guinea is designed to identify a range of possible animal hosts for all filoviruses and other priority pathogens that could serve as a source of human infections, as well as the behaviors and conditions associated with increased likelihood of another outbreak[1] – information that is key to reducing the risk of future outbreaks.

PREDICT'S FOCUSED APPROACH IN THE EBOLA OUTBREAK AFFECTED COUNTRIES

ZOONOTIC DISEASE SURVEILLANCE AND PREPAREDNESS:

PREDICT will be conducting biological sampling **of animals** in Sierra Leone, Guinea, and Liberia. Unlike other PREDICT engagement countries, no collection of biological specimens from humans will be conducted. The project has been focusing on four domestic species (dogs, cats, domestic pigs, goats) and three broad wildlife taxa (rodents, non-human primates, and bats) in the region and with the goal of sampling approximately 54,000 animals over an approximately two-year period once sample collection has been initiated, a scale that is unprecedented. Analyses of available data on all ebolaviruses and sampling and testing conducted by PREDICT-2 throughout the world are being used to optimize sampling design, including targeting of species, geographic focus, and temporal range. In each country, PREDICT Consortium members in collaboration with local in country partners have established and trained multiple field-investigation teams to conduct animal sampling following established PREDICT protocols and standard operating procedures including: biosafety, animal sampling, specimen transport and cold chain, and basic laboratory practices.

To identify behavioral risks and mitigation and intervention points, PREDICT uses a multidisciplinary approach to identify groups of populations at highest risk of exposure to emerging pathogens. Our teams assess community perceptions of animal exposure and disease risk and evaluate widely held assumptions of community practices (e.g. high risks from bushmeat hunting). In the three most Ebola-affected countries, PREDICT will use behavioral surveys and/or detailed interviews with persons in the region to identify potential contact with wildlife or other animal sources of the virus and document individual history of Ebola infection in people owning animals targeted for sampling. These methods will lead to a more comprehensive understanding of behaviors that could lead to Ebola virus spillover and potential for transmission to animals, essential to the design and evaluation of mitigation interventions, and to inform policy decisions by identifying barriers to change and acceptable alternatives.

Using data generated in this project, PREDICT will be able to use state-of-the-art modeling and analytic approaches to help further guide Ebola virus surveillance and help these three countries develop disease control and prevention strategies. Using these tools, PREDICT will evaluate epidemiologic patterns in ebolavirus distribution and produce fine-scale hotspot maps of potential Ebola virus spill-over, combining in-country data on land use, socioeconomic, and agricultural changes with data from our human behavioral risk assessment teams to further refine and identify where Ebola virus spill-over might be most likely to occur, where it might amplify, and who is at most risk.

[1] As conducted at the Ebola Risk Mapping Symposium hosted by USAID on May 11, 2015, that included representatives from the U.S. Centers for Disease Control and Prevention, the Center for International Forestry Research, EcoHealth Alliance, the Global Environment Facility, the University of California-Davis, the U.S. Agency for International Development, the U.S. Department of Defense, the U.S. Fish and Wildlife Service, and the US Forest Service.

Our surveillance activities are designed to focus on three critical factors that have potential influence on ebolavirus transmission dynamics in the region.

1. Geographic distribution. The unprecedented geographic spread of the virus among human populations across multiple countries in West Africa raises the prospect that the Ebola virus could have "spilled back" from people into previously unaffected animal populations — wildlife, companion animals, and livestock— resulting in a broader geographic distribution of the virus. As a result, PREDICT efforts to monitor Ebola virus risk will be more expansive and cover the entire three country region to more fully understand the extent of the potential risk.
2. Distribution among host species. In other parts of the world, some filoviruses are known to naturally infect wildlife (bats, non-human primates) and domestic pigs (specifically, *Reston ebolavirus*). In order to more fully understand the range of animals possibly infected by ebolaviruses in West Africa, it will be necessary to collect samples from a variety of wildlife and domestic animal populations across the region during the project. Importantly, the scale of the most recent epidemic has potentially led to higher rates of exposure to the virus by novel animal species as a result of poor sanitary conditions and open defecation or vomiting by infected individuals. In theory, this widespread exposure could have resulted in new host/reservoir dynamics which may have a substantial impact on future outbreaks and risk mitigation strategies. In light of this risk, PREDICT is actively engaged in each of the three countries to conduct biological surveillance among potential wildlife reservoirs and domesticated animals such as pigs, goats, dogs and cats.
3. Seasonality. Increasing evidence shows that many zoonotic viruses, such as avian influenza, Marburg virus, and MERS coronavirus appear to have increased transmission during specific times of the year when there is heightened shedding in animal hosts, optimal environmental conditions, and/or human behaviors facilitating contact. As a result, the viruses cannot always be detected continuously throughout the year. To date, "one-off" efforts to detect active shedding of Ebola virus in animals have not been successful, suggesting that this virus may also have a seasonal pattern. To address this gap in key knowledge, PREDICT is engaged in longitudinal surveillance activities over multiple years to collect samples from all targeted animals repeatedly at sites. During the first year of surveillance, efforts are focused on detecting virus shedding and sampling in subsequent years will serve to validate seasonal patterns and identify risk factors associated with animal-human contact at these particular times of year. Obtaining this information quickly is critical for targeting surveillance for the following year and developing more specific prevention and control measures needed to prevent the future spillover of the virus from animals. This prevention approach has helped to successfully mitigate some avian influenza viruses and other emerging diseases.

LABORATORY SYSTEMS STRENGTHENING:
In the region, PREDICT will provide the materials (including optimized assays), SOPs, and protocols for training in laboratory safety and best practices for sample handling and transport and will continue to conduct basic and follow-up trainings for lab staff in methods for viral detection (where feasible, focusing on Ebola and other filoviruses), management of data, tracking of laboratory sample and results data, interpretation of data, and analysis of results. PREDICT's testing success in other countries relies on the use of broadly reactive consensus (genus/family level) RT-PCR supplemented with high throughput sequencing. These powerful tools produce specific, high resolution data allowing for the rapid detection of known and new potential pathogens. In the three most Ebola-affected countries a similar approach will be conducted with a specific focus on filovirus and other priority pathogen detection. Thus, specimens will be collected from the approximately 54,000 animals for testing by both conventional PCR to detect all filoviruses and other priority pathogens, as well as highly specific real-time (qRT-PCR) to detect Zaire ebolavirus, to provide evidence of active infections by PCR-based testing and prior infections by serological tests under development.

BIOSAFETY AND BIOSECURITY:
Biosafety is paramount to successful implementation of One Health disease surveillance activities especially in this 3-country region. Core to PREDICT's approach to zoonotic disease surveillance is an emphasis on strengthening local capacity for safe sample collection, handling, transport, and storage of potentially hazardous and infectious materials across the full-spectrum of surveillance activities. PREDICT has developed protocols and training materials emphasizing biosafety. In addition to providing these training materials to PREDICT in-country staff, partners, and ministry and university stakeholders for use, all individuals participating in sampling or lab activities, irrespective of employer, are required to meet our training and preventive vaccine standards, including district-level medical, veterinary, and wildlife professionals.

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From: Kama Garrison <kgarrison@usaid.gov>
Sent: Thu, 21 Sep 2017 13:55:36 -0400
Subject: Re: Request for information for Breakthrough Action/ Sierra Leone
To: Andrew Clements <aclements@usaid.gov>
Cc: Brian Bird <bhbird@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, "francisco@ecohealthalliance.org" <francisco@ecohealthalliance.org>

Thanks! Done

On Thu, Sep 21, 2017 at 1:53 PM, Andrew Clements <aclements@usaid.gov> wrote:

Thanks, Brian.

I'll let Kama pass these along to B-A.

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Sep 21, 2017, at 5:46 PM, Brian Bird <bhbird@ucdavis.edu> wrote:

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Brian H. Bird DVM, MSPH, PhD

Global Lead Sierra Leone and

Multi-Country Ebola operations

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University of California, Davis

Email: bhbird@ucdavis.edu

Skype: brianhbird1

http://www.vetmed.ucdavis.edu/ohi/predict/index.cfm

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Date: Wednesday, September 20, 2017 at 11:54 AM
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Subject: Request for information for Breakthrough Action/ Sierra Leone

See request below. Thanks!

Andrew P. Clements, Ph.D.

Senior Scientific Advisor

Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health

U.S. Agency for International Development

Mobile phone: 1-571-345-4253

Email: aclements@usaid.gov

Begin forwarded message:

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Date: September 20, 2017 at 6:11:44 PM GMT+2
To: Andrew Clements <AClements@usaid.gov>, Shana Gillette <sgillette@usaid.gov>
Cc: Anton Schneider <aschneider@usaid.gov>
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Kama G. Garrison, MPH
Sr. Social Behavior Change Advisor

USAID/GH/MCHN/RPD

Ph: 571.551.7379
M: REDACTED

<PREDICT Global Flyer[1].pdf>

<PREDICT West Africa - Sierra Leone-Guinea-Liberia-GHSA scoping document_FINAL.pdf>

--
Kama G. Garrison, MPH
Sr. Social Behavior Change Advisor
USAID/GH/MCHN/RPD
Ph: 571.551.7379
M: 703.340.0674

Subject: Re: One Health Platform cooperation request
From: Chris Vanlangendonck [redacted]
Sent: Mon, 25 Sep 2017 19:03:21 +0200
Cc: John Mackenzie [redacted] Jonna Mazet [redacted], Andrew Clements <aclements@usaid.gov>, Ricardo Echalar <rechalar@usaid.gov>, Cassandra Louis Duthil <clouisduthil@usaid.gov>, David De Pooter [redacted]
To: Dennis Carroll <dcarroll@usaid.gov>

Thanks for your reply, Dennis. Looking forward to hearing from Cassandra !
Best regards
Chris

ONE HEALTH PLATFORM
It's all connected
Chris Vanlangendonck
co-founder / management
[redacted]
www.onehealthplatform.com

Op 25 sep. 2017, om 12:44 heeft Dennis Carroll <dcarroll@usaid.gov> het volgende geschreven:

Chris, thanks for the email. I'm pleased to hear preparations for the conference are in "full gear". I welcome the chance to explore how our Predict and P&R teams can be supportive. I have copied Cassandra on our team who can coordinate a time for a phone call that could include Andrew, Ricardo and possibly Jonna. Look forward to talking with you.

d

Dr Dennis Carroll
Director, Emerging Threats Program
U.S. Agency for International Development
Office: (202) 712-5009
Mobile: [redacted]

On Sep 22, 2017, at 11:41 AM, Chris Vanlangendonck [redacted] wrote:

Dear Dennis

On behalf of John and Ab, I would like to pick up our conversation about a possible collaboration between Predict and Preparedness and Response and the One Health Platform.
We are indeed in full gear - organizing our Canada Congress. Several organizations took an option on slots for satellite symposia. We hope we can still include your scientific projects!
It would be our pleasure to set up a TC with you and your colleagues to explore possible pathways of collaboration - if you think that could be useful.

I am very much looking forward to receiving your feedback. Many thanks in advance.

Kind regards

Chris

ONE HEALTH PLATFORM
it's all connected
Chris Vaniangendonck
co-founder / management
REDACTED
www.onehealthplatform.com
<unknown.jpg>

Op 23 jun. 2017, om 20:53 heeft Dennis Carroll <dcarroll@usaid.gov> het volgende geschreven:

Dear John and Ab, my apologies for being so no-responsive. Let me just way Washington is a place to be avoided right now. Its hard to keep ahead, particularly of emails. That said, we would be delighted for Predict and Preparedness and Response (formerly Respond) to construct symposia to be held as satellite symposia. In addition to Jonna I am copying Andrew Clements and Ricardo Echalar to help move this process along. Thank you for the opportunity to engage in this important forum

All my best

dennis

On Tue, May 23, 2017 at 5:00 AM, John Mackenzie <REDACTED> wrote:

Dear Dennis,

I write to follow up on the letter sent to you last month by my colleague, Ab Osterhaus. We are really excited by the 5th congress as the One Health Platform will be hosting it for the first time, and doing so in collaboration with the University of Saskatchewan and our African partners (the Southern African Centre for Infectious Disease Surveillance (SACIDS), One Health CDC Kenya and the One Health Central and Eastern Africa (OHCEA)).

We are very keen to have a strong input into the congress and the scientific program from you and USAID, especially with the PREDICT and RESPOND projects, but not necessarily confined to these projects. With the success of the symposia in Melbourne, I would like to suggest that PREDICT and RESPOND once again construct symposia to be held as satellite symposia. They provide an excellent international window into their respective projects, as well as giving your international partners the opportunity to present their work at a large gathering and to meet and network with others with similar interests.

As Ab mentioned, we are establishing a One Health Fellowship fund which incorporates a 'leaders of tomorrow' concept. While I am certain some of your international partners in PREDICT, RESPOND and other relevant projects will fit into this concept, we would be very grateful for any additional help you could find to help this worthy cause.

I have attached the first announcement and Ab's letter again, for your information, and would like to remind you again of the program construction – the congress will have 4 principal streams: two will be scientific presentations and form the scientific basis of the congress; one will be devoted to antimicrobial resistance, underlining its importance to human health; and the final stream will be concerned with science policy and will be directed at policy makers.

We look forward to hearing from you.

With warm personal regards,

John

Professor John S Mackenzie,

REDACTED

P REDACTED Mob: REDACTED

Begin doorgestuurd bericht:

Van: Ab Osterhaus
REDACTED

Onderwerp: One Health Platform cooperation request

Datum: 20 april 2017 10:47:51 CEST

Aan: Dennis Carroll <dcarroll@usaid.gov>

Kopie: David Heymann < REDACTED >

Dear Dr. Carroll,

Dear Dennis,

I hope this e-mail finds you well.

I'm attaching an official request for collaboration in view of the upcoming 5th International One Health Congress, to be held in Saskatoon, Canada.

Looking forward to getting in touch.

Best regards,

Prof. A.D.M.E. Osterhaus

ONE HEALTH PLATFORM Chair
It's all connected
www.onehealthplatform.com

<OHP_5OHC_bannerMelbourne_press.jpg>

--
Dr. Dennis Carroll
Director, Emerging Threats Program
Bureau for Global Health
U.S. Agency for International Development

Office: 202-712-5009
Mobile: REDACTED

From: Andrew Clements <aclements@usaid.gov>
Sent: Tue, 26 Sep 2017 22:39:16 +0200
Subject: Some possible good news?
To: Jonna Mazet <jkmazet@ucdavis.edu>

Hi Jonna,

Finally, an offer that may be worth your while…

After the NY meeting and the discussion with Thailand about sampling, it occurred to me that USAID is in danger of only partially taking advantage of the incredible collection of specimens being assembled by Predict-2. The fact that the EHP samples won't be tested for other viral families beyond filoviruses, that livestock samples in Africa won't be tested because of the FAO pivot, and that many animal samples won't get tested because of lack of resources seems like a huge waste and undercuts USAID's efforts to better define global risk of emerging pandemic threats.

I mentioned this to Dennis today and he asked if Predict could come back with a proposal of what you would recommend and what the cost would be. Since it likely won't be possible to test everything that Predict has collected and I don't know how much (if any) money we can scrape up for this, it might be best to break things into the following categories (with an estimated total cost for each category)

Highest priority: most likely to generate critical information on risk/spillover
Medium priority: likely to generate key information on risk/spillover
Lowest priority: likely to generate useful information on risk/spillover

For each, include a brief description of what countries, animal species, sample types, viral families, etc. you have in mind and why you think they should be prioritized. Any of the 30 countries Predict works in can be considered at this point.

This doesn't have to be an elaborate exercise so please don't spend a huge amount of time on it. I'm guessing that you, Chris, Tracey, and Simon could fairly quickly identify a short list of candidates and cost it out based on average testing cost. I'm just looking for something shortish (no more than 1 page) describing what, where, and how much so I can present it to Dennis for further consideration. At this point, assume that this additional testing would have to fit within the last 2 years of Predict so please consider which labs have the bandwidth (without any additional lengthy approvals) to take on additional work in the next 24 months if there is additional money. If there are any major hurdles that we should be aware of, please flag those.

How does that sound? No deadline—whenever you can get me something is fine. If you want to discuss more before submitting your proposal, please let me know.

Since this is very preliminary and there is no guarantee of any additional money, let's key this within a small group for now.

Thanks!

Andrew

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Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4753
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2

From:	Katherine Leasure <kaleasure@ucdavis.edu>
To:	'PREDICTMGT' <predictmgt@usaid.gov>
CC:	'Predict inbox' <predict@ucdavis.edu>;'Jonna Mazet' <jkmazet@ucdavis.edu>
Sent:	9/27/2017 8:26:02 PM
Subject:	RE: Change to Approved ITA - D. McIver travel to Laos postponed

Hi Andrew. Just following up to make sure you were are of the below change to David McIver's previously approved Laos ITA, and that the updated dates and TDY form were relayed to the mission. Please let me know if any questions. Thanks!

From: Katherine Leasure [mailto:kaleasure@ucdavis.edu]
Sent: Friday, September 22, 2017 1:19 PM
To: 'PREDICTMGT'
Cc: 'Predict inbox'; 'Jonna Mazet'
Subject: Change to Approved ITA - D. McIver travel to Laos postponed

Hi Andrew. David McIver's departure to Laos has been postponed to September 29. An amended ITA is below, and updated TDY form attached; the field site visit has been removed as partner approval is still pending, but he will keep the meetings he has arranged with the mission. Please let me know if you have any questions. Thanks!

AMENDED ITA:
Metabiota would like to request travel approval for David McIver to travel from Nanaimo, British Colombia, Canada to Vientiane, Laos from September 29 to October 6, 2017 to hold meetings with key program partners to plan the coming year's activities.

Trip purpose: In Vientiane, David will hold a critical meeting with key in-country program partners, including the Ministry of Agriculture and Forestry, the Ministry of Health, and the Food and Agriculture Organization, to discuss the outcomes of the previous year's work in the country and to plan the upcoming activities for the PREDICT program in Year 4. Additionally, David will work with partners from the National Center for Laboratory and Epidemiology to continue ongoing human syndromic surveillance training, to optimize sample transportation plans, and discussion options for community surveillance in the year to come. Furthermore, David will complete a round of data checks on all field data collected in the previous months, ensure laboratory documents are being properly maintained, and perform quality checks on a number of biosafety documents.

PREVIOUS ITA:
Metabiota would like to request travel approval for Dr. David McIver, Asia Regional Coordinator to travel from Nanaimo, British Columbia, Canada to Vientiane, Laos from September 25 to October 6, 2017 to finalize human surveillance training in hospital and community settings, as well as provide additional trainings on animal field data collection.

Trip purpose: In Vientiane, Dr. McIver will finalize trainings for human surveillance for the PREDICT program. This training will occur at the Khong District Hospital, in Champasak Province, and will cover core Ebook modules and CITI trainings, so that members are fully prepared for surveillance implementation. Dr. McIver will cover some re-trainings on the selection and enrollment of participants to the PREDICT program, data collection and interviewing techniques, data upload to the EIDITH database, and biological sample collection in the community setting. During this trip, Dr. McIver will trial the sample shipment logistics that have been planned to retrieve biological samples from the remote Khong District Hospital to the National Center for Laboratory and Epidemiology, in Vientiane.

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

Lao PDR Temporary Duty Information Form (Last update: August 2017)
(send completed form to ehuerta@state.gov, mannsoorm@state.gov, and samaphonem@state.gov)

Submitted by: David McIver, Metabiota Inc.

Dates of travel:	From: 9/29/2017 To: 10/6/2017
TDY objective:	To meet with representatives of DLF, DCDC, and FAO, to provide an update of PREDICT activities in the past year, and to outline the program plans for the upcoming year. In addition, continue discussions with NCLE and Khong District Hospital staff about possibly including community surveillance activities in the upcoming program year. As well, to meet with members of USAID at the US Mission in Vientiane to provide an update on the previous year's activities and detail the plan for the upcoming year.
USAID activity	Zoonotic disease surveillance, capacity building
Individuals visiting Laos (from RDMA, Washington, Implementing Partner):	David McIver, PhD – Metabiota, Inc.
Required meetings to be arranged:	N/A
Site visits required:	N/A
Data to be collected:	N/A
Is a DIP note or letter of introduction requested:	☐ Yes ☒ No *Note: DIP notes are required for site visits and meetings with high-level GOL officials. Names of GOL officials must also be provided.*
Is motor pool requested:	☐ Yes ☒ No
Is Embassy access requested:	☒ Yes ☐ No
Have the visitors met with the AMB/DCM before:	☐ Yes ☒ No
Is Laos staff recommended to accompany all meetings:	☐ Strongly recommended ☒ Optional, but at the Laos Office discretion
Additional Comments:	David McIver, along with Soutiarih Silthammavong, will be pleased to meet with Dr. Andy Corwin, Alex Heurta, and any other interested parties to discuss the ongoing successes of the PREDICT program, and to outline plans for the upcoming implementation year

*Only a limited number of hotels meet Embassy Lao security and safety requirements for eCC travelers. As of August 2017 these are: (1) Lao Plaza Vientiane, (2) Landmark Mekong Riverside, (3) Settha Palace, (4) Dhawara Vientiane, and (5) Crowne Plaza.

From: Andrew Clements <aclements@usaid.gov>
To: Katherine Leasure <kaleasure@ucdavis.edu>
CC: PREDICTMGT <predictmgt@usaid.gov>;Predict inbox <predict@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 9/28/2017 7:31:28 AM
Subject: Re: Change to Approved ITA - D. McIver travel to Laos postponed

Thanks for checking. Yes, I had seen it and the Mission is aware.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Sep 27, 2017, at 10:29 PM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. Just following up to make sure you were are of the below change to David McIver's previously approved Laos ITA, and that the updated dates and TDY form were relayed to the mission. Please let me know if any questions. Thanks!

From: Katherine Leasure [mailto:kaleasure@ucdavis.edu]
Sent: Friday, September 22, 2017 1:19 PM
To: 'PREDICTMGT'
Cc: 'Predict inbox'; 'Jonna Mazet'
Subject: Change to Approved ITA - D. McIver travel to Laos postponed

Hi Andrew. David McIver's departure to Laos has been postponed to September 29. An amended ITA is below, and updated TDY form attached; the field site visit has been removed as partner approval is still pending, but he will keep the meetings he has arranged with the mission. Please let me know if you have any questions. Thanks!

AMENDED ITA:
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Trip purpose: In Vientiane, David will hold a critical meeting with key in-country program partners, including the Ministry of Agriculture and Forestry, the Ministry of Health, and the Food and Agriculture Organization, to discuss the outcomes of the previous year's work in the country and to plan the upcoming activities for the PREDICT program in Year 4. Additionally, David will work with partners from the National Center for Laboratory and Epidemiology to continue ongoing human syndromic surveillance training, to optimize sample transportation plans, and discussion options for community surveillance in the year to come. Furthermore, David will complete a round of data checks on all field data collected in the previous months, ensure laboratory documents are being properly maintained, and perform quality checks on a number of biosafety documents.

PREVIOUS ITA:
Metabiota would like to request travel approval for Dr. David McIver, Asia Regional Coordinator to travel from Nanaimo, British Columbia, Canada to Vientiane, Laos from September 25 to October 6, 2017 to finalize human surveillance training in hospital and community settings, as well as provide additional trainings on animal field data collection.

Trip purpose: In Vientiane, Dr. McIver will finalize trainings for human surveillance for the PREDICT program. This training will occur at the Khong District Hospital, in Champasak Province, and will cover core Ebook modules and CITI trainings, so that members are fully prepared for surveillance implementation. Dr. McIver will cover some re-trainings on the selection and enrollment of participants to the PREDICT program, data

collection and interviewing techniques, data upload to the EIDITH database, and biological sample collection in the community setting. During this trip, Dr. McIver will trial the sample shipment logistics that have been planned to retrieve biological samples from the remote Khong District Hospital to the National Center for Laboratory and Epidemiology, in Vientiane.

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
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530-752-3318 FAX
kaleasure@ucdavis.edu

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To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/02ee01d337ce%24d6cf8030%24846e8090%24%40ucdavis.edu.

From:	Andrew Clements <aclements@usaid.gov>
To:	acorwin@usaid.gov <aconwin@usaid.gov>;Daniel Schar (RDMA/OPH) <dSchar@usaid.gov>;Sudarat Damrongwatanapokin (RDMA/OPH) <sDamrongwatanapokin@usaid.gov>
CC:	PREDICTMGT <predictmgt@usaid.gov>;Predict inbox <predict@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>;Katherine Leasure <kaleasure@ucdavis.edu>
Sent:	10/3/2017 6:06:31 AM
Subject:	Re: Change to Approved ITA - A. Gillis to Laos postponed

FYI

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Oct 2, 2017, at 10:55 PM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. The previously approved travel for Amethyst Gillis to Laos has been postponed as not all of the team and supplies are going to be available for her current dates. Metabiota will be forwarding an amended ITA soon, but I wanted to make you aware of the change given the upcoming departure date. Dave McIver has been in contact with Andy Corwin, so the mission is aware of the delay. Please let me know if you have any questions. Thanks!

Metabiota would like to request travel approval for Amethyst Gillis, Global Laboratory QA/QC Coordinator, to travel from Yaoundé, Cameroon, to Vientiane, Laos from October 8-20, 2017 for technical laboratory trainings.

Trip purpose: In Vientiane, Amethyst will conduct comprehensive technical laboratory trainings for both the National Animal Health Laboratory and the National Center for Laboratory and Epidemiology. These trainings will cover all PREDICT protocols, ranging from sample storage and preparation, extraction, PCR, and preparation of genetic material for sequencing, as well as extensive trainings on biosafety and biosecurity.

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
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kaleasure@ucdavis.edu

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You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
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To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/035e01d33bc0%2493e9a980%24bbbcfc80%24%40ucdavis.edu.

From: "William B. Karesh" <karesh@ecohealthalliance.org>
To: Tracey Goldstein <tgoldstein@ucdavis.edu>
Cc: Simon Anthony <anthony@ecohealthalliance.org>, Predict inbox <predict@ucdavis.edu>
Sent: Thu, 5 Oct 2017 15:34:12 +0000
Subject: [predict] Re: Regional Animal Laboratory Technical Advisory Group Meeting, 20-22 November 2017, Siem Reap, Cambodia

Excellent. I'll send my regrets.
BK

William B. Karesh, D.V.M
Executive Vice President for Health and Policy

EcoHealth Alliance
460 West 34th Street - 17th Floor
New York, NY 10001 USA

+1.212.380.4463 (direct)
+1.212.380.4465 (fax)
www.ecohealthalliance.org

President, OIE Working Group on Wildlife

Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

On Oct 5, 2017, at 11:10 AM, Tracey Goldstein <tgoldstein@ucdavis.edu> wrote:

Yup, I got the invite and will be going.

T

On Thu, Oct 5, 2017 at 7:07 AM, William B. Karesh <karesh@ecohealthalliance.org> wrote:

Tracey, Simon,
Did you get this invite? Can one of you go or suggest someone to send from the region for us?

BK

Begin forwarded message:

From: "MalakulNaAyudhaya, Suvinita (FAORAP)"
<[redacted]>
Subject: **Regional Animal Laboratory Technical Advisory Group Meeting, 20-22 November 2017, Siem Reap, Cambodia**
Date: October 5, 2017 at 2:29:56 AM EDT

To: "karesh@ecohealthalliance.org" <karesh@ecohealthalliance.org>
Cc: "Kalpravidh, Wantanee (FAORAP)" <REDACTED>, "Claes, Filip (FAORAP)" <REDACTED>, "Leesombatpiboon, Yada (FAORAP)" <REDACTED>, "Auisui, Chananut (FAORAP)" <REDACTED>, "MalakulNaAyudhaya, Suvinita (FAORAP)" <REDACTED>

THIS MESSAGE IS SENT ON BEHALF OF MS WANTANEE KALPRAVIDH, REGIONAL MANAGER, EMERGENCY CENTRE FOR TRANSBOUNDARY ANIMAL DISEASES

Dear Dr Karesh,

I am pleased to inform you that the Food Agriculture Organization of the United Nations, (FAO) will organize the 2017 Regional Animal Health Laboratory Technical Advisory Group (Lab-TAG) Meeting during 20 – 22 November 2017, in Siem Reap, Cambodia.

The specific objectives of the meeting are to:

1. Evaluate the current diagnostic methods used in ASEAN for priority diseases and novel emerging infections and provide advice on changes to the diagnostic methods when needed.
2. Develop an action plan for laboratory policy development in the region
3. Develop an action plan to evaluate or implement laboratory information management systems in the region
4. Provide updates on the ongoing regional programs for lab capacity building (Quality Assurance, Biosafety, Bioinformatics) and progress made by regional leading laboratories
5. Develop a harmonized lab capacity strengthening plan for 2018-2019 among the relevant partners

Recognizing the significant role of your organization in the Regional Laboratory Network, we would like to invite you to participate and provide inputs in this meeting. A concept note including tentative programme is attached to this invitation for your reference. The organizer will support meeting facilities, lunch, and refreshments during the meeting period for all participants. Travel, accommodation, and other expenses are at participants' own cost.

We would appreciate receiving the confirmation of your agreement by **27 October 2017** by reply directly to Dr Filip Claes with copy to Ms Yada Leesombatpiboon via email at REDACTED and REDACTED. Other details related to the travel and meetings will be sent directly to the invitee once we receive confirmation of the attendance.

Thank you and we look forward to hearing from you soon.

Yours sincerely,
Wantanee Kalpravidh

Wantanee Kalpravidh, DVM, PhD
Regional Manager
Emergency Center for Transboundary Animal Diseases (ECTAD)
Food and Agriculture Organization of the United Nations (FAO)
Regional Office for Asia and the Pacific (RAP)
REDACTED
Tel: REDACTED
Fax: REDACTED
Email: REDACTED

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Tracey Goldstein, PhD
One Health Institute
School of Veterinary Medicine
University of California
Davis, CA 95616
Phone: (530) 752-0412
Fax: (530) 752-3318
E-mail: tgoldstein@ucdavis.edu

From: Andrew Clements <aclements@usaid.gov>
To: Katherine Leasure <kaleasure@ucdavis.edu>
CC: PREDICTMGT <predictmgt@usaid.gov>;Predict inbox <predict@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 10/10/2017 7:23:36 AM
Subject: Re: PREDICT International Travel Requests

All approved subject to mission concurrence.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Oct 10, 2017, at 12:33 AM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Please find below international travel requests for your review and approval. Please let me know if you have any questions. TDY forms are attached for David McIver and Karen Saylors' requested travel to Laos. Thanks!

1. Keatts (Cambodia): $2500 airfare/$236 (Phnom Penh) max daily per diem
2. Kelly (Ghana): $2000 airfare/$331 (Accra) max daily per diem
3. Goldstein (Thailand, Cambodia): $4,300 airfare/$246 (Bangkok), $251 (Siem Reap) max daily per diems
4. McIver (Laos): $1400 airfare/$212 (Vientiane) max daily per diem
5. Saylors (Laos): $700 airfare/$212 (Vientiane) max daily per diem
6. Valitutto (Myanmar): $4000 airfare/$287 (Yangon) max daily per diem

Travel Requests –

1. UC Davis would like to request approval for Dr. Lucy Keatts to travel from Washington DC, USA to Phnom Penh, Cambodia from November 5-12, 2017 to participate in training, data analyses, coordination meetings and field surveillance in support of the PREDICT country-coordinator for Cambodia.

Trip Purpose: Dr. Keatts will travel to Cambodia to conduct a training for PREDICT team members, work on data analysis, and to meet with government and non-governmental partners regarding coordination of PREDICT-2 sampling activities. Dr Keatts will oversee and offer technical guidance for the concurrent sampling of human, livestock and wildlife planned for November 8-12 2017 at the rodent trade hub in Kandal Province.

2. UC Davis would like to request approval for Dr. Terra Kelly to travel from Flagstaff, AZ, USA to Accra, Ghana from November 12-19, 2017 to meet with implementing partners, and conduct training for the PREDICT human surveillance team.

Trip purpose: Dr. Kelly will be traveling to Accra and Boabeng-Fiema to meet with PREDICT implementing partners and visit hospitals and clinics that will be implementing the human disease surveillance activities. Dr. Kelly will also be conducting training for PREDICT human disease surveillance partners on data entry and management in the EIDITH database for laboratory results reporting.

3. UC Davis would like to request travel approval for Dr. Tracey Goldstein to travel from Sacramento, CA, USA, to Siem Reap, Cambodia from November 17-22, 2017 for the FAO Laboratory Technical Advisory Group (Lab-TAG) meeting.

Trip purpose: Dr. Goldstein has been invited to attend the 2017 Laboratory Technical Advisory Group meeting in Siem Reap, coordinated by FAO. ** Thailand has been included on the ITA, as Dr. Goldstein will need to stay overnight in Bangkok while transiting to/from the meeting location.*

4. Metabiota would like to request travel approval for Dr. David McIver, PREDICT Asia Regional Coordinator, to travel from Nanaimo, British Columbia, Canada, to Vientiane, Laos from November 4-12, 2017 to attend the Lao PDR USAID EPT-2 partners meeting, and visit the PREDICT Lao PDR field site for ethnographic interview training and conduction.

Trip purpose: In Vientiane, Drs. McIver and Saylors will attend the Lao PDR USAID EPT-2 partners meeting, which will involve representatives from PREDICT, P&R, One Health Workforce, FAO, the Department of Livestock and Fisheries, Ministry of Health, and USAID Lao PDR. After the EPT-2 meeting, Drs. McIver and Saylors will travel to Champasak Province to hold a training on ethnographic interviewing, and to conduct a number of these interviews in Na Pa Kieb village and the local wildlife market.

5. Metabiota would like to request travel approval for Dr. Karen Saylors, Director of Scientific Operations, to travel from San Francisco, CA, USA to Vientiane, Laos from November 4-12, 2017 to attend the Lao PDR USAID EPT-2 partners meeting, and visit the PREDICT Lao PDR field site for ethnographic interview training and conduction.

Trip purpose: In Vientiane, Drs. McIver and Saylors will attend the Lao PDR USAID EPT-2 partners meeting, which will involve representatives from PREDICT, P&R, One Health Workforce, FAO, the Department of Livestock and Fisheries, Ministry of Health, and USAID Lao PDR. After the EPT-2 meeting, Drs. McIver and Saylors will travel to Champasak Province to hold a training on ethnographic interviewing, and to conduct a number of these interviews in Na Pa Kieb village and the local wildlife market.

6. The Smithsonian Institution would like to request travel approval for Dr. Marc Valitutto to travel from Washington, DC, USA to Yangon, Myanmar for the period of December 2-17, 2017 to monitor surveillance activities, meet with in-country lab partners, and conduct a PREDICT-related study involving bat collaring.

Trip purpose: The purpose of the trip is for routine monitoring of in-country surveillance activities for the dry season, and to meet with in-country lab partners who are commencing analysis. Dr. Valitutto will also be conducting a PREDICT- related study involving bat collaring in association with a focus surveillance site.

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

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You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
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To post to this group, send email to predictmgt@usaid.gov.
To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/02b501d3414e%2430a3e4d0%2491eb4e70%24%40ucdavis.edu.

From: "William B. Karesh" <karesh@ecohealthalliance.org>
To: "Claes, Filip (FAORAP)" <REDACTED>, Sophie Von dobschuetz <REDACTED>
Cc: "Morzaria, Subhash (TCE <REDACTED>, Predict inbox <predict@ucdavis.edu>, Amanda Andre <amanda.andre@ecohealthalliance.org>, Katherine Leasure <kaleasure@ucdavis.edu>, Wantanee Kalpravidh <REDACTED> Peter Black <REDACTED>
Sent: Wed, 11 Oct 2017 19:11:06 +0000
Subject: [predict] Re: PREDICT All Country meeting January 9,10,11 2018

Invitation_von Dobschuetz 2018 P-2 all country.pdf
ATT00001.htm
Invitation_Claes 2018 P-2 all country.pdf
ATT00002.htm

Dear Filip and Sophie,
Please find attached invitation letters to the PREDICT all country meeting. I do not yet know the name of the hotel or facility where the meeting will be held in Brussels, but we will update you as soon as we know.

Billy

EcoHealth Alliance

Formerly known as Wildlife Trust

October 11, 2017

Dr. Sophie von Dobschuetz, DVM, PhD, MSc
Animal Health Service
Food and Agriculture Organization of the United Nations

RE: Letter of invitation to attend the USAID EPT-2 PREDICT-2 All Country Biennial meeting

Dear Dr. von Dobschuetz,

We would like to officially invite you to attend the USAID Emerging Pandemic Threats-2 PREDICT-2 All Country Biennial meeting in **Brussels, Belgium from January 9-11, 2018**. This 3-day meeting will bring together PREDICT-2 project staff from all of the countries in which the project is operating to discuss project progress to date, to optimize and refine future activities, and reinforce on-going collaborations with partner organizations such as FAO.

A few of the expected activities and outcomes from this workshop include:

- review and report on global level project activities;
- review and report on country level project activities;
- strengthen communication across country programs and partners and reaffirm lines of communication among global partners for field activities and data reporting;
- recommendations for programmatic data collection and sharing adjustments if needed.

If you and your FAO colleagues could plan to provide a presentation on FAO's EPT2 activities, this would be greatly appreciated.

As FAO is a USAID funded EPT-2 program partner, we are assuming your travel expenses can and will be provided through the FAO project. Please do let us know if special considerations for your participation are necessary.

We hope you are able to attend and we look forward to seeing you there.

Sincerely,

William B. Karesh
EPT Partners Liaison, USAID Emerging Pandemic Threats — PREDICT-2 Program
Executive Vice President for Health and Policy, EHA

karesh@ecohealthalliance.org; 212.380.4463

Local conservation.
Global health.

EcoHealth Alliance
460 West 34th Street, 17th Floor
New York, NY 10001-2320
212.380.4460

EcoHealthAlliance.org

EcoHealth Alliance

Formerly known as Wildlife Trust

October 11, 2017

Dr. Filip Claes
Regional Laboratory Coordinator Emergency Centre for Transboundary Animal Disease
Food and Agriculture Organization of the United Nations

RE: Letter of invitation to attend the USAID EPT-2 Program Data Sharing meeting

Dear Dr. Claes,

We would like to officially invite you to attend the USAID Emerging Pandemic Threats-2 PREDICT-2 All Country Biennial meeting in **Brussels, Belgium from January 9-11, 2018**. This 3-day meeting will bring together PREDICT-2 project staff from all of the countries in which the project is operating to discuss project progress to date, to optimize and refine future activities, and reinforce on-going collaborations with partner organizations such as FAO.

A few of the expected activities and outcomes from this workshop include:

- review and report on global level project activities;
- review and report on country level project activities;
- strengthen communication across country programs and partners and reaffirm lines of communication among global partners for field activities and data reporting;
- recommendations for programmatic data collection and sharing adjustments if needed.

If you and your FAO colleagues could plan to provide a presentation on FAO's EPT2 activities, this would be greatly appreciated.

As FAO is a USAID funded EPT-2 program partner, we are assuming your travel expenses can and will be provided through the FAO project. Please do let us know if special considerations for your participation are necessary.

We hope you are able to attend and we look forward to seeing you there.

Sincerely,

William B. Karesh
EPT Partners Liaison, USAID Emerging Pandemic Threats --- PREDICT-2 Program
Executive Vice President for Health and Policy, EHA
karesh@ecohealthalliance.org; 212.380.4463

Local conservation.
Global health.

EcoHealth Alliance
460 West 34th Street, 17th Floor
New York, NY 10001-2320
212.380.4460

EcoHealthAlliance.org

From: Katherine Leasure <kaleasure@ucdavis.edu>
To: 'PREDICTMGT' <predictmgt@usaid.gov>
CC: predict@ucdavis.edu <predict@ucdavis.edu>;'Jonna Mazet' <jkmazet@ucdavis.edu>
Sent: 10/17/2017 9:33:15 PM
Subject: Change to Approved ITA - K. Saylors to Laos/Vietnam

Hi Andrew. Please find below an amended ITA for Karen Saylors travel to Laos (currently pending USAID Laos concurrence). She will be traveling from Laos to Vietnam for PREDICT, as WCS has requested Karen's assistance with human surveillance training for their team. I've included the amended and previous ITA below; changes highlighted in yellow. Please let me know if you have any questions. Thanks!

AMENDED ITA:
Metabiota would like to request travel approval for Dr. Karen Saylors, Director of Scientific Operations to travel from San Francisco, CA, USA to Vientiane, Laos from November 4-11, 2017 to attend the Lao PDR USAID EPT-2 partners meeting, and then travel to the PREDICT Lao PDR field site for ethnographic interview training and conduction. From Vientiane, Laos, she will travel to Hanoi, Vietnam from November 11-18, 2017, for qualitative training with the Wildlife Conservation Society team.

Trip purpose: Laos - In Vientiane, Drs. McIver and Saylors will attend the Lao PDR USAID EPT-2 partners meeting, which will involve representatives from PREDICT, P&R, One Health Workforce, FAO, the Department of Livestock and Fisheries, Ministry of Health, and USAID Lao PDR. After the EPT-2 meeting, Drs. McIver and Saylors will travel to Champasak province, Lao PDR, to hold a training on ethnographic interviewing and to conduct a number of these interviews in Na Pa Kieb village and the local wildlife market. Vietnam - Dr. Saylors will assist the Wildlife Conservation Society team with qualitative human surveillance training and then go to Ho Chi Minh City and Dong Nai for a field visit and provision of ethics training, general protocol guidelines training and human surveillance questionnaire training. *[*1,300 airfare/$212 (Vientiane), $278 (Hanoi), $306 (Ho Chi Minh City), $207 (Dong Nai) max daily per diems]*

PREVIOUS ITA:
Metabiota would like to request travel approval for Dr. Karen Saylors, Director of Scientific Operations, to travel from San Francisco, CA, USA to Vientiane, Laos from November 4-12, 2017 to attend the Lao PDR USAID EPT-2 partners meeting, and visit the PREDICT Lao PDR field site for ethnographic interview training and conduction.

Trip purpose: In Vientiane, Drs. McIver and Saylors will attend the Lao PDR USAID EPT-2 partners meeting, which will involve representatives from PREDICT, P&R, One Health Workforce, FAO, the Department of Livestock and Fisheries, Ministry of Health, and USAID Lao PDR. After the EPT-2 meeting, Drs. McIver and Saylors will travel to Champasak Province to hold a training on ethnographic interviewing, and to conduct a number of these interviews in Na Pa Kieb village and the local wildlife market.

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

From: "Black, Peter (FAORAP)" <Peter.Black@fao.org>
To: Bounlom DOUANGNGEUN [redacted]
Cc: Sithong Phihakhavong [redacted], Andrew Corwin <corwinal@state.gov>, "Bounheuang, Kounnavong" <BounheuangK@state.gov>, Bounthanom [redacted], Amphai from Nclc [redacted] watthana theppangna [redacted], "predict@ucdavis.edu" <predict@ucdavis.edu>, David McIver <dmciver@metabiota.com>, "Katpravidh, Wantanee (FAORAP)" [redacted], "Chanthavisouk, Chintana (FAOLA)" [redacted]
Sent: Fri, 20 Oct 2017 06:16:15 +0000
Subject: [predict] RE: Lao PDR PREDICT Partner's Meeting Notes - Oct. 3, 2017

Dear Dr Bounloum

Apologies for my slow reply.

I have taken note of the outcome of the internal consultation meeting (held on 13 October) that you shared with us.

We are currently reviewing options here within ECTAD RAP and we hope to respond more fully in the next week.

Best regards,
Peter

From: David McIver [mailto:dmciver@metabiota.com]
Sent: 14 October, 2017 01:19
To: Bounlom DOUANGNGEUN [redacted]
Cc: Sithong Phihakhavong [redacted]; Andrew Corwin <corwinal@state.gov>; Bounheuang, Kounnavong <BounheuangK@state.gov>; Bounthanom [redacted]; Amphai from Nclc [redacted] watthana theppangna [redacted] Black, Peter (FAORAP) [redacted] predict@ucdavis.edu
Subject: Re: Lao PDR PREDICT Partner's Meeting Notes - Oct. 3, 2017

Dear Dr. Bounlom,

Thank you very much for sharing these important updates with us. I do hope that this work is able to be put back on track, and full synchronized wildlife and livestock surveillance can continue in Champasak Province.

Thank you,
Dave

—
David McIver, PhD
PREDICT Asia Regional Coordinator | Epidemiologist
Metabiota

e: dmciver@metabiota.com
c: [redacted]

CONFIDENTIALITY NOTICE: The information contained in this electronic mail (email) transmission (including attachments), is intended by Metabiota for the use of the named individual or entity to which it is addressed and may contain information that is privileged or otherwise confidential. It is not intended for transmission to, or receipt by, any individual or entity other than the named addressee except as otherwise expressly permitted in this email transmission. If you have received this email in error, please delete it without copying or forwarding it, and notify the sender of the error by email reply.

On Oct 13, 2017, at 1:21 AM, Bounlom DOUANGNGEUN [redacted] wrote:

Dear Dr. David McIver,

Thank you very much for your ind sharing report of Predict II partner meeting held on October 3, 2017 at the NAHL. In this response, I would like to send the outcome of the internal consultation meeting held today morning at the NAHL as appeared in the attached file herewith for your reference.

Kind regards,

Bounlom Douangngeun

On Fri, Oct 13, 2017 at 3:30 AM, David McIver <dmciver@metabiota.com> wrote:

Hello everyone,

It was great to meet with you all last week to discuss the progress of the PREDICT program to date, and to talk over the plans for the upcoming year of work. Please find the meeting notes with a participant list attached here for your reference. If you have any comments or questions regarding the notes, please feel free to get in touch with me and I can make any necessary edits.

Thank you very much,

Dave

—
David McIver, PhD
PREDICT Asia Regional Coordinator | Epidemiologist
Metabiota

e: dmciver@metabiota.com
c: REDACTED

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<Internal Consultation Report.docx>

From: Benard Ssebide REDACTED
Sent: Tue, 28 Nov 2017 09:39:04 +0300
To: PREDICT-outbreak <predict-outbreak@ucdavis.edu>
Cc: Kirsten Gilardi <kvgilardi@ucdavis.edu>, Mike Cranfield REDACTED
Subject: [predict] [predict-outbreak] RVF Outbreak in Uganda
PREDICT Report - Uganda RVF Outbreak - 27 Nov 2017.docx

Dear PREDICT Outbreak Team,
Find attached the Outbreak Report Form completed with what we know as of yesterday November 27th regarding the RVF outbreak in Uganda. I will update the report as new information comes in.

Regards,

Dr Benard Jasper Ssebide
Country Head Veterinarian
GORILLA DOCTORS - UGANDA
www.gorilladoctors.org *Saving a Species One Gorilla at a Time*

Uganda Country Coordinator
USAID Grantee | PREDICT-2 Project | Emerging Pandemic Threats (EPT) Program

REDACTED
REDACTED

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PREDICT OUTBREAK RAPID REPORT

Today's Date: 27th November 2017
Cumulative day of the outbreak investigation: [PREDICT not involved with investigation]
Working Title of Investigation: Rift Valley Fever Outbreak in Uganda – Nov 2017

Please describe the disease signs and symptoms and species affected (humans, domesticated animals, wildlife:

The Ugandan government declared on Friday 24th Nov 2017 that an outbreak of Rift Valley fever (RVF) in the central districts of Mityana and Kiboga had killed 2 people. Blood samples taken from 2 dead patients in Mityana and Kiboga tested positive for RVF. The 2 were a 26 year-old male forest ranger, who died on 16th Nov 2017, and a 69 year -male farmer and fisherman, who died on 21st Nov 2017. Currently, there are no animal (wildlife and domestic) cases reported.

Location	
Country:	Uganda
District:	Mityana and Kiboga Districts
Village/Town:	
GPS Coordinates (if known):	
Date that first case(s) of illness occurred (if known or estimate):	
Date that PREDICT was first notified of outbreak:	Official notification came through a Government press statement on 24th November 2017.

Key Information	Description of Findings/Actions/Outcomes
How many affected individuals?	Human: Suspected: 0 Confirmed: 2 Deaths: 2 Domestic animal: Suspected___ Confirmed__Deaths: Wild animal: Suspected___ Confirmed___Deaths:
How was outbreak first noticed?	First death: 16 Nov Second death: 21 Nov
Where was the first reported case? What is/was the extent of geographic spread? Include comments on the apparent speed of spread.	First government report: 27 Nov
Has the country requested support from PREDICT (include date of request)?	No official request yet. The NTF has sent a rapid response team to support the district staff contain the outbreak.
If so, which government agency requested PREDICT support?	n/a
When was PREDICT response initiated (date)?	n/a
Are other EPT partners involved in the response (which ones and how)?	Unknown
What type of assistance did PREDICT initially	n/a

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provide? Which PREDICT personnel were involved?	
When was the first official acknowledgement of the outbreak (by which government agency or other reputable body and date)? When was a response initiated and by whom? Which agencies were involved? Who was in charge of the national response?	- Uganda Virus Research Institute laboraotry confirmation was done on 21st November 2017. - Official government declaration was done on 24th November 2017 by the Ministry of Health.
Was the cause of the outbreak confirmed by a laboratory? If so, give details, including cause, species, specimen types tested and dates of testing if known.	- Uganda Virus Research Institute confirmed the outbreak of RVF on 21st November 2017.
Where was the laboratory testing performed (name of laboratory)?	- Sample processing and testing was done at the Uganda Virus Research Institute.
Number of days between initiation of government response and lab confirmation of laboratory results.	- Response was initiated after laboratory confirmation
Summary of the Outbreak:	**To be filled after active outbreak activity has ceased**
Working name of the outbreak (e.g., Yellow Fever – DRC)	
Total number of cases:	**Human: Suspected_____ Confirmed_ Deaths_____** **Domestic animal: Suspected_____ Confirmed_ Deaths_____ Wild animal: Suspected_ Confirmed_____Deaths_____**
Summary of PREDICT Team response activities during the outbreak.	

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PREDICT Response Timeline

Working Title of Investigation: Rift Valley Fever Outbreak in Uganda – Nov 2017

Key Events:

Date	Day #	Notification or Action Taken
16th Nov 2017	1	26 year old forest ranger dies of undiagnosed hemorrhagic disease in Kiboga. Samples taken and submitted to UVRI
21st Nov 2017	5	69 year old male farmer and fisherman dies of undiagnosed hemorrhagic disease in Mityana. Samples submitted to UVRI.
21st Nov 2017	5	Samples from 1st suspect case test positive for RVF at UVRI
24th Nov 2017	8	Samples from 2nd suspect case test positive for RVF at UVRI
24th Nov 2017	8	Ministry of Health declares RVF outbreak in Uganda

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Section 8.4 Appendix III. Outbreak Assistance Checklist

Outbreak Assistance Task Checklist	Date completed or updated
1. Start Outbreak Rapid Report Form and Response Timeline (Appendices I and II)	27th Nov 2017
2. Confirm PREDICT assistance responsibilities and coordinate with partners	
a. Reviewed the PREDICT outbreak response guidance.	27th Nov 2017
b. Discussed PREDICT assistance role with PREDICT partner lead.	
c. Confirmed PREDICT roles with PREDICT leadership.	
d. Confirmed PREDICT roles at request of national authorities. (Please list the roles agreed upon for the PREDICT team.)	
e. Confirmed role as member or advisor to National Task Force if appropriate.	
f. Coordinated with EPT partners if appropriate. Please list all partners and persons contacted and activities coordinated in this section.	
3. Prepare for fieldwork	
a. Assembled appropriate SOPs covering the samples and data to be collected.	
b. Received necessary permission/clearance for activities (e.g., wildlife and livestock sampling permits, IRB approval, mission orders).	
c. Developed contingency plan with contacts for staff evacuation and treatment.	
d. Purchased and assembled all field and cold chain supplies. (Consult with the PREDICT partner lead to prioritize and balance outbreak response and ongoing PREDICT project supplies/activities.)	
e. Made payment arrangements for field staff and materials.	
f. Made vehicle and driver arrangements.	
g. Considered accommodation and other travel arrangements for fieldwork.	
h. Contacted laboratories to prepare for receiving samples. (Confirmation of possible Select Agent pathogens must be done in an appropriate facility. Please contact the Pathogen Detection Team (predict-outbreak@ucdavis.edu) if you have any questions).	
4. Monitoring and reporting during the course of the outbreak	
a. Update written summary of PREDICT assistance activities and results daily (PREDICT Outbreak Rapid Report Form and Outbreak Response Timeline in Appendices I and II).	
b. Check with Task Force or appropriate ministry for latest outbreak updates (daily or frequent communications).	

c. Set schedule for and provide daily updates to PREDICT leadership.	
5. Handling and tracking samples	
a. Designated a sample manager.	
b. Designated laboratory for sample testing.	
c. Assured proper cold chain transport and storage of samples.	
d. Recorded and entered sample data into EIDITH.	
e. Obtained EXPORT permit(s) from National authorities if samples are to be exported.	
f. Obtained IMPORT permit(s) from recipient laboratories if samples are to be exported.	
g. Shipped samples. List recipient laboratories.	
6. Communicate field investigations or surveillance findings to national task force (or lead ministry)	
a. Share results with Pathogen Detection lead to assist with preparation of finding report b. Prepared findings report draft.	
b. Obtained PREDICT Leadership and Executive Board review and approval of findings.	
c. Deliver findings report to national task force or lead ministry.	
7. Other tasks as needed (list any other needed tasks that are important for the specific outbreak assistance effort).	
8. Post -outbreak review and plan update.	
a. Facilitated post-outbreak review of PREDICT team's implementation of the case investigation, surveillance, communications, coordination and other activities during the outbreak.	
b. Updated PREDICT Outbreak Response Plan based on lessons learned from this outbreak.	

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In-country Government Outbreak Contact Worksheet

Public health ministry or department:

Name: Dr. Issa Makumbi
Email: REDACTED
Cell phone:

Livestock ministry or department:

Name: Dr. Rose Ademun
Email: REDACTED
Cell phone: REDACTED

Wildlife/Environment ministry or department:

Name: Dr. Patrick Atimnedi
Email: REDACTED
Cell phone: REDACTED

OIE focal point:

Name: _____
Organization: _____
Email: _____
Cell phone: _____

IHR focal point:

Name: _____
Organization: _____
Email: _____
Cell phone: _____

FAO:

Name: Dr. Fredrick Kivaria
Email: REDACTED
Cell phone:

WHO:

Name: Dr. Miriam Nanyunja
Email: REDACTED
Cell phone:

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EPT ONE HEALTH WORKFORCE Project:

Name: Dr. Irene Naigaga
Organization: OHCEA
Email: REDACTED
Cell phone:

EPT PREPAREDNESS and RESPONSE Project:

Name: Dr. Winyi Kaboyo
Organization: DAI
Email: REDACTED
Cell phone:

Other Important Contacts:

Name: _____
Organization: _____
Email: _____
Cell phone: _____

Name: _____
Organization: _____
Email: _____
Cell phone: _____

Name: _____
Organization: _____
Email: _____
Cell phone: _____

USAID UC DAVIS VETERINARY MEDICINE WCS EcoHealth Alliance METABIOTA

From: Andrew Clements <aclements@usaid.gov>
To: Jonna Mazet <jkmazet@ucdavis.edu>;David J Wolking <djwolking@ucdavis.edu>
CC: Pereira, Alisa (GH/HIDN) <apereira@usaid.gov>;Shana Gillette <sgillette@usaid.gov>;Amalhin Shek <ashek@usaid.gov>
Sent: 12/7/2017 8:43:11 PM
Subject: Predict GHSA Country Allocations

See below for some key information related to the question of shifting Ebola funds among countries. Short answer, total flexibility except for DRC and Ghana.

---------- Forwarded message ----------
From: **Richard Greene** <rgreene@usaid.gov>
Date: Thu, Dec 7, 2017 at 8:39 PM
Subject: Re: Predict GHSA Country Allocations
To: Andrew Clements <aclements@usaid.gov>
Cc: "Boyer, Robbin B (GH/SPBO/OPS)" <RBoyer@usaid.gov>

Sorry, the combined maximum on DRC and Ghana ($24 million total) remains since the funding of these phase 2 countries were a one-time exception.
Thanks for catching that.

On Thu, Dec 7, 2017 at 2:28 PM, Andrew Clements <aclements@usaid.gov> wrote:
Thanks. So just to be clear, no maximum or minimum funding levels for Ghana, DRC, or any other Ebola-funded country?

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Dec 7, 2017, at 4:53 PM, Richard Greene <rgreene@usaid.gov> wrote:

Hi Andrew,
There is flexibility on the country levels with the proviso that we are expected to maintain credible levels for the 3 Ebola affected countries which shouldnt be a problem since these are the countries that would get an increase under the redistribution.
Thanks
Richard

On Thu, Dec 7, 2017 at 5:05 AM, Andrew Clements <aclements@usaid.gov> wrote:
Thanks, Richard.

You mentioned the other day that the country caps are no longer in effect which sounded to me like Predict now has total freedom to propose adjustments to any country level for USAID consideration. Is that correct?

I will need a clear answer to this question before I can have a discussion with Predict regarding the reassignment of funds as you suggested.

Andrew P. Clements, Ph.D.

Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Dec 7, 2017, at 12:18 AM, Richard Greene <rgreene@usaid.gov> wrote:

Hi Andrew,
The recent Predict 2 country financial reports indicate that Guinea, Sierra Leone, and Liberia may run low of resources in the first part of calendar year 2018. In view of the $25.907 million remaining balance (as of September 30, 2017) from the $53.3 million obligated, we suggest that Predict 2 and the AOR propose a redistribution of existing funds to facilitate the completion of planned activities in these countries by the program end date. Please let us know if you have any questions.
Thanks
Richard and Robbin

---------- Forwarded message ----------
From: **Richard Greene** <rgreene@usaid.gov>
Date: Tue, Jul 18, 2017 at 1:28 PM
Subject: Predict GHSA Country Allocations
To: Andrew Clements <aclements@usaid.gov>
Cc: "Boyer, Robbin B (GH/SPBO/OPS)" <RBoyer@usaid.gov>, "Carroll, Dennis(GH/HIDN)" <DCarroll@usaid.gov>, Alisa Pereira <apereira@usaid.gov>

Hi Andrew,
Please inform Predict of the attached revised GHSA country allocations.
Please include the following language in your email.

Predict should notify the AOR in writing whenever it has reason
to believe that any Predict supported country (funded by GHSA emergency
Ebola funds) will exceed 75 percent of the total amount so far
allotted to the country in the attached revised budget. This will
allow USAID to consider appropriate action (including possible further
revision of the country totals), if deemed appropriate by the Agency.
Best
Richard

(571) 551-7364
rgreene@usaid.gov

Richard S. Greene
Senior Infectious Disease Strategy Advisor

Office of Health, Infectious Diseases, and Nutrition
Bureau for Global Health
USAID
Tel: (571) 551-7364
E-mail: rgreene@usaid.gov

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Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-243-4213
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/ept2

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Andrew Clements <aclements@usaid.gov>
CC: David J Wolking <djwolking@ucdavis.edu>;Pereira, Alisa (GH/HIDN) <apereira@usaid.gov>;Shana Gillette <sgillette@usaid.gov>;Amalhin Shek <ashek@usaid.gov>;predict@ucdavis.edu <predict@ucdavis.edu>
Sent: 12/7/2017 10:43:44 PM
Subject: Re: Predict GHSA Country Allocations

Dear Andrew,
We appreciate the clarification. We still need confirmation as to whether you are instructing us to use money slated for other countries in Yr 5 to complete the under-funded Ebola Host Project. My concern is that the promised additional funding for the Ebola Host Project will be delayed or will not come through, and then we have to tell Uganda (or pick whatever country whose funds we use) that they have to shut-down early.
Please advise and confirm that you understand the implications of this potential unintended consequence.
We do appreciate that we will not be held any longer to the previously-imposed country caps, except for the $9M (allocated to P-2) for DRC & Ghana combined, and the minimums assigned for the three Ebola Host Project countries.
Please confirm this understanding as well, so that I can proceed with 100% confidence.
Thank you,
Jonna

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U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

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allow USAID to consider appropriate action (including possible further
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Best
Richard

(571) 551-7364

rgreene@usaid.gov

Richard S. Greene
Senior Infectious Disease Strategy Advisor
Office of Health, Infectious Diseases, and Nutrition
Bureau for Global Health
USAID
Tel: (571) 551-7364
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Bureau for Global Health
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E-mail: rgreene@usaid.gov

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For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/ept2

From: Andrew Clements <aclements@usaid.gov>
To: Jonna Mazet <jkmazet@ucdavis.edu>;djwolking@ucdavis.edu <djwolking@ucdavis.edu>
CC: predictmgt@usaid.gov <predictmgt@usaid.gov>
Sent: 12/12/2017 5:13:23 PM
Subject: Fwd: Predict GHSA Country Allocations

Hi Jonna and David,

I think this is as close as we're going to get to the possibility of more Ebola money if you run out after redistributing based on country pipelines.

So go ahead a propose a redistribution. In the event that funds run out later and no new funds are made available, USAID will assume full responsibility for explaining to countries and staff why we this is happening.

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

Begin forwarded message:

From: Andrew Clements <aclements@usaid.gov>
Date: December 12, 2017 at 7:07:04 PM GMT+1
To: Richard Greene <rgreene@usaid.gov>
Cc: "Boyer, Robbin" <rboyer@usaid.gov>, PREDICTMGT <predictmgt@usaid.gov>, "Carroll, Dennis(GH/HIDN)" <DCarroll@usaid.gov>
Subject: Re: Predict GHSA Country Allocations

Thanks. I read this as confirming that it may be possible to add addition funding if warranted as you described.

Please do not get fixated on the current pipeline and monthly burn rate since they are not accurate reflections of what Predict can do. Predict has been slowed down by delays in OAA approving sub-awards and the ceiling increase (which is linked to sub-award approval). Once that finally clears, I expect a jump in the project's expenditure rate.

Andrew

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On Dec 12, 2017, at 5:03 PM, Richard Greene <rgreene@usaid.gov> wrote:

Hi Andrew,

Please note that as of September 30, $25.9 million remains unexpended in the GHSA portion of the P2 cooperative agreement, about 50% of the total obligated amount with less than two years of

operation remaining. Under USAID incremental funding guidance, this pipeline situation, at this time, would not justify additional incremental funding or a reduction in the scope of work of the agreement.

Now that there is flexibility in country levels, this will allow P2 to propose how it can optimally utilize its available funding to meet its objectives. If the pipeline in comparison to the time remaining warrants, USAID, consistent with our July 18 email, will consider appropriate action. In reviewing your recent expenditure reports, there is considerable pipeline in a number of countries that could be used in the near-term to draw down the project's large pipeline and get you closer to a point where normal incremental funding could be considered.

Please let us know if you have additional questions.

Richard

Robbin

On Fri, Dec 8, 2017 at 2:34 AM, Andrew Clements <aclements@usaid.gov> wrote:
Hi Richard and Robbin,

Please confirm that you are okay with the possible consequences of PREDICT shutting down other country programs early if (1) funds are shifted over to the EHP countries and (2) no further Ebola funds are obligated if the current funds run out.

I will not ask PREDICT to proceed until I hear back from you.

Andrew

---------- Forwarded message ----------
From: **Jonna Mazet** <jkmazet@ucdavis.edu>
Date: Fri, Dec 8, 2017 at 12:43 AM
Subject: Re: Predict GHSA Country Allocations
To: Andrew Clements <aclements@usaid.gov>
Cc: David J Wolking <djwolking@ucdavis.edu>, "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>, Shana Gillette <sgillette@usaid.gov>, Amalhia Shek <ashek@usaid.gov>, "predict@ucdavis.edu" <predict@ucdavis.edu>

Dear Andrew,
We appreciate the clarification. We still need confirmation as to whether you are instructing us to use money slated for other countries in Yr 5 to complete the under-funded Ebola Host Project. My concern is that the promised additional funding for the Ebola Host Project will be delayed or will not come through, and then we have to tell Uganda (or pick whatever country whose funds we use) that they have to shut-down early.
Please advise and confirm that you understand the implications of this potential unintended consequence.
We do appreciate that we will not be held any longer to the previously-imposed country caps, except for the $9M (allocated to P-2) for DRC & Ghana combined, and the minimums assigned for the three Ebola Host Project countries.
Please confirm this understanding as well, so that I can proceed with 100% confidence.
Thank you,
Jonna

--
Richard S. Greene
Senior Infectious Disease Strategy Advisor
Office of Health, Infectious Diseases, and Nutrition
Bureau for Global Health

USAID
Tel: (571) 551-7364
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From: Andrew Clements <aclements@usaid.gov>
Sent: Wed, 3 Jan 2018 02:48:48 -0600
Subject: MERS-CoV paper
To: Dennis Carroll <dcarroll@usaid.gov>, "Subhash Morzaria (FAORAP)" [redacted], Kevin Olival PhD <olival@ecohealthalliance.org>, Jon Epstein <epstein@ecohealthalliance.org>, William Karesh <Karesh@ecohealthalliance.org>, jparish@usaid.gov, Jonna Mazet <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, [redacted] "Ahmed Elidrissi (AGAH)" [redacted] [redacted] dawson@ecohealthalliance.org

Attachment
MERS Spillover at human-animal interface_173211.full.pdf

FYI in case you haven't seen this

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MERS-CoV spillover at the camel-human interface

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[1]Vaccine and Infectious Disease Division, Fred Hutchinson Cancer Research Center, Seattle, WA, USA, [2]Institute of Evolutionary Biology, University of Edinburgh, Edinburgh, UK, [3]Fogarty International Center, National Institutes of Health, Bethesda, MD, USA

December 20, 2017

Abstract

Middle East respiratory syndrome coronavirus (MERS-CoV) is a zoonotic virus from camels causing significant mortality and morbidity in humans in the Arabian Peninsula. The epidemiology of the virus remains poorly understood, and while case-based and seroepidemiological studies have been employed extensively throughout the epidemic, viral sequence data have not been utilised to their full potential. Here we use existing MERS-CoV sequence data to explore its phylodynamics in two of its known major hosts, humans and camels. We employ structured coalescent models to show that long-term MERS-CoV evolution occurs exclusively in camels, whereas humans act as a transient, and ultimately terminal host. By analysing the distribution of human outbreak cluster sizes and zoonotic introduction times we show that human outbreaks in the Arabian peninsula are driven by seasonally varying zoonotic transfer of viruses from camels. Without heretofore unseen evolution of host tropism, MERS-CoV is unlikely to become endemic in humans.

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Introduction

Middle East respiratory syndrome coronavirus (MERS-CoV), endemic in camels in the Arabian Peninsula, is the causative agent of zoonotic infections and limited outbreaks in humans. The virus, first discovered in 2012 (Zaki et al., 2012; Bolsenmen et al., 2012), has caused more than 2000 infections and over 700 deaths, according to the World Health Organization (WHO) (World Health Organization, 2017). Its epidemiology remains obscure, largely because infections are observed among the most severely affected individuals, such as older males with comorbidities (Assiri et al., 2013a; The WHO MERS-CoV Research Group, 2013). While contact with camels is often reported, other patients do not recall contact with any livestock, suggesting an unobserved community contribution to the outbreak (The WHO MERS-CoV Research Group, 2013). Previous studies on MERS-CoV epidemiology have used serology to identify factors associated with MERS-CoV exposure in potential risk groups (Reusken et al., 2015, 2013). Such data have shown high seroprevalence in camels (Müller et al., 2014; Corman et al., 2014; Chu et al., 2014; Reusken et al., 2013, 2014) and evidence of contact with MERS-CoV in workers with occupational exposure to camels (Reusken et al., 2015; Müller et al., 2015). Separately, epidemiological modelling approaches have been used to look at incidence reports through time, space and across hosts (Cauchemez et al., 2016).

Although such epidemiological approaches yield important clues about exposure patterns and potential for larger outbreaks, much inevitably remains opaque to such approaches due to difficulties in linking cases into transmission clusters in the absence of detailed information. Where sequence data are relatively cheap to produce, genomic epidemiological approaches can fill this critical gap in outbreak scenarios (Liu et al., 2013; Gire et al., 2014; Grubaugh et al., 2017). These data often yield a highly detailed picture of an epidemic when complete genome sequencing is performed consistently and appropriate metadata collected (Dudas et al., 2017). Sequence data can help discriminate between multiple and single source scenarios (Gire et al., 2014; Quick et al., 2015), which are fundamental to quantifying risk (Grubaugh et al., 2017). Sequencing MERS-CoV has been performed as part of initial attempts to link human infections with the camel reservoir (Memish et al., 2014), nosocomial outbreak investigations (Assiri et al., 2013b) and routine surveillance (Park et al., 2015). A large portion of MERS-CoV sequences come from outbreaks within hospitals, where sequence data have been used to determine whether infections were isolated introductions or were part of a larger hospital-associated outbreak (Fagbo et al., 2015). Similar studies on MERS-CoV have taken place at broader geographic scales, such as cities (Cotten et al., 2013).

It is widely accepted that recorded human MERS-CoV infections are a result of at least several introductions of the virus into humans (Cotten et al., 2013) and that contact with camels is a major risk factor for developing MERS, per WHO guidelines (World Health Organization, 2016). Previous studies attempting to quantify the actual number of spillover infections have either relied on case-based epidemiological approaches (Cauchemez et al., 2016) or employed methods agnostic to signals of population structure within sequence data (Zhang et al., 2016). Here we use a dataset of 274 MERS-CoV genomes to investigate transmission patterns of the virus between humans and camels.

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Here, we use an explicit model of metapopulation structure and migration between discrete subpopulations, referred to here as demes (Vaughan et al., 2014), derived from the structured coalescent (Notohara, 1990). Unlike approaches that model host species as a discrete phylogenetic trait of the virus using continuous-time Markov processes (or simpler, parsimony based, approaches) (Faria et al., 2013; Lycett et al., 2016), population structure models explicitly incorporate contrasts in deme effective population sizes and migration between demes. By estimating independent coalescence rates for MERS-CoV in humans and camels, as well as migration patterns between the two demes, we show that long-term viral evolution of MERS-CoV occurs exclusively in camels. Our results suggest that spillover events into humans are seasonal and might be associated with the calving season in camels. However, we find that MERS-CoV, once introduced into humans, follows transient transmission chains that soon abate. Using Monte Carlo simulations we show that R_0 for MERS-CoV circulating in humans is much lower than the epidemic threshold of 1.0 and that correspondingly the virus has been introduced into humans hundreds of times.

Results

MERS-CoV is predominantly a camel virus

The structured coalescent approach we employ (see Methods) identifies camels as a reservoir host where most of MERS-CoV evolution takes place (Figure 1), while human MERS outbreaks are transient and terminal with respect to long-term evolution of the virus (Figure S1). Across 174 MERS-CoV genomes collected from humans, we estimate a median of 56 separate camel-to-human cross-species transmissions (95% highest posterior density (HPD): 48–63). While we estimate a median of 3 (95% HPD: 0–12) human-to-camel migrations, the 95% HPD interval includes zero and we find that no such migrations are found in the maximum clade credibility tree (Figure 1). Correspondingly, we observe substantially higher camel-to-human migration rate estimates than human-to-camel migration rate estimates (Figure S2). This inference derives from the tree structure wherein human viruses appear as clusters of highly related sequences nested within the diversity seen in camel viruses, which themselves show significantly higher diversity and less clustering. This manifests as different rates of coalescence with camel viruses showing a scaled effective population size $N_e\tau$ of 3.49 years (95% HPD: 2.71–4.38) and human viruses showing a scaled effective population of 0.24 years (95% HPD: 0.14–0.34).

We believe that the small number of inferred human-to-camel migrations are induced by the migration rate prior, while some are derived from phylogenetic proximity of human sequences to the apparent "backbone" of the phylogenetic tree. This is most apparent in lineages in early-mid 2013 that lead up to sequences comprising the MERS-CoV clade dominant in 2015, where owing to poor sampling of MERS-CoV genetic diversity from camels the model cannot completely dismiss humans as a potential alternative host. The first sequences of MERS-CoV from camels do not appear in our data until November 2013. Our finding of negligible human-to-camel transmission is robust to choice of prior (Figure S2).

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Figure 1. Typed maximum clade credibility tree of MERS-CoV genomes from 174 human viruses and 100 camel viruses. Maximum clade credibility (MCC) tree showing inferred ancestral hosts for MERS-CoV recovered with the structured coalescent. The vast majority of MERS-CoV evolution is inferred to occur in camels (orange) with human outbreaks (blue) representing evolutionary dead-ends for the virus. Confidence in host assignment is depicted as a colour gradient, with increased uncertainty in host assignment (posterior probabilities close to 0.5) shown as grey. While large clusters of human cases are apparent in the tree, significant contributions to human outbreaks are made by singleton sequences, likely representing recent cross-species transmissions that were caught early.

The repeated and asymmetric introductions of short-lived clusters of MERS-CoV sequences from camels into humans leads us to conclude that MERS-CoV epidemiology in humans is dominated by zoonotic transmission (Figure 1 and S1). We observe dense terminal clusters of MERS-CoV circulating in humans that are of no subsequent relevance to the evolution of the virus. These clusters of presumed human-to-human transmission are then embedded within extensive diversity of MERS-CoV lineages inferred to be circulating in camels, a classic pattern of source-sink dynamics. Our findings suggest that instances of human infection with MERS-CoV are more common than currently thought, with exceedingly short transmission chains mostly limited to primary cases that might be mild and ultimately not detected by surveillance or sequencing. Structured coalescent analyses recover the camel-centered picture of MERS-CoV evolution despite sequence data heavily skewed towards non-uniformly sampled human cases and are robust to choice of prior. Comparing

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these results with a currently standard discrete trait analysis (Lemey et al., 2009) approach for ancestral state reconstruction shows dramatic differences in host reconstruction at internal nodes (Figure S3). Discrete trait analysis reconstruction identifies both camels and humans as important hosts for MERS-CoV persistence, but with humans as the ultimate source of camel infections. A similar approach has been attempted previously (Zhang et al., 2016), but this interpretation of MERS-CoV evolution disagrees with lack of continuing human transmission chains outside of Arabian peninsula, low seroprevalence in humans and very high seroprevalence in camels across Saudi Arabia. We suspect that this particular discrete trait analysis reconstruction is false due to biased data, *i.e.* having nearly twice as many MERS-CoV sequences from humans ($n = 174$) than from camels ($n = 100$) and the inability of the model to account for and quantify vastly different rates of coalescence in the phylogenetic vicinity of both types of sequences. We can replicate these results by either applying the same model to current data (Figure S3) or by enforcing equal coalescence rates within each deme in the structured coalescent model (Figure S4).

MERS-CoV shows seasonal introductions

We use the posterior distribution of MERS-CoV introduction events from camels to humans (Figure 1) to model seasonal variation in zoonotic transfer of viruses. We identify four months (April, May, June, July) when the odds of MERS-CoV introductions are increased (Figure 2) and four when the odds are decreased (August, September, November, December). Camel calving is reported to occur from October to February (Almutairi et al., 2010), with rapidly declining maternal antibody levels in calves within the first weeks after birth (Wernery, 2001). It is possible that MERS-CoV sweeps through each new camel generation once critical mass of susceptibles is reached (Martinez-Bakker et al., 2014), leading to a sharp rise in prevalence of the virus in camels and resulting in increased force of infection into the human population. Strong influx of susceptibles and subsequent sweeping outbreaks in camels may explain evidence of widespread exposure to MERS-CoV in camels from seroepidemiology (Müller et al., 2014; Corman et al., 2014; Chu et al., 2014; Reusken et al., 2013, 2014).

Although we find evidence of seasonality in zoonotic spillover timing, no such relationship exists for sizes of human sequence clusters (Figure 2B). This is entirely expected, since little seasonality in human behaviour that could facilitate MERS-CoV transmission is expected following an introduction. Similarly, we do not observe any trend in human sequence cluster sizes over time (Figure 2B, Spearman $\rho = 0.06$, $p = 0.68$), suggesting that MERS-CoV outbreaks in humans are neither growing nor shrinking in size. This is not surprising either, since MERS-CoV is a camel virus that has to date, experienced little-to-no selective pressure to improve transmissibility between humans.

MERS-CoV is poorly suited for human transmission

Structured coalescent approaches clearly show humans to be a terminal host for MERS-CoV, implying poor transmissibility. However, we wanted to translate this observation into an estimate of the basic reproductive number R_0 to provide an intuitive epidemic

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Figure 2. Seasonality of MERS-CoV introduction events. A) Posterior density estimates partitioned by month showing the 95% highest posterior density interval for relative odds ratios of MERS-CoV introductions into humans. Posterior means are indicated with circles. Evidence for increased or decreased risk (95% HPD excludes 1.0) for introductions are indicated by black or white circles, respectively. Hatched area spanning October to February indicates the camel calving season. B) Sequence cluster sizes and inferred dates of introduction events. Each introduction event is shown as a vertical line positioned based on the median introduction time, as recovered by structured coalescent analyses and coloured by time of year with height indicating number of descendant sequences recovered from human cases. 95% highest posterior density intervals for introductions of MERS-CoV into humans are indicated with coloured lines, coloured by median estimated introduction time. The black dotted line indicates the joint probability density for introductions. We find little correlation between date and size of introduction (Spearman $\rho = 0.06$, $p = 0.68$).

behaviour metric that does not require expertise in reading phylogenies. The parameter R_0 determines expected number of secondary cases in a single infections as well as the distribution of total cases that result from a single introduction event into the human population (Equation 1, Methods). We estimate R_0 along with other relevant parameters via Monte Carlo simulation in two steps. First, we simulate case counts across multiple outbreaks totaling 2000 cases using Equation 1 and then we subsample from each case cluster to simulate sequencing of a fraction of cases. Sequencing simulations are performed via a multivariate hypergeometric distribution, where the probability of sequencing from a particular cluster depends on available sequencing capacity (number of trials), numbers of cases in the cluster (number of successes) and number of cases outside the cluster (number of failures). In addition, each hypergeometric distribution used to simulate sequencing is concentrated via a bias parameter, that enriches for large sequence clusters at the expense of smaller ones (for its effects see Figure S5). This is a particularly pressing issue, since a priori we expect large hospital outbreaks of MERS to be overrepresented in sequence data, whereas sequences from primary cases will be sampled exceedingly rarely. We record the

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number, mean, standard deviation and skewness (third standardised moment) of sequence cluster sizes in each simulation (left-hand panel in Figure 3) and extract the subset of Monte Carlo simulations in which these summary statistics fall within the 95% highest posterior density observed in the empirical MERS-CoV data from structured coalescent analyses. We record R_0 values, as well as the number of case clusters (equivalent to number of zoonotic introductions), for these empirically matched simulations. A schematic of this Monte Carlo procedure is shown in Figure S6. Since the total number of cases is fixed at 2000, higher R_0 results in fewer larger transmission clusters, while lower R_0 results in many smaller transmission clusters.

Figure 3. Monte Carlo simulations of human transmission clusters. Leftmost scatter plot shows the distribution of individual Monte Carlo simulation sequence cluster size statistics (mean and skewness) coloured by the R_0 value used for the simulation. The dotted rectangle identifies the 95% highest posterior density bounds for sequence cluster size mean and skewness observed for empirical MERS-CoV data. The distribution of R_0 values that fall within 95% HPDs for sequence cluster size mean, standard deviation, skewness and number of introductions, is shown in the middle, on the same y-axis. Bins falling inside the 95% percentiles are coloured by R_0, as in the leftmost scatter plot. The distribution of total number of introductions associated with simulations matching MERS-CoV sequence clusters is shown on the right. Darker shade of grey indicates bins falling within the 95% percentiles. Monte Carlo simulations indicate R_0 for MERS-CoV in humans is likely to be below 1.0, with numbers of zoonotic transmissions numbering in the hundreds.

We find that observed phylogenetic patterns of sequence clustering strongly support R_0 below 1.0 (middle panel in Figure 3). Mean R_0 value observed in matching simulations is 0.72 (95% percentiles 0.57–0.90), suggesting the inability of the virus to sustain transmission in humans. Lower values for R_0 in turn suggest relatively large numbers of zoonotic transfers of viruses into humans (right-hand panel in Figure 3). Median number of cross-species introductions observed in matching simulations is 592 (95% percentiles 311-811). Our results suggest a large number of unobserved MERS primary cases. Given this, we also performed simulations where the total number of cases is doubled to 4000 to explore the impact of dramatic underestimation of MERS cases. In these analyses R_0 values tend to decrease even further as numbers of introductions go up, although very few simulations match currently observed MERS-CoV sequence data (Figure S7).

Overall, our analyses indicate that MERS-CoV is poorly suited for human-to-human transmission, with an estimated $R_0 < 0.90$ and sequence sampling likely to be biased towards large hospital outbreaks (Figure S5). All matching simulations exhibit highly skewed distributions of case cluster sizes with long tails (Figure S8), which is qualitatively similar to the results of (Cauchemez et al., 2016). We find that simulated sequence cluster sizes resemble observed sequence cluster sizes in the posterior distribution, with a slight

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Figure 4. Recombinant features of MERS-CoV phylogenies. A) Marginal posterior probabilities of taxa collected from humans belonging to the same clade in phylogenies derived from different parts of the genome. Taxa are ordered according to phylogeny of fragment 2 (genome positions 21001 to 29364) reduced to just the human tips and is displayed on the left. Human clusters are largely well-supported as monophyletic and consistent across trees of both genomic fragments. B) Tanglegram connecting the same taxa between a phylogeny derived from fragment 1 (left, genome positions 1 to 21000) and fragment 2 (right, genome positions 21001 to 29364), reduced to just the human tips and branches with posterior probability < 0.1 collapsed. Human clusters exhibit limited diversity and corresponding low levels of incongruence within an introduction cluster.

reduction in mid-sized clusters in simulated data (Figure S9). Given these findings, and the fact that large outbreaks of MERS occurred in hospitals, the combination of frequent spillover of MERS-CoV into humans and occasional outbreak amplification via poor hygiene practices (Assiri et al., 2013b; Chen et al., 2017) appear sufficient to explain observed epidemiological patterns of MERS-CoV.

Recombination shapes MERS-CoV diversity

Recombination has been shown to occur in all genera of coronaviruses, including MERS-CoV (Lai et al., 1985; Makino et al., 1986; Keck et al., 1988; Kottier et al., 1995; Herrewegh et al., 1998). In order to quantify the degree to recombination has shaped MERS-CoV genetic diversity we used two recombination detection approaches across partitions of taxa corresponding to inferred MERS-CoV clades. Both methods rely on sampling parental and recombinant alleles within the alignment, although each quantifies different signals of recombination. One hallmark of recombination is the ability to carry alleles derived via mutation from one lineage to another, which appear as repeated mutations taking place in the recipient lineage, somewhere else in the tree. The PHI (pairwise homoplasy index) test quantifies the appearance of these excessive repeat mutations (homoplasies) within an alignment (Bruen et al., 2006). Another hallmark of recombination is clustering of alleles along the genome, due to how template switching, the primary mechanism of recombination in RNA viruses, occurs. 3Seq relies on the clustering of nucleotide similarities along the genome between sequence triplets – two potential parent-donors and one candidate offspring-recipient sequences (Boni et al., 2007).

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Both tests can give spurious results in cases of extreme rate heterogeneity and sampling over time (Dudas and Rambaut, 2016), but both tests have not been reported to fail simultaneously. PHI and 3Seq methods consistently identify most of the apparent 'backbone' of the MERS-CoV phylogeny as encompassing sequences with evidence of recombination (Figure S10). Neither method can identify where in the tree recombination occurred, but each full asterisk in Figure S10 should be interpreted as the minimum partition of data that still captures both donor and recipient alleles involved in a recombination event. This suggests a non-negligible contribution of recombination in shaping existing MERS-CoV diversity. As done previously (Dudas and Rambaut, 2016), we show large numbers of homoplasies in MERS-CoV data (Figure S11) with some evidence of genomic clustering of such alleles. These results are consistent with high incidence of MERS-CoV in camels (Müller et al., 2014; Corman et al., 2014; Chu et al., 2014; Reusken et al., 2014; Ali et al., 2017), allowing for co-infection with distinct genotypes and thus recombination to occur.

Owing to these findings, we performed a sensitivity analysis in which we partitioned the MERS-CoV genome into two fragments and identified human outbreak clusters within each fragment. We find strong similarity in the grouping of human cases into outbreak clusters between fragments (Figure 4A). Between the two trees in figure 4B four (out of 54) 'human' clades are expanded where either singleton introductions or two-taxon clades in fragment 2 join other clades in fragment 1. For the reverse comparison there are five 'human' clades (out of 53) in fragment 2 that are expanded. All such clades have low divergence (figure 4B) and thus incongruences in human clades are more likely to be caused by differences in deme assignment rather than actual recombination. And while we observe evidence of distinct phylogenetic trees from different parts of the MERS-CoV genome (Figure 4B), human clades are minimally affected and large portions of the posterior probability density in both parts of the genome are concentrated in shared clades (Figure S12). Additionally, we observe the same source-sink dynamics between camel and human populations in trees constructed from separate genomic fragments as were observed in the original full genome tree (Figures 1, 4B).

Observed departures from strictly clonal evolution suggest that while recombination is an issue for inferring MERS-CoV phylogenies, its effect on the human side of MERS outbreaks is minimal, as expected if humans represent a transient host with little opportunity for co-infection. MERS-CoV evolution on the reservoir side is complicated by recombination, though is nonetheless still largely amenable to phylogenetic methods. Amongst other parameters of interest, recombination is expected to interfere with molecular clocks, where transferred genomic regions can give the impression of branches undergoing rapid evolution, or branches where recombination results in reversions appearing to evolve slow. In addition to its potential to influence tree topology, recombination in molecular sequence data is an erratic force with unpredictable effects. We suspect that the effects of recombination in MERS-CoV data are reigned in by a relatively small effective population size of the virus in Saudi Arabia (see next section) where haplotypes are fixed or nearly fixed, thus preventing an accumulation of genetic diversity that would then be reshuffled via recombination. Nevertheless, we choose not to report on any particular estimates for times of common ancestors (tMRCAs), even though these are expected to be somewhat robust for dating human clusters, and we do not report on the evolutionary rate of the virus, even though it appears to fall firmly within the expected range for RNA viruses: regression of nucleotide

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differences to Jordan-N3/2012 genome against sequence collection dates yields a rate of 4.59×10^{-4} subs/site/year, Bayesian structured coalescent estimate from primary analysis 9.57×10^{-4} (95% HPDs: $8.28 - 10.9 \times 10^{-4}$) subs/site/year.

MERS-CoV shows population turnover in camels

Here we attempt to investigate MERS-CoV demographic patterns in the camel reservoir. We supplement camel sequence data with a single earliest sequence from each human cluster, treating viral diversity present in humans as a sentinel sample of MERS-CoV diversity circulating in camels. This removes conflicting demographic signals sampled during human outbreaks, where densely sampled closely related sequences from humans could be misconstrued as evidence of demographic crash in the viral population.

Figure 5. Demographic history of MERS-CoV in Arabian peninsula camels. Demographic history of MERS-CoV in camels, as inferred via a skygrid coalescent tree prior (Gill et al., 2013). Three skygrid reconstructions are shown, red and orange for each of the stationary distributions reached by MCMC with the whole genome and a black one where the genome was split into ten partitions. Shaded interval indicates the 95% highest posterior density interval for the product of generation time and effective population size, $N_e\tau$. Midline tracks the inferred median of $N_e\tau$.

Despite lack of convergence, neither of the two demographic reconstructions show evidence of fluctuations in the relative genetic diversity ($N_e\tau$) of MERS-CoV over time (Figure 5). We recover a similar demographic trajectory when estimating $N_e\tau$ over time with a skygrid tree prior across the genome split into ten fragments with independent phylogenetic trees to account for confounding effects of recombination (Figures 5, S13). However, we do note that coalescence rate estimates are high relative to the sampling time period, with a mean estimate of $N_e\tau$ at 3.49 years (95% HPD: 2.71–4.38), and consequently MERS-CoV phylogeny resembles a ladder, as often seen in human influenza A virus phylogenies (Bedford et al., 2011).

This empirically estimated effectived population can be compared to the expected effective population size in a simple epidemiological model. At endemic equilibrium, we expect

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scaled effective population size $N_e\tau$ to follow $I/2\beta$, where β is the equilibrium rate of transmission and I is the equilibrium number of infecteds (Frost and Volz, 2010). We assume that β is constant and is equal to the rate of recovery. Given a 20 day duration of infection in camels (Adney et al., 2014), we arrive at $\beta = 365/20 = 18.25$ infections per year. Given extremely high seroprevalence estimates within camels in Saudi Arabia (Müller et al., 2014; Corman et al., 2014; Chu et al., 2014; Reusken et al., 2013, 2014), we expect camels to usually be infected within their first year of life. Therefore we can estimate the rough number of camel infections per year as the number of calves produced each year. We find there are 830 000 camels in Saudi Arabia (Abdallah and Faye, 2013) and that female camels in Saudi Arabia have an average fecundity of 45% (Abdallah and Faye, 2013). Thus, we expect $830\,000 \times 0.50 \times 0.45 = 186\,750$ new calves produced yearly and correspondingly 186 750 new infections every year, which spread over 20 day intervals gives an average prevalence of $I = 10\,233$ infections. This results in an expected scaled effective population size $N_e\tau = 280.4$ years.

Comparing expected $N_e\tau$ to empirical $N_e\tau$ we arrive at a ratio of 80.3 (64.0–103.5). This is less than the equivalent ratio for human measles virus (Bedford et al., 2011) and is in line with the expectation from neutral evolutionary dynamics plus some degree of transmission heterogeneity (Volz et al., 2013) and seasonal troughs in prevalence. Thus, we believe that the ladder-like appearance of the MERS-CoV tree can likely be explained by entirely demographic factors.

Discussion

MERS-CoV epidemiology

In this study we aimed to understand the drivers of MERS coronavirus transmission in humans and what role the camel reservoir plays in perpetuating the epidemic in the Arabian peninsula by using sequence data collected from both hosts (174 from humans and 100 from camels). We showed that currently existing models of population structure (Vaughan et al., 2014) can identify distinct demographic modes in MERS-CoV genomic data, where viruses continuously circulating in camels repeatedly jump into humans and cause small outbreaks doomed to extinction (Figures 1, S1). This inference succeeds under different choices of priors for unknown demographic parameters (Figure S2) and in the presence of strong biases in sequence sampling schemes (Figure 3). When rapid coalescence in the human deme is not allowed (Figure S4) structured coalescent inference loses power and ancestral state reconstruction is nearly identical to that of discrete trait analysis (Figure S3). When allowed different deme-specific population sizes, the structured coalescent model succeeds because a large proportion of human sequences fall into tightly connected clusters, which informs a low estimate for the population size of the human deme. This in turn informs the inferred state of long ancestral branches in the phylogeny, *i.e.* because these long branches are not immediately coalescing, they are most likely in camels.

From sequence data we identify at least 50 zoonotic introductions of MERS-CoV into humans from the reservoir (Figure 1), from which we extrapolate that hundreds more

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such introductions must have taken place (Figure 3). Although we recover migration rates from our model (Figure S2), these only pertain to sequences and in no way reflect the epidemiologically relevant *per capita* rates of zoonotic spillover events. We also looked at potential seasonality in MERS-CoV spillover into humans. Our analyses indicated a period of three months where the odds of a sequenced spillover event are increased, with timing consistent with an enzootic amongst camel calves (Figure 2). As a result of our identification of large and asymmetric flow of viral lineages into humans we also find that the basic reproduction number for MERS-CoV in humans is well below the epidemic threshold (Figure 3). Having said that, there are highly customisable coalescent methods available that extend the methods used here to accommodate time varying migration rates and population sizes, integrate alternative sources of information and fit to stochastic nonlinear models (Rasmussen et al., 2014), which would be more appropriate for MERS-CoV. Some distinct aspects of MERS-CoV epidemiology could not be captured in our methodology, such as hospital outbreaks where R_0 is expected to be consistently closer to 1.0 compared to community transmission of MERS-CoV. Outside of coalescent-based models there are population structure models that explicitly relate epidemiological parameters to the branching process observed in sequence data (Kühnert et al., 2016), but often rely on specifying numerous informative priors and can suffer from MCMC convergence issues.

Strong population structure in viruses often arises through limited gene flow, either due to geography (Dudas et al., 2017), ecology (Smith et al., 2009) or evolutionary forces (Turner et al., 2005; Dudas et al., 2015). On a smaller scale population structure can unveil important details about transmission patterns, such as identifying reservoirs and understanding spillover trends and risk, much as we have done here. When properly understood naturally arising barriers to gene flow can be exploited for more efficient disease control and prevention, as well as risk management.

Transmissibility differences between zoonoses and pandemics

Severe acute respiratory syndrome (SARS) coronavirus, a Betacoronavirus like MERS-CoV, caused a serious epidemic in humans in 2003, with over 8000 cases and nearly 800 deaths. Since MERS-CoV was also able to cause significant pathogenicity in the human host it was inevitable that parallels would be drawn between MERS-CoV and SARS-CoV at the time of MERS discovery in 2012. Although we describe the epidemiology of MERS-CoV from sequence data, indications that MERS-CoV has poor capacity to spread human-to-human existed prior to any sequence data. SARS-CoV swept through the world in a short period of time, but MERS cases trickled slowly and were restricted to the Arabian Peninsula or resulted in self-limiting outbreaks outside of the region, a pattern strongly indicative of repeat zoonotic spillover. Infectious disease surveillance and control measures remain limited, so much like the SARS epidemic in 2003 or the H1N1 pandemic in 2009, zoonotic pathogens with $R_0 > 1.0$ are probably going to be discovered after spreading beyond the original location of spillover. Even though our results show that MERS-CoV does not appear to present an imminent global threat, we would like to highlight that its epidemiology is nonetheless concerning.

Pathogens *Bacillus anthracis*, Andes hantavirus (Martinez et al., 2005), monkeypox (Reed

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et al., 2001) and influenza A are able to jump species barriers but only influenza A viruses have historically resulted in pandemics (Lipsitch et al., 2016). MERS-CoV may join the list of pathogens able to jump species barriers but not spread efficiently in the new host. Since its emergence in 2012, MERS-CoV has caused self-limiting outbreaks in humans with no evidence of worsening outbreaks over time. However, sustained evolution of the virus in the reservoir and continued flow of viral lineages into humans provides the substrate for a more transmissible variant of MERS-CoV to possibly emerge. Previous modeling studies (Antia et al., 2003; Park et al., 2013) suggest a positive relationship between initial R_0 in the human host and probability of evolutionary emergence of a novel strain which passes the supercritical threshold of $R_0 > 1.0$. This leaves MERS-CoV in a precarious position; on one hand its current R_0 of ~0.7 is certainly less than 1, but its proximity to the supercritical threshold raises alarm. With very little known about the fitness landscape or adaptive potential of MERS-CoV, it is incredibly challenging to predict the likelihood of the emergence more transmissible variants. In light of these difficulties, we encourage continued genomic surveillance of MERS-CoV in the camel reservoir and from sporadic human cases to rapidly identify a supercritical variant, if one does emerge.

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Methods

Sequence data

All MERS-CoV sequences were downloaded from GenBank and accession numbers are given in Table S1. Sequences without accessions were kindly shared by Ali M. Somily, Mazin Barry, Sarah S. Al Subaie, Abdulaziz A. BinSaeed, Fahad A. Alzamil, Waleed Zaher, Theeb Al Qahtani, Khaldoon Al Jerian, Scott J.N. McNabb, Imad A. Al-Jahdali, Ahmed M. Alotaibi, Nahid A. Batarfi, Matthew Cotten, Simon J. Watson, Spela Binter, and Paul Kellam prior to publication. Fragments of some strains submitted to GenBank as separate accessions were assembled into a single sequence. Only sequences covering at least 50% of MERS-CoV genome were kept, to facilitate later analyses where the alignment is split into two parts in order to account for effects of recombination (Dudas and Rambaut, 2016). Sequences were annotated with available collection dates and hosts, designated as camel or human, aligned with MAFFT (Katoh and Standley, 2013), and edited manually. Protein coding sequences were extracted and concatenated, reducing alignment length from 30130 down to 29364, which allowed for codon-partitioned substitution models to be used. The final dataset consisted of 174 genomes from human infections and 100 genomes from camel infections (Table S1).

Phylogenetic analyses

Primary analysis, structured coalescent

For our primary analysis, the MultiTypeTree module (Vaughan et al., 2014) of BEAST v2.4.3 (Bouckaert et al., 2014) was used to specify a structured coalescent model with two demes – humans and camels. At time of writing structured population models are available in BEAST v2 (Bouckaert et al., 2014) but not in BEAST v1 (Drummond et al., 2012). We use the more computationally intensive MultiTypeTree module (Vaughan et al., 2014) over approximate methods also available in BEAST v2, such as BASTA (Maio et al., 2015), MASCOT (Mueller et al., 2017), and PhyDyn (Volz, 2011). Structured coalescent model implemented in the MultiTypeTree module (Vaughan et al., 2014) estimates four parameters: rate of coalescence in human viruses, rate of coalescence in camel viruses, rate of migration from the human deme to the camel deme and rate of migration from the camel deme to the human deme. Analyses were run on codon position partitioned data with two separate HKY+Γ_4 (Hasegawa et al., 1985; Yang, 1994) nucleotide substitution models specified for codon positions 1+2 and 3. A relaxed molecular clock with branch rates drawn from a lognormal distribution (Drummond et al., 2006) was used to infer the evolutionary rate from date calibrated tips. Default priors were used for all parameters except for migration rates between demes for which an exponential prior with mean 1.0 was used. All analyses were run for 200 million steps across ten independent Markov chains (MCMC runs) and states were sampled every 20 000 steps. Due to the complexity of multitype tree parameter space 50% of states from every analysis were discarded as burn-in, convergence assessed in Tracer v1.6 and states combined using LogCombiner distributed with BEAST v2.4.3 (Bouckaert et al., 2014). Three chains out of ten did not converge

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and were discarded altogether. This left 70 000 states on which to base posterior inference. Posterior sets of typed (where migrating branches from structured coalescent are collapsed, and migration information is left as a switch in state between parent and descendant nodes) trees were summarised using TreeAnnotator v2.4.3 with the common ancestor heights option (Heled and Bouckaert, 2013). A maximum likelihood phylogeny showing just the genetic relationships between MERS-CoV genomes from camels and humans was recovered using PhyML (Guindon et al., 2003) under a HKY+Γ_4 (Hasegawa et al., 1985; Yang, 1994) nucleotide substitution model and is shown in Figure S14.

Control, structured coalescent with different prior

As a secondary analysis to test robustness to choice of prior, we set up an analysis where we increased the mean of the exponential distribution prior for migration rate to 10.0. All other parameters were identical to the primary analysis and as before 10 independent MCMC chains were run. In this case, two chains did not converge. This left 80 000 states on which to base posterior inference. Posterior sets of typed trees were summarised using TreeAnnotator v2.4.3 with the common ancestor heights option (Heled and Bouckaert, 2013).

Control, structured coalescent with equal deme sizes

To better understand where statistical power of the structured coalescent model lies we set up a tertiary analysis where a model was set up identically to the first structured coalescent analysis, but deme population sizes were enforced to have the same size. This analysis allowed us to differentiate whether statistical power in our analysis is coming from effective population size contrasts between demes or the backwards-in-time migration rate estimation. Five replicate chains were set up, two of which failed to converge after 200 million states. Combining the three converging runs left us with 15 000 trees sampled from the posterior distribution, which were summarised in TreeAnnotator v2.4.3 with the common ancestor heights option (Heled and Bouckaert, 2013).

Control, structured coalescent with more than one tree per genome

Due to concerns that recombination might affect our conclusions (Dudas and Rambaut, 2016), as an additional secondary analysis, we also considered a scenario where alignments were split into two fragments (fragment 1 comprised of positions 1-21000, fragment 2 of positions 21000-29364), with independent clocks, trees and migration rates, but shared substitution models and deme population sizes. Fragment positions were chosen based on consistent identification of the region around nucleotide 21000 as a probable breakpoint by GARD (Pond et al., 2006) by previous studies into SARS and MERS coronaviruses (Hon et al., 2008; Dudas and Rambaut, 2016). All analyses were set to run for 200 million states, subsampling every 20 000 states. Chains not converging after 200 million states were discarded. 20% of the states were discarded as burn-in, convergence assessed with Tracer 1.6 and combined with LogCombiner. Three chains out of ten did not converge.

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This left 70 000 states on which to base posterior inference. Posterior sets of typed trees were summarised using TreeAnnotator v2.4.3 with the common ancestor heights option (Heled and Bouckaert, 2013).

Control, discrete trait analysis

A currently widely used approach to infer ancestral states in phylogenies relies on treating traits of interest (such as geography, host, *etc.*) as features evolving along a phylogeny as continuous time Markov chains with an arbitrary number of states (Lemey et al., 2009). Unlike structured coalescent methods, such discrete trait approaches are independent from the tree (*i.e.* demographic) prior and thus unable to influence coalescence rates under different trait states. Such models have been used in the past to infer the number of MERS-CoV host jumps (Zhang et al., 2016) with results contradicting other sources of information. In order to test how a discrete trait approach compares to the structured coalescent we used our 274 MERS-CoV genome data set in BEAST v2.4.3 (Bouckaert et al., 2014) and specified identical codon-partitioned nucleotide substitution and molecular clock models to our structured coalescent analysis. To give the most comparable results we used a constant population size coalescent model, as this is the demographic function for each deme in the structured coalescent model. Five replicate MCMC analyses were run for 200 million states, three of which converged onto the same posterior distribution. The converging chains were combined after removing 20 million states as burn-in to give a total of 27 000 trees drawn from the posterior distribution. These trees were then summarised using TreeAnnotator v2.4.5 with the common ancestor heights option (Heled and Bouckaert, 2013).

Introduction seasonality

We extracted the times of camel-to-human introductions from the posterior distribution of multitype trees. This distribution of introduction times was then discretised as follows: for sample $k = 1, 2, \ldots, L$ from the posterior, Z_{ijk} was 1 if there as an introduction in month i and year j and 0 otherwise. We model the sum of introductions at month i and year j across the posterior sample $Y_{ij} = \sum_{k=1}^{L} Z_{ijk}$ with the hierarchical model:

$$
\begin{aligned}
Y_{ij} &\sim \text{Binomial}(L, \theta_{ij}) \\
\theta_{ij} &= \text{logistic}(\alpha_j + \beta_i) \\
\alpha_j &\sim \text{Normal}(\mu_y, \sigma_y) \\
\mu_y &\sim \text{Normal}(0, 1) \\
\sigma_y &\sim \text{Cauchy}(0, 2.5) \\
\beta_i &\sim \text{Normal}(0, \sigma_m) \\
\sigma_m &\sim \text{Cauchy}(0, 2.5),
\end{aligned}
$$

where α_j represents the contribution of year to expected introduction count and β_i represents the contribution of month to expected introduction count. Here, $\text{logistic}(\alpha_j + \beta_i) =$

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$\frac{\exp(\alpha_i+\beta_i)}{\exp(\alpha_i+\beta_i)+1}$. We sampled posterior values from this model via the Markov chain Monte Carlo methods implemented in Stan (Carpenter et al., 2016). Odds ratios of introductions were computed for each month i as $\text{OR}_i = \exp(\beta_i)$.

Epidemiological analyses

Here, we employ a Monte Carlo simulation approach to identify parameters consistent with observed patterns of sequence clustering (Figure S6). Our structured coalescent analyses indicate that every MERS outbreak is a contained cross-species spillover of the virus from camels into humans. The distribution of the number of these cross-species transmissions and their sizes thus contain information about the underlying transmission process. At heart, we expect fewer larger clusters if fundamental reproductive number R_0 is large and more smaller clusters if R_0 is small. A similar approach was used in Grubaugh et al. (2017) to estimate R_0 for Zika introductions into Florida.

Branching process theory provides an analytical distribution for the number of eventual cases j in a transmission chain resulting from a single introduction event with R_0 and dispersion parameter ω (Blumberg and Lloyd-Smith, 2013). This distribution follows

$$\Pr(j|R_0,\omega) = \frac{\Gamma(\omega j + j - 1)}{\Gamma(\omega j)\,\Gamma(j+1)}\,\frac{(\frac{R_0}{\omega})^{j-1}}{(1+\frac{R_0}{\omega})^{\omega j+j-1}}. \tag{1}$$

Here, R_0 represents the expected number of secondary cases following a single infection and ω represents the dispersion parameter assuming secondary cases follow a negative binomial distribution (Lloyd-Smith et al., 2005), so that smaller values represent larger degrees of heterogeneity in the transmission process.

As of 10 May 2017, the World Health Organization has been notified of 1952 cases of MERS-CoV (World Health Organization, 2017). We thus simulated final transmission chain sizes using Equation 1 until we reached an epidemic comprised of $N = 2000$ cases. 10000 simulations were run for 121 uniformly spaced values of R_0 across the range [0.5–1.1] with dispersion parameter ω fixed to 0.1 following expectations from previous studies of coronavirus behavior (Lloyd-Smith et al., 2005). Each simulation results in a vector of outbreak sizes $\mathbf{c}$, where c_i is the size of the ith transmission cluster and $\sum_{i=1}^{K} c_i = 2000$ and K is the number of clusters generated.

Following the underlying transmission process generating case clusters $\mathbf{c}$ we simulate a secondary process of sampling some fraction of cases and sequencing them to generate data analogous to what we empirically observe. We sample from the case cluster size vector $\mathbf{c}$ without replacement according to a multivariate hypergeometric distribution (Algorithm 1). The resulting sequence cluster size vector $\mathbf{s}$ contains K entries, some of which are zero (*i.e.* case clusters not sequenced), but $\sum_{i=1}^{K} s_i = 174$ which reflects the number of human MERS-CoV sequences used in this study. Note that this "sequencing capacity" parameter does not vary over time, even though MERS-CoV sequencing efforts have varied in intensity, starting out slow due to lack of awareness, methods and materials and increasing in response to hospital outbreaks later. As the default sampling scheme operates under equiprobable sequencing, we also simulated biased sequencing by using concentrated hypergeometric

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distributions where the probability mass function is squared (bias = 2) or cubed (bias = 3) and then normalized. Here, bias enriches the hypergeometric distribution so that sequences are sampled with weights proportional to $(c_1^{bias}, c_2^{bias}, \ldots, c_k^{bias})$. Thus, bias makes larger clusters more likely to be 'sequenced'.

After simulations were completed, we identified simulations in which the recovered distribution of sequence cluster sizes $\mathbf{s}$ fell within the 95% highest posterior density intervals for four summary statistics of empirical MERS-CoV sequence cluster sizes recovered via structured coalescent analysis: number of sequence clusters, mean, standard deviation and skewness (third central moment). These values were 48-61 for number of sequence clusters, 2.87–3.65 for mean sequence cluster size, 4.84–6.02 for standard deviation of sequence cluster sizes, and 415.40–621.06 for skewness of sequence cluster sizes.

We performed a smaller set of simulations with 2500 replicates and twice the number of cases, i.e. $\sum_{i=1}^{K} C_i = 4000$, to explore a dramatically underreported epidemic. Additionally, we performed additional smaller set of simulations on a rougher grid of R_0 values (23 values, 0.50–1.05), with 5 values of dispersion parameter ω (0.002, 0.04, 0.1, 0.5, 1.0) and 3 levels of bias (1, 2, 3) to justify our choice of dispersion parameter ω that was fixed to 0.1 in the main analyses (Figure S15).

Data: Array of case cluster sizes in outbreak $\mathbf{c} = (c_1, c_2, \ldots, c_K)$, sequences available M, total outbreak size N, where $N = \sum_{i=1}^{K} c_i$.
Result: Array of sequence cluster sizes sampled: $\mathbf{s} = (s_1, s_2, \ldots, s_K)$.
Draw s_1 from a hypergeometric distribution with c_1 successes, $N - c_1$ failures after M trials;
while $i < K$ **do**
  $i = i + 1$;
  $M = M - s_{i-1}$;
  Compute the probability mass function (pmf) for all possible values of s_i.
  $\mathbf{p} = (p(0)^{bias}, p(1)^{bias}, \ldots, p(c_i)^{bias}) \times (\sum_i p_i^{bias})^{-1}$, where $p(\cdot)$ is the pmf for a hypergeometric distribution with c_i successes, $N - c_i$ failures after M trials;
  Draw a sequence cluster size s_i from array of potential sequence cluster sizes $(0, 1, \ldots, c_i)$ according to $\boldsymbol{p}$.
end
Add remaining sequences to last sequence cluster $c_K = M - s_{K-1}$;

Algorithm 1: Multivariate hypergeometric sampling scheme. Pseudocode describes the multivariate hypergeometric sampling scheme that simulates sequencing. Probability of sequencing a given number of cases from a case cluster depends on cluster size and sequences left (*i.e.* "sequencing capacity"). The bias parameter determines how probability mass function of the hypergeometric distribution is concentrated.

Demographic inference of MERS-CoV in the reservoir

In order to infer the demographic history of MERS-CoV in camels we used the results of structured coalescent analyses to identify introductions of the virus into humans. The oldest sequence from each cluster introduced into humans was kept for further analysis.

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This procedure removes lineages coalescing rapidly in humans, which would otherwise introduce a strong signal of low effective population size. These subsampled MERS-CoV sequences from humans were combined with existing sequence data from camels to give us a dataset with minimal demographic signal coming from epidemiological processes in humans. Sequences belonging to the outgroup clade where most of MERS-CoV sequences from Egypt fall were removed out of concern that MERS epidemics in Saudi Arabia and Egypt are distinct epidemics with relatively poor sampling in the latter. Were more sequences of MERS-CoV available from other parts of Africa we speculate they would fall outside of the diversity that has been sampled in Saudi Arabia and cluster with early MERS-CoV sequences from Jordan and sequences from Egyptian camels. However, currently there are no indications of what MERS-CoV diversity looks like in camels east of Saudi Arabia. A flexible skygrid tree prior (Gill et al., 2013) was used to recover estimates of relative genetic diversity ($N_e\tau$) at 50 evenly spaced grid points across six years, ending at the most recent tip in the tree (2015 August) in BEAST v1.8.4 (Drummond et al., 2012), under a relaxed molecular clock with rates drawn from a lognormal distribution (Drummond et al., 2006) and codon position partitioned (positions 1 + 2 and 3) HKY+Γ_4 (Hasegawa et al., 1985; Yang, 1994) nucleotide substitution models. At time of writing advanced flexible coalescent tree priors from the skyline family, such as skygrid (Gill et al., 2013) are available in BEAST v1 (Drummond et al., 2012) but not in BEAST v2 (Bouckaert et al., 2014). We set up five independent MCMC chains to run for 500 million states, sampling every 50 000 states. This analysis suffered from poor convergence, where two chains converged onto one stationary distribution, two to another and the last chain onto a third stationary distribution, with high effective sample sizes. Demographic trajectories recovered by the two main stationary distributions are very similar and differences between the two appear to be caused by convergence onto subtly different tree topologies. This non-convergence effect may have been masked previously by the use of all available MERS-CoV sequences from humans which may have lead MCMC towards one of the multiple stationary distributions.

To ensure that recombination was not interfering with the skygrid reconstruction we also split our MERS-CoV alignment into ten parts 2937 nucleotides long. These were then used as separate partitions with independent trees and clock rates in BEAST v1.8.4 (Drummond et al., 2012). Nucleotide substitution and relaxed clock models were set up identically to the whole genome skygrid analysis described above (Drummond et al., 2006; Hasegawa et al., 1985; Yang, 1994). Skygrid coalescent tree prior (Gill et al., 2013) was used jointly across all ten partitions for demographic inference. Five MCMC chains were set up, each running for 200 million states, sampling every 20 000 states.

Data availability

Sequence data and all analytical code is publicly available at https://github.com/hlab/structured-mers.

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Table S1. Strain names, accessions (where available), identified host and reported collection dates for MERS-CoV genomes used in this study.

	strain	accession	host	collection date
1	KSA-378	KJ713296	camel	2013-11
2	KSA-363	KJ713298	camel	2013-11
3	KSA-503	KJ713297	camel	2013-11
4	KSA-376	KJ713299	camel	2013-11
5	KSA-505	KJ713295	camel	2013-11
6	Jeddah-1	KF917527	camel	2013-11-08
7	NRCE-HKU205	KJ477102	camel	2013-11-15
8	KFU-HKU1	KJ650297	camel	2013-11-30
9	KFU-HKU13	KJ650295	camel	2013-12-30
10	Camel.Egypt_NRCE-HKU271		camel	2013-12-30
11	Camel.Egypt_NRCE-HKU270		camel	2013-12-30
12	KFU-HKU19Dam	KJ650296	camel	2013-12-30
13	Qatar_2.2014	KJ650098	camel	2014-02-16
14	UAE/D469-14	KU242424	camel	2014-03-04
15	UAE/D511-14	KU242423	camel	2014-03-12
16	Jeddah/F13A/2014	KT368824	camel	2014-05
17	UAE/D1164.10/2014	KP719928	camel	2014-06
18	UAE/D1339.2/2014	KP719931	camel	2014-06
19	UAE/D1164.11/2014	KP719929	camel	2014-06
20	UAE/D1164.9/2014	KP719927	camel	2014-06
21	UAE/D1209/2014	KP719933	camel	2014-06
22	UAE/D1164.14/2014	KP719930	camel	2014-06
23	UAE/D1243.12/2014	KP719932	camel	2014-06
24	D1164.1/14	KX108037	camel	2014-06-02
25	Riyadh/Ry23N/2014	KT368825	camel	2014-07
26	Riyadh/Ry84N/2014	KT368826	camel	2014-07
27	Jeddah/S93/2014	KT368855	camel	2014-09
28	Jeddah/401/2014	KT368827	camel	2014-09
29	Jeddah/S100/2014	KT368853	camel	2014-09
30	Jeddah/S99/2014	KT368857	camel	2014-09
31	Jeddah/S94/2014	KT368856	camel	2014-09
32	Jeddah/S73/2014	KT368854	camel	2014-09
33	Jeddah/O47b/2014	KT368852	camel	2014-10
34	Jeddah/O23b/2014	KT368849	camel	2014-10
35	Jeddah/O24/2014	KT368850	camel	2014-10
36	Jeddah/O30/2014	KT368851	camel	2014-10
37	Jeddah/N51/2014	KT368846	camel	2014-11
38	Jeddah/N68b/2014	KT368848	camel	2014-11
39	Jeddah/N62b/2014	KT368847	camel	2014-11
40	Jeddah/D40/2014	KT368834	camel	2014-12
41	Jeddah/D90/2014	KT368844	camel	2014-12

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	strain	accession	host	collection date
42	Jeddah/D88/2014	KT368843	camel	2014-12
43	Jeddah/D36/2014	KT368832	camel	2014-12
44	Jeddah/D35/2014	KT368831	camel	2014-12
45	Jeddah/D92/2014	KT368845	camel	2014-12
46	Jeddah/D49/2014	KT368841	camel	2014-12
47	Jeddah/D34/2014	KT368830	camel	2014-12
48	Jeddah/D33b/2014	KT368829	camel	2014-12
49	Jeddah/D42/2014	KT368835	camel	2014-12
50	Jeddah/D50b/2014	KT368842	camel	2014-12
51	Jeddah/D45/2014	KT368837	camel	2014-12
52	Jeddah/D46b/2014	KT368838	camel	2014-12
53	Jeddah/D43b/2014	KT368836	camel	2014-12
54	Jeddah/D100/2014	KT368828	camel	2014-12
55	Jeddah/D47/2014	KT368839	camel	2014-12
56	Jeddah/D38b/2014	KT368833	camel	2014-12
57	Jeddah/D48/2014	KT368840	camel	2014-12
58	D2597.2/14	KX108938	camel	2014-12-13
59	Egypt.NRCE-NC163/2014	KU740200	camel	2014-12-17
60	Jeddah/Jd7/2015	KT368861	camel	2015-01
61	Jeddah/Jd86/2015	KT368863	camel	2015-01
62	Jeddah/Jd90/2015	KT368865	camel	2015-01
63	Jeddah/Jd1b/2015	KT368858	camel	2015-01
64	Jeddah/Jd4/2015	KT368859	camel	2015-01
65	Jeddah/Jd85/2015	KT368862	camel	2015-01
66	Jeddah/Jd6b/2015	KT368860	camel	2015-01
67	Jeddah/Jd87/2015	KT368864	camel	2015-01
68	D252/15	KX108939	camel	2015-01-30
69	Jeddah/Jd199/2015	KT368867	camel	2015-02
70	Jeddah/Jd175/2015	KT368866	camel	2015-02
71	D374/15	KX108940	camel	2015-02-12
72	D383/15	KX108941	camel	2015-02-14
73	D389/15	KX108942	camel	2015-02-15
74	Riyadh/Ry63/2015	KT368876	camel	2015-03
75	Riyadh/Ry136/2015	KT368868	camel	2015-03
76	Riyadh/Ry178/2015	KT368874	camel	2015-03
77	Riyadh/Ry162/2015	KT368871	camel	2015-03
78	Riyadh/Ry86/2015	KT368879	camel	2015-03
79	Taif/T150/2015	KT368889	camel	2015-03
80	Riyadh/Ry137/2015	KT368869	camel	2015-03
81	Riyadh/Ry179/2015	KT368875	camel	2015-03
82	Riyadh/Ry177/2015	KT368873	camel	2015-03
83	Riyadh/Ry79/2015	KT368878	camel	2015-03
84	Riyadh/Ry173/2015	KT368872	camel	2015-03

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	strain	accession	host	collection date
85	Taif/T157b/2015	KT368890	camel	2015-03
86	Riyadh/Ry155b/2015	KT368879	camel	2015-03
87	Riyadh/Ry64/2015	KT368877	camel	2015-03
88	Taif/T3/2015	KT368880	camel	2015-04
89	Taif/T16/2015	KT368882	camel	2015-04
90	Taif/T22/2015	KT368883	camel	2015-04
91	Taif/T92/2015	KT368887	camel	2015-04
92	Taif/T7/2015	KT368881	camel	2015-04
93	Taif/T91b/2015	KT368886	camel	2015-04
94	Taif/T68/2015	KT368884	camel	2015-04
95	Taif/T89/2015	KT368885	camel	2015-04
96	Taif/T98/2015	KT368888	camel	2015-04
97	D908/15	KX108943	camel	2015-04-23
98	D1157/15	KX108944	camel	2015-05-12
99	D1189.1/15	KX108946	camel	2015-05-18
100	D1271/15	KX108945	camel	2015-05-29
101	Jordan-N3/2012	KC776174	human	2012-04-15
102	EMC/2012	JX869059	human	2012-06-13
103	England/1/2012	KC164505	human	2012-09-11
104	Riyadh_1_2012	KF600612	human	2012-10-23
105	Riyadh_2_2012	KF600652	human	2012-10-30
106	Riyadh_3_2013	KF600613	human	2013-02-05
107	England/3/2013	KM210278	human	2013-02-10
108	England/2/2013	KM015348	human	2013-02-10
109	England/4/2013	KM210277	human	2013-02-13
110	Riyadh_4_2013	KJ156952	human	2013-03-01
111	Munich/AbuDhabi/2013	KF192507	human	2013-03-22
112	Al-Hasa_2_2013	KF186566	human	2013-04-21
113	Al-Hasa_3_2013	KF186565	human	2013-04-22
114	UAE-FRA1_1627-2013_BAL	KJ361500	human	2013-04-26
115	Al-Hasa_4_2013	KF186564	human	2013-05-01
116	Al-Hasa_7_2013	KF600623, KF600655	human	2013-05-01
117	Al-Hasa_8_2013	KF600618, KF600626, KF600635, KF600638	human	2013-05-01
118	Al-Hasa_25_2013	KJ156866	human	2013-05-02
119	Al-Hasa_11_2013	KF600629, KF600636, KF600646	human	2013-05-03
120	Al-Hasa_12_2013	KF600627	human	2013-05-07

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	strain	accession	host	collection date
121	Al-Hasa_14_2013	KF600615, KF600643	human	2013-05-08
122	Al-Hasa_1_2013	KF186567	human	2013-05-09
123	Al-Hasa_15_2013	KF600645	human	2013-05-11
124	Al-Hasa_16_2013	KF600644	human	2013-05-12
125	Buraidah_1_2013	KF600630	human	2013-05-13
126	Al-Hasa_23_2013	KJ156890, KJ156894, KJ156929, KJ156923, KJ156862	human	2013-05-13
127	Al-Hasa_17_2013	KF600647	human	2013-05-15
128	Al-Hasa_19_2013	KF600632	human	2013-05-23
129	Al-Hasa_18_2013	KF600651	human	2013-05-23
130	Al-Hasa_21_2013	KF600634	human	2013-05-30
131	Hafr-Al-Batin_1_2013	KF600628	human	2013-06-04
132	Wadi-Ad-Dawasir_1_2013	KJ156881	human	2013-06-12
133	Taif_1_2013	KJ156949	human	2013-06-12
134	Taif_2_2013	KJ156896, KJ156876	human	2013-06-12
135	Taif_3_2013	KJ156938, KJ156897, KJ156922, KJ156868, KJ156921, KJ156915, KJ156906	human	2013-06-13
136	Al-Hasa_26_2013	KJ156882, KJ156941, KJ156872	human	2013-06-18
137	Al-Hasa_27_2013	KJ156943, KJ156939	human	2013-06-19
138	Al-Hasa_28_2013	KJ156887, KJ156940, KJ156889, KJ156893, KJ156884, KJ156930, KJ156928, KJ156909	human	2013-06-22

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Table S1 – continued from previous page

	strain	accession	host	collection date
139	Riyadh_6_2013	KJ156879, KJ156947, KJ156890, KJ156938, KJ156927	human	2013-07-02
140	Riyadh_5_2013	KJ156944	human	2013-07-02
141	Riyadh_7_2013	KJ156937, KJ156905	human	2013-07-15
142	Riyadh_8_2013	KJ156880, KJ156942	human	2013-07-17
143	Riyadh_9_2013	KJ156869	human	2013-07-17
144	Hafr-Al-Batin_2_2013	KJ156910	human	2013-08-05
145	Asir_2_2013	KJ156863, KJ156899, KJ156912, KJ156900, KJ156898, KJ156945, KJ156932	human	2013-08-05
146	Riyadh_11_2013	KJ156946, KJ156911	human	2013-08-06
147	Riyadh_12_2013	KJ156926, KJ156901	human	2013-08-08
148	Riyadh_13_2013	KJ156888, KJ156873	human	2013-08-13
149	Riyadh_14_2013	KJ156934	human	2013-08-15
150	Hafr-Al-Batin_4_2013	KJ156931, KJ156895, KJ156864, KJ156861	human	2013-08-25
151	Hafr-Al-Batin_5_2013	KJ156951, KJ156924, KJ156954, KJ156913	human	2013-08-25
152	Riyadh_17_2013	KJ156918, KJ156920, KJ156865	human	2013-08-26
153	Hafr-Al-Batin_6_2013	KJ156874	human	2013-08-28
154	Riyadh_10_2013	KJ156891, KJ156936, KJ156907	human	2013-09-05
155	Madinah_3b_2013	KJ156950, KJ156916	human	2013-09-11

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	strain	accession	host	collection date
156	Qatar3	KF961221	human	2013-10-13
157	Qatar4	KF961222	human	2013-10-17
158	Oman_2285_2013	KT156560	human	2013-10-28
159	Jeddah-1	KF958702	human	2013-11-05
160	AbuDhabi_UAE_9_2013	KP209312	human	2013-11-15
161	Oman_2874_2013	KT156561	human	2013-12-28
162	AbuDhabi/Gayathi_UAE_2_2014	KP209310	human	2014-03-07
163	Jeddah_C7569/KSA	KM027256	human	2014-04-03
164	Jeddah_C7149/KSA	KM027255	human	2014-04-05
165	Jeddah_C7770/KSA	KM027257	human	2014-04-07
166	AbuDhabi_UAE_8_2014	KP209306	human	2014-04-07
167	AbuDhabi_UAE_16_2014	KP209308	human	2014-04-10
168	AbuDhabi_UAE_18_2014	KP209307	human	2014-04-10
169	Jeddah_C8826/KSA	KM027258	human	2014-04-12
170	AbuDhabi_UAE_26_2014	KP209313	human	2014-04-13
171	Jeddah_C9055/KSA	KM027259	human	2014-04-14
172	Makkah_C9355/KSA/Makkah	KM027261	human	2014-04-15
173	AbuDhabi_UAE_33_2014	KP209311	human	2014-04-17
174	AbuDhabi_UAE_30_2014	KP209309	human	2014-04-19
175	Jeddah_C10306/KSA	KM027260	human	2014-04-21
176	Riyadh_2014KSA_683/KSA/2014	KM027262	human	2014-04-22
177	Riyadh-KKUH-905		human	2014-04-24
178	Riyadh-KKUH-105		human	2014-04-25
179	Riyadh-KKUH-104		human	2014-04-25
180	KFMC-1	KT121580	human	2014-04-28
181	KFMC-8	KT121579	human	2014-04-30
182	Indiana/USA-1_SaudiArabia_2014	KJ813439	human	2014-04-30
183	KFMC-10	KT121578	human	2014-05-01
184	KFMC-7	KT121581	human	2014-05-03
185	Riyadh-KKUH-291		human	2014-05-06
186	KFMC-9	KT121574	human	2014-05-07
187	KFMC-3	KT121573	human	2014-05-09
188	Florida/USA-2_SaudiArabia_2014	KJ829365	human	2014-05-10
189	KFMC-2	KT121577	human	2014-05-11
190	KFMC-4	KT121575	human	2014-05-12
191	KFMC-5	KT121572	human	2014-05-12
192	Riyadh-KKUH-368		human	2014-05-13
193	KFMC-6	KT121576	human	2014-05-18
194	Riyadh_2014KSA_158/KSA/2014	KM027281	human	2014-05-20
195	Jeddah-KFH-285TA		human	2014-06-03
196	Jeddah-KFH-605TD		human	2014-06-09
197	Jeddah-KFH-668TD		human	2014-06-09
198	Jeddah-KFH-899NF		human	2014-06-16

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	strain	accession	host	collection date
199	Jeddah-KFH-949NSG1		human	2014-06-18
200	Riyadh-KKUH-643		human	2014-11-02
201	Taif/KSA-7032/2014	KU710264	human	2014-11-04
202	Riyadh-KKUH-665		human	2014-11-19
203	Riyadh-KSA-2049/2015	KR011266	human	2015-01-06
204	Riyadh-KSA-2343/2015	KR011264	human	2015-01-21
205	Riyadh-KSA-2345/2015	KR011263	human	2015-01-21
206	Riyadh-KSA-2466/2015	KR011265	human	2015-01-26
207	Kharj-KSA-2599/2015	KT806052	human	2015-02-02
208	Kharj-KSA-2598/2015	KT806053	human	2015-02-02
209	Riyadh-KSA-2716/2015	KT806051	human	2015-02-05
210	Khobar-KSA-6736/2015	KT806048	human	2015-02-07
211	Jeddah-KSA-C20843/2015	KT806044	human	2015-02-09
212	Jeddah-KSA-C20860/2015	KT806055	human	2015-02-10
213	Riyadh_KSA_2959/2015	KT026453	human	2015-02-10
214	Riyadh-KSA-3065/2015	KT806050	human	2015-02-12
215	Najran-KSA-C20915/2015	KT806054	human	2015-02-13
216	Riyadh-KSA-3181/2015	KT806049	human	2015-02-15
217	Riyadh_KKUH_0734		human	2015-02-18
218	Jeddah-KSA-C21271/2015	KT806045	human	2015-02-22
219	Riyadh_KKUH_0755		human	2015-02-23
220	Riyadh_KKUH_0756		human	2015-02-23
221	Riyadh_KKUH_0780		human	2015-02-25
222	Riyadh_KKUH_0801		human	2015-02-27
223	Riyadh_KKUH_0826		human	2015-02-28
224	Riyadh_KKUH_0818		human	2015-02-28
225	Riyadh_KSA_3050_2015	KT026454	human	2015-03-01
226	Riyadh_KKUH_0944		human	2015-03-02
227	Riyadh_KKUH_0939		human	2015-03-02
228	Riyadh_KKUH_1080		human	2015-03-03
229	Riyadh_KKUH_1066		human	2015-03-03
230	Riyadh_KKUH_1145		human	2015-03-04
231	Riyadh_KKUH_1217		human	2015-03-04
232	Riyadh_KKUH_1461		human	2015-03-08
233	Riyadh_KKUH_1470		human	2015-03-08
234	Riyadh_KKUH_1522		human	2015-03-09
235	Germany3/UAE-Dubai/Abu-Dhabi		human	2015-03-11
236	Hufuf-KSA-9158/2015	KT806047	human	2015-03-27
237	Hufuf-KSA-11002/2015	KT806046	human	2015-05-10
238	KOR/KNIH/002_05_2015	KT029139	human	2015-05-20
239	ChinaGD01	KT036372	human	2015-05-28
240	KOR/Seoul/014-2015	KX034093	human	2015-05-30
241	KOREA/Seoul/014-1-2015	KT374052	human	2015-05-31

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	strain	accession	host	collection date
242	KOREA/Seoul/035-1-2015	KT374054	human	2015-06-03
243	KOR/Seoul/066-2015	KX034095	human	2015-06-04
244	Korea/Seoul/SNU1-035/2015	KU308549	human	2015-06-08
245	KOR/CNUH.SNU/030.06.2015	KT868868	human	2015-06-08
246	KOR/CNUH.SNU/024.06.2015	KT868867	human	2015-06-08
247	KOR/CNUH.SNU/054.06.2015	KT868871	human	2015-06-09
248	KOR/CNUH.SNU/038.06.2015	KT868870	human	2015-06-10
249	KOR/CNUH.SNU/148.06.2015	KT868876	human	2015-06-10
250	KOR/CNUH.SNU/122.06.2015	KT868875	human	2015-06-10
251	KOR/CNUH.SNU/082.06.2015	KT868872	human	2015-06-10
252	KOR/CNUH.SNU/085.06.2015	KT868873	human	2015-06-10
253	KOR/CNUH.SNU/016.06.2015	KT868865	human	2015-06-11
254	KOR/CNUH.SNU/023.06.2015	KT868866	human	2015-06-11
255	KOR/CNUH.SNU/031.06.2015	KT868869	human	2015-06-11
256	KOR/CNUH.SNU/110.06.2015	KT868874	human	2015-06-11
257	KOR/Seoul/050-1-2015	KX034094	human	2015-06-11
258	THA/CU/17.06.2015	KT225476	human	2015-06-17
259	KOR/Seoul/077-2-2015	KX034096	human	2015-06-17
260	KOR/Seoul/080-3-2015	KX034097	human	2015-06-17
261	KOREA/Seoul/163-1-2015	KT374051	human	2015-06-19
262	KOREA/Seoul/168-1-2015	KT374056	human	2015-06-21
263	KOR/Seoul/162-1-2015	KX034098	human	2015-06-22
264	KOR/CNUH.SNU/172.06.2015	KT868877	human	2015-06-22
265	KOR/Seoul/169-2015	KX034099	human	2015-06-26
266	KOR/Seoul/177-3-2015	KX034100	human	2015-07-03
267	Jeddah-KSA-3RS2702/2015	KU851859	human	2015-07-12
268	Riyadh-KSA-16120/2015	KU851861	human	2015-08-24
269	Riyadh-KSA-16117/2015	KU851862	human	2015-08-24
270	Riyadh-KSA-16121/2015	KU851860	human	2015-08-24
271	Riyadh-KSA-16098/2015	KU851864	human	2015-08-24
272	Riyadh-KSA-16077/2015	KU851863	human	2015-08-27
273	Jordan.1.2015	KU233063	human	2015-09-17
274	Jordan.10.2015	KU233062	human	2015-09-17

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Figure S1. Evolutionary history of MERS-CoV partitioned between camels and humans. This is the same tree as shown in Figure 1, but with contiguous stretches of MERS-CoV evolutionary history split by inferred host: camels (top in orange) and humans (bottom in blue). This visualisation highlights the ephemeral nature of MERS-CoV outbreaks in humans, compared to continuous circulation of the virus in camels.

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Figure S2. Posterior backwards migration rate estimates for two choices of prior. Negligible flow of MERS-CoV lineages from humans into camels is recovered regardless of prior choice (note that rates are backwards in time). Plots show the 95% highest posterior density for the estimated migration rate from the human dense into the camel dense looking backwards in time (orange) and vice versa (blue). Dotted lines indicate exponential priors specified for migration rates, with mean 1.0 (bottom) or 10.0 (top).

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Figure S3. Maximum clade credibility (MCC) tree with ancestral state reconstruction according to a discrete trait model. MCC tree is presented the same as Figure 1 and Figure S4, with colours indicating the most probable state reconstruction at internal nodes. Unlike the structured coalescent summary shown in Figure 1 where camels are reconstructed as the main host where MERS-CoV persists, the discrete trait approach identifies both camels and humans as major hosts with humans being the source of MERS-CoV infection in camels.

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Figure S4. Maximum clade credibility (MCC) tree of structured coalescent model with enforced equal coalescence rates. MCC tree is presented the same as Figures 1 and S3, with colours indicating the most probable state reconstruction at internal nodes. Similar to Figure S3 enforcing equal coalescence rates between demes in a structured coalescent model identifies humans as a major MERS-CoV host and the source of viruses in camels.

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Figure S5. Monte Carlo simulations of human transmission clusters. From top to bottom each row corresponds to departures from completely random sequencing efforts with respect to case cluster size (bias parameter=1.0) to sequencing increasingly biased towards capturing large case clusters (bias=2.0, bias=3.0). Leftmost scatter plots show the distribution of individual Monte Carlo simulation sequence cluster size statistics (mean and skewness) coloured by the R_0 value used for the simulation. The dotted rectangle identifies the 95% highest posterior density bounds for sequence cluster size mean and skewness observed for empirical MERS-CoV data. The distribution of R_0 values matching empirical data are shown in the middle, on the same y-axis across all levels of the bias parameter. Under unbiased sequencing (bias=1.0) only 0.45% of simulations fit our phylogenetic observations, while 1.79% and 1.67% of simulations fit for bias levels of 2.0 and 3.0, respectively. Correspondingly, we estimate 11.6% support for a model with bias level 1.0, 45.7% support for a model with bias level 2.0, and 42.7% support for a model with bias level 3.0. Bins falling inside the 95% percentiles are coloured by R_0, as in the leftmost scatter plot. While the 95% percentiles for R_0 values are close to 1.0 (0.71–0.98) for the unbiased sequencing simulation (i.e. uniform sequencing efforts, in which every case is equally likely to be sequenced), we also note that increasing levels of bias are considerably more to likely to generate MERS-CoV-like sequence clusters. The distribution of total number of introductions associated with simulations matching MERS-CoV sequence clusters is shown in the plots on the right, on the same y-axis across all levels of bias. Darker shade of grey indicates bias falling within the 95% percentiles. The median number of cross-species introductions observed in simulations matching empirical data without bias are 346 (95% percentiles 262–439). These numbers jump up to 568 (95% percentiles 430–727) for bias = 2.0 and 656 (95% percentiles 488–853) for bias = 3.0 simulations. Model averaging would suggest plausible numbers of introductions between 311 and 811.

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Figure S6. Monte Carlo simulation schematic. Case clusters are simulated according to Equation 1 until an outbreak size of 2000 cases is reached. We sample 174 cases from each simulation to represent sequencing of human MERS cases. 'Sequencing' is carried out by using multivariate hypergeometric sampling, representing sampling cases without replacement to be sequenced. Sequencing simulations take place at three levels of bias: 1.0, where every case is equally likely to be sequenced, and 2.0 and 3.0, where cases from larger clusters are increasingly more likely to be sequenced. The distribution of simulated sequence clusters is summarised by its mean, median and standard deviation. A simulation is considered to match if the mean, median and standard deviation of its sequence cluster sizes falls within the 95% highest posterior density interval of observed MERS-CoV sequence clusters. R_0 values that ultimately generate data matching empirical observations, as well as associated numbers of 'introductions' are retained as estimates. These estimates are summarised in Figure 3.

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Figure S7. Results of Monte Carlo simulations with vast underestimation of cases. The plot is identical to Figure S5, but instead of 2000 cases, simulations were run with 4000 cases. With more unobserved cases the R_0 values matching observed MERS-CoV sequence clusters can only be smaller, with a corresponding increase in numbers of zoonotic transmissions. However, the numbers of simulations that match MERS-CoV data go down as well.

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Figure S8. Boxplots of matching simulated case and sequence cluster distributions. Boxplots indicate frequency of case (blue, top) and sequence (red, bottom) cluster sizes across simulations at different bias levels, marginalised across R_0 values. Outliers are shown with transparency, medians are indicated with thick black lines. Case clusters exhibit a strong skew with large numbers of singleton introductions and a substantial tail at higher levels of bias.

Figure S9. Quantile-quantile (Q-Q) plot of empirical and simulated sequence cluster sizes. Density of sequence cluster size percentiles (1st–99th, calculated across a grid of 50 values) calculated for random states from the posterior distribution (x-axis) and matching simulations (y-axis). Most values fall on the one-to-one line, with a heavier tail in mid-sized sequence clusters in empirical data, manifesting as a greater density of points below the one-to-one line in the middle.

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Figure S10. Tests of recombination across MERS-CoV clades. Maximum clade credibility tree of MERS-CoV genomes annotated with results of two recombination detection tests (PHI and JSeq) applied to descendent sequences of each clade. Both tests identify large portions of existing sequence data as containing signals of recombination. Note that markings do not indicate where recombinations have occurred on the tree, merely the minimum distance in sequence/time space between recombining lineages.

Figure S11. MERS-CoV genomes exhibit high numbers of non-clonal loci. Ancestral state reconstruction (right) identifies a large number of sites in which mutations have occurred more than once in the tree (homoplasies, orange) or are reversions (red) from a state arising in an ancestor. Mutations that apparently only occur once in the tree (synapomorphies) are shown in grey. The maximum likelihood phylogeny on the left is coloured by whether sequences were sampled in humans (blue) or camels (orange).

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Figure S12. Human clade sharing between genomic fragments 1 and 2. Central scatter plot shows the posterior probability of human clades shared between genomic fragments 1 and 2, in their respective trees. Left and bottom scatter plots track the posterior probability of human clades only observed in fragment 2 (left) or fragment 1 (bottom). The cumulative probability of human clades present in either tree are tracked by plots on the right (fragment 2) and top (fragment 1). Most of the probability mass is concentrated within human clades that are present in trees of both genomic fragment 1 and 2 (0.9701 and 0.9474 of all human clades across posteriors, respectively).

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Figure S13. Skygrid comparison between whole and fragmented genomes. Inferred median $N_e\tau$ recovered using a skygrid tree prior on whole genome (bottom) and ten genomic fragments with independent trees (left), coloured by time. Dotted line indicates the one-to-one line.

Figure S14. Maximum likelihood (ML) tree of MERS-CoV genomes coloured by origin of sequence. Maximum likelihood tree shows genetic divergence between MERS-CoV genomes collected from camels (orange tips) and humans (blue tips).

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Figure S15. Numbers of epidemiological simulations conforming to empirical observations. Numbers indicate the total number of epidemiological simulations under each combination of bias and dispersion parameter ω that result in MERS-CoV-like sequence cluster sizes. More simulations match observations with bias>1 and $\omega \approx 0.1$.

UCDUSR0003410

From:	Katherine Leasure <kaleasure@ucdavis.edu>
To:	'PREDICTMGT' <predictmgt@usaid.gov>
CC:	'Predict inbox' <predict@ucdavis.edu> jkmazet@ucdavis.edu <jkmazet@ucdavis.edu>
Sent:	1/18/2018 11:38:58 PM
Subject:	Urgent ITA for D. McIver - Thailand/Laos

Hi Andrew. Metabiota has submitted an urgent ITA request for David McIver travel to Thailand and Laos. Dr. McIver received a last minute invitation from Eddy Rubin and Dennis Carroll to participate in the GVP side meetings in Bangkok. For efficiency, he would also take the opportunity to travel on to Lao to launch human surveillance activities (TDY form attached). Our apologies for the late submission of this request; please let me know if you have any questions. Thanks!

1. McIver (Thailand, Laos): $1754 airfare/$246 (Bangkok), $212 (Vientiane)

Travel Request –

1. Metabiota would like to request travel approval for Dr. David McIver, PREDICT Asia Regional Coordinator to travel from Nanaimo, British Columbia, Canada to Bangkok, Thailand from January 28 to February 3, 2018, and from Bangkok, Thailand to Vientiane, Lao People's Democratic Republic from February 3 - 10, 2018. While in Bangkok, Dr. McIver will attend the Global Virome Project side meetings and Prince Mahidol Award Conference 2018 (PMAC). In Lao PDR, Dr. McIver will launch human surveillance activities at Khong Hospital.

Trip purpose: Thailand – While in Bangkok, Dr. McIver will attend the Prince Mahidol Award Conference 2018, as well as Global Virome Project side meetings. Dr. McIver has been making strides to bring GVP to the attention of scientists, academics, and potential funding bodies in Canada. He will attend the PMAC GVP meeting for the official launch of the program and to participate in further discussions about how the program will operate. Lao PDR - While in Lao PDR, Dr. McIver will launch human surveillance activities at Khong Hospital including re-training regarding surveillance implementation and workflow as well as two days for oversight of enrolment of the first few patients.

Katherine Leasure
HR/Payroll/Financial Assistant
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Lao PDR Temporary Duty Information Form (Last update: August 2017)
(send completed form to ehuerta@state.gov, mamaocorn@state.gov, and samaphonex@state.gov)

Submitted by: David McIver, Metabiota Inc.

Dates of travel:	From: 2/3/2018 To: 2/10/2018
TDY objective:	Launch human surveillance activities in Vientiane, Laos and Champasak Province.
USAID activity	Dr. McIver will launch human surveillance activities at Khong Hospital including re-training surveillance implementation and workflow as well as oversee enrolment of initial patients.
Individuals visiting Laos (from RDMA, Washington, Implementing Partner):	David McIver, Metabiota Inc.
Required meetings to be arranged:	Dr. McIver does not require any meetings, but is happy to meet with any representatives who are interested to do so.
Site visits required:	Pakse, Champasak Province; Na Pa Kieb village, Champasak Province.
Data to be collected:	Human biological samples, human quantitative risk exposure questionnaire data, and human qualitative behavioral data.
Is a DIP note or letter of introduction requested:	☒ Yes ☐ No *Note: DIP notes are required for site visits and meetings with high-level GOL officials. Names of GOL officials must also be provided.*
Is motor pool requested:	☐ Yes ☒ No
Is Embassy access requested:	☐ Yes ☒ No
Have the visitors met with the AMB/DCM before:	☐ Yes ☒ No
Is Laos staff recommended to accompany all meetings:	☐ Strongly recommended ☒ Optional, but at the Laos Office discretion
Additional Comments:	

*Only a limited number of hotels meet Embassy Lao security and safety requirements for eCC travelers. As of August 2017 these are: (1) Lao Plaza Vientiane, (2) Landmark Mekong Riverside, (3) Settha Palace, (4) Dhavara Vientiane, and (5) Crowne Plaza.

From: Dennis Carroll <dcarroll@usaid.gov>
Sent: Fri, 19 Jan 2018 16:52:15 -0800
Subject: Re: Follow-up from GVP Core Team
To: "Sacchetti, Ben" <Sacchetti.Ben@bcg.com>
Cc: Peter Daszak <daszak@ecohealthalliance.org>, Jennifer Fluder <jfluder@usaid.gov>, Amy Lin <amylin@usaid.gov>, "pmahanna@usaid.gov" <pmahanna@usaid.gov>, "jkmazet@ucdavis.edu" <jkmazet@ucdavis.edu>, "erubin@metabiota.com" <erubin@metabiota.com>, "dstanton@usaid.gov" <dstanton@usaid.gov> REDACTED, Brooke Watson <watson@ecohealthalliance.org>, Nathan Wolfe <nwolfe@metabiota.com>, Gabrielle Fitzgerald <gabrielle.fitzgerald@panoramaglobal.org>, "Rodriguez, Andrew" <rodriguez.andrew@bcg.com>, "Stroman, Trish" <Stroman.Trish@bcg.com>

Ben, great work. Thanks

d

Dr Dennis Carroll
Director, Emerging Threats Program
U.S. Agency for International Development
Office: (202) 712-5509
Mobile: REDACTED

> On Jan 19, 2018, at 7:34 PM, Sacchetti, Ben <Sacchetti.Ben@bcg.com> wrote:
>
> Hi All,
>
> Thanks for a productive Core Team discussion yesterday. A few follow-ups:
>
> Materials for PMAC stakeholder roundtable, bilateral meetings and open session
>
> - I've attached the latest pitch. We've streamlined, simplified, and infused messaging that was missing. Please take a look and provide feedback over email.
>
> - We'll use these (after incorporating your feedback) for the roundtable as well as any bi-lateral mtgs.
>
> - Feel free to leverage any of these slides for the more science-heavy open session materials.
>
> - By mid-Feb, goal is to have one master deck in this format, but with different versions based on audience (science, investor, etc.)
>
>
> Open session panel
>
> - Any updates on participation?
>
> o Peter Bogner is confirmed
>
> o Dennis has reached out to but not heard back from David Nabarro and Larry Brilliant
>
> o Peter/Brooke – any word from George Gao (by video) or Ariel Pablos Mendez?
>
> o Lastly, do folks have any ideas for who we might invite to get more female and life sciences representation?
>
> Closed session

>
>
>
>
>
>
> Have a great weekend!
> Ben
>
>
>

>
> Ben Sacchetti
> Principal
>
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> Summit, New Jersey 07901 • United States of America
>
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> in error, please advise the sender immediately by reply e-mail and delete this
> message. Thank you.
> <GVP Pitch_19Jan18_v3.pptx>
> <2018 milestones vDraft.pptx>

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: David J Wolking <djwolking@ucdavis.edu>
Sent: 1/24/2018 5:40:44 AM
Subject: Re: PREDICT activities related to bushmeat consumption in Central Africa

Nice job!
J

On Tue, Jan 23, 2018 at 4:16 PM, David J Wolking <djwolking@ucdavis.edu> wrote:
Hi Andrew,

We also have a few countries in Africa and Asia that work on wildlife value chain and in restaurants that could be considered "bushmeat" (e.g., surveillance at the interface between hunters/trappers/traders and consumers). At a glance there's work happening in Bangladesh, Cameroon, Ghana, Guinea, Sierra Leone, Liberia, Laos, Nepal, Viet Nam, Thailand, Cambodia, Indonesia, Senegal, Malaysia, and China.

I'd have to dig deeper to check on specifics if needed. Are there certain aspects of our work with bushmeat that you are particularly interested in? ROC and DRC are the two countries with the focused integration of bushmeat behavioral risk investigations and sample collection but there are elements of that scope happening in other countries to some extent.

I'm happy to provide more info if helpful.

On Tue, Jan 23, 2018 at 12:03 PM, Andrew Clements <aclements@usaid.gov> wrote:
Other than ROC and DRC, are there other country work plans that specifically include activities related to bushmeat?

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

Sent: Tue, 30 Jan 2018 18:46:20 -0800
Subject: Re: Our meetings this week
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: "Sacchetti, Ben" <Sacchetti.Ben@bcg.com>
Cc: "dcarroll@usaid.gov" <dcarroll@usaid.gov>, Eddy Rubin [redacted], Peter Daszak <daszak@ecohealthalliance.org>, Gabrielle Fitzgerald <gabrielle.fitzgerald@[redacted]>, "Harris, Samuel" <Harris.Samuel@bcg.com>, "Stroman, Trish" <Stroman.Trish@bcg.com> [redacted], Brooke Watson <watson@ecohealthalliance.org>

Hi Ben,
Is the funder roundtable from 10-12 cancelled today? If not, where are we meeting? I guess the Secretartiat has put it on the schedule, so you might want to have someone onsite in case people show up who didn't understand that it was a private meeting.
Let me know if I'm supposed to be somewhere,
Jonna

On Mon, Jan 29, 2018 at 6:24 PM, Sacchetti, Ben <Sacchetti.Ben@bcg.com> wrote:

Hi Dennis, Jonna and Eddy,

Now that the closed and open sessions are behind us, just wanted to keep you apprised of our schedule for the rest of the week. Please see attached and let me know if you have any questions or suggestions! Note that the "funder" conversations are purely informational in nature. Also, this does not yet fully reflect some of the "internal" conversations we plan to have with SteerCo folks.

Thanks,

Ben and team

Ben Sacchetti
Principal

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From: Katherine Leasure <kaleasure@ucdavis.edu>
To: 'PREDICTMGT' <predictmgt@usaid.gov>
CC: 'Predict inbox' <predict@ucdavis.edu>;'Jonna Mazet' <jkmazet@ucdavis.edu>
Sent: 1/31/2018 11:52:50 PM
Subject: ITA for D. McIver to Thailand/Laos

Hi Andrew. David McIver's travel to Laos has been cancelled (previously approved ITA below for reference), likely to be rescheduled for late February. A new ITA will be submitted once those dates have been identified. Please let me know if you have any questions. Thanks!

Metabiota would like to request travel approval for Dr. David McIver, PREDICT Asia Regional Coordinator to travel from Nanaimo, British Columbia, Canada to Bangkok, Thailand from January 28 to February 3, 2018, and from Bangkok, Thailand to Vientiane, Lao People's Democratic Republic from February 3 -10, 2018. While in Bangkok, Dr. McIver will attend the Global Virome Project side meetings and Prince Mahidol Award Conference 2018 (PMAC). In Lao PDR, Dr. McIver will launch human surveillance activities at Khong Hospital.

Trip purpose: Thailand – While in Bangkok, Dr. McIver will attend the Prince Mahidol Award Conference 2018, as well as Global Virome Project side meetings. Dr. McIver has been making strides to bring GVP to the attention of scientists, academics, and potential funding bodies in Canada. He will attend the PMAC GVP meeting for the official launch of the program and to participate in further discussions about how the program will operate. Lao PDR - While in Lao PDR, Dr. McIver will launch human surveillance activities at Khong Hospital including re-training regarding surveillance implementation and workflow as well as two days for oversight of enrolment of the first few patients.

Katherine Leasure
HR/Payroll/Financial Assistant
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530-752-7526
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kaleasure@ucdavis.edu

From: Andrew Clements <aclements@usaid.gov>
To: Katherine Leasure <kaleasure@ucdavis.edu>
CC: PREDICTMGT <predictmgt@usaid.gov>,Predict inbox <predict@ucdavis.edu>,Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 2/1/2018 9:24:16 AM
Subject: Re: ITA for D. McIver to Thailand/Laos

thanks!

On Thu, Feb 1, 2018 at 1:52 AM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. David McIver's travel to Laos has been cancelled (previously approved ITA below for reference), likely to be rescheduled for late February. A new ITA will be submitted once those dates have been identified. Please let me know if you have any questions. Thanks!

Metabiota would like to request travel approval for Dr. David McIver, PREDICT Asia Regional Coordinator to travel from Nanaimo, British Columbia, Canada to Bangkok, Thailand from January 28 to February 3, 2018, and from Bangkok, Thailand to Vientiane, Lao People's Democratic Republic from February 3 -10, 2018. While in Bangkok, Dr. McIver will attend the Global Virome Project side meetings and Prince Mahidol Award Conference 2018 (PMAC). In Lao PDR, Dr. McIver will launch human surveillance activities at Khong Hospital.

Trip purpose: Thailand – While in Bangkok, Dr. McIver will attend the Prince Mahidol Award Conference 2018, as well as Global Virome Project side meetings. Dr. McIver has been making strides to bring GVP to the attention of scientists, academics, and potential funding bodies in Canada. He will attend the PMAC GVP meeting for the official launch of the program and to participate in further discussions about how the program will operate. Lao PDR - While in Lao PDR, Dr. McIver will launch human surveillance activities at Khong Hospital including re-training regarding surveillance implementation and workflow as well as two days for oversight of enrolment of the first few patients.

Katherine Leasure

HR/Payroll/Financial Assistant

One Health Institute

University of California, Davis

530-752-7526

530-752-3318 FAX

kaleasure@ucdavis.edu

predictmgt+unsubscribe@usaid.gov

predictmgt@usaid.gov
https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/03dd01d39af6%24fcfc6cfdf0%24f546f9d0%24%40ucdavis.edu

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Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
E-mail: a-clements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Elizabeth Leasure <ealeasure@ucdavis.edu>
Sent: 2/9/2018 6:27:58 PM
Subject: Fwd: Predict GHSA Country Allocations

---------- Forwarded message ----------
From: **Andrew Clements** <aclements@usaid.gov>
Date: Tue, Dec 12, 2017 at 10:13 AM
Subject: Fwd: Predict GHSA Country Allocations
To: Jonna Mazet <jkmazet@ucdavis.edu>, djwolking@ucdavis.edu
Cc: predictmgt@usaid.gov

Hi Jonna and David,

I think this is as close as we're going to get to the possibility of more Ebola money if you run out after redistributing based on country pipelines.

So go ahead a propose a redistribution. In the event that funds run out later and no new funds are made available, USAID will assume full responsibility for explaining to countries and staff why we this is happening.

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

Begin forwarded message:

From: Andrew Clements <aclements@usaid.gov>
Date: December 12, 2017 at 7:07:04 PM GMT+1
To: Richard Greene <rgreene@usaid.gov>
Cc: "Boyer, Robbin" <rboyer@usaid.gov>, PREDICTMGT <predictmgt@usaid.gov>, "Carroll, Dennis(GH/HIDN)" <DCarroll@usaid.gov>
Subject: Re: Predict GHSA Country Allocations

Thanks. I read this as confirming that it may be possible to add addition funding if warranted as you described.

Please do not get fixated on the current pipeline and monthly burn rate since they are not accurate reflections of what Predict can do. Predict has been slowed down by delays in OAA approving sub-awards and the ceiling increase (which is linked to sub-award approval). Once that finally clears, I expect a jump in the project's expenditure rate.

Andrew

Andrew P. Clements, Ph.D.

Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Dec 12, 2017, at 5:03 PM, Richard Greene <rgreene@usaid.gov> wrote:

Hi Andrew,

Please note that as of September 30, $25.9 million remains unexpended in the GHSA portion of the P2 cooperative agreement, about 50% of the total obligated amount with less than two years of operation remaining. Under USAID incremental funding guidance, this pipeline situation, at this time, would not justify additional incremental funding or a reduction in the scope of work of the agreement.

Now that there is flexibility in country levels, this will allow P2 to propose how it can optimally utilize its available funding to meet its objectives. If the pipeline in comparison to the time remaining warrants, USAID, consistent with our July 18 email, will consider appropriate action. In reviewing your recent expenditure reports, there is considerable pipeline in a number of countries that could be used in the near-term to draw down the project's large pipeline and get you closer to a point where normal incremental funding could be considered.

Please let us know if you have additional questions.

Richard

Robbin

On Fri, Dec 8, 2017 at 2:34 AM, Andrew Clements <aclements@usaid.gov> wrote:
Hi Richard and Robbin,

Please confirm that you are okay with the possible consequences of PREDICT shutting down other country programs early if (1) funds are shifted over to the EHP countries and (2) no further Ebola funds are obligated if the current funds run out.

I will not ask PREDICT to proceed until I hear back from you.

Andrew

---------- Forwarded message ----------
From: **Joana Mazet** <jkmazet@ucdavis.edu>
Date: Fri, Dec 8, 2017 at 12:43 AM
Subject: Re: Predict GHSA Country Allocations
To: Andrew Clements <aclements@usaid.gov>
Cc: David J Wolking <djwolking@ucdavis.edu>, "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>, Shana Gillette <sgillette@usaid.gov>, Amalhin Shek <ashek@usaid.gov>, "predict@ucdavis.edu" <predict@ucdavis.edu>

Dear Andrew,
We appreciate the clarification. We still need confirmation as to whether you are instructing us to use money slated for other countries in Yr 5 to complete the under-funded Ebola Host Project. My concern is that the promised additional funding for the Ebola Host Project will be delayed or will not come through, and then we have to tell Uganda (or pick whatever country whose funds we use) that they have to shut-down early.

Please advise and confirm that you understand the implications of this potential unintended consequence.
We do appreciate that we will not be held any longer to the previously-imposed country caps, except for the $9M (allocated to P-2) for DRC & Ghana combined, and the minimums assigned for the three Ebola Host Project countries.
Please confirm this understanding as well, so that I can proceed with 100% confidence.
Thank you,
Jonna

--

Richard S. Greene
Senior Infectious Disease Strategy Advisor
Office of Health, Infectious Diseases, and Nutrition
Bureau for Global Health
USAID
Tel: (571) 551-7364
E-mail: rgreene@usaid.gov

From: Peter Daszak <daszak@ecohealthalliance.org>
To: Jonna Mazet <jkmazet@ucdavis.edu>
CC: Ava Sullivan <sullivan@ecohealthalliance.org>;Molly Turner <turner@ecohealthalliance.org>;Liz Leasure <saleasure@ucdavis.edu>;Evelyn Luciano <luciano@ecohealthalliance.org>
Sent: 2/22/2018 10:42:06 PM
Subject: 11 people going to the predict semi annual meeting in ca

Jonna - forgot to mention this but right now we're expecting 11 people to be going to the semi annual meeting. It might change and I'll confirm next week but just to give you an estimate for room rod.

Cheers,

Peter

Peter Daszak
(Sent from my iPhone)

President
EcoHealth Alliance

460 West 34th Street, New York, NY10001, USA

www.EcoHealthAlliance.org

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: William B. Karesh <karesh@ecohealthalliance.org>
Sent: 2/23/2018 5:00:05 PM
Subject: Re: P&R

Thanks for the info.
J

On Fri, Feb 23, 2018 at 9:17 AM William B. Karesh <karesh@ecohealthalliance.org> wrote:
Hi there,

Got more info from Jerry Martin yesterday.

He said that when USAID expanded the number of countries for them in the first year, they were told to go ahead and use the funds they were originally awarded and that Dennis and the group would increase their ceiling by year 3 or 4 to cover the additional work into year 5. That didn't happen, so in good faith they used the original money for more countries and it pretty much runs out for country level activities by the end of year 4. They are planning to retain a small amount of the funds in year 5 to write final reports, produce some products, etc., but those will be primarily central office activities with maybe some help from the regional offices.

BK

From: Katherine Leasure <kaleasure@ucdavis.edu>
To: 'PREDICTMGT' <predictmgt@usaid.gov>
CC: 'Jonna Mazet' <jkmazet@ucdavis.edu>;'Predict inbox' <predict@ucdavis.edu>
Sent: 2/24/2018 12:34:55 AM
Subject: PREDICT International Travel Requests

Please find below international travel requests for your review and approval. Please let me know if you have any questions. TDY form is attached for David McIver's requested travel to Laos. Thanks!

1. McIver (Laos): $2200 airfare/$212 (Vientiane) max daily per diem
2. Ross (Kenya): $2100 airfare/$410 (Nairobi) max daily per diem
3. Latinne (Indonesia): $2200 airfare/$146 (North Sulawesi, Gorontalo, and Bogor) max daily per diem
4. Epstein (India): $5000 airfare/$291 (Lucknow) max daily per diem
5. Gilardi (Rwanda, Uganda): $2400 airfare/$291 (Kigali), $340 (Kampala) max daily per diems

Travel Requests –

1. Metabiota would like to request travel approval for Dr. David McIver, PREDICT Asia Regional Coordinator to travel from Nanaimo, British Columbia, Canada to Vientiane, Lao PDR from March 15-24, 2018 to launch human surveillance activities at Khong Hospital.

Trip purpose: While in Lao PDR, Dr. McIver will launch human surveillance activities at Khong Hospital including re-training regarding surveillance implementation and workflow as well as two days for oversight of enrolment of the first few patients.

2. EcoHealth Alliance would like to request travel approval for Dr. Noam Ross to travel from New York, NY, USA to Nairobi, Kenya from March 25-31, 2018 for a scenario-planning workshop with FAO and country stakeholders as part of the Africa Sustainable Livestock 2050 project.

Trip purpose: Noam will present EHA work under PREDICT characterizing risk of avian influenza outbreak to multiple partners and stakeholders involved in the ASL2050. Noam will participate in piloting FAO's scenario-planning process for developing future pathways of livestock development. EHA's participation in this pilot is essential in ensuring that it will elicit the information required to construct models of future disease outbreak risk, and that model outputs are useful to partner countries and stakeholders.

3. EcoHealth Alliance would like to request travel approval for Dr. Alice Latinne to travel from New York, NY, USA to Bogor, North Sulawesi and Gorontalo, Indonesia from April 4-25, 2018 for meetings with in-country partners and field work.

Trip purpose: In Bogor, Dr. Alice Latinne will meet with PREDICT team and attend a seminar at IPB (April 4-6). In North Sulawesi and Gorontalo, Dr. Alice Latinne will meet with local partners and assist the PREDICT Indonesia team in PREDICT concurrent wildlife and human community sampling (April 7-25).

4. EcoHealth Alliance would like to request travel approval for Dr. Jonathan Epstein to travel from New York, NY USA to Lucknow, India from March 26-29, 2018 to conduct high-level meetings with implementing partners of PREDICT-2 India.

Trip Purpose: Dr. Jonathan Epstein will travel to Lucknow to participate in high-level meetings with PREDICT-2 India Senior Management Team member, Dr. Tapan Dhole, and additional members of SGPGIMS, including the Director of the institution, to discuss the implementation of Year 4 of the PREDICT project in India.

5. UC Davis would like to request travel approval for Dr. Kirsten Gilardi to travel from Davis, California, USA to Kigali, Rwanda and Kampala, Uganda from March 24 to April 8 2018 to meet with PREDICT staff and partners.

Trip purpose: This trip will enable Dr. Gilardi to meet with PREDICT Country Coordinators from Rwanda, Uganda and eastern Democratic Republic of the Congo at MGVP headquarters in Ruhengeri, Rwanda, and Kampala, Uganda, to conduct field site visits with staff and to check on Year 4 work in all three countries. Dr. Gilardi will also meet with Governments of Uganda and Rwanda laboratory partners to check on progress with

sample testing and One Health capacity strengthening for staff and partners. ***Her tentative travel dates in each country are as follows – Rwanda: March 25 to April 2, Uganda: April 2-7***

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

Lao PDR Temporary Duty Information Form (Last update: August 2017)
(send completed form to ehuerta@state.gov, mamaocem@state.gov, and samaphonem@state.gov)

Submitted by: David McIver, Metabiota Inc.

Dates of travel:	From: 3/15/2018 To: 3/24/2018
TDY objective:	Launch human surveillance activities in Vientiane, Laos and Champasak Province.
USAID activity	Dr. McIver will launch human surveillance activities at Khong Hospital including re-training surveillance implementation and workflow as well as oversee enrolment of initial patients.
Individuals visiting Laos (from RDMA, Washington, Implementing Partner):	David McIver, Metabiota Inc.
Required meetings to be arranged:	Dr. McIver does not require any meetings, but is happy to meet with any representatives who are interested to do so.
Site visits required:	Pakse, Champasak Province; Na Pa Kieb village, Champasak Province.
Data to be collected:	Human biological samples, human quantitative risk exposure questionnaire data, and human qualitative behavioral data.
Is a DIP note or letter of introduction requested:	☐ Yes ☒ No *Note: DIP notes are required for site visits and meetings with high-level GOL officials. Names of GOL officials must also be provided.*
Is motor pool requested:	☐ Yes ☒ No
Is Embassy access requested:	☐ Yes ☒ No
Have the visitors met with the AMB/DCM before:	☐ Yes ☒ No
Is Laos staff recommended to accompany all meetings:	☐ Strongly recommended ☒ Optional, but at the Laos Office discretion
Additional Comments:	

*Only a limited number of hotels meet Embassy Lao security and safety requirements for eCC travelers. As of August 2017 these are: (1) Lao Plaza Vientiane, (2) Landmark Mekong Riverside, (3) Settha Palace, (4) Dhavara Vientiane, and (5) Crowne Plaza.

From: Peter Daszak <daszak@ecohealthalliance.org>
To: Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>;Kevin Olival, PhD" <olival@ecohealthalliance.org>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 2/28/2018 12:18:52 AM
Subject: RE: Bat and Other intervention modeling projects - UCD input

Thanks CKJ – agree it's good to talk about this and apologies for jumping the gun.

These changes look great. I'll take a good look at the rest of them with Kevin and others this week and send it round again with any other proposed changes from our end...

Kevin's already told everyone to hold off on further emails requesting info etc. until we've worked out who's leading what, and so I can send out my email now and make sure everyone realizes what we're trying to do. I'm also talking with all of our PREDICT people here at the next meeting to make sure they realize the hierarchy and understand that we have to be super-respectful of our in-country partners and their lines of connection to PREDICT....

Cheers,

Peter

Peter Daszak
President

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www.ecohealthalliance.org
@PeterDaszak
@EcoHealthNYC

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.

From: Christine Kreuder Johnson [mailto:ckjohnson@UCDAVIS.EDU]
Sent: Tuesday, February 27, 2018 5:35 PM
To: Kevin Olival, PhD; Peter Daszak; Jonna Mazet
Subject: Bat and Other intervention modeling projects - UCD input

Thanks for good discussion today.
Attaching the list with a few highlighted for which we'd like to remain as PoC to spearhead initial efforts b/c they're so aligned with where we've started work. Of course happy to coordinate with folks at EHA who have already put thought into these.
We're really looking forward to working with the modeling team on this.
/ckj

From: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
To: Andrew Clements <AClements@usaid.gov>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Amalhin Shek <ashek@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, "predict@ucdavis.edu" <predict@ucdavis.edu>
Subject: PREDICT-2 January 2016 Ebola Financial Report
Sent: Tue, 6 Mar 2018 16:48:12 +0000
PREDICT Ebola Financial Report_Jan2016_final.pdf

Hi Andrew. Please find attached the January 2016 Ebola Financial Report for PREDICT. Let me know if you have any questions.

Thanks,
Liz

Elizabeth Leasure
One Health Institute
University of California, Davis
530-754-9034 (office)
REDACTED (cell)

PREDICT-2 Expenses - Ebola

January 2018

Cost Category	US Central	Cameroon	Cote d'Ivoire	DRC	Ethiopia	Ghana	Guinea	Kenya	Liberia
Salaries	11,258	42,932	14,676	34,348	22,926	27,075	12,671	20,169	750
Fringe	3,990	16,099	5,588	11,890	8,853	2,789	3,145	6,164	365
Equipment	0	0	0	0	0	0	0	0	0
Domestic Travel	1,107	7,417	-9	568	-9	2,278	12,714	-4	0
Foreign Travel	0	4,652	3,558	3,752	14,233	8,649	11,447	1,734	151
Services	0	11,695	7,339	7,502	1,302	325	0	5,571	186,455
Supplies	1,587	227	667	613	75	15,280	0	0	4,590
Other	0	10,293	995	2,115	1,795	73,864	99,071	498	14,037
Indirects	8,239	36,824	15,173	26,779	20,753	18,672	51,212	11,701	24,286
Total Costs	**$26,182**	**$130,140**	**$47,987**	**$87,566**	**$69,968**	**$148,932**	**$191,261**	**$45,833**	**$230,633**

Cost Category	Senegal	Sierra Leone	Tanzania	Uganda
Salaries	24,559	25,804	33,784	28,272
Fringe	7,272	3,185	9,632	9,579
Equipment	0	0	0	0
Domestic Travel	-9	18,495	2,163	397
Foreign Travel	6,434	1,555	10,062	6,559
Services	1,302	0	1,302	1,694
Supplies	4,145	3,561	394	729
Other	39,158	43,629	8,327	6,696
Indirects	19,611	27,048	22,752	20,594
Total Costs	**$102,472**	**$123,277**	**$88,416**	**$74,720**

$1,357,387 PREDICT-2 Costs (Ebola)

From: Andrew Clements <aclements@usaid.gov>
Sent: Tue, 6 Mar 2018 09:49:23 -0800
Subject: Re: PREDICT-2 January 2018 Ebola Financial Report
To: Elizabeth Leasure <ealeasure@ucdavis.edu>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Amalhin Shek <ashek@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, "predict@ucdavis.edu" <predict@ucdavis.edu>

Thank you!

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Mar 6, 2018, at 5:48 PM, Elizabeth Leasure <ealeasure@UCDAVIS.EDU> wrote:

Hi Andrew. Please find attached the January 2018 Ebola Financial Report for PREDICT. Let me know if you have any questions.

Thanks,
Liz

Elizabeth Leasure
One Health Institute
University of California, Davis
530-754-9034 (office)
REDACTED (cell)

<PREDICT Ebola Financial Report_Jan2018_final.pdf>

From: William B. Karesh <karesh@ecohealthalliance.org>
To: Jonna Mazet <jkmazet@ucdavis.edu>;Chris Johnson <ckjohnson@ucdavis.edu>;Peter Daszak <daszak@ecohealthalliance.org>
Sent: 3/14/2018 9:18:54 PM
Subject: FAO - News Article: USAID and FAO working together to pre-empt the next global pandemic

http://www.fao.org/

USAID and FAO working together to pre-empt the next global pandemic

Photo: ©FAO/Giulio Napolitano

Seventy-five percent of new infectious diseases that emerged in recent decades had their origins in animals

9 March 2018, Rome - A United States-FAO partnership working to strengthen the capacity of developing countries to manage outbreaks of diseases in farm animals has in just 12 months succeeded in training over 4,700 veterinary health professionals in 25 countries in Africa, Asia and the Middle East.

The FAO-provided technical trainings covered a gamut of key competencies, including disease surveillance and forecasting, laboratory operations, biosafety and biosecurity, prevention and control methods and outbreak response strategies.

All told, 3,266 vets in Asia, 619 in West Africa, 459 in East Africa, and 363 in the Middle East benefitted. They are on the front line of the effort to stop new diseases at their source. (Full list below)

"Over the course of this relationship we've learned that there are many mutually beneficial areas of interest between the food and agricultural community and the human health community," said Dennis Carroll, Director of USAID's Global Health Security and Development Unit.

"A partnership with FAO not only enables us to protect human populations from future viral threats, but also to protect animal populations from viruses that could decimate food supplies. It's not just a global health, infectious disease issue, but also a food security, food safety, and economic growth issue," Carroll added.

"Some 75 percent of new infectious diseases that have emerged in recent decades originated in animals before jumping to us *Homo sapiens*, a terrestrial mammal. This is why improving adequately discovering and tackling animal disease threats at source represents a strategic high-ground in pre-empting future pandemics," said Juan Lubroth, FAO Chief Veterinary Officer

"A proactive approach is absolutely critical, and for that, the world needs well-trained, up-to-speed professionals — biologists, ecologists, microbiologists, modellers, physicians and veterinarians — which is why the United States' consistent support for building up that kind of capacity has been invaluable," Lubroth said.

Viral risks

Population growth, agricultural expansion and environmental encroachment, and the rise of inter-continental food supply chains in recent decades have dramatically altered how diseases emerge, jump species boundaries, and spread, FAO studies have shown.

A new study just published by USAID's Dennis Carroll and experts from several institutions including FAO suggests that just 0.01 percent of the viruses behind zoonotic disease outbreaks are known to science. The authors have proposed an international partnership, The Global Virome Project, aimed at characterizing the most risky of these. Doing so would allow more proactive responses to disease threats, with benefits not only for public health but also for the livelihoods of poor, livestock-depending farming communities.

Partnering for global health security

The close FAO-USAID partnership on animal health goes back over a decade.

Experts from the two organizations are meeting in Rome this week to review progress achieved in the past year and how to respond to threats like species-jumping zoonotic illnesses and the growing trends of antimicrobial resistance and options for intervention measures in food production and protection of public health.

UCDUSR0003433

In addition to trainings, via the USAID- Emerging Pandemic Threats (EPT) programme, FAO conducts research and advises on policy in order to help countries increase their resilience to disease emergence and protect animal and human health.

And to enable rapid responses by governments to disease events FAO has leveraged USAID support to work with the United Nations Humanitarian Response Depots to establish a series of emergency equipment and gear stockpiles in 15 countries that facilitate rapid and adequate responses to outbreaks.

FAO is also key player and advisor to the Global Health Security Agenda (GHSA), a growing partnership of over 60 countries, NGOs and international organizations working to improve early detection of and responses to infectious disease threats. USAID support under the GHSA umbrella is helping FAO engage with 17 countries in Africa and Asia to strengthen capabilities to detect and respond to zoonotic diseases.

Thanks to USAID support for the EPT and GSHA, FAO is actively tackling disease issues and building national capacities in over 30 countries

Economic impacts as well as health consequences

Beyond the risks posed to human health, animal diseases can cost billions of dollars and hamstringing economic growth.

The most damaging outbreaks of high impact disease in recent decades all had an animal source, including H5N1 highly pathogenic avian influenza, H1N1 pandemic influenza, Ebola, severe acute respiratory syndrome (SARS) and Middle East Respiratory Syndrome (MERS).

For example, the H5N1 outbreak of the mid-2000s caused an estimated $30 billion in economic losses, globally; a few years later, H1N1 racked up as much as $55 billion in damages.

Not to mention that for millions of the world's poorest people, animals are their

primary capital assets — "equity on four legs". Losing them can push these families out of self-reliance and into destitution.

Note to editors. The countries where the trainings took place were: Bangladesh, Burkina Faso, Cambodia, Cameroon, China, Democratic Republic of the Congo, Egypt, Ghana, Guinea, Indonesia, Jordan, Kenya, Laos People's Democratic Republic , Liberia, Mali, Myanmar, Nepal, Senegal, Sierra Leone, United Republic of Tanzania, Uganda and Viet Nam.

William B. Karesh, D.V.M
Executive Vice President for Health and Policy

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+1.212.380.4465 (fax)
www.ecohealthalliance.org

President, OIE Working Group on Wildlife

Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: AOTR/Grant Manager Andrew Clements <AClements@usaid.gov>;Dennis Carroll <DCarroll@usaid.gov>
CC: Cassandra Louis Duthil <clouisduthil@usaid.gov>;Alisa Pereira <apereira@usaid.gov>
Sent: 3/27/2018 5:00:49 PM
Subject: Fwd: Salone election back on for Saturday

FYI that the election has moved to Saturday the 31st. The legal battle was apparently knocked-down today, so things will move forward.

From: Dennis Carroll <dcarroll@usaid.gov>
Sent: Wed, 18 Apr 2018 13:51:34 -0700
Subject: Re: Next GVP steps
To: Guy Vernet <guy.vernet@fondation-merieuxusa.org>
Cc: "jkmazet@ucdavis.edu" <jkmazet@ucdavis.edu>, Emily PENROSE <emily.penrose@fondation-merieuxusa.org> REDACTED

Guy, if your around Friday maybe we could chat. Is there a time that works for you? Also, pleased to see you will be "an expert guide" at this he Outbreak exhibit. That should be fun

d

Sent from my iPhone

> On Apr 18, 2018, at 11:57 AM, Guy Vernet <guy.vernet@fondation-merieuxusa.org> wrote:
>
> Dear Jonna and Dennis, I hope that you are doing well and that your
> efforts to move forward GVP are fruitful.
>
> Is there anything the Merieux Foundation can do to help at that stage?
>
> Kind regards
>
> Guy
>
> --
> Guy Vernet, Ph.D.
> CEO, Mérieux Foundation USA
> 1211 Connecticut Ave. NW, 8th floor
> Washington, DC 20036
> 1-202-464-6018
> REDACTED
>
>

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Andrew Clements <aclements@usaid.gov>
CC: Amathin Shek <ashek@usaid.gov> David J Wolking <djwolking@ucdavis.edu>;KChittenden <KChittenden@usaid.gov>;Pereira, Alisa (GH/HIDN) <apereira@usaid.gov>;predict@ucdavis.edu <predict@ucdavis.edu>
Sent: 5/14/2018 2:41:31 PM
Subject: Re: Predict GHSA Country Allocations

Please confirm that the combined $9M cap on DRC & Ghana spending has now been removed.
Thank you,
Jonna

On Thu, Dec 7, 2017 at 11:43 PM Jonna Mazet <jkmazet@ucdavis.edu> wrote:
Dear Andrew,
We appreciate the clarification. We still need confirmation as to whether you are instructing us to use money slated for other countries in Yr 5 to complete the under-funded Ebola Host Project. My concern is that the promised additional funding for the Ebola Host Project will be delayed or will not come through, and then we have to tell Uganda (or pick whatever country whose funds we use) that they have to shut-down early.
Please advise and confirm that you understand the implications of this potential unintended consequence.
We do appreciate that we will not be held any longer to the previously-imposed country caps, except for the $9M (allocated to P-2) for DRC & Ghana combined, and the minimums assigned for the three Ebola Host Project countries.
Please confirm this understanding as well, so that I can proceed with 100% confidence.
Thank you,
Jonna

On Thu, Dec 7, 2017 at 1:43 PM, Andrew Clements <aclements@usaid.gov> wrote:
See below for some key information related to the question of shifting Ebola funds among countries. Short answer, total flexibility except for DRC and Ghana.

---------- Forwarded message ----------
From: **Richard Greene** <rgreene@usaid.gov>
Date: Thu, Dec 7, 2017 at 8:39 PM
Subject: Re: Predict GHSA Country Allocations
To: Andrew Clements <aclements@usaid.gov>
Cc: "Boyer, Robbin B (GH/SPBO/OPS)" <RBoyer@usaid.gov>

Sorry, the combined maximum on DRC and Ghana ($24 million total) remains since the funding of these phase 2 countries were a one-time exception.
Thanks for catching that.

On Thu, Dec 7, 2017 at 2:28 PM, Andrew Clements <aclements@usaid.gov> wrote:
Thanks. So just to be clear, no maximum or minimum funding levels for Ghana, DRC, or any other Ebola-funded country?

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Dec 7, 2017, at 4:53 PM, Richard Greene <rgreene@usaid.gov> wrote:

Hi Andrew,

There is flexibility on the country levels with the proviso that we are expected to maintain credible levels for the 3 Ebola affected countries which shouldnt be a problem since these are the countries that would get an increase under the redistribution.
Thanks
Richard

On Thu, Dec 7, 2017 at 5:05 AM, Andrew Clements <aclements@usaid.gov> wrote:
Thanks, Richard.

You mentioned the other day that the country caps are no longer in effect which sounded to me like Predict now has total freedom to propose adjustments to any country level for USAID consideration. Is that correct?

I will need a clear answer to this question before I can have a discussion with Predict regarding the reassignment of funds as you suggested.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Dec 7, 2017, at 12:18 AM, Richard Greene <rgreene@usaid.gov> wrote:

Hi Andrew,
The recent Predict 2 country financial reports indicate that Guinea, Sierra Leone, and Liberia may run low of resources in the first part of calendar year 2018. In view of the $25.907 million remaining balance (as of September 30, 2017) from the $53.3 million obligated, we suggest that Predict 2 and the AOR propose a redistribution of existing funds to facilitate the completion of planned activities in these countries by the program end date. Please let us know if you have any questions.
Thanks
Richard and Robbin

---------- Forwarded message ----------
From: **Richard Greene** <rgreene@usaid.gov>
Date: Tue, Jul 18, 2017 at 1:28 PM
Subject: Predict GHSA Country Allocations
To: Andrew Clements <aclements@usaid.gov>
Cc: "Boyer, Robbin B (GH/SPBO/OPS)" <RBoyer@usaid.gov>, "Carroll, Dennis(GH/HIDN)" <DCarroll@usaid.gov>, Alisa Pereira <apereira@usaid.gov>

Hi Andrew,
Please inform Predict of the attached revised GHSA country allocations.
Please include the following language in your email.

Predict should notify the AOR in writing whenever it has reason
to believe that any Predict supported country (funded by GHSA emergency
Ebola funds) will exceed 75 percent of the total amount so far
allotted to the country in the attached revised budget. This will
allow USAID to consider appropriate action (including possible further
revision of the country totals), if deemed appropriate by the Agency.
Best
Richard

(571) 551-7364
rgreene@usaid.gov

Richard S. Greene
Senior Infectious Disease Strategy Advisor
Office of Health, Infectious Diseases, and Nutrition
Bureau for Global Health
USAID
Tel: (571) 551-7364
E-mail: rgreene@usaid.gov

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E-mail: rgreene@usaid.gov

(571) 345-4251
[illegible]@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2

From: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
To: Tracey Goldstein <tgoldstein@ucdavis.edu>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Hannah R Chale <hrchale@UCDAVIS.EDU>
Subject: Reduced spending clarification (PREDICT)
Sent: Fri, 18 May 2018 22:49:15 +0000

Hi Tracey. After completing the Y4Q2 expenditure by country/category report for Andrew and comparing the figures to the previous quarter's report, we found that the total expenditures for one of your countries was less than the previous quarter (see below). Can you please provide a brief explanation for the reduction given our need to maintain or increase spending levels?

- Cambodia dropped by $65K

Thank you,
Liz

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *ell)*
530-754-9034 (office)
Skype: ealeasure

From: Andrew Clements <aclements@usaid.gov>
Sent: Wed, 23 May 2018 23:59:52 -0700
Subject: Re: Time Sensitive ITA - B. Bird (Sierra Leone)
To: Katherine Leasure <kaleasure@ucdavis.edu>
Cc: PREDICTMGT <predictmgt@usaid.gov>, Predict inbox <predict@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>

Approved subject to mission concurrence

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On May 24, 2018, at 1:32 AM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. Please find below a travel request for Dr. Brian Bird to Sierra Leone. Our apologies for the short notice of this request. Trip dates were selected to coincide with the time that USAID and Breakthrough Action colleagues will be in-country, and to facilitate transition planning following the recent notification of Professor Gbakima's departure. Please let me know if you have any questions. Thanks!

1. Bird (Sierra Leone): $2500 airfare/$319 (Freetown) max daily per diem

Travel Request –

1. UC Davis would like to request travel approval for Brian Bird to travel from Sacramento, CA, USA to Freetown, Sierra Leone from June 3-9, 2018 for meetings with in-country PREDICT team members and other EPT partners.

Trip purpose: Dr. Bird will meet with the in-country PREDICT team members to plan for continuity of operations during transition of in-country management, as Prof. Alah Gbakima is resigning as country-coordinator to assume a role within the new GoSL. He will also interview prospective candidates for the country coordinator position, if possible. Dr. Bird will coordinate with Mission to meet with Breakthrough Action to discuss risk reduction communications materials and PREDICT's role to provide technical advisors.

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

--

You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
To unsubscribe from this group and stop receiving emails from it, send an email to
predictmgt+unsubscribe@usaid.gov.
To post to this group, send email to predictmgt@usaid.gov.
To view this discussion on the web visit
https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/004b01d3f2ec%2460a0dc50%2421c29a80%24%40ucdavis.edu.

From: "William B. Karesh" <karesh@ecohealthalliance.org>
To: PREDICT-outbreak <predict-outbreak@ucdavis.edu>, David Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>
Subject: Fwd: FAO WEBINAR:: Ebola and animals/Ebola et les animaux : Our knowledge to date and how AH can support the PH emergency - Tuesday 29 May 2018 at 14.30h Rome time
Sent: Thu, 24 May 2018 15:09:25 +0000

FYI

Begin forwarded message:

From: "VonDobschuetz, Sophie (AGAH)" <[redacted]
Subject: WEBINAR:: Ebola and animals/Ebola et les animaux : Our knowledge to date and how AH can support the PH emergency - Tuesday 29 May 2018 at 14.30h Rome time
Date: May 24, 2018 at 6:39:31 AM EDT
To: "VonDobschuetz, Sophie (AGAH)" <[redacted]>
Cc: "Lubroth, Juan (AGAH)" <[redacted]>, "Elidrissi, Ahmed (SP5)" [redacted] "Raizman, Eran (AGAH)" <[redacted]>, "Myers, Lee (AGAH)" <[redacted]>, "Roche, Xavier, (TCE)" [redacted]>, "Pittiglio, Claudia (AGAH)" <[redacted]>, "Ingabire, Clarisse (AGAH)" <[redacted]>, "Alvisi, Alessandra" <[redacted]>, "Rumich, Nadia (AGAH)" [redacted]>, "Sumption, Keith (AGAH)" [redacted], "Biaou, Cyprien (FAOSFC)" <[redacted]>, "Kone, Philippe (FAOCD)" [redacted]>, "NdengeHello, Marthe (FAOCD)" <[redacted]>, "BonkelaIsaNkoy, Vincent (FAOCD)" <[redacted]>, Bebay, Charles (FAOCG)" <[redacted]>, "Soumare, Baba (FAORAF)" <[redacted]>, "Makonnen, Yilma (FAORE)" <[redacted]>, "Gonde, Abdoulaye (FAORAF)" <[redacted]>, "SaidouniOulebsir, Asma (FAORAF)" [redacted] "Newman, Scott (FAORAF)" <[redacted]>, "Bedane, Bernanu (FAOSPS)" <[redacted]>

Ebola and animals - Ebola et les animaux

Our knowledge to date and how AH can support the PH emergency

Les connaissances à ce jour et comment la Santé Animale peut soutenir l'urgence de Santé Publique

****WEBINAR****

Tuesday, 29 May 2018 – 14.30h Rome time

The webinar will be held in English. However, French translation of the slides will be provided.
Le webinar se tiendra en anglais. Une version française des diapositives sera fournie.

link to webinar

Prompted by the ongoing Zaire Ebola Virus (EBOV) outbreak in humans in the Democratic Republic of the Congo, the Food and Agri Organization (FAO) is updating its qualitative assessment on the risks of human exposure to EBOV from contact with wild or domestic ani

their products, originally published in January 2015. We present findings from animal field surveillance and laboratory infection distribution of potential reservoir hosts (i.e. different fruit bat species) and risk modelling approaches as well as the current status of diag available for testing of animal samples (serology and virology). As an EBOV outbreak is primarily a public health (PH) emergency once hu human infection occurs, we will discuss how best the animal health (AH) sector can support the PH emergency response and where we se role in a One Health coordination mechanism.

Suite à l'apparition du foyer à virus Ebola Zaire (EBOV) en République Démocratique du Congo, l'Organisation pour l'alimentation et l'agri (FAO) a décidé de mettre à jour l'analyse de risque qualitative sur les risques d'exposition de l'homme au EBOV par contact avec les ani sauvages ou domestiques ou leurs produits qui avait été initialement publié en Janvier 2015. Nous présentons ici les résultats de surveilla le terrain et d'études de laboratoires, de la distribution des hôtes réservoirs potentiels et les approches de modélisation du risque ainsi le diagnostiques actuels disponibles pour les dépistages sérologique et virologique des échantillons animaux. Etant donné qu'un foyer EBO avant tout une urgence de santé publique (PH) lorsque l'infection d'humain à humain se produit, nous discuterons les approches du sec santé animale (AH) afin de soutenir de façon optimale l'intervention d'urgence de la santé publique et aussi où nous voyons le rôle de la I sein du mécanisme de coordination One Health (i.e. « Une Santé »).

29 May 2018 at 14.30h

Local time in Rome, please check here for your timezones

Since the number of participants is restricted, we would like to ask you for your kind collaboration to please organize, wherever possible, access to the webinar by office location through just one single log-in.

A recording of this webinar and French translation will be made available.

To join the webinar please click the following link, from 10 minutes prior to the start:

REDACTED

When prompted, please select **"Enter as guest"** and type your **name and country** in the box provided.

You will need earphones or speakers connected to your computer and reasonable internet bandwidth. Please note that it is also possib connect on a smartphone or tablet device. In this case you will be prompted to download an app when you visit the above link.

To check that your computer is set up to connect to the webinar, please click connection test.

Please check the time in your zone: http://www.timeanddate.com/worldclock/

Please note that if you are not able to join the webinar live, a **recording will be made available later**.

Thank you to the EuFMD for its technical support.

Sophie von Dobschuetz, DVM, PhD, MSc
Veterinary Epidemiologist
Animal Health Service – FAO

REDACTED

From: Andrew Clements <aclements@usaid.gov>
Sent: Thu, 24 May 2018 10:50:03 -0700
Subject: Re: FAO Ebola
To: Jonna Mazet <jkmazet@ucdavis.edu>
Cc: Alisa Pereira <apereira@usaid.gov>

Thanks. BTW: Dennis is okay with this.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On May 24, 2018, at 6:56 PM, Jonna Mazet <jkmazet@ucdavis.edu> wrote:

> Okay -- rough estimate by tomorrow should be doable.
> Thanks,
> J

On Thu, May 24, 2018 at 2:09 AM, Andrew Clements <aclements@usaid.gov> wrote:

> Thanks, Jonna.
> Step 1: I've reached out to Dennis to get his okay

Step 2: I'll need some sort of estimate on how many staff needed, how many samples collected and tested, and timeframe. Only need a rough guess at this point. Can you provide by COB tomorrow?

Step 3: I'll reach out to Richard to see if he's willing to fund using already-appropriated Ebola money.

Step 3: run by Mission, CDC, WHO to make sure no toes will be stepped on.

Step 4: discuss with GoDRC.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On May 24, 2018, at 7:17 AM, Jonna Mazet <jkmazet@ucdavis.edu> wrote:

> Hi,
> I definitely think we are positioned to do so and that it could be incredibly valuable to do something similar in scale to what we are doing in EHP in DRC, where history tells us that we are much more likely to be successful at finding hosts because of repetition of spillover events and outbreaks. We could develop much more insight into transmission dynamics and therefore prevention recommendations, as well.On INRB testing capabilities, definitely capable, but volume will be an issue. I believe with resources that we could overcome that, though.
> Let me know if & how you'd like to proceed with planning.
> Thanks for thinking of it & considering,

Jonna

On Wed, May 23, 2018 at 8:58 AM, Andrew Clements <aclements@usaid.gov> wrote:

> FYI. I just threw this out there to gauge reaction from people in country and those who control money since there isn't usually interest in (expensive, large scale) animal sampling when there aren't outbreaks.
> If this outbreak gets controlled in a few months, there might be interest (and committed but unspent money?) that might make intensified animal sampling in DRC possible. If that aligning of the stars were to magically occur, would Predict or any other group be positioned to carry out intensive animal sampling for 6-12 months in DRC? Are there enough trained people in the country to do the sampling (for argument sake, let's say in a limited number of locations in Equateur province) and would INRB have the bandwidth to take on a larger testing load?

Your thoughts?

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

Begin forwarded message:

> **From:** Andrew Clements <aclements@usaid.gov>
> **Date:** May 23, 2018 at 5:24:28 PM GMT+2
> **To:** bhaberer@usaid.gov, ctocco@usaid.gov, isimmons@usaid.gov, cchappell@usaid.gov
> **Cc:** spaige@usaid.gov, rechalar@usaid.gov, lparish@usaid.gov, Dennis Carroll <dcarroll@usaid.gov>, rgreene@usaid.gov, laarmstrong@usaid.gov, apaus@usaid.gov, cchrisman@usaid.gov, Alisa Pereira <apereira@usaid.gov>, kchittenden@usaid.gov, Angela Wang <awang@usaid.gov>
> **Subject: Fwd: FAO Ebola**
>
> FYI.
> It is not uncommon that once a zoonotic disease has already spilled over to people the focus (rightly so) is on monitoring and stopping human to human transmission. Which is why there are rarely studies on Ebola in animals during human outbreaks and why the animals hosts are still not confirmed even after 25+ outbreaks since 1976.

The only realistic way to get around the problem is to monitor animal populations in areas where Ebola is believed to be endemic before or after human outbreaks take place. Predict is currently doing this in West Africa. Perhaps the methodologies and findings from that work can be used to set up future animal studies in DRC once this outbreak is over.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

Begin forwarded message:

From: "Morzaria, Subhash (TCE)" <REDACTED>
Date: May 23, 2018 at 1:59:33 PM GMT+2
To: Andrew Clements <aclements@usaid.gov>, "Bebay, Charles (FAOCG)"
<REDACTED>
Cc: "lparish@usaid.gov" <lparish@usaid.gov>, "Makonnen, Yilma (FAOKE)"
<REDACTED>, "Soumare, Baba (FAORAF)"
<REDACTED>, "Hasibra, Mirela (TCE)"
<REDACTED>
Subject: RE: FAO Ebola

Dear Andrew,

I understand that Charles is travelling and may not be able to respond to you immediately. We have explored the possibility of sampling livestock, but after several discussions with partners including WHO we have decided not to do this in order to avoid creating a wrong perception, particularly among the farming communities, about the role of domestic livestock in infection and transmission dynamics of Ebola virus.

We are working closely with WHO and other partners through regular calls and if in the future there is a need to samples livestock indicated by a research question or change in epidemiology we will reconsider this.

Charles may additional comments.

With best regards,

Subhash

From: Andrew Clements [mailto:aclements@usaid.gov]
Sent: Wednesday, May 23, 2018 1:45 PM
To: Bebay, Charles (FAOCG) <REDACTED>
Cc: lparish@usaid.gov; Makonnen, Yilma (FAOKE) <REDACTED>; Morzaria, Subhash (TCE)
<REDACTED>; Soumare, Baba (FAORAF)
<REDACTED>; Hasibra, Mirela (TCE)
<REDACTED>
Subject: Re: FAO Ebola

Hi Charles,

I'm following up on this exchange to see if there are any concrete plans for FAO to do animal sampling in DRC. If so, what is the anticipated timing?

Thanks!

Andrew

Andrew P. Clements, Ph.D.

Senior Scientific Advisor

Emerging Threats Division/Office of Infections Diseases/Bureau for Global Health

U.S. Agency for International Development

Mobile phone: 1-571-345-4253

Email: aclements@usaid.gov

On May 13, 2018, at 7:13 PM, Bebay, Charles (FAOCG) <REDACTED> wrote:

> Dear Andrew,
>
> As of now, FAO is not collecting animal samples but domestic animal population in the Equateur province was made available by FAO ECTAD Country team leader in DRC. FAO is also participating in multisectoral meetings led by WHO in DRC (and Congo) and a FAO Ebola Incident Coordination Group facilitated by the FAO EMC-AH from HQ was formed on Friday.
>
> Best regards,
>
> C.

From: Andrew Clements [mailto:aclements@usaid.gov]
Sent: dimanche 13 mai 2018 07:39
To: Bebay, Charles (FAOCG) <REDACTED>; Makonnen, Yilma (FAOKE) <REDACTED>; Morzaria, Subhash (TCE) <REDACTED>
Cc: lparish@usaid.gov
Subject: FAO Ebola

Hi all,

I saw the following in notes from the Ebola outbreak in DRC:

USAID, through the Food and Agriculture Organization, is collecting and testing samples [for Ebola] from the fauna in the surrounding areas. To date, local veterinarians have not identified any suspected cases among the reported animal deaths.

Could you provide additional details on what kinds of animals tested (species), number of animals tested, sampling location (geographic location as

well as general setting e.g. farm, household, market, trapped or dead wild animal, etc.), type of test used (RDT, ELISA, PCR), and lab that performed the tests.

Thanks!

Andrew

Andrew P. Clements, Ph.D.

Senior Scientific Advisor

Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health

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From: William B. Karesh <karesh@ecohealthalliance.org>
To: Andrew Clements <AClements@usaid.gov>;Mario Freddy Mondele <mmondele@usaid.gov>
CC: Anne Laudisoit <laudisoit@ecohealthalliance.org>;Jonna Mazet <jkmazet@ucdavis.edu>;Ava Sullivan <sullivan@ecohealthalliance.org>;Munster, Vincent (NIH/NIAID) [E] <vincent.munster@nih.gov>;Predict inbox <predict@ucdavis.edu>;Brian Bird <bhbird@ucdavis.edu>
Sent: 6/1/2018 12:38:29 PM
Subject: Ebola preparedness needs in RoC

Dear Andrew and Mario,

We are trying to clarify needs/requests from Dr. Mombouli, the director of the national public health lab and the Ebola coordinator for RoC.

Just to expedite the communications and with the weekend rapidly approaching, I thought it might help if Mario, you might be able to speak directly with Dr. Mombouli and see if their needs could be accommodated through any mechanisms USAID or the Embassy has in place.

Dr. Vincent Munster from US NIH is in Brazzaville now and may also be able to help clarify needs.

We are hearing that the lab in Bz and a mobile lab are both ready, but they need help with electricity and wiring for the lab and some type of help for the mobile lab surveillance operations. We are trying to get more details, but it might be easier if we got you connected directly and then we can all help to follow up.

Thanks,

Billy

William B. Karesh, D.V.M
Executive Vice President for Health and Policy

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Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

From:	Jonna Mazet <jkmazet@ucdavis.edu>
To:	PREDICTMGT <predictmgt@usaid.gov>;isimmons@usaid.gov <isimmons@usaid.gov>;bhaberer@usaid.gov <bhaberer@usaid.gov>;Jean-Felly Numbi <jnumbi@usaid.gov>
CC:	PREDICT-outbreak <predict-outbreak@ucdavis.edu>;Karen Saylors <ksaylors@metabiota.com>;Brian Bird <bhbird@ucdavis.edu>
Sent:	6/7/2018 4:19:31 AM
Subject:	UPDATE PREDICT DRC EVD outbreak 6 June 2018

Please find today's report,
Jonna

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PREDICT Outbreak or Health Event Rapid Report

Today's Date: June 6, 2018
Working Title of Investigation: Ebola virus disease outbreak in Equateur province, DR Congo.
Cumulative day of the outbreak investigation: 32 days

Please describe the disease signs and symptoms and species affected (humans, domesticated animals, wildlife:

Between April 3 and May 7, 2018, 17 successive deaths were recorded in the health district of Ikoko Impenge, in the health zone of Bikoro (Equateur Province). Seventeen individuals were linked through family relationships. Patients presented with the following symptoms prior to their death: fever, diarrhea, abdominal pain, vomiting, muscle and joint pain, and hemorrhagic symptoms.

On May 4, an alert for suspected Viral Hemorrhagic Fever in the Bikoro health zone was received at the MOH Office of Disease Control.

On May 8, two out of five individuals tested were confirmed as Ebola virus (species, *Zoire ebolavirus)* by RT-PCR at INRB. As of May 12, additional possible EVD cases continue to be identified in the affected area.

Location	
Country:	Democratic Republic of the Congo
District:	Equateur
Village/Town:	IKOKO IMPENGE / Health zone of BIKORO
GPS Coordinates (if known):	Latitude : -0.749997 ; Longitude : 18.1166662
Date that first case(s) of illness occurred (if known or estimate):	April 03, 2018
Date that PREDICT was first notified of outbreak:	May 07, 2018

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Key Information	Description of Findings/Actions/Outcomes
How many affected individuals?	

	Suspected	Confirmed	Deaths	Total affected
Humans	9	37	27	60
Domestic Animals	0	0	0	0
Wild Animals	0	0	0	0

How was outbreak first noticed?	Ikoko Impenge health district notified the Bikoro Health Zone of 1 death with viral hemorrhagic fever-like symptoms.
Where was the first reported case? What is/was the extent of geographic spread? Include comments on the apparent speed of spread.	• A cluster in week 11 (12-18 March 2018) in Bikoro area, Equateur, DRC, including 19 cases including 17 deaths, 15 deaths of which were in the community, raised the alert of suspected VHF. • Symptoms observed include fever, vomiting, abdominal pain, eye redness, and diarrhea, and were not alleviated by antibiotic and antimalarial treatment. • The first reported case was at IKOKO IMPENGE Health District. Between April 3 and May 7, 2018, 17 deaths were recorded among people with family relationships, from a total of 27 total cases, according to MOH. (According to WHO reports, investigations identified 135 cases retrospectively, going back as far as January 2018 in the Igende zone, 60km from Bikoro, so there is some conflicting information circulating.) • The first case in Bikoro was a policeman who arrived from Igende area. He died in a health centre in Ikoko Impenge village, Bikoro area. • Following the first case's funeral, 11 family members developed symptoms and 7 died. The deceased all had either attended the funeral or acted as caregivers. • Five patients were sampled and tested for EVD, of which two were found positive for EVD by RT-PCR at INRB in Kinshasa on 8 May 2018.
Has the country requested support from PREDICT (include date of request)?	The DRC requested unspecified support from PREDICT on May 7, 2018. On Tuesday, May 8, MOH requested that PREDICT conduct additional testing of the 5 samples stored at INRB, which USAID approved on the same day. The PREDICT lab

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	team received samples and initiated testing on Wednesday, May 9. On May 9, a list of unmet needs was developed at the outbreak response meeting with MOH and partners. Late on May 11, PREDICT received a formal request from the Government through INRB regarding support for outbreak response activities. In response to the list of unmet needs provided by the laboratory commission, PREDICT provided 150 PPE, a Smartcycler PCR machine and accompanying computer, and two gloveboxes. On May 12, INRB requested PPE and sampling kits from PREDICT to send to the outbreak sites. USAID quickly approved this, so Metabiota ordered these with the plan to express them to DRC. On May 16, the MOH (INRB) officially asked PREDICT for a space in a -80 freezer to store Ebola vaccines. The mobile lab in Bikoro is functional (with RT-PRC, rapid tests, and GeneExpert up and running) as is the Mbandaka MOH-INRB lab
If so, which government agency requested PREDICT support?	Ministry of Health through the National Institute of Biomedical Research (INRB)
When was PREDICT response initiated (date)?	Tuesday, May 8, 2018
Are other EPT partners involved in the response (which ones and how)?	No
What type of assistance did PREDICT initially provide? Which PREDICT personnel were involved?	PREDICT is running the PREDICT protocol testing on patient specimens, using PREDICT virus family primers with the intent of finding filoviruses or other viral families, as well as identifying sequences for further elucidation of species and strain. (Previously INRB testing of five patients' whole blood specimens for EVD found two to be positive for Ebola virus (*Zoire ebolovirus)* by RT-PCR at INRB in Kinshasa on May 7 2018.) On May 12, the K-Plan mobile lab (previously acquired through USAID support) was deployed to the outbreak site in

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	Bikoro and Iboko. The INRB team arrived that Saturday morning in Mbandaka, the capital of Equator Province, for preparation.
When was the first official acknowledgement of the outbreak (by which government agency or other reputable body and date)? When was a response initiated and by whom? Which agencies were involved? Who was in charge of the national response?	The first official acknowledgement of the outbreak was by the MOH Office of Disease Control on May 6, 2018. A joint investigation team was deployed by MOH, WHO and MSF, and according to MOH, another team from the MOH Office of Disease Control and WHO deployed today to Mbandaka (capital of Equateur province) to lead case investigations. Background on area: Ikoko Impenge health area covers 15km and includes 5 villages, all of which have reported suspected cases. This area of DRC has not suffered previous documented Ebola outbreaks. Ikoko Impenge health area is not covered by mobile telephone networks, but is accessible by road. It lies 128km from Mbandaka, the capital of Equateur province, however the road is under renovation and the current route is 280km. An airstrip is present 8km from Bikoro, which is 30km from Ikoko.
Was the cause of the outbreak confirmed by a laboratory? If so, give details of the initial confirmation (cause, species, specimen types tested and dates of testing if known).	INRB testing of five patients' whole blood specimens for EVD found two to be positive for Ebola virus (*Zaire ebolovirus*) by RT-PCR at INRB in Kinshasa on May 7 2018.
Where was the laboratory testing performed (name of laboratory)?	INRB
Number of days between initiation of government response and lab confirmation of laboratory results.	1 day
Summary of the Outbreak or Event:	**To be filled after active outbreak or event activity has ceased**
Working name of the outbreak:	

Total number of cases:

	Suspected:	Confirmed:	Deaths:
Humans			
Domestic Animals			
Wild Animals			

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Summary of PREDICT Team response activities during the outbreak.	

PREDICT Outbreak or Health Event Response Daily Activities/Timeline

Working Title of Investigation: Ebola virus outbreak DRC Equateur April-May 2018

Key Events:

Date	Day #	Notification or Action Taken
April 3, 2018	-34	First suspect case in family cluster
May 6, 2018	1	Head Office of Disease Control officially acknowledges the outbreak.
May 7, 2018	2	The government, through the INRB, verbally requests PREDICT support. Specific details of request pending. Confirmation of Ebola virus by RT-PCR at the INRB laboratory. Of five samples tested, two were positive for *Zaire ebolavirus*.
May 8, 2018	3	MOH verbally requests for PREDICT to conduct PREDICT protocol testing of samples at INRB. Written approval from USAID AOR communicated to PREDICT DRC team. Samples transferred to PREDICT lab. Official Statement of the Ebola Virus Epidemic released by the Congolese Government (Ministry of Health). Developed road map and response plan. An investigative mission led by the director of the Office of Disease Control (DGLM) planned for Wednesday May 9, 2018 in the province of Equateur. **Monitoring report:** • New cases registered: 4 (in the health center) • On five previous cases monitored, three were released. There are two active cases in the General Hospital. • Total of active and monitored cases: 6 (among which 4 are suspected cases). • Laboratory confirmed cases : 2 • Deaths : 17 • Total notified cases: 23
May 9, 2018	4	PREDICT lab analysis of clinical specimens following PREDICT virus-family

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		level protocols is in progress. PREDICT Country Coordinator met with MOH and partners on response plan and development of list of unmet needs. An investigative mission led by Office of Disease Control (DGLM) was deployed today May 9 to the province of Equateur. **Monitoring report:** • New cases registered: 4 • Total of active and monitored cases: 10 (among which 8 are suspected cases). • Confirmed cases : 2 • Deaths: 17 • Total cases under investigation: 27
May 10, 2018	5	Four new suspected cases and one death were reported in the health zone of Iboko, near the Bikoro health zone. The deceased case was a health professional who had symptoms suggestive of Ebola virus disease. **Monitoring report:** • Deaths: 18 cases • Suspected cases: 12 cases • Confirmed cases: 2 cases • Total notified cases: 32 cases (in Bikoro and Iboko) Identified actions: • Identification of positive cases • Contact tracing • Active monitoring • Sensitization seminars of all the Chief Medical officers in the health zones of Equator Province.
May 11, 2018	6	Late on May 11, the PREDICT DRC team received a formal request from the Government, through INRB regarding support for response activities. In response to the list of unmet needs provided by the laboratory commission, PREDICT provided 150 PPE, a Smartcycler and accompanying computer, and two gloveboxes. The K-Plan mobile lab (previously acquired through USAID support) will be deployed to the outbreak site in Bikoro and Iboko tomorrow (May 12, 2018). There is a significant and urgent need for sampling kits on sites of the outbreak.

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		According to the WHO, all conditions are met for the vaccine to arrive in Kinshasa next week (week of May 14 to 20, 2018). **Monitoring report**: • New suspected cases : 2 (one in Iboko and the other in Bikoro) • There are three community alert cases in Mbandaka of new reports of ill individuals in the community requiring follow-up. • Deaths : 18 • Suspected cases: 14 (9 in Bikoro, 5 in Iboko) • Confirmed cases: 2 • Total notified cases: 34 (in Bikoro and Iboko)
May 12, 2018	7	In preparation for this deployment, the INRB Team arrived in Mbandaka, the capital of Equator Province. The Minister of Health and Ministry of Health officials arrived this morning to the sites of the epidemic. The INRB Team is in Bikoro. The K-Plan mobile lab was shipped this morning to Bikoro via Mbandaka. The Director General of the WHO arrives tonight in Kinshasa. **Monitoring report**: • New suspected cases : 2 (in Wangata, one of three health zones of Mbandaka) • After re-evaluation of the situation, the number of suspected cases was revised downward to Bikoro (8 suspected cases) and Iboko (2 suspected cases). • Deaths: 18 • Suspected cases: 12 (8 in Bikoro, 2 in Iboko, 2 in Wangata) • Confirmed cases: 2 • Cases previously suspected but tested negative: 3 • Total notified cases: 35 in 4 health zones (Bikoro , Iboko, Wangata and Ingende; this count includes the 3 laboratory-negative cases).
May 13, 2018	8	Director General of the WHO, MOH and representative of WHO DRC visit Mbandaka and Bikoro. **Monitoring report**: • New suspected cases : 5 (2 in Bikoro ; 3 in Iboko) • Deaths: 20 (17 in Bikoro; 3 in Iboko) • Suspected cases: 17 (10 in Bikoro, 5 in Iboko, 2 in Wangata) • Confirmed cases: 2

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		• Cases previously suspected but tested negative: 3 • Total notified cases: 42 in 4 health zones (Bikoro , Iboko, Wangata and Ingende; this count includes the 3 laboratory-negative
May 14, 2018	9	Cold chain for vaccination is being deployed on site. **Monitoring report:** • New suspected cases : 3 (in Bikoro) • Deaths: 20 (17 in Bikoro; 3 in Iboko) • Suspected cases: 20 (13 in Bikoro, 5 in Iboko, 2 in Wangata) • Confirmed cases: 2 • Cases previously suspected but tested negative: 3 • Total notified cases: 45 in 4 health zones (Bikoro , Iboko, Wangata and Ingende); this count includes the 3 laboratory-negative
May 15, 2018	10	USAID approved the request in support for outbreak response. Previously, the analysis made on the five samples at the PREDICT lab cost $111.35 At the end of all analysis, this amount may reach $276.69 **Monitoring report:** • New suspected cases : 3 (in Wangata) • Deaths: 20 (18 in Bikoro; 2 in Iboko) • Suspected cases: 20 (14 in Bikoro, 3 in Iboko, 3 in Wangata) • Confirmed cases: 2 • Cases previously suspected but tested negative: 3 • Total notified cases: 42 in 4 health zones (Bikoro , Iboko, Wangata and Ingende); this count does not include the 3 laboratory-negative individuals.
May 16, 2018	11	5412 doses of vaccines against EVD arrived in Kinshasa. The MOH (INRB) officially asked PREDICT for a space in a -80 freezer to store the vaccines. A vaccination committee will be set up to coordinate vaccination activities. In view of the spread of the outbreak in several health zones, a reassessment of laboratory needs is being made by the Laboratory commission. This changing state of need will integrate all affected health areas. **Monitoring report:** • New suspected cases : 2 (1 in Bikoro and another in Wangata)

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		• Deaths: 23 (20 in Bikoro; 3 in Iboko) • Probable cases: 20 (18 in Bikoro; 2 in Iboko) • Suspected cases: 21 (15 in Bikoro, 3 in Iboko, 3 in Wangata) • Confirmed cases: 3 • Cases previously suspected but tested negative: 3 • Total notified cases: 44 in 4 health zones (Bikoro , Iboko, Wangata and Ingende); this count does not include the 3 laboratory-negative individuals.
May 17, 2018	12	Vaccination at the sites of the outbreak will begin on Monday, May 21, 2018. Vaccination will target health professionals working in the hospitals, contacts of the confirmed cases, and contacts of the case contacts. In view of the importance of the outbreak, the laboratory and research commission reassessed the needs for assistance. In order to circumvent the difficulties related to customs clearance, the chairman of the commission, Pr Muyembe, suggested that some materials be bought in Kinshasa. Six specimen collected on May 16 should arrive tonight in Kinshasa from Mbandaka. The laboratory in Bikoro is fully functional. Rapid diagnostic test and RT-PCR will be used. In Mbandaka, the GeneXpert is set up, but electricity is a problem . **Monitoring report:** • New suspected cases : 0 • Deaths: 24 (21 in Bikoro; 3 in Iboko) • Probable cases: 21 (19 in Bikoro; 2 in Iboko) • Suspected cases: 1 (health zone has not been specified) • Confirmed cases: 14 (13 in Bikoro ; 1 in Wangata) • Contact case: 532 (330 in Bikoro; 120 in Iboko; 52 in Wangata; 30 in Ntondo) • Cases previously suspected but tested negative: 3 • Total notified cases: 45 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the 3 laboratory-negative cases. Please note that the total notified cases (45) does not match the sum of the suspected, confirmed and deceased cases, but these are the numbers MOH is reporting.

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		The WHO situation report (May 16 version) indicates a total of 44 notified cases and 23 deaths.
May 18, 2018	13	A new MOH team arrived in Mbandaka this morning. **Monitoring report:** • New suspected cases : 4 (in Iboko) • Deaths: 25 (20 in Bikoro; 4 in Iboko ; 1 in Wangata) • Probable cases: 21 (19 in Bikoro; 2 in Iboko) • Suspected cases: 4 (in Iboko) • Confirmed cases: 17 (8 in Bikoro ; 5 in Iboko; 4 in Wangata) • Followed contact cases: 429 (274 in Bikoro; 73 in Iboko; 52 in Wangata; 30 in Ntondo) • Total notified cases: 42 in 4 health zones (Bikoro , Iboko, Wangata and Ingende); this count does not include the 3 laboratory-negative individuals. Please note that the total notified cases (42) does not match the sum of the suspected, confirmed and deceased cases, but these are the numbers MOH is reporting. The WHO situation report (May 17 version) indicates a total of 45 notified cases and 24 deaths.
May 19, 2018	14	Free health care will be provided in epidemic health zones (areas where there are confirmed cases) and in health zones close to the epidemic zone. In total, seven health zones have been identified. In Mbandaka , 62 frontline health care and laboratory workers (11 in Wangata, 24 in Bolenge and 27 at the Ebola Treatment Center) have been identified to receive the vaccine. An additional 3000 doses are expected to reach Kinshasa on May 19, 2018. The shipping of vaccines to Mbandaka will begin on May 20, 2018. **Monitoring report:** • Deaths: 26 (22 in Bikoro; 3 in Iboko ; 1 in Wangata) • Probable cases: 21 (19 in Bikoro; 2 in Iboko) • Suspected cases: 3 (2 in Iboko; 1 in Wangata) • Confirmed cases: 21 (10 in Bikoro ; 7 in Iboko; 4 in Wangata) • Followed contact cases: 501 (279 in Bikoro; 75 in Iboko; 117 in Wangata; 30 in Ntondo) • Total notified cases: 45 in 4 health zones (Bikoro , Iboko, Wangata and Ingende); this count does not include the 3

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		• laboratory-negative individuals.
May 20, 2018	15	On May 19, a confirmed female case from Wangata left the Ebola treatment center in Mbandaka. An alert case in Kinshasa was tested negative for Ebolavirus by RT-PCR at INRB. 560 doses of vaccine arrived in Mbandaka. **Monitoring report:** • Deaths: 26 (22 in Bikoro; 3 in Iboko ; 1 in Wangata) • Probable cases: 21 (19 in Bikoro; 2 in Iboko) • Suspected cases: 6 (6 in Iboko) • Confirmed cases: 22 (10 in Bikoro ; 8 in Iboko; 4 in Wangata) • Followed contact cases: 511 (273 in Bikoro; 95 in Iboko; 113 in Wangata; 30 in Ntondo) • Total notified cases: 49 in 4 health zones (Bikoro , Iboko, Wangata and Ingende); this count does not include the 3 laboratory-negative individuals.
May 21, 2018	16	The vaccination campaign (rVSV-ZEBOV) started today in the epidemic zones. The PREDICT laboratory analyzed four confirmed positive specimens from Mbandaka, which previously tested positive by the geneXpert platform. One of the four specimens tested positive for filovirus RNA using the PREDICT virus-family consensus PCR protocol, this initial result will be confirmed by genetic sequencing. The PREDICT lab also tested the two positive confirmed specimens from Bikoro. One sample was positive for filovirus using the PREDICT virus-family level consensus PCR protocol which will also be confirmed by genetic sequencing. **Monitoring report:** • Deaths: 27 (22 in Bikoro; 3 in Iboko ; 2 in Wangata) • Probable cases: 21 (19 in Bikoro; 2 in Iboko) • Suspected cases: 2 (in Wangata) • Confirmed cases: 28 (10 in Bikoro ; 14 in Iboko; 4 in Wangata) • Followed contact cases: 561 (301 in Bikoro; 115 in Iboko; 115 in Wangata; 30 in Ntondo) • Total notified cases: 51 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the 3 laboratory-

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		• negative individuals. Please note: the WHO situation report (May 20 version) indicates a total of 49 notified cases and 26 deaths.
May 22, 2018	17	Two patients left the Wangata Ebola Treatment Center. Both were found later, including one individual who had died after returning to their home. One death in Wangata (from May 20) was reported as non-EVD. 33 people were vaccinated (rVSV-ZEBOV) including 10 hospital health personnel in Wangata, 22 case contacts and the Director of the Expanded Vaccination Program. **Monitoring report:** • Deaths: 27 (23 in Bikoro; 3 in Iboko ; 1 in Wangata) • Probable cases: 21 (19 in Bikoro; 2 in Iboko) • Suspected cases: 9 (6 in Iboko; 3 in Wangata) • Confirmed cases: 28 (10 in Bikoro; 14 in Iboko; 4 in Wangata) • Followed contact cases: 561 (321 in Bikoro; 114 in Iboko; 112 in Wangata; 30 in Ntondo) [note the total should be 577] • Total notified cases: 58 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the 3 laboratory-negative individuals.
May 23, 2018	18	Another 3,800 doses of vaccines have been received in Mbandaka. The total number of doses delivered and available for administration in the outbreak sites is 4,360. **Monitoring report:** • Deaths: 30 (24 in Bikoro; 3 in Iboko ; 3 in Wangata) • Probable cases: 22 (20 in Bikoro; 2 in Iboko) • Suspected cases: 16 (2 in Bikoro; 8 in Iboko; 6 in Wangata) • Confirmed cases: 30 (10 in Bikoro; 16 in Iboko; 4 in Wangata) • Followed contact cases: 587 (344 in Bikoro; 111 in Iboko; 102 in Wangata; 30 in Ntondo) • Total notified cases: 68 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the 3 laboratory-negative individuals.
May 24, 2018	19	As part of WASH and communication efforts, MOH did a training on safe burial practices, and has begun disinfecting houses of those who have

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		died. They are providing psychosocial support to victims, family members, and medical staff, as well as sensitization to cultural, religious, and opinion leaders. The Minister of Health said today that safe burials are regarded as inhumane, so there is a lot of communication that must accompany this, and that we must learn lessons from West Africa on how best to roll this out to communities. **Monitoring report:** • Deaths: 23 (16 in Bikoro; 4 in Iboko ; 3 in Wangata) • Probable cases: 13 (11 in Bikoro; 2 in Iboko) • Suspected cases: 8 (2 in Bikoro; 5 in Iboko; 1 in Wangata) • Confirmed cases: 31 (10 in Bikoro; 17 in Iboko; 4 in Wangata) • Followed contact cases: 927 (445 in Bikoro; 302 in Iboko; 180 in Wangata) ; this represents 85% contact trace coverage rate of known contacts. • Total notified cases: 52 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the 3 laboratory-negative individuals. 560 additional vaccine doses were sent to outbreak site today, with 4000 supplemental doses expected later this week. Vaccination of traditional medicine practitioners began today in the affected areas.
May 25, 2018	20	*Informational update and details on INRB initiated animal sampling field activities:* As part of an ecological study, two members of INRB Team were sent to Bikoro. Their objective is to capture and sample bats in order to research potential Ebola virus reservoirs. One of the INRB field-team members, has been trained by PREDICT on animal sampling protocols and regularly works with the PREDICT team to sample wild animals in bushmeat markets and with hunters and trappers. The INRB animal sampling team intends to conduct field sampling until June 9, 2018. The PREDICT team has no direct involvement in these activities at this time. *VSV-ZEBOV vaccine:* Of the 180 contacts registered in Mbandaka, 154 people have been vaccinated.

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		PREDICT laboratory testing: PREDICT conducted laboratory testing following virus family level consensus PCR protocols of two previously INRB tested Ebola-positive specimens sent from the outbreak sites. PCR products from one of these two specimens were obtained by the PREDICT laboratory testing methods, and were shipped Friday to Germany for sequencing. **Monitoring report:** • Deaths: 24 (16 in Bikoro; 5 in Iboko ; 3 in Wangata) • Probable cases: 13 (11 in Bikoro; 2 in Iboko) • Suspected cases: 6 (3 in Bikoro; 2 in Iboko; 1 in Wangata) • Confirmed cases: 35 (10 in Bikoro; 21 in Iboko; 4 in Wangata) • Followed contact cases: 948 (483 in Bikoro; 296 in Iboko; 129 in Wangata; 40 in Ntondo) ; this represents 86% contact trace coverage rate of known contacts. • Total notified cases: 54 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the 3 laboratory-negative individuals.
May 26, 2018	21	**VSV-ZEBOV vaccine:** 56 people (registered contacts and health staff) were vaccinated in Mbandaka. To date, a total of 210 people have been vaccinated. **Monitoring report:** • Deaths: 25 (16 in Bikoro; 6 in Iboko ; 3 in Wangata) • Probable cases: 13 (11 in Bikoro; 2 in Iboko) • Suspected cases: 6 (2 in Bikoro; 3 in Iboko; 1 in Wangata) • Confirmed cases: 35 (10 in Bikoro; 21 in Iboko; 4 in Wangata) • Followed contact cases: 922 (478 in Bikoro; 296 in Iboko; 148 in Wangata) ; this represents 84% contact trace coverage rate of known contacts. • Total notified cases: 54 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the 3 laboratory-negative individuals.
May 27, 2018	22	**VSV-ZEBOV vaccine:** 108 people (registered contacts and health staff) were vaccinated in Mbandaka. To date, a total of 318 people have been vaccinated. **Contact Tracing:** The Director General of the Directorate of Disease

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		Control reported the extension of the case investigation zone to Kiri Health Zone, Bandundu Province. A woman died in Iboko between May 5-10 and the corpse was returned to Kiri, where it was handled by 14 people. The woman's daughter also died. These exposed contacts will be investigated by a team of MOH experts, scheduled for tomorrow (May 28). Please note that the number of contact cases followed was not announced. However, the Epidemiological Surveillance Commission reports 201 new contacts registered. **Monitoring report:** • Deaths: 25 (16 in Bikoro; 6 in Iboko ; 3 in Wangata) • Probable cases: 13 (11 in Bikoro; 2 in Iboko) • Suspected cases: 8 (2 in Bikoro; 5 in Iboko; 1 in Wangata) • Confirmed cases: 35 (10 in Bikoro; 21 in Iboko; 4 in Wangata) • Total notified cases: 56 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the 3 laboratory-negative individuals.
May 28, 2018	23	**VSV-ZEBOV vaccine**: 50 people (registered contacts) were vaccinated in Mbandaka. To date, a total of 368 people have been vaccinated. **Contact Tracing**: An investigation will be conducted in Kiri on May, 29. The Surveillance Commission mentioned 15 contact cases in Kiri, which is not consistent with their announcement on May 27. **Monitoring report:** • Deaths: 25 (16 in Bikoro; 6 in Iboko ; 3 in Wangata) • Probable cases: 13 (11 in Bikoro; 2 in Iboko) • Suspected cases: 6 (1 in Bikoro; 4 in Iboko; 1 in Wangata) • Confirmed cases: 35 (10 in Bikoro; 21 in Iboko; 4 in Wangata) • Followed contact cases: 736 (265 in Bikoro; 317 in Iboko; 154 in Wangata) ; this represents 74% contact trace coverage rate of known contacts. • Total notified cases: 54 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the 3 laboratory-negative individuals.
May 29, 2018	24	**VSV-ZEBOV vaccine:** 94 people were vaccinated (58 in Mbandaka ; 20 in Bikoro; 16 in Iboko). To date, a total of 462 people have been

UCDUSR0003466

		vaccinated.(462 in Mbandaka; 20 in Bikoro; 16 in Iboko) **Contact Tracing:** MOH experts went to Kiri for an investigative mission. **Monitoring report:** • Deaths: 25 (16 in Bikoro; 6 in Iboko ; 3 in Wangata) • Probable cases: 13 (11 in Bikoro; 2 in Iboko) • Suspected cases: 3 (2 in Bikoro; 1 in Wangata) • Confirmed cases: 35 (10 in Bikoro; 21 in Iboko; 4 in Wangata) • Followed contact cases: 528 (112 in Bikoro; 262 in Iboko; 154 in Wangata) ; this represents 55% contact trace coverage rate of known contacts. • Total notified cases: 51 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the laboratory-negative individuals. Please note that 5 suspecetd cases were tested negative (4 in Iboko; 1 in Wangata). New suspeceted cases : 2 (1 in Iboko; 1 in Wangata)
May 30, 2018	25	**VSV-ZEBOV vaccine:** 99 people were vaccinated (18 in Mbandaka ; 54 in Bikoro; 27 in Iboko). To date, a total of 561 people have been vaccinated (444 in Mbandaka; 74 in Bikoro; 43 in Iboko). **Monitoring report:** • Deaths: 25 (16 in Bikoro; 6 in Iboko ; 3 in Wangata) • Probable cases: 13 (11 in Bikoro; 2 in Iboko) • Suspected cases: 4 (3 in Bikoro; 1 in Wangata) • Confirmed cases: 36 (10 in Bikoro; 22 in Iboko; 4 in Wangata) • Followed contact cases: 508 (119 in Bikoro; 324 in Iboko; 65 in Wangata) ; this represents 68% contact trace coverage rate of known contacts. • Total notified cases: 53 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the laboratory-negative individuals.
May 31, 2018	26	**PREDICT Laboratory:** Today sequence information was obtained from one of the INRB confirmed cases from Bikoro health zone (*see 25 May 2018 log-entry, above*). Initial genomic analysis is consistent with the detection of Ebola virus (species: *Zaire ebolavirus*). Further genomic characterization of this PREDICT lab protocol generated sequence fragment is pending.

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		VSV-ZEBOV vaccine: 121 people were vaccinated (53 in Mbandaka ; 40 in Bikoro; 28 in Iboko). To date, a total of 682 people have been vaccinated (497 in Mbandaka; 114 in Bikoro; 71 in Iboko). **Monitoring report:** • Deaths: 25 (17 in Bikoro; 5 in Iboko ; 3 in Wangata) • Probable cases: 13 (11 in Bikoro; 2 in Iboko) • Suspected cases: 0 • Confirmed cases: 37 (10 in Bikoro; 23 in Iboko; 4 in Wangata) • Followed contact cases: 506 (169 in Bikoro; 199 in Iboko; 138 in Wangata) ; this represents 57% contact trace coverage rate of known contacts. • Total notified cases: 50 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the laboratory-negative individuals.
June 1, 2018	27	**VSV-ZEBOV vaccine:** 126 people were vaccinated (30 in Mbandaka ; 56 in Bikoro; 40 in Iboko). To date, a total of 809 people have been vaccinated. *Surveillance at Ports of Entry (PoE):* Health Control is assuring surveillance at PoE in Bikoro, Mbandaka, and Kinshasa. Health screenings included 293 travelers in Bikoro, 669 in Mbandaka, and 386 in Kinshasa. Two alerts (individuals who were suspected of EVB) were reported in Ingende, traveling from Mbandaka, and investigation of those alerts is in progress. **Monitoring report:** • Deaths: 25 (17 in Bikoro; 5 in Iboko ; 3 in Wangata) • Probable cases: 13 (11 in Bikoro; 2 in Iboko) • Suspected cases: 5 (3 in Bikoro; 2 in Wangata) • Confirmed cases: 37 (10 in Bikoro; 23 in Iboko; 4 in Wangata) • Followed contact cases: 528 (169 in Bikoro; 223 in Iboko; 136 in Wangata) ; this represents 60% contact trace coverage rate of known contacts. Total notified cases: 55 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the laboratory-negative individuals.
June 2, 2018	28	**VSV-ZEBOV vaccine:** 38 people were vaccinated in Mbandaka and 29 in Iboko. To date, a total of 902 people have been vaccinated (567 in Mbandaka; 169 in Bikoro; 166 in Iboko).

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		Case investigation update: There is currently an attempt to investigate suspected cases in the family of a deceased nurse in Itipo, whose death was likely due to having managed 20 confirmed Ebola cases. The attempt was met with strong resistance and refusal from family members, and negotiations are in progress. (Itipo is a health district within the health zone of Iboko.) **Monitoring report:** • Deaths: 25 (17 in Bikoro; 5 in Iboko ; 3 in Wangata) • Probable cases: 13 (11 in Bikoro; 2 in Iboko) • Suspected cases: 7 (2 in Bikoro; 3 in Iboko; 2 in Wangata) • Confirmed cases: 37 (10 in Bikoro; 23 in Iboko; 4 in Wangata) • Followed contact cases: 556 (152 in Bikoro; 260 in Iboko; 144 in Wangata) ; this represents 60% contact trace coverage rate of known contacts. Total notified cases: 57 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the laboratory-negative individuals.
June 3, 2018	29	**VSV-ZEBOV vaccine:** 147 people were vaccinated (50 in Bikoro; 97 in Iboko). To date, a total of 1,112 people have been vaccinated (567 in Mbandaka; 269 in Bikoro; 276 in Iboko). Please note that the vaccination target has been reached in Mbandaka. 2870 vaccine doses are still available at Mbandaka. **Case investigation update:** Samples from one of two alert cases in Ingende (Please see June 1 report) tested negative for Ebola. Kiri team investigators (Please see May 28 report) noted that the contacts cases followed have reached the 18th day of monitoring (incubation period for EVD is 2 to 21 days). Thus far, no particular clinical signs have been observed. **Monitoring report:** • Deaths: 25 (17 in Bikoro; 5 in Iboko ; 3 in Wangata) • Probable cases: 13 (11 in Bikoro; 2 in Iboko) • Suspected cases: 3 (in Iboko) • Confirmed cases: 37 (10 in Bikoro; 23 in Iboko; 4 in Wangata) • Followed contact cases: 442 (129 in Bikoro; 176 in Iboko; 137 in Wangata) ; this represents 47% contact trace coverage rate of known contacts. Total notified cases: 53 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the laboratory-negative

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		individuals.
June 4, 2018	30	*VSV-ZEBOV vaccine:* 87 people were vaccinated (10 in Mbandaka; 30 in Bikoro; 47 in Iboko). To date, a total of 1,199 people have been vaccinated (577 in Mbandaka; 299 in Bikoro; 323 in Iboko). Please note that ten ring contacts (contact of case contacts) who were linked to a case contact from Bikoro were vaccinated in Mbandaka. Two recovered patients were released from the Ebola treatment center of Likati. **Monitoring report:** • Deaths: 25 (17 in Bikoro; 5 in Iboko ; 3 in Wangata) • Probable cases: 13 (11 in Bikoro; 2 in Iboko) • Suspected cases: 6 (5 in Bikoro; 1 in Wangata) • Confirmed cases: 37 (10 in Bikoro; 23 in Iboko; 4 in Wangata) • Followed contact cases: 490 (116 in Bikoro; 237 in Iboko; 137 in Wangata) ; this represents 52% contact trace coverage rate of known contacts. Total notified cases: 56 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the laboratory-negative individuals.
June 5, 2018	31	**VSV-ZEBOV vaccine**: 145 people were vaccinated (20 in Mbandaka; 27 in Bikoro; 98 in Iboko). To date, a total of 1,369 people have been vaccinated (597 in Mbandaka; 299 in Bikoro; 473 in Iboko). Please note that in Mbandaka, contacts who were vaccinated were identified according to relationships with a contact case from Bikoro. **Case Investigation update**: Four recovered patients were released from the Ebola treatment center of Bikoro. **Monitoring report:** • Deaths: 27 (18 in Bikoro; 6 in Iboko ; 3 in Wangata) • Probable cases: 14 (11 in Bikoro; 3 in Iboko) • Suspected cases: 7 (4 in Bikoro; 3 in Iboko) • Confirmed cases: 37 (10 in Bikoro; 23 in Iboko; 4 in Wangata) • Followed contact cases: 529 (140 in Bikoro; 280 in Iboko; 109 in Wangata) ; this represents 56% contact trace coverage rate of known contacts. Total notified cases: 58 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the laboratory-negative individuals.
June 6, 2018	32	**VSV-ZEBOV vaccine**: 183 people were vaccinated (25 in Mbandaka; 46 in

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		Bikoro; 82 in Iboko; 30 in Ingende). To date, a total of 1,579 people have been vaccinated (622 in Mbandaka; 372 in Bikoro; 555 in Iboko; 30 in Ingende). **Case Investigation update**: 21 patients are hospitalized in the respective Ebola treatment centers : 5 in Mbandaka; 2 in Moheli; 8 in Ikoko Impenge; 4 in Itipo; 2 in Iboko. **Monitoring report:** • Deaths: 27 (18 in Bikoro; 6 in Iboko ; 3 in Wangata) • Probable cases: 14 (11 in Bikoro; 3 in Iboko) • Suspected cases: 9 (2 in Bikoro; 6 in Iboko; 1 in Wangata) • Confirmed cases: 37 (10 in Bikoro; 23 in Iboko; 4 in Wangata) • Followed contact cases: 546 (97 in Bikoro; 312 in Iboko; 137 in Wangata) ; this represents 87% contact trace coverage rate of known contacts. Total notified cases: 60 in 4 health zones (Bikoro, Iboko, Wangata and Ingende); this count does not include the laboratory-negative individuals. **NB:** All recent confirmed cases are old contacts followed through case investigation. Since May 31, the number of confirmed cases has remained stable at 37, which may indicate that the outbreak seems to be under control, according to discussions at the MOH.

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In-Country Government Outbreak or Health Event Points of Contact

Public Health ministry or department:	
Name:	Bathe Ndjokolo
Email:	REDACTED
Mobile Phone:	

Livestock ministry or department:	
Name:	Leopold Mulumba
Email:	REDACTED
Mobile Phone:	

Wildlife/Environment ministry or department:	
Name:	Jeff Mapilanga
Email:	REDACTED
Mobile Phone:	

OIE focal point:	
Name:	Honore N'Lemba Mabela
Email:	REDACTED
Mobile Phone:	

IHR focal point:	
Name:	Theophile Bokenge
Email:	REDACTED
Mobile Phone:	

FAO:	
Name:	Philippe Kone
Email:	REDACTED
Mobile Phone:	

WHO:	
Name:	Ernest Dabire
Email:	REDACTED
Mobile Phone:	

EPT ONE HEALTH WORKFORCE Project:	
Name:	Diafuka Saila Ngita
Email:	REDACTED
Mobile Phone:	

v.16May2017

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EPT PREPAREDNESS and RESPONSE Project:	
Name:	
Email:	
Mobile Phone:	

Other Important Contacts:

Organization:	
Name:	
Email:	
Mobile Phone:	

Organization:	
Name:	
Email:	
Mobile Phone:	

Organization:	
Name:	
Email:	
Mobile Phone:	

Organization:	
Name:	
Email:	
Mobile Phone:	

Organization:	
Name:	
Email:	
Mobile Phone:	

UCDUSR0003473

From: "William B. Karesh" <karesh@ecohealthalliance.org>
To: Dana Ellis <dellis@metabiota.com>
Cc: Karen Saylors <ksaylors@metabiota.com>, Anne Laudisoit <laudisoit@ecohealthalliance.org>, Predict inbox <predict@ucdavis.edu>, "Edison, Beth" <bedison@metabiota.com>
Sent: Fri, 15 Jun 2018 13:18:12 +0000
Subject: [predict] Re: PPE in the ROC?

Thanks Dana.
BK

Sent from my iPhone
William B. Karesh, D.V.M
Executive Vice President for Health and Policy

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President, OIE Working Group on Wildlife

Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

On Jun 15, 2018, at 9:04 AM, Dana Ellis <dellis@metabiota.com> wrote:

> Hi Billy,
> I received an answer from Christian Balongana that he and Mr. Gervais located these supplies at LNSP.
> Hopefully the LNSP staff have already informed you of this!
> Please let me know if you need anything else from me.
> Best,
> Dana

On Tue, Jun 5, 2018 at 2:04 PM, William B. Karesh <karesh@ecohealthalliance.org> wrote:

> THanks !!!
> BK

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Executive Vice President for Health and Policy

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On Jun 5, 2018, at 5:02 PM, Dana Ellis <dellis@metabiota.com> wrote:

Hi Billy,
Our supplies were always stored at LNSP but perhaps this has changed in the past year. I have reached out to Christian Balongana to ask if he can tell us where the PPE might be now, as he was always our point person for inventory. I will let you know if/ when I get any information from him.

Dana

On Tue, Jun 5, 2018 at 1:52 PM, William B. Karesh <karesh@ecohealthalliance.org> wrote:

Hi Dana and Karen,
Cynthia Nkoua from the lab in Brazzaville just called me to say she has not seen any of the PPE that you have mentioned. She will look again tomorrow, but I am wondering if maybe it was not given to the LNSP lab but to Colonel Romain?

BK

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On Jun 4, 2018, at 2:57 PM, Dana Ellis <dellis@metabiota.com> wrote:

Hi Billy,
Our last inventory from the in-country team in ROC included the following PPE:

2 cases of large/ xlarge coveralls (not the hooded tyvek suits required now though)
100 disposable aprons
100 face shields
12 goggles and 20 safety glasses
160 N95 respirators
and of course, lates and nitrile gloves in small, medium, and large

This is from over a year ago now, but please let me know if I can help with anything else.

Dana

On Mon, Jun 4, 2018 at 10:54 AM, William B. Karesh <karesh@ecohealthalliance.org> wrote:

Thanks Karen,
Dana, any insights would be greatly appreciated - even if just a rough guess.

BK

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On Jun 4, 2018, at 1:50 PM, Karen Saylors <ksaylors@metabiota.com> wrote:

Hi Billy,
Our best person to help with this would be Dana Ellis, who has been in charge of PREDICT-MB procurement. Of course it has been awhile, so she can just update you

on what was last ordered, but we'll have no visibility on what has been used/what remains of course, but at least it's a starting point, right?!

best,
Karen

On Mon, Jun 4, 2018 at 10:42 AM, William B. Karesh <karesh@ecohealthalliance.org> wrote:

Hi Karen,
USAID is asking if we have any PPE in Brazzaville. We only have an inventory of lab supplies, etc. and nothing about PPE purchased by PREDICT that is there. Do you know what might be there in storage?

Thanks !!!

BK

On Jun 4, 2018, at 1:08 PM, Anne Laudisoit <laudisoit@ecohealthalliance.org> wrote:

I haven' t seen PPE only Karen may know and Dr Fabien or technicians in the LNSP store. Tyveks were not yet compulsory so I doubt they have ad hoc and compliant PPE.

Anne

On Mon, Jun 4, 2018, 4:31 PM William B. Karesh <karesh@ecohealthalliance.org> wrote:

Will find out now.
I have a detailed inventory of laboratory equipment, supplies and reagents. But since we were not thinking of more field sampling right away, we did not compile PPE inventory.
BK

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On Jun 4, 2018, at 12:16 PM, Andrew Clements <AClements@usaid.gov> wrote:

Hi Billy,
Does the PREDICT office in Brazzaville have PPE on hand? If so, how much?

Thanks!

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infections Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
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From: Andrew Clements <aclements@usaid.gov>
To: Katherine Leasure <kaleasure@ucdavis.edu>
CC: PREDICTMGT <predictmgt@usaid.gov>;Predict inbox <predict@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 7/11/2018 2:07:43 PM
Subject: Re: Change to Approved ITA - A. Gillis (Laos)

Thanks.

Dan/Sudarat : see delay in dates for Laos visit.

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4233
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/epd/

On Wed, Jul 11, 2018 at 2:25 AM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. Per Metabiota, the previously approved travel for Amethyst Gillis to Laos has been postponed, as the supplies required to complete the training will not arrive prior to the proposed departure date. A copy of the ITA is included below for reference, with changes highlighted in yellow; an updated TDY form is also attached. Please let me know if you have any questions. Thanks!

Metabiota would like to request travel approval for Amethyst Gillis, PREDICT Laboratory QAQC Coordinator, to travel from Yaounde, Cameroon to Vientiane, Lao PDR from July 23-27~~July 15-28~~, 2018 to support PREDICT-2 laboratory activities.

Trip purpose: In Vientiane, Ms. Gillis will conduct comprehensive technical laboratory trainings for both the National Animal Health Laboratory and the National Center for Laboratory and Epidemiology. These trainings will cover all PREDICT protocols, including sample storage and preparation, extraction, PCR, preparation of genetic material for sequencing, results interpretation and positive sample follow up.

Katherine Leasure

HR/Payroll/Financial Assistant

One Health Institute

University of California, Davis

530-752-7526

530-752-3318 FAX

kaleasure@ucdavis.edu

predictmgt+unsubscribe@usaid.gov
predictmgt@usaid.gov
https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/03b501d418ad%24ba4749f0%242ed5dddf0%24%40ucdavis.edu

Sent: Wed, 11 Jul 2018 14:36:49 -0700
Subject: Fwd: Draft proposed Y5 countries workplan
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: David J Wolking <djwolking@ucdavis.edu>

FYI on whole chain,
J

---------- Forwarded message ----------
From: **Cara Chrisman** <cchrisman@usaid.gov>
Date: Mon, Jul 9, 2018 at 5:53 AM
Subject: Re: Draft proposed Y5 countries workplan
To: Andrew Clements <aclements@usaid.gov>
Cc: Anchalee Jatapai <ajatapai@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, "Daniel Schar (RDMA/OPH)" <dSchar@usaid.gov>

Hi Anchalee & Andrew,
Thanks to you both for your efforts to move the workplanning process along. As Andrew noted, there is no formal submission to the Missions prior to the submission to the AORs.

However, as in the past, we encourage dialogue in country around the workplans during the drafting/development period prior to the submission to the AOR.

Best,
Cara

On Jul 9, 2018, at 2:35 AM, Andrew Clements <aclements@usaid.gov> wrote:

> Hi Anchalee,
> In the past, the partners have discussed the draft work plans with Missions as they are being developed in-country. There has not generally been a separate step where the final draft work plans are then shared with missions before coming to the AORs.

Cara: can you clarify if there has been a change in the process?

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Jul 9, 2018, at 5:22 AM, Anchalee Jatapai <ajatapai@usaid.gov> wrote:

> Dear Dr. Jonna,
>
> Greeting from RDMA, it's time of year 5 workplan development season.
>
> Per Washington DC guideline (as details in note), we anticipate to get your draft proposed Y5 countries workplan: China, Laos, Malaysia, Mongolia, Myanmar, Napal, and Thailand before submission to AOR in DC by August 15.

We are grateful for your cooperation in advance.

Best regards,

Anchalee

NOTE: Year 5 Workplan Guidance

GHSA Workplans: Details regarding the GHSA workplans are still being finalized at the interagency level and guidance is forthcoming. If partners reach out with any questions, please direct them to their AOR and Mandy Paust (apaust@usaid.gov) for any interim guidance.

Core Workplans:

Guidance -

- Partners should develop the workplans in consultation with ETD field colleagues prior to submission to DC HQ. If any issues arise during the consultations, please contact the project AORs to ensure that they are resolved prior to workplan submission.
- Submission to DC HQ should be no later than August 15th.
- Following submission, workplans will be shared with ETD field staff to review and provide input back to the AOR. Input is due by COB August 22nd. All recommendations and comments will be taken into consideration by the AORs, but final decisions will be made by the AOR.
- Between August 22nd - September 15th, AORs will work with projects to make any edits or adjustments to the workplans.
- Final approval for implementation expected by October 1st, 2018.
- DC HQ will disseminate country workplans as soon as they are approved.
- Dissemination will also include financial overview sheets that include life of project investment data, year 5 planning levels, and target geographic coverage of activities.

--

Anchalee Jatapai, PhD

Global Health Security and Development Advisor

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From:	Andrew Clements <aclements@usaid.gov>
To:	Katherine Leasure <kaleasure@ucdavis.edu>
CC:	PREDICTMGT <predictmgt@usaid.gov>;Predict inbox <predict@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent:	7/26/2018 10:40:36 PM
Subject:	Re: PREDICT International Travel Requests

Approved subject to Mission concurrence

Andrew P. Clements, Ph.D.
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U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Jul 26, 2018, at 5:14 PM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Please find below international travel requests for your review and approval. Please let me know if you have any questions. TDY forms are attached for David McIver and Amethyst Gillis requested travel to Laos. Thanks!

1. Bird (Sierra Leone): $3000 airfare/$319 (Freetown) max daily per diem
2. Gilardi (Rwanda, Uganda): $2700 airfare/$291 (Kigali), $340 (Kampala) max daily per diems
3. Anthony (Malaysia): $1600 airfare/$269 (Kuala Lumpur), $256 (Kota Kinabilu) max daily per diems
4. McIver (Laos): $2100 airfare/$212 (Vientiane) max daily per diem
5. Gillis (Laos): $4500 airfare/$212 (Vientiane) max daily per diem
6. Goldstein (Indonesia): $1500 airfare/$146 (Bali) max daily per diem

Travel Requests –

1. UC Davis would like to request travel approval for Dr. Brian Bird to travel from Sacramento, California to Freetown, Sierra Leone from August 18-26, 2018 for meetings with in-country PREDICT team members and other EPT partners.

Trip purpose: To meet and work with the Mission, GHSA partners, and GoSL Ministry and District-level officials, to discuss and PREDICT related matters and ensure smooth in-country operations and community engagement as the program begins the final wrap-up of field sampling activities at the close of year 4 and the transition to more community engagement and capacity building into year 5 of project related activities.

2. Columbia University would like to request travel approval for Dr. Simon Anthony to travel from New York, NY, USA to Kuala Lumpur, Malaysia from August 24 to September 1, 2018, for PREDICT Bioinformatics training.

Trip purpose: The purpose of the trip is to train staff from the National Public Health labs in Peninsular Malaysia and Sabah. Training will focus on bioinformatics, including sequence analysis, consensus PCR assay design, phylogenetics, and positive control design. Training workshops will be held 27-28 August in Peninsular Malaysia and 28-29 in Sabah. Meetings will also be held with PREDICT country coordinator (Tom Hughes) and in-country lab team (Mei Ho Lee) on the 30 Aug 2018.

3. Metabiota would like to request travel approval for Dr. David McIver, PREDICT Epidemiologist, to travel from Nanaimo, British Columbia, Canada to Vientiane, Lao PDR from August 24 to September 1st 2018 to meet with in-country PREDICT team members, perform year-end project goal assessments, communicate progress and findings with in-country partners, and help coordinate ongoing laboratory activities.

Trip purpose: Dr. McIver will meet with in-country PREDICT team members, perform year-end project goal assessments, communicate progress and findings with in-country partners, and help coordinate ongoing

laboratory activities at both the National Animal Health Laboratory and the National Center for Laboratory and Epidemiology, in conjunction with Amethyst Gillis.

4. Metabiota would like to request travel approval for Amethyst Gillis, PREDICT Laboratory QAQC Coordinator, to travel from Yaounde, Cameroon to Vientiane, Lao PDR from August 24 to September 1, 2018 to support PREDICT-2 laboratory activites.

Trip purpose: Ms. Gillis will conduct comprehensive technical laboratory refresher trainings for the National Animal Health Laboratory and will check in on laboratory progress at the National Center for Laboratory and Epidemiology. These refresher trainings will cover all PREDICT protocols, including sample storage and preparation, extraction, PCR, preparation of genetic material for sequencing, results interpretation and positive sample follow up.

5. UC Davis would like to request travel approval for Dr. Kirsten Gilardi to travel from Davis, California, USA to Kigali, Rwanda and Kampala, Uganda from August 22 to Sept 2, 2018 to meet with PREDICT staff and partners.

Trip purpose: This trip will enable Dr. Gilardi to meet with PREDICT Country Coordinators from Rwanda, Uganda and eastern Democratic Republic of the Congo at MGVP headquarters in Ruhengeri, Rwanda, and Kampala, Uganda, to conduct field site visits with staff and to check on completion of Year 4 work in all three countries. Dr. Gilardi will also meet with Governments of Uganda and Rwanda laboratory partners to check on progress with sample testing and One Health capacity strengthening for staff and partners. ***Her tentative travel dates in each country are as follows – Rwanda: August 23-28, August 30 to September 1; Uganda: August 28-30.***

6. UC Davis would like to request travel approval for Dr. Tracey Goldstein to travel from Davis, CA, USA to Bali, Indonesia from October 29 to November 4, 2018 to present at the Australasian section conference of the Wildlife Disease Association.

Trip Purpose: Dr. Goldstein will give a plenary talk and lead a PREDICT session at the Australasian section conference of the Wildlife Disease Association. The presentation title is "Strategy to understand new viral species," and presentations will follow from Indonesia, Myanmar, Cambodia, and Viet Nam country leads on respective PREDICT activities.

Katherine Leasure
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

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You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
To unsubscribe from this group and stop receiving emails from it, send an email to predictmgt+unsubscribe@usaid.gov.
To post to this group, send email to predictmgt@usaid.gov.
To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/001b01d42525%24b50490e0%2418db2a0%24%40ucdavis.edu.

From: Andrew Clements <aclements@usaid.gov>
Sent: Wed, 1 Aug 2018 14:21:31 -0700
To: "William B. Karesh" <karesh@ecohealthalliance.org>
Cc: PREDICT-outbreak <predict-outbreak@ucdavis.edu>
Subject: [predict] [predict-outbreak] Re: Report from DRC gov

Thanks.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Aug 1, 2018, at 1:10 PM, William B. Karesh <karesh@ecohealthalliance.org> wrote:

Just in case you didn't get this already.

Begin forwarded message:

From: Anne Laudisoit <laudisoit@ecohealthalliance.org>
Subject: Report from DRC gov
Date: August 1, 2018 at 1:07:12 PM EDT
To: "William B. Karesh" <karesh@ecohealthalliance.org>

Attached

<Message.pdf>

From: Andrew Clements <aclements@usaid.gov>
Sent: Thu, 2 Aug 2018 16:30:01 -0700
Subject: Fwd: The Economic Risks and Impacts of Epidemics - IMF F&D Magazine
To: Jonna Mazet <jkmazet@ucdavis.edu>, cjwolking@ucdavis.edu, William Karesh <Karesh@ecohealthalliance.org>, daszak@ecohealthalliance.org
Attachment
Bloom (2018) The Econmic Risks and Impacts of Epidemics.pdf

FYI

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

Begin forwarded message:

From: Ricardo Echalar <rechalar@usaid.gov>
Date: August 2, 2018 at 6:05:29 PM EDT
To: ghsdunitmaillistusaid@usaid.gov, Ron Waldman <ronwaldman@email.gwu.edu>, Linda Mobula <lmmobula@usaid.gov>, Peter Morris <pmorris@usaid.gov>, Paul Mahanna <pmahanna@usaid.gov>, Christina Chappell <cchappell@usaid.gov>, Megan Fotheringham <mfotheringham@usaid.gov>, "Thwin, Aye Aye" <aathwin@usaid.gov>
Subject: The Economic Risks and Impacts of Epidemics - IMF F&D Magazine

http://www.imf.org/external/pubs/ft/fandd/2018/06/economic-risks-and-impacts-of-epidemics/bloom.htm

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Ricardo Echalar, MPH
Senior Public Health Advisor
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USAID Contractor
GHSI-II - CAMRIS International, Inc.

New and resurgent infectious diseases can have far-reaching economic repercussions

David E. Bloom, Daniel Cadarette, and JP Sevilla

Infectious diseases and associated mortality have abated, but they remain a significant threat throughout the world. We continue to fight both old pathogens, such as the plague, that have troubled humanity for millennia and new pathogens, such as human immunodeficiency virus (HIV), that have mutated or spilled over from animal reservoirs.

Some infectious diseases, such as tuberculosis and malaria, are endemic to many areas, imposing substantial but steady burdens. Others, such as influenza, fluctuate in pervasiveness and intensity, wreaking havoc in developing and developed economies alike when an outbreak (a sharp increase in prevalence in a relatively limited area or population), an epidemic (a sharp increase covering a larger area or population), or a pandemic (an epidemic covering multiple countries or continents) occurs.

The health risks of outbreaks and epidemics—and the fear and panic that accompany them—map to various economic risks.

First, and perhaps most obviously, there are the costs to the health system, both public and private, of medical treatment of the infected and of outbreak control. A sizable outbreak can overwhelm the health system, limiting the capacity to deal with routine health issues and compounding the problem. Beyond shocks to the health sector, epidemics force both the ill and their caretakers to miss work or be less effective at their jobs, driving down and disrupting productivity. Fear of infection can result in social distancing or closed schools, enterprises, commercial establishments, transportation, and public services—all of which disrupt economic and other socially valuable activity.

Concerns over the spread of even a relatively contained outbreak can lead to decreased trade. For example, a ban imposed by the European Union on exports of British beef lasted 10 years following identification of a mad cow disease outbreak in the United Kingdom, despite relatively low transmission to humans. Travel and tourism to regions affected by outbreaks are also likely to decline. Some long-running epidemics, such as HIV and malaria, deter foreign direct investment as well.

The economic risks of epidemics are not trivial. Victoria Fan, Dean Jamison, and Lawrence Summers recently estimated the expected yearly cost of pandemic influenza at roughly $500 billion (0.6 percent of global income), including both lost income and the intrinsic cost of elevated mortality. Even when the health impact of an outbreak is relatively limited, its economic consequences can quickly become magnified. Liberia, for example, saw GDP growth decline 8 percentage points from 2013 to 2014 during the recent Ebola outbreak in west Africa, even as the country's overall death rate fell over the same period.

The consequences of outbreaks and epidemics are not distributed equally throughout the economy. Some sectors may even benefit financially, while others will suffer disproportionately. Pharmaceutical companies that produce vaccines, antibiotics, or other products needed for outbreak response are potential beneficiaries. Health and life insurance companies are likely to bear heavy costs, at least in the short term, as are livestock producers in the event of an outbreak linked to animals. Vulnerable populations, particularly the poor, are likely to suffer

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disproportionately, as they may have less access to health care and lower savings to protect against financial catastrophe.

Economic policymakers are accustomed to managing various forms of risk, such as trade imbalances, exchange rate movements, and changes in market interest rates. There are also risks that are not strictly economic in origin. Armed conflict represents one such example; natural disasters are another. We can think about the economic disruption caused by outbreaks and epidemics along these same lines. As with other forms of risk, the economic risk of health shocks can be managed with policies that reduce their likelihood and that position countries to respond swiftly when they do occur.

A daunting set of threats

Several factors complicate the management of epidemic risk. Diseases can be transmitted rapidly, both within and across countries, which means that timely responses to initial outbreaks are essential. In addition to being exacerbated by globalization, epidemic potential is elevated by the twin phenomena of climate change and urbanization. Climate change is expanding the habitats of various common disease vectors, such as the *Aedes aegypti* mosquito, which can spread dengue, chikungunya, Zika, and yellow fever. Urbanization means more humans live in close quarters, amplifying the transmissibility of contagious disease. In rapidly urbanizing areas, the growth of slums forces more people to live in conditions with substandard sanitation and poor access to clean water, compounding the problem.

Perhaps the greatest challenge is the formidable array of possible causes of epidemics, including pathogens that are currently unknown. In December 2015 the World Health Organization (WHO) published a list of epidemic-potential disease priorities requiring urgent research and development (R&D) attention. That list has since been updated twice, most recently in February 2018 (see table).

Beyond this list, diseases that are currently endemic in some areas but could spread without proper control represent another category of threat. Tuberculosis, malaria, and dengue are examples, as is HIV. Pathogens resistant to antimicrobials are increasing in prevalence throughout the world, and widespread pan-drug-resistant superbugs could pose yet another hazard. Rapid transmission of resistant pathogens is unlikely to occur in the same way it may with pandemic threats, but the proliferation of superbugs is making the world an increasingly risky place.

Managing risk

Epidemic risk is complex, but policymakers have tools they can deploy in response. Some tools minimize the likelihood of outbreaks or limit their proliferation. Others attempt to minimize the health impact of outbreaks that cannot be prevented or immediately contained. Still others aim to minimize the economic impact.

Investing in improved sanitation, provisioning of clean water, and better urban infrastructure can reduce the frequency of human contact with pathogenic agents. *Building strong health systems and supporting proper nutrition* will help ensure good baseline levels of health, making people less susceptible to infection. Of course, strengthening basic systems, services, and infrastructure becomes easier with economic growth and development; however, policies to protect spending in these areas even when budgets are constrained can help safeguard developing economies from major health shocks that could significantly impinge upon human capital and impede economic growth.

Investment in reliable disease surveillance in both human and animal populations is also critical. Within

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Diseases requiring urgent research and development attention, 2018

DISEASE	DESCRIPTION	BIOMEDICAL COUNTERMEASURES
Crimean-Congo hemorrhagic fever (CCHF)	Hemorrhagic fever caused by virus transmitted through ticks and livestock, with case-fatality rate of up to 40%. Human-to-human transmission is possible.	No vaccine available; ribavirin (antiviral) provides some treatment benefit.
Ebola virus disease	Hemorrhagic fever caused by virus transmitted by wild animals, with case-fatality rate of up to 90%. Human-to-human transmission is possible.	Experimental vaccine available
Marburg virus disease	Hemorrhagic fever caused by virus transmitted by fruit bats, with case-fatality rate of up to 88%. Human-to-human transmission is possible.	No vaccine available
Lassa fever	Hemorrhagic fever caused by virus transmitted through contact with rodent urine or feces, with case-fatality rate of 15% in severe cases. Human-to-human transmission is possible.	No vaccine available Vaccine development funded by CEPI
Middle East respiratory syndrome coronavirus (MERS-CoV)	Respiratory disease caused by a coronavirus transmitted by camels and humans, with case-fatality rate of 35%.	No vaccine available Vaccine development funded by CEPI
Severe acute respiratory syndrome (SARS)	Respiratory disease caused by a coronavirus transmitted from human to human and from animals (possibly bats), with a case-fatality rate of 10%.	No vaccine available
Nipah and henipaviral diseases	Disease caused by a virus transmitted by fruit bats, pigs, and humans; can manifest as an acute respiratory syndrome or encephalitis. Case-fatality rate can reach 100%.	Vaccine development funded by CEPI
Rift Valley fever (RVF)	Disease caused by a virus transmitted by contact with the blood or organs of infected animals, or by mosquitoes. Up to 50% case-fatality rate in patients with hemorrhagic fever. No human-to-human transmission has been reported.	Experimental, unlicensed vaccine available
Zika	Disease caused by a flavivirus transmitted by mosquitoes. Can result in microcephaly in infants born to infected mothers and in Guillain-Barré syndrome. Human-to-human transmission is possible.	No vaccine available
Disease X (pathogens currently unknown to cause human disease)	N/A	CEPI is funding the development of institutional and technical platforms that allow for rapid R&D in response to outbreaks of pathogens for which no vaccine exists.

Sources: CEPI.net; and World Health Organization website (various pages).
Note: CEPI = Coalition for Epidemic Preparedness Innovations; N/A = not applicable; R&D = research and development.

formal global surveillance systems, it may be beneficial to develop incentives for reporting suspected outbreaks, as countries may reasonably fear the effects of such reporting on trade, tourism, and other economic outcomes. The SARS epidemic, for instance, might have been better contained if China had reported the initial outbreak to the WHO earlier.

Informal surveillance systems, such as ProMED and HealthMap, which aggregate information from official surveillance reports, media reports, online discussions and summaries, and eyewitness observations, can also help national health systems and international responders get ahead of the epidemiological curve during the early stages of an outbreak. Social media offers additional opportunities for early detection of shifts in infectious disease incidence.

Collaborations for monitoring epidemic readiness at the national level, such as the Global Health Security Agenda and the Joint External Evaluation Alliance, provide information national governments can use to bolster their planned outbreak responses. Additional research into which pathogens are likely to spread and have a big impact would be worthwhile.

Countries should be ready to take initial measures to limit the spread of disease when an outbreak does occur. Historically, ships were quarantined in port

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during plague epidemics to prevent the spread of the disease to coastal cities. In the case of highly virulent and highly transmissible diseases, quarantines may still be necessary, although they can inspire concerns about human rights. Likewise, it may be necessary to ration biomedical countermeasures if supplies are limited. Countries should decide in advance if they will prioritize first responders and other key personnel or favor vulnerable groups, such as children and the elderly; different strategies may be appropriate for different diseases.

Technological solutions can help minimize the burden of sizable outbreaks and epidemics. Better and less-costly treatments—including novel antibiotics and antivirals to counter resistant diseases—are sorely needed. New and improved vaccines are perhaps even more important.

Collaboration needed

There is a significant market failure when it comes to vaccines against individual low-probability pathogens that *collectively* are likely to cause epidemics. Given the low probability that any single vaccine of this type will be needed, high R&D costs, and delayed returns, pharmaceutical companies hesitate to invest in their development. The profit-seeking interest does not align well with the social interest of minimizing the risk posed by these diseases in the aggregate.

Farsighted international collaboration can overcome this market failure—for example, the Coalition for Epidemic Preparedness Innovations, which is supported by the governments of Australia, Belgium, Canada, Ethiopia, India, Japan, Germany, and Norway, as well as the European Commission and various nongovernmental funders. Its goals include advancing candidate vaccines against specific low-probability, high-severity pathogens through proof of concept to enable rapid clinical testing and scale-up in the event of outbreaks of those pathogens. It also aims to fund development of institutional and technical platforms to speed R&D in response to outbreaks for which there are no vaccines. Similar funding models could support the development of a universal influenza vaccine.

Of course, new vaccines will be less useful if governments do not ensure that at-risk populations have access to them. Assured access could also motivate developing economies to participate actively in the vaccine R&D process. In 2007 Indonesia withheld samples of the H5N1 influenza virus from the WHO to protest the fact that companies in wealthy countries often use samples freely provided by developing economies to produce vaccines and other countermeasures without returning any profit or other special benefits to the donors.

Beyond funding R&D, international collaboration could boost epidemic preparedness by supporting centralized stockpiling of vaccines and drugs that can be deployed where they are most needed. Such collaboration has obvious advantages over a system in which each country stockpiles its own biomedical countermeasures. While some countries are more likely to need these countermeasures than others, the global public good of living without fear of pandemics should motivate cooperation and cost sharing. In addition, wealthy countries at relatively low risk of suffering massive health impacts from most epidemics could suffer disproportionately large economic losses—even from faraway epidemics—given the size of their economies and reliance on foreign trade.

The economic risks of epidemics are not trivial.

If outbreaks do occur and impose a substantial health burden, there are tools to limit the risk of economic catastrophe. As with natural disasters, insurance can help distribute the economic burden across sectors of the economy and regions. Prioritizing personnel such as health care workers, members of the military, and public safety employees for distribution of biomedical countermeasures during an outbreak can help protect critical economic resources.

We cannot predict which pathogen will spur the next major epidemic, where that epidemic will originate, or how dire the consequences will be. But as long as humans and infectious pathogens coexist, outbreaks and epidemics are certain to occur and to impose significant costs. The upside is that we can take proactive steps to manage the risk of epidemics and mitigate their impact. Concerted action now at the local, national, and multinational levels can go a long way toward protecting our collective well-being in the future. FD

DAVID E. BLOOM is the Clarence James Gamble Professor of Economics and Demography, **DANIEL CADARETTE** is a research assistant, and **JP SEVILLA** is a research associate, all at Harvard University's T.H. Chan School of Public Health.

UCDUSR0003491

From: Karen Saylors <ksaylors@metabiota.com>
To: Andrew Clements <aclements@usaid.gov>
CC: Jonna Mazet <jkmazet@ucdavis.edu>;David Wolking <djwolking@ucdavis.edu>
Sent: 8/8/2018 2:40:12 PM
Subject: Re: DRC Outbreak Strain

My pleasure Andrew.
For your visibility, I'm attaching the official INRB Statement on sequencing for both Ebola outbreaks, Equateur and North Kivu, which I just received. It includes a nice phylogenetic tree that shows where both Ebola Zaire strains sit.

Thanks,
Karen

On Wed, Aug 8, 2018 at 7:05 AM, Andrew Clements <aclements@usaid.gov> wrote:
Thanks, Karen

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Aug 7, 2018, at 11:40 PM, Karen Saylors <ksaylors@metabiota.com> wrote:

Hi Andrew.
Per your request for follow up on today's INRB sequencing results:

INRB has sequenced and obtained 2 complete genomes of the strain Ebola Zaire – Mangina. According to phylogenetic analyses, this Ebola Zaire strain is different from that of Equateur (Zaire Bikoro). So this is a new outbreak…

Please note that the Beni strain is also different from the Ebola Mangina strain, which is closely related to the one from Likati, which characterized the 2017 DRC outbreak.

thanks,
Karen

REPUBLIQUE DEMOCRATIQUE DU CONGO
Ministère de la Santé
Institut National de Recherche Biomédicale

INRB Statement

From May 8th to July 25th, 2018, the Democratic Republic of the Congo faced its ninth Ebola outbreak, which affected 54 people, including 33 deaths in the health zones of Bikoro, Iboko and Wangata, in the Province of Equateur. Institut National de Recherche Biomedicale (INRB), in collaboration with its partners, deployed 3 mobile laboratories on the 3 affected sites (Mbandaka, Bikoro and Itipo) to contribute quickly and efficiently to control this epidemic. A total of 432 samples were collected from these 3 laboratories, of which 51 were positive in real-time RT-PCR. These came from the 38 confirmed cases for the whole period of the epidemic (8 May- 25 July 2018). On July 10th, samples from the mobile laboratories arrived at INRB, and processing of samples and sequencing began. Thus far 23 samples have been processed yielding 15 coding-complete genomes that will be released shortly on GenBank as well. Initial phylogenetic analysis indicates these genomes are closest to the 2014 DRC outbreak (**Figure 1, blue labels**). Further analysis will need to be conducted on these preliminary findings as the main focus is to finish processing available samples from the outbreak, which will be made available as soon as they are generated.

Unfortunately, on August 1st a new cluster of cases was discovered in the region of North Kivu and confirmed at INRB. Samples were prepared for sequencing at INRB. Two full genome sequences were obtained (**Figure 1, red labels**). The data confirms that the current EVD cases in Nord Kivu (July 30th and ongoing), DRC are caused by a distinct EBOV "strain" than the one causing the outbreak in Equateur province. Based on this findings, although both events are caused by the same ebolavirus species (EBOV), the outbreaks appear not to be connected. On that basis, the available vaccine should work against the new strain.

Partners and collaborators

This work is part of ongoing research collaborations between several partners:

Institut National de Recherche Biomédicale (INRB)

US Army Medical Research Institute of Infectious Diseases (USAMRIID)

Institut Pasteur de Dakar, Dakar, Senegal (IPD)

TransVIHMI (IRD, INSERM, University of Montpellier)

Avenue de la Démocratie N°5345 – Kin/Gombe – B.P. 1197 – KINSHASA I – tél. 8189149 289 – 9913614 - 99 20123 – 081 514 4280
E-mail : inrbrdc@yahoo.fr, Site web : www.inrb.cd

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Data availability

Genome sequences for all samples had been shared with all local and international partners working in the DRC. The information reported here is being shared pre-publication to help the research and public health communities respond to the current Ebola virus disease outbreak. Please note though that this data is still based on work in progress and should be considered preliminary. Our analysis of this data is ongoing and a publication communicating our findings is in preparation. INRB will distribute these data to any entity or collaborator that needs it. Please communicate with Drs. Muyembe-Tamfum and Ahuka for further coordination.

Prof. Jean-Jacques Muyembe Tamfum (INRB, School of Medicine Kinshasa University)
Prof. Steve Ahuka-Mundeke (INRB, School of Medicine Kinshasa University)
Dr. Gustavo Palacios (USAMRIID)
Dr. Michael Wiley (USAMRIID)
Dr. Amadou Sall (Institut Pasteur de Dakar, Dakar, Senegal)
Dr. Ousmane Faye (Institut Pasteur de Dakar, Dakar, Senegal)
Prof. Eric Delaporte (TransVIHMI (IRD, INSERM, University of Montpellier)
Dr. Martine Peeters (TransVIHMI (IRD, INSERM, University of Montpellier)

Figure 1.

UCDUSR0003495

From: "Katherine Leasure" <kaleasure@ucdavis.edu>
To: "PREDICTMGT" <predictmgt@usaid.gov>
Cc: "Predict inbox" <predict@ucdavis.edu>, "Jonna Mazet" <jkmazet@ucdavis.edu>
Subject: PREDICT International Travel Requests
Sent: Thu, 16 Aug 2018 17:25:01 -0700

Please find below international travel requests for your review and approval. Please let me know if you have any questions. Thanks!

1. Li (China): $1950 airfare/$377 (Beijing), $262 (Kunming), $407 (Guangzhou) max daily per diems
2. Feferholtz (Indonesia): $1350 airfare/$362 (Jakarta) max daily per diem
3. Lane (Ethiopia): $3000 airfare/$400 (Addis Ababa) max daily per diem
4. Mazet (Mongolia): $4,200 airfare **business class required due* REDACTED /$285 (Ulaanbaatar) max daily per diem
5. Goldstein (Austria): $1250 airfare/$360 (Vienna) max daily per diem
6. Duong (Indonesia): $850 airfare/$393 (Bali) max daily per diem
7. Hul (Indonesia): $850 airfare/$393 (Bali) max daily per diem

Travel Requests –

1. EcoHealth Alliance would like to request travel approval for Hongying Li to travel from Newark, New Jersey, USA to Beijing, Kunming, Guangzhou, and Guangdong, China from September 4-20, 2018 to attend scientific meetings and PREDICT field work.

Trip purpose: On September 6-7, Li will attend the Scientific Workshop on Viral Respiratory Disease co-hosted by the National Institutes of Health and Chinese Academy of Medical Sciences (PREDICT in-country partner) in Beijing; from September 8-16, Li will join the PREDICT field data collection in Yunnan (human surveillance) and Guangdong (bat surveillance) provinces with local team; from September 17-19, Li will attend the World Conference on Science Literacy hosted by China Association for Science and Technology on the parallel session hosted by China CDC on "Science Literacy, Sustainable Development of Global Public Health" to share success stories from PREDICT.

2. EcoHealth Alliance would like to request travel approval for Dr. Yasha Feferholtz to travel from New York, NY, USA to Jakarta, Indonesia from September 6-22, 2018 to meet with INDOHUN partner and working in data analysis and economic modeling of DEAL project.

Trip purpose: Dr. Feferholtz will meet with INDOHUN coordinator and principal investigator Dr. Wiku Adisasmito, co-investigator Dr. Lilis Heri Mis Cicih, project specialist Miss. Nurul Maretia Rahmayanti, and M&E and data specialist Miss Nisa Vidya Yuniarti to develop data analysis and economic modeling for DEAL project.

3. UC Davis would like to request approval for Jennifer Lane to travel from Davis, CA, USA to Addis Ababa, Ethiopia from September 8-21, 2018 to support the PREDICT Ethiopia team with concurrent human and wildlife surveillance and training activities. **Dr. Lane will travel to Georgia for other projects from September 9-13, supported by other funding. The days she will be in Ethiopia for PREDICT activities will be September 13-21.*

Trip Purpose: Dr. Lane, PREDICT East Africa Field Veterinarian, will provide programmatic support to the PREDICT Ethiopia team and country coordinators during her trip. She will work with partners Addis Ababa University (AAU) and the Ethiopian Public Health Institute (EPHI) in their combined concurrent surveillance activities. Dr. Lane will be visiting the field sites to participate in the final rounds of concurrent human and wildlife surveillance, as well as working with laboratory teams to facilitate sample organization in anticipation of sample export for confirmatory testing.

4. UC Davis would like to request travel approval for Dr. Jonna Mazet to travel from San Francisco, CA, USA to Ulaanbaatar, Mongolia from September 17-22, 2018, for meetings with in-country PREDICT team members and other EPT partners. **Dr. Mazet will travel to Denmark for a speaking engagement September 22-25 (supported by other funding), before returning to California.*

Trip purpose: In Mongolia, Dr. Mazet will conduct meetings with implementing partners of PREDICT-2 Mongolia and government officials, to be determined. She will also attend a field sampling trip with the field team and country coordinator, Dr. Enkhtuvshin Shilegdamba. Dr. Mazet will also use this opportunity to meet with the PREDICT-2 Mongolia team and collaborate on an implementation strategy for community data dissemination and outreach.

5. UC Davis would like to request travel approval for Dr. Tracey Goldstein to travel from New York, NY, USA to Vienna, Austria from Nov 8- Nov 12, 2018 to present at the International Meeting on Emerging Diseases and Surveillance (IMED) meeting. From Vienna, Austria she will return to Davis, CA, USA.

Trip purpose: Dr. Goldstein will give a talk on the Bombali virus if the late breaker abstract is accepted for a presentation at IMED.

6. UC Davis would like to request approval for Veasna Duong to travel from Phnom Penh, Cambodia to Bali, Indonesia from October 27 to November 5, 2018 to present in the PREDICT session at the Wildlife Disease Association Australasian Section's meeting.

Trip Purpose: Dr. Veasna Duong will travel to Indonesia to present on the PREDICT project's work and findings in Cambodia during a PREDICT session being held as part of the Wildlife Disease Association Australasian Section's meeting in Bali.

7. UC Davis would like to request approval for Vibol Hul to travel from Phnom Penh, Cambodia to Bali, Indonesia from October 27 to November 5, 2018 to join the PREDICT session at the Wildlife Disease Association Australasian Section's meeting.

Trip Purpose: Mr. Vibol Hul will travel to Indonesia to participate, on behalf of PREDICT Cambodia, in the PREDICT session being held as part of the Wildlife Disease Association Australasian Section's meeting in Bali.

Katherine Leasure
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

From: "Claes, Filip (FAORAP)" REDACTED
To: Jonna Mazet <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>
Cc: "Kalpravidh, Wantanee (FAORAP)" REDACTED, "Dacre, Ian (FAORAP)" REDACTED
Subject: predict country workshops - next project year
Sent: Thu, 13 Sep 2018 06:06:11 +0000

Hello Jonna and Peter,
FAO is having its planning meeting for the last year of EPT-2.

Our Laos team brought to our attention that there is a country level workshop planned to discuss results, including link with livestock and FAO work (somewhere in January? Which is before the March deadline for results)

Question1: will there be more such meetings in different countries? If yes, which ones, so I can ask the team leaders to slot this in.
Question2: any plan to have such a meeting at regional or global level?

Greets from Bangkok,
Flip

Filip Claes, PhD
Regional Laboratory Coordinator
Emergency Centre for Transboundary Animal Diseases (ECTAD)
Food and Agriculture Organization of the United Nations (FAO)
Regional Office for Asia and the Pacific

REDACTED

Food and Agriculture Organization
of the United Nations

From: Cassandra Louis Duthil <clouisduthil@usaid.gov>
Sent: Fri, 28 Sep 2018 10:50:24 -0400
Subject: Re: Change to Approved ITA - E. Rubin (Thailand) Cancelled
To: Andrew Clements <aclements@usaid.gov>
Cc: Katherine Leasure <kaleasure@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>, Predict inbox <predict@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, "Damrongwatanapokin, Sudarat (RDMA/OPH)" <sdamrongwatanapokin@usaid.gov>, Anchalee Jatapai <ajatapai@usaid.gov>

RDMA,

Please see below.

Best,

Cassandra Louis Duthil
Program Assistant
Emerging Threats Division
U.S. Agency for International Development (USAID)
Telephone:571-551-7430 Cell: REDACTED | clouisduthil@usaid.gov

On Fri, Sep 28, 2018 at 4:55 AM, Andrew Clements <aclements@usaid.gov> wrote:

Thanks, Katie.

Copying Dan, Sudarat, and Anchalee at RDMA for their awareness.

Andrew

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4293
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/ept2

On Fri, Sep 28, 2018 at 2:10 AM Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. Per Metabiota, Eddy Rubin's travel to Thailand has been cancelled (a copy of the previously approved ITA is below for reference). A new ITA request will be submitted shortly for David McIver; he will be attending the Thailand GVP meeting in Eddy's place, after which he will travel to Laos for PREDICT. Please let me know if you have any questions. Thanks!

Metabiota would like to request travel approval for Dr. Eddy Rubin, Chief Scientific Officer to travel from Guenthary, France to Bankok, Thailand from October 21-27, 2018 to attend Global Virome Project launch meetings.

Trip purpose: Dr. Rubin will attend launch meetings for the Global Virome project from October 22-26, 2018.

Katherine Leasure

One Health Institute

University of California, Davis

530-752-7526

530-752-3318 FAX

kalcasure@ucdavis.edu

--

You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
To unsubscribe from this group and stop receiving emails from it, send an email to predictmgt+unsubscribe@usaid.gov.
To post to this group, send email to predictmgt@usaid.gov.
To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/04b501d456bf%2429b2720%2457d17560%24%40ucdavis.edu.

--

You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
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To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CAJT_2LH-R2LS59L1b6TBmaxbOdB0xxi8U88v6PS6mTHDdGT17A%40mail.gmail.com.

From: "Katherine Leasure" <kaleasure@ucdavis.edu>
To: "PREDICTMGT" <predictmgt@usaid.gov>
Cc: "Predict inbox" <predict@ucdavis.edu>, "Jonna Mazet" <jkmazet@ucdavis.edu>
Subject: PREDICT International Travel Requests
Sent: Thu, 18 Oct 2018 11:32:51 -0700
Laos TDY Amethyst Gillis Nov 17_24.docx

Please find below international travel requests for your review and approval; a TDY form is attached for Amethyst Gillis's Laos travel. Please let me know if you have any questions. Thanks!

1. Saylors (Canada): $514 airfare/$231 (Nanaimo) max daily per diem
2. Machalaba (Egypt): $1650 airfare/$227 (Sharm El Sheikh) max daily per diem
3. Desmond, Garbo: $2000 airfare each/$227 (Sharm El Sheikh) max daily per diem
4. Gillis (Laos): $4500 airfare/$212 (Vientiane) max daily per diem
5. Gilardi (Rwanda, Uganda): $2500 airfare/$289 (Kigali), $340 (Kampala) max daily per diem
6. Gruetzmacher (USA): $800 airfare/$364 (New York) max daily per diem
7. [redacted] (USA): $1500 airfare/$196 (Davis) max daily per diem

Travel Requests –

1. Metabiota would like to request travel approval for Dr. Karen Saylors, Vice President, Field Research to travel from San Francisco, California, USA to Nanaimo, British Columbia, Canada from November 12 – 15, 2018 to meet with the PREDICT technical support and supervision team.

Trip purpose: Dr. Karen Saylors will meet with the PREDICT technical support and supervision team to finalize the execution of Year 5 workplans and provide supervision to the PREDICT team in Nanaimo.

2. EcoHealth Alliance would like to request travel approval for Ms. Catherine Machalaba to travel from New York, NY, USA to Sharm El Sheikh, Egypt from November 14-28, 2018 to participate in the United Nations Convention on Biological Diversity's (CBD) 14th Conference of the Parties and its regional Summits.

Trip purpose: The COP, which brings together 196 nations, occurs every two years. For the first time, health is a theme of the meeting, and critical One Health guidance for countries, which has been informed by PREDICT-2 approaches, is being proposed. PREDICT-2's global and country-level participation will advance progress on Objective 3 on strengthening multisectoral capacity for improved global health security. Ms. Machalaba will also attend sessions of the Meetings of the Parties on the Nagoya Protocol, which runs concurrently, to highlight the alignment of information sharing approaches in PREDICT-2 and the Global Virome Project with the goals of the CBD.

3. EcoHealth Alliance would like to request travel approval for Mr. Michael Garbo and Dr. James Desmond to travel from Monrovia, Liberia to Sharm El Sheikh, Egypt from November 13-29, 2018 to participate in the United Nations Convention on Biological Diversity's (CBD) 14th Conference of the Parties and its regional Summits.

Trip purpose: Participation of Dr. Desmond, PREDICT-2 Liberia Country Coordinator, and Mr. Michael Garbo, Director for the Conservation of Nature (PREDICT-2 implementing partner), in these and other relevant events supports One Health policy capacity strengthening to promote sustainability and disseminate important multi-sectoral examples of One Health in action (a major focus of the Year 5 work plan). An anticipated benefit is strengthened collaboration between Liberia's public health and environment sectors, leading to integration of health in future National Biodiversity Strategy and Action Plans and biodiversity considerations in relevant health security objectives. This coordination is especially timely and important given Liberia's involvement in piloting the Country Assessment of Environmental Health Services, a tool catalyzed by the World Bank (with important input from PREDICT-2) with input from the CBD.

4. Metabiota would like to request travel approval for Amethyst Gillis, PREDICT Laboratory QAQC Coordinator to travel from Yaounde, Cameroon to Vientiane, Lao PDR from November 17-24, 2018 to support PREDICT-2 laboratory activities.

Trip purpose: In Vientiane, Ms. Gillis will check in on laboratory progress at the National Animal Health Laboratory and the National Center for Laboratory and Epidemiology. Ms. Gillis will provide support to both lab teams to ensure they are on track to meet sample testing deadlines.

5. UC Davis would like to request travel approval for Dr. Kirsten Gilardi to travel from Davis, California, USA to Kigali, Rwanda

and Kampala, Uganda from November 24 to December 10, 2018 to meet with PREDICT staff and partners.

Trip purpose: This trip will enable Dr. Gilardi to meet with PREDICT Country Coordinators from Rwanda, Uganda and eastern Democratic Republic of the Congo at MGVP headquarters in Ruhengeri, Rwanda, and Kampala, Uganda, to conduct laboratory site visits with staff and to check on Year 5 work progress in all three countries. Dr. Gilardi will also meet with government partners to check in on One Health capacity strengthening for staff and partners. ***Her tentative travel dates in each country are as follows – Rwanda: November 25 to December 2, December 9; Uganda: December 2-9.***

6. Wildlife Conservation Society (WCS) would like to request travel approval for Dr. Kim Gruetzmacher to travel from Berlin, Germany to New York, NY, USA, from November 25 to December 10 to attend the PREDICT-2 Consortium Partners Semi-Annual meeting and meetings with PREDICT-2 WCS colleagues.

Trip purpose: Dr. Gruetzmacher will be supporting WCS and contributing, with other colleagues, to the sessions and discussions as the rapporteur. WCS is hosting the November PREDICT-2 Consortium meeting and Dr. Gruetzmacher will also be assisting with meeting preparations in place of another colleague who is REDACTED Following the Semi-Annual, she will stay on for additional meetings at WCS with Amanda Fine and Sarah Olson.

7. UC Davis would like to request travel approval for REDACTED to travel from Dunblane, Scotland to Davis, California, USA from November 30 to December 16, 2018 for meetings with the UCD global team.

Trip purpose: REDACTED will conduct meetings with Jonna Mazet and colleagues at UC Davis in order to develop a risk ranking application for PREDICT viruses.

Katherine Leasure
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

Lao PDR Temporary Duty Information Form (Last update: August 2017)
(send completed form to ahuerta@state.gov, manivongsa@state.gov, and samaphone@state.gov)

Submitted by: Amethyst Gillis, Metabiota Inc.

Dates of travel:	From: 11/17/2018 To: 11/24/2018
TDY objective:	Support PREDICT-2 laboratory activies. Check in on progress and provide support to the National Animal Health Laboratory and the National Center for Laboratory and Epidemiology to ensure sample testing deadlines are met.
USAID activity	Assess laboratory activity and provide support.
Individuals visiting Laos (from RDMA, Washington, Implementing Partner):	Amethyst Gillis, Metabiota, Inc.
Required meetings to be arranged:	N/A
Site visits required:	None
Data to be collected:	None
Is a DIP note or letter of introduction requested:	☐ Yes ☒ No *Note: DIP notes are required for site visits and meetings with high-level GOL officials. Names of GOL officials must also be provided.*
Is motor pool requested:	☐ Yes ☒ No
Is Embassy access requested:	☐ Yes ☒ No
Have the visitors met with the AMB/DCM before:	☐ Yes ☒ No
Is Laos staff recommended to accompany all meetings:	☐ Strongly recommended ☒ Optional, but at the Laos Office discretion
Additional Comments:	

*Only a limited number of hotels meet Embassy Lao security and safety requirements for eCC travelers. As of August 2017 these are: (1) Lao Plaza Vientiane, (2) Landmark Mekong Riverside, (3) Settha Palace, (4) Dhavara Vientiane, and (5) Crowne Plaza.

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Andrew Clements <aclements@usaid.gov>
CC: Brian Bird <bhbird@ucdavis.edu>
Sent: 12/22/2018 11:22:02 PM
Subject: Re: PROIAH/EDR> Marburg virus disease - Sierra Leone: bat

I agree -- we submitted a ProMed post, but it looks like they picked up the NBC story verbatim first or instead. Hopefully, they will still post ours, but disappointing.
J

On Sat, Dec 22, 2018 at 4:31 AM Andrew Clements <aclements@usaid.gov> wrote:
this one really sucks. doesn't even mention uc davis or predict and goes on to talk about the recent cdc study in uganda so i have a guess on who provided the background. will not be forwarding....

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4233
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2

---------- Forwarded message ---------
From: <promed-edr@promedmail.org>
Date: Fri, Dec 21, 2018 at 11:06 PM
Subject: PROIAH/EDR> Marburg virus disease - Sierra Leone: bat
To: <promed-post@promedmail.org>, <promed-edr-post@promedmail.org>, <promed-ahead-post@promedmail.org>

MARBURG VIRUS DISEASE - SIERRA LEONE: BAT
****
A ProMED-mail post
<http://www.promedmail.org>
ProMED-mail is a program of the
International Society for Infectious Diseases
<http://www.isid.org>

Date: Thu 20 Dec 2018
Source: NBC News [edited]
<https://www.nbcnews.com/health/health-news/deadly-ebola-cousin-marburg-found-west-african-bats-n950331>

Marburg virus, a deadly cousin of Ebola virus, has been found for the 1st time in bats in west Africa, US researchers said on Thursday [20 Dec 2018]. The discovery means Marburg is a threat in west Africa -- where a giant epidemic of Ebola infected 28 000 people and killed 11 000 of them in 2014-2016. The region is crisscrossed by roads and paths and people travel across borders to towns and cities, making it easier to spread outbreaks of infectious disease. Usually outbreaks of Ebola and Marburg are in isolated regions and have been less likely to spread.

The knowledge that Marburg lives in bats in Sierra Leone can help officials prepare for potential outbreaks, the researchers said. "[A total of 5] Egyptian rousette fruit bats [_Rousettus aegyptiacus_] tested positive for active Marburg virus infection. Scientists caught the bats separately at locations in 3 health districts: Moyamba, Koinadugu and Kono," the US Centers for Disease Control and Prevention, which led one of the expeditions that found the infected bats, said in a statement. "There have been no reported cases of people sick with Marburg in Sierra Leone, but the virus's presence in bats means people nearby could be at risk for contracting Marburg virus. Marburg virus is a cousin to Ebola virus that causes a similar, often fatal disease in people."

Both Marburg and Ebola are terrifying because, depending on the strain and availability of medical help, they kill as many as 90% of victims. They can cause a hemorrhagic fever that causes internal and external bleeding, as well as severe diarrhea and vomiting that lead to shock.

The Egyptian fruit bat has been known to carry Marburg. It's a reservoir, meaning the animals can carry and spread a virus, but it doesn't make them sick. Bats are reservoirs for many viruses, including Marburg, rabies and Middle East respiratory syndrome virus (MERS).

"We have known for a long time that rousette bats, which carry Marburg virus in other parts of Africa, also live in West Africa. So it's not surprising that we'd find the virus in bats there," said ecologist Jonathan Towner, who led the CDC team. "This discovery is an excellent example of how our work can identify a threat and help us warn people of the risk before they get sick."

In Uganda a year ago 3 people died in an outbreak of Marburg. in 2005, a large outbreak of Marburg in Angola killed 90% of the 252 people infected.

There's a large cave full of fruit bats in Uganda where people, including tourists, have caught Marburg [virus]. "In eastern and central Africa, these bats can roost in colonies of more than 100 000 animals. However, the colonies of Egyptian fruit bats identified in Sierra Leone so far have been much smaller, which may explain why there have not been any known Marburg virus disease outbreaks in this country," CDC said in a statement.

Bats can spread viruses by biting people, but their saliva and guano can also spread the viruses -- for instance, when they forage on fruit that people also gather and eat. People can catch viruses when they hunt and eat bats, as well.

Marburg's relative, Ebola, is more common and may also be spread by bats. The Democratic Republic of Congo in central Africa is now fighting a large outbreak of Ebola. At least 549 people have been infected in the outbreak and 326 have died, the World Health

Organization said on Thursday [20 Dec 2018]. At least 50 000 people have been vaccinated against the virus, but civil war has made it difficult for health workers to do their jobs. The virus has also spread in towns, making it hard to contain.

[byline: Maggie Fox]

--
communicated by:
ProMED-mail rapporteur Mary Marshall

[The occurrence of Marburg virus in other countries where the Egyptian rousette fruit bat occurs is not surprising. Detection of the virus in these bats in Sierra Leone, west Africa, serves as a warning not only in that country and in Uganda, but in other countries where this bat is found. Health care providers need to be aware of this when attending patients with hemorrhagic fevers.

Uganda has reported the majority of Marburg virus infections in bats and in humans. There have been sporadic cases of Marburg virus disease in Uganda in the past:

- 2007: 4 cases, including 2 deaths in Ibanda district, western Uganda;
- 2008: 2 unrelated cases in travellers returning to the Netherlands and USA, respectively, after visiting caves in western Uganda;
- 2012: 15 cases, including 4 deaths in Ibanda and Kabale districts, western Uganda; and
- 2014: 1 case in a healthcare professional from Mpigi district, central Uganda.

The virus undoubtedly remains endemic in bats in the country, and one hopes that public education will result in less human contact with bats there. - Mod.TY

HealthMap/ProMED-mail map of Sierra Leone:
<http://healthmap.org/promed/p/46>.]

[See Also:
Marburg virus disease: testicular persistence
http://promedmail.org/post/20180830.5997867
Marburg virus disease - Uganda (08): resolved
http://promedmail.org/post/20171218.5511009
2017

Marburg virus disease - Uganda (07): (MX) susp.
http://promedmail.org/post/20171118.5452498
Marburg virus disease - Uganda (QW,QP), Kenya (TN) WHO
http://promedmail.org/post/20171108.5430664
Marburg virus disease - Uganda (06): (QW, QP)
http://promedmail.org/post/20171029.5411148
Marburg virus disease - Uganda (05): (QW)
http://promedmail.org/post/20171026.5406833

Marburg virus disease - Uganda (04): (QW)
http://promedmail.org/post/20171025.5403740
Marburg virus disease - Uganda (03): (QW)
http://promedmail.org/post/20171024.5401319
Marburg virus disease - Uganda (02): (QW)
http://promedmail.org/post/20171020.5393573
Marburg virus disease - Uganda: (QW)
http://promedmail.org/post/20171019.5391580
2005

Hemorrhagic fever - Angola: Marburg virus confirmed (02)
http://promedmail.org/post/20050323.0837
Hemorrhagic fever - Angola: Marburg virus confirmed
http://promedmail.org/post/20050322.0831]
.....sh/ty/rd/sh
##
****

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For assistance from a human being, send mail to:
<postmaster@promedmail.org>.
##
##

List-Unsubscribe: http://ww4.isid.org/promedmail/subscribe.php

From: Jon Epstein <epstein@ecohealthalliance.org>
Sent: Wed, 26 Dec 2018 13:56:32 -0500
Subject: Re: Liberia communication of findings
To: Tara Milani <tmilani@usaid.gov>, Jessica Healey <jhealey@usaid.gov>
Cc: Andrew Clements <AClements@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, Jim Desmond <desmond@ecohealthalliance.org>, Brian Bird <bbird@ucdavis.edu>

Dear Jessica and all,
I hope you all had a nice holiday. A brief update on the situation with the govt. of Liberia: Dr. Fallah met with the Health Minister on the 24th and briefed her about our finding. She has now met with the President, who has approved MoH moving forward with developing a communications plan for public release. I do not yet have information on the exact timing, but get the sense that it's moving forward with some urgency. From a previous meeting with Tolbert, Mosoka and Tara, there was agreement that they would communicate with the mission during this process, and I have just suggested to Mosoka and Tolbert in an email that we have a teleconference with Jessica to make sure that she is fully looped in. I'm awaiting their response.
In a phone conversation with Mosoka, and again in the email, I offered to come to Monrovia to be on hand to assist their communications group with preparations. I'll submit an ITA once I know the timing.

Please let me know if you have any questions.

Cheers,
Jon

On Fri, Dec 21, 2018 at 12:08 PM Jon Epstein <epstein@ecohealthalliance.org> wrote:

Thank you, Tara and hello Jessica.
Nice speaking with you earlier, as well.
I'll be in touch once I have more information from Dr. Fallah's meeting with the Health Minister.

Happy holidays.

Cheers,
Jon

Jonathan Epstein DVM, MPH, PhD

Vice President for Science and Outreach

EcoHealth Alliance
New York

(e) epstein@ecohealthalliance.org
(o) 212.380.4467
(m [redacted]
@epsteinjon

On Fri, Dec 21, 2018, 11:55 AM Tara Milani <tmilani@usaid.gov wrote:

Hi Jon

Thank you for the informative call this afternoon. As promised I am looping in Jessica Healey, USAID/Liberia Health Office Deputy, as she will be acting in my absence from Dec. 28- Jan 20. I have already briefed her on this.

Jessica, Jon is our main counterpart at PREDICT HQs, who works very closely with the Liberia portfolio and has been here many times. You already know Jim.

Many thanks and Happy Holidays, tara

Tara Milani
Health Office Director
USAID/Liberia
Office Tel: REDACTED
Mobile Tel: REDACTED

On Thu, Dec 20, 2018 at 10:03 PM Jon Epstein <epstein@ecohealthalliance.org> wrote:

Dear Tara and Andrew,
Just an FYI leading into tomorrow's call. I spoke with Dr. Mosoka Fallah today, who's acting DG for the National Public Health Institute of Liberia while DG Tolbert is out of country. Dr. Fallah is one of our main POC's for our PREDICT work and is fully aware of the current finding. In response to the Sierra Leone Marburg announcement today, he has decided to accelerate internal communication about our finding and plans to meet the health minister tomorrow to brief her. I don't yet know what they will ultimately decide in terms of public release, but just wanted you to be aware since it could be sooner than we originally expected. I'll update tomorrow if I know more specifics.

Cheers,
Jon

--
Jonathan H. Epstein DVM, MPH, PhD

Vice President for Science and Outreach

EcoHealth Alliance
460 West 34th Street, Ste. 1701
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1.212.380.4467 (direct)
REDACTED (mobile)

web: ecohealthalliance.org

Twitter: @epsteinjon

EcoHealth Alliance leads cutting-edge scientific research into the critical connections between human and wildlife health and delicate ecosystems. With this science, we develop solutions that prevent pandemics and promote conservation.

--
Jonathan H. Epstein DVM, MPH, PhD

Vice President for Science and Outreach

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web: ecohealthalliance.org

Twitter: @epsteinjon

EcoHealth Alliance leads cutting-edge scientific research into the critical connections between human and wildlife health and delicate ecosystems. With this science, we develop solutions that prevent pandemics and promote conservation.

From: Jon Epstein <epstein@ecohealthalliance.org>
Sent: Fri, 28 Dec 2018 15:00:45 -0500
To: Jessica Healey <jhealey@usaid.gov>
Cc: Jim Desmond <desmond@ecohealthalliance.org>, Tara Milani <tmilani@usaid.gov>, Andrew Clements <AClements@usaid.gov>, Predict inbox <predict@ucdavis.edu>
Subject: [predict] PREDICT EBOV fact sheet and FAQ
PREDICT Liberia Short Report Ebolavirus finding+ FAQ Dec 2018_Draft.docx

Jessica,
It was good to speak with you today regarding the PREDICT finding in Liberia. For your reference, I'm attaching the fact sheet and FAQ that we have previously provided to NPHIL for communications planning. Please let me know if you have any questions. I look forward to speaking with you again next week.

Cheers,
Jon

--
Jonathan H. Epstein DVM, MPH, PhD

Vice President for Science and Outreach

EcoHealth Alliance
460 West 34th Street, Ste. 1701
New York, NY 10001
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Twitter: @epsteinjon

EcoHealth Alliance leads cutting-edge scientific research into the critical connections between human and wildlife health and delicate ecosystems. With this science, we develop solutions that prevent pandemics and promote conservation.

USAID | PREDICT
FROM THE AMERICAN PEOPLE

Discovery of Zaire Ebolavirus in a bat in Liberia
PREDICT-Liberia

PREDICT, a project of USAID's Emerging Pandemic Threats (EPT) program, was initiated in 2009 and works along with other Global Health Security Agenda (GHSA) partners to strengthen global capacity for detection and discovery of potentially zoonotic viruses with epidemic and pandemic potential, including viruses related to the Ebola, influenza, and Zika viruses that have been recent causes of devastating disease outbreaks. In Liberia, as in every country where PREDICT operates, we work hand-in-hand with governmental and non-governmental stakeholders to develop and implement activities that are designed to strengthen surveillance and laboratory capabilities and ensure lasting positive effects from our engagements.

As a result of the 2014-2016 Ebola virus outbreak in Liberia, Sierra Leone, and Guinea, PREDICT is engaged in a focused effort to better understand the sources for Ebola and other related filoviruses by looking for the virus in wildlife, determining the potential for virus spillover into humans or other animals, and strengthening capacity to build and reinforce emerging disease surveillance and detection systems.

There are currently, six known species of closely related viruses referred to as 'ebolaviruses.' These include Ebola virus (EBOV; Zaire ebolavirus, the cause of the 2014 West Africa EVD outbreak), Bundibugyo virus (BDBV), Sudan virus (SUDV), Taï Forest virus (TAFV), Reston virus (RESTV), and the newly discovered Bombali virus (BOMV) which was found in bats in Sierra Leone by the Sierra Leone PREDICT team.

Despite the detection of Ebola in humans over 40 years ago, decades of research and several high-quality studies in specific geographic areas over the last twenty years, a comprehensive, long-term, simultaneous, multi-country coordinated investigation into the sources for Ebola, including a wide taxonomic range of potential virus hosts, has never been conducted. The main purpose of PREDICT activities in Liberia, is to try to identify which animals carry the virus and understand how common the virus may be among animal populations, and how this host distribution will affect the risks of future outbreaks.

Since 2016, PREDICT has been working in Liberia in close partnership with the National Public Health Institute of Liberia, the Ministry of Health, the Ministry of Agriculture, The Forest Development Authority (FDA) and is led by EcoHealth Alliance and the Society for Conservation of Nature, Liberia (SCNL). Over this time, our team has sampled over 5,300 animals (primarily bats and some rodents) at 15 sites across the country including sites in Nimba, Lofa, Montserrado, Bong, and Grand Cape mount counties. These animal samples are transported safely and securely to our partner laboratories in Monrovia and the United States where they are then tested to determine if any them are positive for Ebola or other related or unknown filoviruses. A large majority of the >5,300 animals sampled have been bats due to scientific evidence that a number of different bat species may be potential reservoir hosts for these viruses.

Our work, in Liberia is part of a larger and comprehensive, multi-year effort in all three affected countries (Sierra Leone, Guinea, and Liberia) to identify a broad range of possible of the animal hosts for all filoviruses that could serve as a source of human infections, as well as the behaviors and conditions associated with increased likelihood of another outbreak – information that is key to reducing the risk of future outbreaks. In addition to these goals we strive to increase national capacities in the areas of Integrated One Health Approaches for Zoonotic Disease Surveillance and Preparedness, Laboratory Systems Strengthening, and Workforce Development and Capacity Strengthening for the sustainable improvement of Liberia's ability to tackle public health challenges with a highly skilled and dedicated national cadre of health workers.

USAID | UC DAVIS VETERINARY MEDICINE | WCS | EcoHealth Alliance | METABIOTA

Ebola virus (*Zaire ebolavirus*) discovered in a bat in Liberia
Summary of the finding

- 1 Greater Long-fingered bat (species *Mineopterus inflatus*), sampled in Nimba county in September 2016, tested positive for Zaire ebolavirus by PCR and had neutralizing antibodies against Zaire ebolavirus in its serum.
- The bat was sampled as part of the USAID-PREDICT project, a large-scale international surveillance and capacity building initiative designed to identify new and known zoonotic viruses in wildlife before they cause outbreaks in humans or livestock. More than 5,000 bats were sampled by PREDICT between 2016 and 2018, and the Ebola-positive bat was tested between June and November 2018.
- In Liberia, PREDICT is focused on identifying natural hosts for filoviruses, including Ebola. This work is being led by EcoHealth Alliance (EHA) and the Society for the Conservation of Nature, Liberia (SCNL), in partnership with the National Public Health Institute of Liberia (NPHIL), the Forest Development Authority (FDA), and the Ministry of Agriculture.
- This discovery is significant because it is the first detection of *Zaire ebolavirus* in a bat in West Africa and provides important evidence that these bats may be a natural host for Ebola. This finding was the result of a proactive approach by the Government of Liberia to identify the source of Ebola virus. This information will be used to develop strategies to reduce the risk of future outbreaks.
- While this virus is known to be fatal in humans, this discovery should not be a cause concern. There have been **no new human Ebola cases associated with this finding**. Genetic sequence information confirms that the virus detected is *Zaire ebolavirus*, but at this time it cannot be determined whether or not it is the exact same virus that caused the recent EVD epidemic in Liberia, Sierra Leone, and Guinea.
- Greater Long-fingered bats are small (<20g) and eat insects. They are agriculturally important animals because they eat crop pests. They prefer to live in forest, caves and mines and are commonly found throughout Africa. People should avoid entering caves or mines inhabited by these bats to reduce the risk of exposure to Ebola virus.

Frequently Asked Questions (FAQs)

What are Ebola viruses?

There are six species of closely related viruses that are collectively referred to as 'ebolaviruses' (genus: *Ebolavirus*). The first virus identified was Ebola virus (EBOV; species *Zaire ebolavirus*). This virus was also the cause of the 2014-2016 outbreak in West Africa. Viruses belonging to three other species are also known to cause disease in humans: Sudan virus (species *Sudan ebolavirus*); Taï Forest virus (species *Taï Forest ebolavirus*); and Bundibugyo virus (species *Bundibugyo ebolavirus*). The fifth virus, Reston virus (species *Reston ebolavirus*), has caused disease in non-human primates and can infect humans but does not cause disease. The recent discovery of BOMV (species *Bombali ebolavirus*) by the USAID-PREDICT team in Sierra Leone added the sixth species to the *Ebolavirus* genus.

What are filoviruses?

Filoviruses are a group of viruses that can cause severe hemorrhagic fever in humans and nonhuman primates. The filovirus family includes Ebola virus (EBOV), Marburg virus (MARV), and the distantly related Lloviu virus (LLOV).

Why is this an important finding?

Ebola virus (EBOV; *Zaire ebolavirus*) was the virus responsible for the 2014 West Africa epidemic. There was speculation that it may have initially come from bats, but it was unknown exactly which animal carried this virus in West Africa. There has been evidence from other scientific studies that suggest some species of bats carry filoviruses, the group of viruses that includes Ebola, Marburg and related viruses, in Africa and Asia. This is the first finding of EBOV in a bat in West Africa. This discovery was made as part of a large, multi-country project called USAID-PREDICT, which in Liberia is a partnership between EcoHealth Alliance and the Society for the Conservation of Nature, Liberia working closely with the National Public Health Institute of Liberia and the Forest Development Authority. PREDICT has been actively surveying wildlife in West Africa to identify hosts of filoviruses, including Ebola, in order to improve understanding and preparedness for disease risks in the region.

Is this the same virus that caused the 2014 outbreak?

The West African Ebola crisis was unprecedented. It was the first EBOV epidemic that spread to and was sustained in multiple countries, and it was the first time that the disease occurred in major cities. There is enough information to be certain that this virus is closely related to the virus that caused the outbreak in 2014, but at this time there is not enough information to determine whether it is the identical virus that led to the outbreak. Additional testing is underway to further characterize the detected virus.

At this time, there is no evidence for any new human Ebola cases or any cause for new concern because of this discovery. However since Ebola virus is known to be able to infect people, this discovery can help prevent new human cases by allowing the Government of Liberia to be fully informed and to continue to design educational and public health strategies that will help people avoid contact with sources of possible infection. In addition, the discovery serves as a reminder that all people should remain vigilant in safeguarding their own health and take steps to reduce their personal risks for disease transmission, including avoiding contact with bats.

How can we safely live with bats?

In general terms, African bats come in two basic varieties, fruit-eating bats and insect-eating bats. As such, they play important roles in the ecosystem by pollinating native and agricultural crops or reducing (eating) insect pests such as mosquitos that can spread disease among people, livestock, and crops. Unfortunately, bats are also known to host a number of diseases. A key part of reducing infection risk is to avoid direct contact with bats or their droppings and fluids (e.g., feces, urine, blood, saliva). This can be done by covering water and food in the home, practicing good hygiene, such as washing hands, cooking pots and plates with soap and water, and avoiding killing or eating bats. People should also avoid entering caves or mines that are populated by bats to reduce their risk of exposure to filoviruses. People should not attempt to kill or eradicate bats in

response to this discovery, as disturbing bats can lead to increased human health risks and disruption of wildlife and ecosystem health.

How is this virus related to Marburg virus, recently found in bats in Sierra Leone?
Marburg virus is also a filovirus, and along with its close cousin Ebola virus, belongs to the family *Filoviridae*. Marburg virus was first discovered in 1967 when laboratorians in Germany and former Yugoslavia were infected from monkeys imported from Uganda that were carrying the virus. In the 50+ years since, Marburg virus has caused 12 known outbreaks of disease, termed Marburg virus disease, in Uganda, Democratic Republic of the Congo (DRC), Kenya and South Africa, ranging from 1 to 252 cases. Marburg virus can cause symptoms similar to Ebola; however, there have not been any human cases of Marburg virus disease reported in West Africa.

How are ebolaviruses spread?

According to WHO, ebolaviruses can spread to humans through contact with bodily fluids from infected people and animals. Animals that may carry the virus include non-human primates, bats, and forest antelope. A critical part of prevention is early detection and reporting of ebolavirus infections in animals and people so that risks can be identified and appropriate prevention actions taken. This discovery provides evidence and confirmation of what we already have known, that *Zaire ebolavirus* is still present in bats in Liberia. While more work needs to be done to understand how frequently bats are infected with *Zaire ebolavirus*, what we have learned from this discovery can be used to develop effective risk reduction strategies that include avoiding contact with these bats and their bodily fluids, and avoiding entering caves or mines inhabited by these bats.

How can bats spread ebolaviruses?

A number of different species of bats have been proposed as reservoir hosts for ebolaviruses. In West Africa, the 2014 epidemic is thought to have started following human contact with an infected bat, though this is not certain. Infected bats are not known to show signs of illness but can shed the virus in their saliva and feces. The handling, butchering or eating of infected animals can also spread the virus. As a result, other animals and people can become infected if they touch live or dead bats or if they come into contact with the urine or feces of infected bats.

What is being done to engage and protect communities?

Public engagement meetings, advocacy and trainings are critical components of USAID's PREDICT Project activities in Sierra Leone, Liberia, and Guinea. Local community engagement and communications have been ongoing at every stage of the project before starting animal sampling. In Liberia, EcoHealth Alliance and other PREDICT ecology and virology experts are now in the process of meeting with federal agencies and communities to share plans and answer questions about filoviruses; how to reduce the risk of exposure to the ebolaviruses; and how to live with agriculturally-important bats like the Greater Long-fingered bat. PREDICT will continue work with the government of Liberia and other partners to proactively identify and monitor for pathogens, such as other filoviruses like Marburg virus, Bombali virus, and *Zaire ebolavirus* in bats.

Should you attempt to eradicate bat populations?

No. Killing or disturbing bats in their natural habitat would not reduce the risk of transmission of the virus and, in fact, may result in the opposite effect. In Uganda, attempts to eliminate the bat reservoir of the closely-related Marburg virus from caves led to surprising increases in the numbers of virus-infected bats (Amman et al., EID, 2014); bat numbers more than doubled as they recolonized depopulated areas. In addition, bats may increase shedding of virus in periods of heightened stress, potentially resulting in an increase in transmission opportunities.

What does it mean to be Ebola-free?

The devastating outbreak of EBOV (species Zaire ebolavirus) which led to 11,000 deaths (including close to 5,000 in Liberia) is over and Liberia and the West Africa region are free of human cases. However, this discovery provides evidence to suggest that this virus is residing in this species of bat. It is possible that there are other animal species that also carry Ebola or related filoviruses in Liberia; therefore, it is important to be vigilant and continue disease surveillance as well as to avoid contact with bats.

How can the community protect themselves?

The best way to protect yourself from bats and any diseases they may carry (including the newly discovered Marburg virus in Sierra Leone) is to practice good hygiene in and around the home.

1) Do not enter caves or other areas where bats prefer to live. If you must enter these areas, take precautionary measures, such as wearing protective clothing and covering your head, eyes, nose and mouth.
2) Wash your hands with soap and water before bringing your hands to your face, preparing or eating meals.
3) Protect your food and water at home by covering them.
4) Avoid direct contact with bats (don't kill them or eat them).
5) Protect your animals from bat droppings by not keeping them under trees with large numbers of bats.
6) If your animals become sick contact your local government community liaison or your county medical or agricultural officer to report the sickness.

Why can't we just kill all the bats?

There are a couple of important reasons, 1) as mentioned previously, African bats play important roles in the ecosystem by pollinating native and agricultural crops or reducing (eating) insect pests, such as mosquitos, that can spread disease among people, livestock and crops. Therefore, killing bats will remove these essential components of the ecosystem that have direct and beneficial impacts on human health, and 2) killing or disturbing bats in their natural habitat will increase the risk of exposure to filoviruses due to increased physical contact between bats and people. Killing bats puts people in direct contact with their dead bodies, blood, feces and urine and thereby increases the risk of exposure to this virus and other diseases. In fact, extermination efforts have been tried before at a mine in Uganda containing over 100,000 bats. The end results had opposite effects. After a few years, the mine became repopulated by bats, and the level of Marburg virus circulating in the bat population more than doubled.

Where can I get additional information?

Background information, technical guidance, and protocols for health care professionals, researchers, journalists, and the public, can be found on the WHO global website: http://who.int/csr/disease/ebola/en/

From: Peter Daszak <daszak@ecohealthalliance.org>
To: Jon Epstein <epstein@ecohealthalliance.org>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Anthony Ramos <ramos@ecohealthalliance.org>
Subject: RE: Our final press release and the promed post
Sent: Thu, 24 Jan 2019 17:21:36 +0000

Well Done!

Cheers,

Peter

Peter Daszak
President

EcoHealth Alliance
460 West 34th Street – 17th Floor
New York, NY 10001

Tel. +1 212-380-4474
Website: www.ecohealthalliance.org
Twitter: @PeterDaszak

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.

From: Jon Epstein [mailto:epstein@ecohealthalliance.org]
Sent: Thursday, January 24, 2019 12:13 PM
To: Peter Daszak
Cc: Jonna Mazet; predict@ucdavis.edu; David J Wolking; Anthony Ramos
Subject: Re: Our final press release and the promed post

Hi,
Yes, I sent the version Jonna edited to ProMed about 30 minutes ago, directly to an editor. I don't think it's posted yet, but I'm checking periodically.
Cheers,
Jon

On Thu, Jan 24, 2019 at 5:09 PM Peter Daszak <daszak@ecohealthalliance.org> wrote:
Thanks Jonna – just seen this.

Jon – did you get these changes and send the revised version to ProMED?

Cheers,

Peter

Peter Daszak
President

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From: Jonna Mazet [mailto:jkmazet@ucdavis.edu]
Sent: Wednesday, January 23, 2019 2:33 PM
To: Peter Daszak
Cc: predict@ucdavis.edu; David J Wolking; Jon Epstein; Anthony Ramos
Subject: Re: Our final press release and the promed post

Hi,
I had to make a couple of minor changes to ProMed post. You sent in pdf, so you won't be able to see them without a direct compare. Basically, added "in Liberia" at the beginning where you give the number of bats sampled. Added UCD to partnership list and removed the part about lab support because the sentence then was awkward. And added "(partial genome)" to the paragraph about not knowing the strain.
Otherwise looks great.
Sending these finals to USAID now along with the CII release with similar content.
Thanks,
Jonna

On Wed, Jan 23, 2019 at 10:46 AM Peter Daszak <daszak@ecohealthalliance.org> wrote:
Hi Jonna – final version of the press release, and the text to Promed which will go out on Thursday.

The embargo is lifted at 9am Eastern time. Liberia's press conference begins earlier, but they'll be doing general information first, so we're holding back to be respectful of their lead.

Cheers,

Peter

Peter Daszak
President

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Website: www.ecohealthalliance.org
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--

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EcoHealth Alliance leads cutting-edge scientific research into the critical connections between human and wildlife health and delicate ecosystems. With this science, we develop solutions that prevent pandemics and promote conservation.

From: Peter Daszak <daszak@ecohealthalliance.org>
To: Woutrina A Smith <waasmith@ucdavis.edu>
CC: Molly Turner <turner@ecohealthalliance.org>;Matthew Blake <mblake@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>;Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
Sent: 2/25/2019 6:36:17 PM
Subject: RE: OHW-NG scope of work

Hi Woutrina,

Sorry for the slow response – I was in China and Malaysia last week. I've put in responses to each of the questions in blue in the email below…

Cheers,

Peter

Peter Daszak
President

EcoHealth Alliance
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New York, NY 10001

Tel. +1 212-380-4474
Website: www.ecohealthalliance.org
Twitter: @PeterDaszak

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From: Woutrina A Smith [mailto:waasmith@ucdavis.edu]
Sent: Tuesday, February 19, 2019 2:57 AM
To: Peter Daszak
Cc: Molly Turner; Matthew Blake; Jonna Mazet; Elizabeth Leasure
Subject: OHW-NG scope of work

Hi Peter,

Thanks for your leadership in bringing EHA into the OHW-NG consortium, we are happy to be moving forward together. Some parts of the org structure for OHW-NG will be similar to PREDICT, others will be different based on the NOFO focus and our implementation ideas. Here is our current thinking for EHA scope that may be of interest to you, so please let us know if this is agreeable or if you'd like to propose something different for discussion. I know you'll want to start costing estimates for your team to accomplish your scope, and Liz will be sending out official forms and guidance on that this week.

1. Country oversight for OHW-NG capacity building activities:
Our top priority unit of focus for OHW-NG is the OHCEA and SEAOHUN network level, and secondarily the member countries (existing and new). For current OHCEA and SEAOHUN activities, the networks support in-country costs for conducting trainings, supporting trainees, etc., while the global prime supports global team and country oversight activities, sending external SMEs to participate in trainings, etc. Per the NOFO, at least 50% of the overall budget has to go to OHCEA/SEAOHUN as a subaward, and increasing the proportion of funds going to the in country networks as of Yr 3. For this reason, a difference from PREDICT is that the funds UCD would send to EHA are for your global team, not for flow through to in-country teams, as those in-country activity funds will be in the OHCEA/SEAOHUN subs from UCD.

Country leadership:
For each OHW-NG country, we can have an animal health and public health lead in our global consortium. It is fine to have one EHA person responsible for multiple countries, as the level of effort for oversight and coordination will be lower than PREDICT was given the focus on sending in-country fellows to regional hub training activities and conducting some specific in-country training activities, but not conducting an intensive research program in all countries. ICAP will fill the global lead roles for the public health side for most of the countries, and for the animal health side I need to know which countries you feel EHA could provide country leadership, as we will divide those countries among EHA, UCD, and possibly WCS/SI based on our needs. Here is the list of countries, made up of some as existing OHCEA/SEAOHUN countries that are prioritized for work per the NOFO, and some that we can suggest as limited engagement to try to bring them into the OHCEA/SEAOHUN networks as an expansion effort. **Please indicate which countries you would like EHA to be considered for in providing animal health country leadership within your global team:**

SEAOHUN current countries: Thailand, Indonesia, Malaysia, Vietnam
SEAOHUN expansion countries: Bangladesh, Cambodia, Laos, Myanmar

OHCEA current countries: Uganda, Tanzania, Ethiopia, Kenya, Rwanda, DRC, Cameroon, Senegal;
OHCEA expansion countries: Ivory coast, Liberia, Guinea, Sierra Leone

[Peter Daszak]
We would like to provide animal health country leadership for Thailand, Indonesia, Malaysia, Bangladesh, Ivory Coast, and Liberia. All of these are countries that EHA leads for PREDICT and we have 10-15 yrs experience on the ground in most (3-5 for Liberia and Ivory Coast), working with Govt. and University partners.

We also would like to do the same work in DRC. Anne Laudisoit at EHA has worked and live in DRC on and off for the past 10 years. She's Faculty at the Univ. Kisangani, speaks fluent French and is great at training/building liaisons with partners in-country

Re Myanmar – we've been working with Smithsonian to link into Myanmar in PREDICT, it being on the border of Yunnan Province, China where we do a lot of surveillance. Kevin has visited and has some contacts and we'd be willing to take this on if it makes sense.

Training activities:
Research hubs - we are hoping to propose two research training hub countries per OHCEA and SEAOHUN network, where we could conduct some aligned surveillance activities as an opportunity to include regional trainees who want to get experience in fieldwork, labwork, data analysis, and communications. Given the NOFO details on priority vs limited engagement countries, the likely research hub countries will be Thailand and Vietnam for SEAOHUN, and Senegal and Tanzania for OHCEA. If your team is providing country leadership for one of the hub countries, that level of effort will need to be higher than for non-hub countries given the extent of in-country activities to be coordinated. We should discuss to what extent the budget for research supplies can be managed through the OHCEA/SEAOHUN in country budgets as compared to requiring global team ordering and provision of supplies, as ideally it would be the former but realistically it is probably some of both, and we may want to budget accordingly to accommodate that. **The final country leadership from #1 above will drive who should budget for extra research costs.**

Small grants program - We also hope to have a competitive small grants program that OHCEA and SEAOHUN would operate, which could result in small research projects for various countries, and that grant development process could involve mentoring and partnership between in-country and global team staff. **We may look to allocate a set small amount of money per country for global team leads to manage in addition to the OHCEA/SEAOHUN in-country budgets to support small grants** given the need to provide research supplies from our global team ordering side to complement what the in-country teams can order in a timely manner.

[Peter Daszak] We will plan to budget for this.

Workshops - A variety of training formats can be used for training hub countries and other in-country

capacity building activities to a lesser extent. Ideally the in-country focal contacts (like our PREDICT country coordinators) would work with the global country team lead in planning priority training activities based on the capacities and needs identified. Per the current OHCEA structure, the country focal contact proposes training activities to the OHCEA board for approval, and when approval is received, planning of the activity can commence. In our proposal we will likely have a more structured cycle and mechanism for proposing and approving training activities, perhaps semi-annual, as we want to coordinate the menu of offerings within the needs of the One Health Academy and Certificate Program to build One Health competencies across the region. For training activities, EHA could provide the SMEs where relevant based on country and topic. **Please identify SME topics and personnel names that you might want to list from your EHA team so that you can eventually budget for having EHA experts on hand to participate in regional and country activities where relevant per your geographic scope of work.**

[Peter Daszak]
Here are the people on-staff who we think would fit the bill and in which capacity, based on the training objectives in the NoFo. We're not proposing that everyone is involved, but we're all ready, willing and able to if we think it makes sense…

- Peter Daszak – risk assessment. Also interested in working with partners to develop scientific skillsets, e.g. developing One Health proposals and publications, similar to trainings I've given in Malaysia as part of our USAID-IDEEAL work
- Kevin Olival – risk assessment
- Noam Ross – risk assessment
- Allison White – risk assessment – Has given GIS, R, and other analytical training workshops in Malaysia as part of USAID-IDEEAL
- Yasha Feferholtz – risk assessment, economics; Has conducted health economics and risk workshops with INDOHOUN staff over multiple weeks.

- William Karesh – One Health policy, early engagement (inter-ministerial and government) workshops
- Catherine Machalaba -- Policy engagement and assessment (worked with World Bank to develop One Health Operational Framework and environmental and wildlife health workforce and capacity assessment)
- Ellen Carlin -- Policy engagement and assessment

- Jon Epstein – field research, surveillance, in-service training; Strong experience in South and SE Asia, also in Liberia
- Anne Laudisoit – field research, surveillance, in-service training; CIV and DRC (Fluent French speaker); Professor at University of Kisangani, DRC
- Alice Latinne – field research, surveillance, in-service training; strong exp. In SE Asia, also fluent French speaker
- Jim Desmond -- field research, surveillance, in-service training; strong exp. In South Asia, SE Asia and Liberia
- Tom Hughes -- field research, surveillance, in-service training; Currently country coord. For Malaysia PREDICT, also Dep. CoP for USAID-IDEEAL
- Ariful Islam -- field research, surveillance, in-service training; Currently country coord. For Bangladesh PREDICT

2. Global OHW-NG working groups and core partner activities:
Beyond the value your EHA team can add with leadership of in-country oversight and participation in trainings specifically, we would welcome representation on the three objective working group teams longitudinally. This would likely involve monthly 1 hr objective working group meetings for each objective you want to have someone involved with over the course of the project, as well as having them attend a semi-annual core partners meeting and an an annual OHCEA and/or SEAOHUN conference for all partners to be involved, if those are of interest. We should also plan on a weekly global management team meeting for higher level coordination with USAID needs and developments. This communication structure is similar to PREDICT. **Please consider who you would want to name for these activities.**
[Peter Daszak]
Obj. 1: Kevin Olival & Jon Epstein.

Jon = field training
Kevin = risk assessment
Obj. 2: Catherine Machalaba
Obj. 3: Peter Daszak

Weekly call = Molly, Peter, with either Catherine, Jon, Kevin as replacement during travel.

There may be some specific global team leadership roles of interest to EHA that are separate from the activities described above. For example having Billy in the external liaison role in PREDICT has led to good synergies. I'm open to exploring what the most important roles might be and who would be excellent among our consortium, so **please give a bit of thought to these key staff role possibilities and know that I will be sharing org chart figures for discussion next week.**

[Peter Daszak] I spoke with Billy Karesh about this and we think that a role as "External Liaison" or "One Health External Partner Engagement" Lead would be a value-add to the proposal. Each of the OHUNs will need to fit their One Health activities within the context of the National Govt. agencies and Intergovernmental agencies involved in One Health (FAO, OIE, WHO, IUCN etc). There are also the other EPT partners, as well as corporations. Billy's done this for PREDICT and USAID program people will recognize this when they review the proposals.

Please feel free to share your thoughts via email or we can set a time next week to discuss on a call. Please start considering your costing estimates to give us a ballpark number representing your needs and we can hone in on what is possible based on balancing the various requests and ideas that are coming in from partners.

Best wishes from Addis Ababa, Woutrina

From: Andrew Clements <aclements@usaid.gov>
Sent: Mon, 13 May 2019 08:03:36 -0700
Subject: CBS News Coverage of eco issues and ebola
To: Kirsten Gilardi <kvgilardi@ucdavis.edu>
Cc: "Lisa Kramer (Nairobi/EA/RHH)" <lkramer@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, djwolking@ucdavis.edu, Dennis Carroll <dcarroll@usaid.gov>, predictmgt@usaid.gov

Hi Kirsten,
The request is for you to highlight USAID's work related to environmental issues around ebola. You are not representing UC Davis or Predict. I'm guessing they will want an affiliation so okay to say UC-Davis wildlife expert.

Lisa Kramer (copied here) will help link you to the USAID/DRC public affairs team. They can provide details on when and where (likely Beni or Goma.)

Hopefully, you can get a visa in time and it will be possible for you to hop across the border from wherever you will be in Uganda or Rwanda.

Andrew

P.S. have Katie send me an amended travel approval ASAP so we can get the mission concurrence.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

From: Tracey Goldstein <tgoldstein@ucdavis.edu>
Sent: Thu, 30 May 2019 13:22:03 -0700
Subject: Re: Predict Transition Plan and Close Out Plan
To: Corina Grigorescu Monagin <cgmonagin@ucdavis.edu>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>

Ok thanks. Is the mission aware of that request?
T

On Thu, May 30, 2019 at 9:53 AM Corina Grigorescu Monagin <cgmonagin@ucdavis.edu> wrote:

Guinea government wants us to send all the samples to the US (negatives). Ongoing discussions with regards to the positives…

From: Andrew Clements <aclements@usaid.gov>
Date: Thursday, May 30, 2019 at 9:46 AM
To: Jonna Mazet <jkmazet@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, David Wolking <djwolking@ucdavis.edu>, Corina Grigorescu Monagin <cgmonagin@UCDAVIS.EDU>
Cc: "predictmgt@usaid.gov" <predictmgt@usaid.gov>
Subject: Fwd: Predict Transition Plan and Close Out Plan

See below. Let me know the status of these discussions in-country.

Thanks!

Andrew P. Clements, Ph.D.

Senior Scientific Advisor

Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health

U.S. Agency for International Development

Mobile phone: 1-571-345-4253

Email: aclements@usaid.gov

Begin forwarded message:

From: Andrew Clements <aclements@usaid.gov>
Date: May 30, 2019 at 6:44:21 PM GMT+2
To: Tamar Bah <tbah@usaid.gov>
Cc: Izetta Simmons <isimmons@usaid.gov>, Richard Greene <rgreene@usaid.gov>, Kendra Chittenden <kchittenden@usaid.gov>, Cheryl Kamin <ckamin@usaid.gov>
Subject: Re: Predict Transition Plan and Close Out Plan

Hi Tamar,

Discussions regarding the testing (with other funding) or safely storing samples are supposed to be taking place in all countries. I will check with Predict to see where things stand with Guinea.

Andrew

Andrew P. Clements, Ph.D.

Senior Scientific Advisor

Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health

U.S. Agency for International Development

Mobile phone: 1-571-345-4253

Email: aclementsi@usaid.gov

On May 30, 2019, at 5:39 PM, Tamar Bah <tbah@usaid.gov> wrote:

Hello Andrew,

I am sending you this message as a follow up to both my email on May 15th and our Mission Portfolio Review held yesterday where questions were raised about the close out plan for the PREDICT project.

As September 2019 is approaching really fast, we are inquiring about the plans in place for the close out of the PREDICT Project due to the uncertainty on whether Guinea will be selected for extension.

You noted in your May 01 email (below) that **"no additional testing will be done during the extension period"**. This calls for the need to know the plan for the samples here in country. Discussions should begin so that we find out what the country wants to do with more than 29,000 animal samples collected and what we plan. To date, only the domestic animals samples (representing the minority of the samples) were analyzed in Guinea. Please note all the samples in Guinea apart from domestic animal samples are conserved in VTM.

We look forward to having a discussion about the close out and transition plan for PREDICT.

Let us know if you are available next week for a call.

Regards,

Tamar

Andrew Clements

to ghsdglobal

Hi all,

As AOR of USAID/Predict-2, I'm writing to provide an update on the project.

Here are the key points:

- The original 5-year project will end as planned on 9/30/2019. The project is currently in the process of finishing testing, analysis, preparing data reports for disseminating to governments and communities, and identifying where/how samples will continued to be stored or used in the future.
- Two caveats—1. Five countries in which Predict works (China, Laos, Myanmar, DR Congo, Rep. of Congo) may have to end activities earlier than 9/30/2019 because of their Tier 3 ranking for TVPA. (We are waiting for formal guidance.) 2. Predict has had to slow year 5 implementation because of delays by USAID to provide funding. (This could possibly result in some activities not being finished by 9/30/2019.)
- There will be no follow-on Predict award as part of the 2019-2024 EPT/GHSA portfolio. Also note that IDDS and/or FAO are not continuing the Predict scope of work.
- We are planning an extension of Predict-2 for a limited-time (10/1/2019 to 9/30/2020), limited scope (country risk assessment training, recommendations to countries for augmenting surveillance related to wildlife and their microbes, and maintenance of the global EIDITH database used by Predict-2), and in a limited number of countries (Bangladesh, Cameroon, Côte d'Ivoire, DR Congo [unless excluded by TVPA restrictions], Ghana, Guinea, Indonesia, Kenya, Liberia, Senegal, Sierra Leone, Tanzania, Uganda, Vietnam). **Note: there will be no additional surveillance or testing of samples during the extension period*.**

- Because of the reduced scope of activities for the 1-year extension, the overall number of staff for the project will be reduced, including at the country level.

- If year 5 activities are not completed by 9/30/2019, this is not expected to affect the start of the extension on 10/1/2019.

**An exception might be advanced testing of a limited number of select viruses in Predict global labs.*

Please let me know if you have any questions.

Thanks!

Andrew

Andrew P. Clements, Ph.D.

Senior Scientific Advisor

Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health

U.S. Agency for International Development

Mobile phone: 1-571-345-4253

Email: aclements@usaid.gov

Tamar T. Bah, MPH

Global Health Security Agenda Advisor

USAID Guinea

Office: REDACTED

Cell:

--
Tracey Goldstein, PhD
One Health Institute
School of Veterinary Medicine
University of California
Davis, CA 95616
Phone: (530) 752-0402
Fax: (530) 752-3318
E-mail: tgoldstein@ucdavis.edu

From: Katherine Leasure <kaleasure@ucdavis.edu>
To: PREDICTMGT <predictmgt@usaid.gov>
CC: Predict inbox <predict@ucdavis.edu>; Jonna Mazet <Jkmazet@ucdavis.edu>
Sent: 6/26/2019 9:16:34 PM
Subject: Change to Pending ITA - D. McIver (Laos Postponed)

Hi Andrew. Per Metabiota, the below travel for David McIver to Laos has been postponed, with new dates TBD. A new ITA will be submitted when the rescheduled travel dates have been confirmed. Based on Tone's response to the request for concurrence, it appears that the Laos Mission is already aware of this, but I will follow-up on that email chain to confirm that David's trip is being rescheduled. Please let me know if you have any questions. Thank you!

Metabiota would like to request travel approval for Dr. David McIver, Epidemiologist, to travel from Nanaimo, Canada to Vientiane, Laos from June 28 to July 6, 2019 to hold PREDICT2 wrap up meetings with in-country partners.

Trip purpose: In Vientiane, Dr. McIver will coordinate and participate in national-level meetings with PREDICT2 partners including the Ministry of Health, the Ministry of Livestock and Fisheries, as well as USAID members from the embassy. Following these meetings, Dr. McIver will travel to Champasack province for similar meetings with provincial and district governments, as well as partner hospitals and communities. These meetings are intended to be a part of the final, program close-out activities for the PREDICT2 program. Results from the global and local programs will be presented to all partners and local results will be shared as appropriate with hospitals and communities. In Vientiane, Dr. McIver will also arrange to meet with mission representatives at the US embassy to debrief on PREDICT2 as the EPT2 program comes to a close.

--
Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
530-752-7526

From: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
To: David John Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>
Subject: Re: PREDICT MT Call - July 23, 2019 @ 8:30 AM Pacific
Sent: Sun, 21 Jul 2019 15:57:09 +0000

Good morning. I have a doctors appointment at 9 am on Tuesday, so I'm only able to join for the first 15 minutes. Looking at the agenda, I think 15 minutes should be sufficient, but let me know if you have any concerns. I tried to reschedule, but the only available appointments are mid-August, and I can't wait that long.

Thanks,
Liz

Elizabeth Leasure
Financial Operations Manager
One Health Institute
University of California, Davis
Cell: 530-304-1403

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Friday, July 19, 2019 1:44 PM
To: Alisa Pereira Emerging Threats Division; Christine Kreuder Johnson; Clements, Andrew (GH/HIDN); Peter Daszak; PREDICTMGT; Jonna Mazet; William B. Karesh; Karen Saylors; Elizabeth Leasure
Cc: predict Sympa List; Brooke Genovese; Molly Turner; Evelyn Luciano; Ava Sullivan; Catherine Machalaba; Amanda Andre; Alison Andre
Subject: PREDICT MT Call - July 23, 2019 @ 8:30 AM Pacific

Hi there,
Just a reminder about next week's PREDICT Management Team call (Tuesday July 23, 2019 @ 8:30AM Pacific). The agenda as it stands now is below. If it changes I'll send around an updated version before the call.

Enjoy the weekend,

David

PREDICT Management Team Meeting

Tuesday, July 23, 2019

8:30-9:30AM PST/11:30-12:30pm EST

Zoom link: REDACTED

Additional Zoom info below agenda

USAID Updates

1. **Administrative items**
   - Year 5 extension
   - Mods and core reconciliation
   - Updates on July 9th congressional briefing & other future events

- All-country meeting plans
- DTRA coordination (request to hear from USAID on recent meeting)

2. Updates on close-out (sample and equipment disposition, etc...) - standing item

- Info from recent country progress check

3. Preview of PREDICT Findings & Product Packages (aka Cool Stuff)

4. Mission, partner communications & country roundup essentials

- *Guinea update*
- *DRC outbreak updates*
- *Laos meeting with US Ambo'*
- *Viet Nam EPT program review meeting*
- *Mission fact sheets and briefer requests*
- *Next Gen and Breakthrough Action coordination - USAID guidance...*

5. Publication, media, and conference updates

- PREDICT All Country Meeting, Bali, Indonesia (September 15-17, 2019)
- DTRA Biological Threat Reduction Program Review meeting Warsaw, Poland (Sep 17-19, 2019)
- ID week 2019, Infectious Disease Society of America, Washington DC (October 2-6, 2019)
- 19th International Congress on Infectious Diseases, Kuala Lumpur (February 20-23, 2020)

6. AOB

Zoom Call-in info

Zoom link: REDACTED

Or iPhone one-tap :

US: +16468769923, REDACTED or +16699006833, REDACTED

Or Telephone:

Dial(for higher quality, dial a number based on your current location):

US: +1 646 876 9923 or +1 669 900 6833

Meeting ID: REDACTED

International numbers available: https://zoom.us/u/depX2cn5i

Sent: Tue, 23 Jul 2019 18:40:52 -0700
Subject: Re: PREDICT MT Call - July 23, 2019 @ 8:30 AM Pacific
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Karen Saylors [redacted]
Cc: David J Wolking <djwolking@ucdavis.edu>, Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, PREDICTMGT <predictmgt@usaid.gov>, Elizabeth Leasure <ealeasure@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Brooke Genovese <bgenovese@ucdavis.edu>

Thanks very much, Karen.
Safe travels,
Jonna

On Tue, Jul 23, 2019 at 1:24 PM Karen Saylors <[redacted]> wrote:

Hello everyone.
Sorry I had to drop off on today's Mgmt call: I had to board a plane.

Please find below some updates for the two agenda items I wasn't able to address, the DRC outbreak and Laos Ambassador's request.

DRC outbreak updates:
The Minister of Health, Dr. Oly Ilunga Kalenga, was asked to step down this week and did so yesterday. President Félix Tshisekedi nominated our PREDICT partner, Prof Muyembe to be in charge of Ebola Response for DRC.

For our weekly update:

	Suspected	Confirmed	Deaths	Total affected
Humans	272	2498	1649	2592

During the week of July 15-21:
91 new confirmed cases and 75 deaths were reported from North Kivu; among new confirmed cases were 4 health care workers.
298 patients are in Ebola Tx Centers: 68 in Mangina, 54 in Beni, 46 in Butembo, 29 in Katwa.

The good news is that 734 recovered previously Ebola confirmed cases have been dischanged from treatment centers.

Regarding vaccinations of new populations : since June 11, 2019 vaccination started among pregnant women (n=280), breastfeedingwomen (n=1404), and children under 1 year of age (n=415).

82 out of 85 provincial border control points were functional in the outbreak region (96% coverage). To date, a total of 77,196,601 travelers have been screened at control points, including 1649 suspected case alerts and **23 EVD** laboratory confirmed cases. Since the preacher was detected EVD positive in Goma, four highly suspected contacts were intercepted on the road coming from Butembo to Goma. All these cases were sent back to Butembo.

Laos:
The local mission in Laos has requested that Dave McIver and Ko, our Country Coordinator, meet with the US Ambassador while Dave is in Vientiane for our final PREDICT Laos wrap up meetings, which are currently scheduled for the week of Aug. 5th. The PREDICT Laos team has suggested that either Aug 12 or 13 would work for a meeting with the Ambassador, but plans remain tentative.

Best,
Karen

On Fri, Jul 19, 2019 at 1:44 PM David J Wolking <djwolking@ucdavis.edu> wrote:

Hi there,
Just a reminder about next week's PREDICT Management Team call (Tuesday July 23, 2019 @ 8:30AM Pacific). The agenda as it stands now is below. If it changes I'll send around an updated version before the call.

Enjoy the weekend,

David

PREDICT Management Team Meeting
Tuesday, July 23, 2019
8:30-9:30AM PST/11:30-12:30pm EST
Zoom link: REDACTED
Additional Zoom info below agenda

USAID Updates

1. **Administrative items**
   - Year 5 extension
   - Mods and core reconciliation
   - Updates on July 9th congressional briefing & other future events
   - All-country meeting plans
   - DTRA coordination (request to hear from USAID on recent meeting)

2. **Updates on close-out (sample and equipment disposition, etc...) - standing item**
   - Info from recent country progress check

3. **Preview of PREDICT Findings & Product Packages (aka Cool Stuff)**

4. **Mission, partner communications & country roundup essentials**
   - *Guinea update*
   - *DRC outbreak updates*
   - *Laos meeting with US Ambo'*
   - *Viet Nam EPT program review meeting*
   - *Mission fact sheets and briefer requests*
   - *Next Gen and Breakthrough Action coordination - USAID guidance...*

5. **Publication, media, and conference updates**
   - PREDICT All Country Meeting, Bali, Indonesia (September 15-17, 2019)
   - DTRA Biological Threat Reduction Program Review meeting Warsaw, Poland (Sep 17-19, 2019)
   - ID week 2019, Infectious Disease Society of America, Washington DC (October 2-6, 2019)
   - 19th International Congress on Infectious Diseases, Kuala Lumpur (February 20-23, 2020)

6. **AOB**

Zoom Call-in info
Zoom link: REDACTED
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Or Telephone:
Dial(for higher quality, dial a number based on your current location):
US: +1 646 876 9923 or +1 669 900 6833
Meeting ID: REDACTED
International numbers available: https://zoom.us/u/depX2cn5i

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Fri, 16 Aug 2019 07:49:39 -0700
Subject: PREDICT Management Team Call - Tuesday August 20, 2019 @ 8:30AM Pacific
To: "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, PREDICTMGT <predictmgt@usaid.gov>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, "William B. Karesh" <karesh@ecohealthalliance.org>, Karen Saylors <ksaylors@labyrinthgh.com>, Elizabeth Leasure <ealeasure@ucdavis.edu>
Cc: Ava Sullivan <sullivan@ecohealthalliance.org>, Molly Turner <turner@ecohealthalliance.org>, Brooke Genovese <bgenovese@ucdavis.edu>, Catherine Machalaba <Machalaba@ecohealthalliance.org> [redacted] "predict@ucdavis.edu" <predict@ucdavis.edu>, Alison Andre <andre@ecohealthalliance.org>, Amanda Andre <amanda.andre@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>
Draft Bali Agenda_v3 (8.5.2019).pdf

Hi there,
Below is the agenda and call information for next week's P2 Management Team call. I'm also attaching the draft agenda for the PREDICT All-country meeting in Indonesia.

Enjoy the weekend,

David

PREDICT Management Team Meeting
Tuesday, August 20, 2019
8:30-9:30AM PST/11:30-12:30pm EST
Zoom link: [redacted]
Additional Zoom info below agenda

USAID Updates

1. Administrative items
- Extension update
- All-country meeting plans - draft agenda attached

2. On close-out (sample and equipment disposition, data dissemination etc...) - standing item

3. PREDICT Findings & Product Packages (aka Cool Stuff) - Emerging Disease Insights

4. Mission, partner communications & country roundup essentials
- Guinea update
- DRC updates
- Updates on close-out meetings and outreach (Laos, Tanzania, Viet Nam, etc.)
- Country final report updates & previews (Tanzania and Lao PDR)

5. Publication, media, and conference updates
- PREDICT All Country Meeting, Bali, Indonesia (September 15-17, 2019)
- DTRA Biological Threat Reduction Program Review meeting Warsaw, Poland (Sep 17-19, 2019)
- ID week 2019, Infectious Disease Society of America, Washington DC (October 2-6, 2019)
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US: +1 646 876 9923 or +1 669 900 6833
Meeting ID:[redacted]
International numbers available: https://zoom.us/u/depX2cn5i

PREDICT All-Country Meeting
Sofi Tel Nusa Dua
Bali, Indonesia
September 15-17, 2019

Draft Agenda

Day 1 - September 15, 2019 (Location TBD); USAID and External Advisors in attendance

10:00AM Registration

10:30AM Welcome Remarks - Andrew Clements and USAID/Indonesia Rep

11:00AM PREDICT Project (2009-2014): Panel Presentation on Impact and Major Achievements - Jonna Mazet Moderating with Select Technical Team Leads

12:30PM Lunch

1:30PM PREDICT Success Stories from Around the World (Selected Country Presenters Focused on a Variety of Diverse but Synergistic Themes) - Moderated by David Wolking and Corina Monagin

3:15PM Break

3:30PM From Data to Action: How Predict Findings &/or Capacity Strengthening will Benefit Host Countries Going Forward - Panel Discussion Moderated by Christine Johnson with Selected Country Participants

5:00PM Objectives for the Next Two Days and Welcome to Poster Session (Cocktails and Walk Around) - Jonna Mazet

7:00PM Team Dinner, Location TBD

Day 2 - September 16, 2019 (Location TBD)

9:00AM Welcome and Overview of the Day - Moderated by Corina Monagin and David Wolking

9:15AM Session 1: The Role of a One Health Workforce (Selected Presentations on PREDICT's Capacity Strengthening Impact and Putting One Health in Action) - Moderated by Woutrina Smith with Selected Presenters from Around the World

10:30 Break

10:45 Session 2: Gaining Trust (Best Practices for Community Engagement and Outreach) - Interactive Panel Moderated by TBD with Selected Country Panellists

12:00PM Lunch

1:00PM Session 3: Discovery and Beyond - Presentations from Simon Anthony and Tracey Goldstein and Selected Country Teams

2:45PM Break

3:00PM Session 4: From Results to Risk - Presentations from Surveillance, M&A Team, and Selected Country Partners

4:30PM Session 5: Translating Data and Risk into Communications for Policy and Stakeholders - Moderator TBD with Selected Country Presenters

5:15PM Wrap Up and Sunset Session

7:00PM Team Dinner, Location TBD

Day 3 - September 17, 2019 (Location TBD)

9:00AM From Behavioral Risk Investigations to Intervention Recommendations: Overview of Findings, Best Practices and Lessons from the Field - Moderated by Karen Saylors with Selected Country Presenters

9:45AM Sample Disposition and Data Plans - How to Manage Sample and Data Requests - Preserving Biosecurity and Managing Future Use - Moderated by Corina Monagin and Tracey Goldstein

10:30AM Break

10:45AM From OH Platforms to Action - Sustaining the One Health Approach - Selected OH Case Studies Highlighting Country Teams, One Health and Economics and One Health Partnership and Intergovernmental Collaboration - Moderated by Billy Karesh and Catherine Machalaba

12:00PM Lunch

1:00PM Sharing our Stories: On Legacy, PREDICT Successes and Impact (Projects and Products Inspired by PREDICT) - Moderated by David Wolking with Selected Presenters and Open Discussion

2:00PM Sustaining One Health Surveillance - Incorporating P2 Data/Findings and the Wildlife and Environmental Sector into National Surveillance Plans - Moderator TBD

3:15PM Break

3:30PM Celebrating PREDICT & What Comes Next - with Closing Remarks

Dinner on own

From: Andrew Clements <aclements@usaid.gov>
Sent: Wed, 21 Aug 2019 18:05:15 +0200
To: Ariella Camera <acamera@usaid.gov>
Cc: Jon Epstein <epstein@ecohealthalliance.org>, Angela Wang <awang@usaid.gov>, Ariful Islam <arif@ecohealthalliance.org>, Emily Hagan <hagan@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>, Predict inbox <predict@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>
Subject: [predict] Re: request for a call prior to Thursday's meeting

Hi Ariella,

We have been trying to get the rest of the year 5 PREDICT funding ($1.1 million) for Bangladesh, but we have not been successful yet. Our programming office and the GHSA lead have been preventing us from obligating the funds. If we can't resolve this issue then we'll have to stop all activities in Bangladesh and walk away.

I hope to have more information on this issue by the end of this week.

Andrew

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept

On Wed, Aug 21, 2019 at 5:30 AM Ariella Camera <acamera@usaid.gov> wrote:

Hi Jon,
I don't have many updates regarding the funding for PREDICT and Bangladesh. I could have a call Thursday morning at 9am dhaka time. However, I prefer someone from the Washington USAID team join as well.

Thank you,

Ariella Camera
Deputy Director
Health Systems Strengthening Pillar
Office of Population, Health, Nutrition, and Education
USAID/Bangladesh

Tel: REDACTED
Cell:
Email: acamera@usaid.gov

**Bangladesh is 10 hours ahead of Washington, D.C., and +6 GMT. Our work week is Sunday through Thursday.*

On Wed, Aug 21, 2019 at 1:44 AM Jon Epstein <epstein@ecohealthalliance.org> wrote:

Ariella,
Would it be possible to arrange a conference call with you sometime this week, preferably tomorrow or Thursday?

This is in regard to PREDICT funding for Bangladesh. I'm aware that you have a meeting with Arif on Thursday at 5AM ET. I could call you Wednesday night at 11pm Thursday 9 AM your time, if that works.

Cheers,
Jon

--
Jonathan H. Epstein DVM, MPH, PhD

Vice President for Science and Outreach

EcoHealth Alliance
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1.212.380.4467 (direct)
REDACTED mobile)

web: ecohealthalliance.org

Twitter: @epsteinjon

EcoHealth Alliance leads cutting-edge scientific research into the critical connections between human and wildlife health and delicate ecosystems. With this science, we develop solutions that prevent pandemics and promote conservation.

From:	Andrew Clements <aclements@usaid.gov>
To:	Jonna Mazet <jkmazet@ucdavis.edu>;ealeasure@ucdavis.edu <ealeasure@ucdavis.edu>;djwolking@ucdavis.edu <djwolking@ucdavis.edu>
CC:	predictmgt@usaid.gov <predictmgt@usaid.gov>
Sent:	9/23/2019 3:23:09 PM
Subject:	Update on NWA and TVPA

NWA: Spending FY18 core funds in Cambodia and Egypt is okay.

TVPA: Spending FY18 core funds in Laos, Myanmar, and ROC is okay.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

From: Elizabeth Leasure <ealeasure@ucdavis.edu>
To: predict Sympa List <predict@ucdavis.edu>
Sent: 9/25/2019 9:15:00 PM
Subject: [predict] FW: Update on NWA and TVPA

From: Andrew Clements
Sent: Monday, September 23, 2019 8:23 AM
To: Jonna Mazet ; Elizabeth Leasure ; David John Wolking
Cc: predictmgt@usaid.gov
Subject: Update on NWA and TVPA

NWA: Spending FY18 core funds in Cambodia and Egypt is okay.

TVPA: Spending FY18 core funds in Laos, Myanmar, and ROC is okay.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

From: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
To: Andrew Clements <aclements@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>
Cc: "predictmgt@usaid.gov" <predictmgt@usaid.gov>
Subject: RE: Update on NWA and TVPA
Sent: Wed, 25 Sep 2019 21:15:57 +0000

Received. Thanks, Andrew.

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: Andrew Clements <aclements@usaid.gov>
Sent: Monday, September 23, 2019 8:23 AM
To: Jonna Mazet <jkmazet@ucdavis.edu>; Elizabeth Leasure <ealeasure@UCDAVIS.EDU>; David John Wolking <djwolking@ucdavis.edu>
Cc: predictmgt@usaid.gov
Subject: Update on NWA and TVPA

NWA: Spending FY18 core funds in Cambodia and Egypt is okay.

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Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

From: Anne Laudisoit <laudisoit@ecohealthalliance.org>
Sent: Tue, 15 Oct 2019 11:27:02 +0600
Subject: Re: [predict-surveillance] Surveillance Call - Thu Oct 24 at 10am PT / 1pm ET
To: Nicole R Gardner <nrgardner@ucdavis.edu>
Cc: predict-surveillance Sympa List <predict-surveillance@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, "karesh@ecohealthalliance.org" <karesh@ecohealthalliance.org>, "machalaba@ecohealthalliance.org" <machalaba@ecohealthalliance.org>

Dear all
For the gov report of this year in RoC we got the validation from the contacts in EIDITH
For Predict 1 I canot see whether or not it was approved. Karen Saylors should be able to give you these details and who approved them.
Best wishes
Anne

On Tue, Oct 15, 2019 at 12:08 AM Nicole R Gardner <nrgardner@ucdavis.edu> wrote:

Hi everyone,

We have a Surveillance Call scheduled for **Thursday, October 24th at 10am Pacific / 1pm Eastern**. We have several items that we need to address for each country, so we're hoping to get good attendance on this call. Please review the information that we need from you, listed below. You'll find our notes from the last call attached.

Reminders:

- All testing should be completed and data entered into EIDITH by **October 31st**. Final viral sequence interpretation will occur in November.
- Please review and return the species name data cleaning spreadsheet sent out last week to Nicole by **October 22nd**.

Agenda:

- Close-out updates from all countries, see below
- USAMRIID serology results
- Species naming

What we need from you:
Please bring the following information to this meeting or send the information in advance if you are unable to attend.

- **All countries:**
  - Have you finished testing and entered all data into EIDITH? If not, what is still pending? Please review the attached spreadsheet for P2 active testing outstanding in EIDITH.
  - Our IRB closeout guidance requires human consent forms be destroyed at the end of the project to ensure the data collected remains deidentified. Please provide an update on the status of this.
  - If you haven't already, email IM team with country contacts that will need EIDITH access.
- **Malaysia and Sierra Leone:**
  - Please provide an update on the status of getting human questionnaire and other surveillance data into EIDITH, with estimated completion time for this task.
- **Indonesia, Malaysia, RoC, Tanzania, and Uganda:**
  - These countries have P1 data still not approved release. Please review the attached spreadsheet and be prepared to discuss status and plans.

Thanks,
Nicole

--

Laudisoit Anne (phD)
Senior Scientist - PREDICT Country Liaison for Ivory Coast and Republic of Congo

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212.380.4465 (fax)

www.ecohealthalliance.org

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Fri, 25 Oct 2019 12:29:12 -0700
Subject: Reminder: PREDICT Management Team Call - Tuesday October 29, 2019 @ 8:30AM Pacific
To: Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Amalhin Shek <ashek@usaid.gov>, "Cara J. Chrisman" <cchrisman@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>, Tracey Goldstein <tgoldstein@ucdavis.edu>, Karen Saylors [redacted]
Cc: Alison Andre <andre@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Catherine Machalaba <Machalaba@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, PREDICTMGT <predictmgt@usaid.gov>

Hi there,
Just a friendly reminder about next week's PREDICT Management Team call (Tuesday October 29, 2019 @ 8:30AM Pacific). I'll send along an agenda with the Zoom info early next week. If you have any items you'd like me to include, please let me know.

Enjoy the weekend,

David

From: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
To: Evelyn Luciano <luciano@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>
Cc: Alison Andre <andre@ecohealthalliance.org>, Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>, predict Sympa List <predict@ucdavis.edu>, Hannah R Chale <hrchale@UCDAVIS.EDU>, Jonna Mazet <jkmazet@ucdavis.edu>
Subject: Good news!
Sent: Wed, 18 Dec 2019 20:52:19 +0000

Hi Peter and Evelyn. The modification from USAID adding funds for PREDICT just came in! While we likely won't be able to fully-execute the amendment before our SPO office closes for the holidays, we may be able to get the amendment at least sent out to you for signature before the break. **Can you please send me a budget for $694,684, which is the amount still owed for the approved Y5 budget?** If you have any questions, please let me know.

Thanks!
Liz

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 *(office)*
Skype: ealeasure

From: Evelyn Luciano <luciano@ecohealthalliance.org>
To: Elizabeth Leasure <ealeasure@ucdavis.edu>
Cc: Peter Daszak <daszak@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>, predict Sympa List <predict@ucdavis.edu>, "Hannah R Chale" <hrchale@UCDAVIS.EDU>, Jonna Mazet <jkmazet@ucdavis.edu>
Subject: Re: Good news!
Sent: Thu, 19 Dec 2019 17:52:49 +0000

Good news, indeed. Thanks, Liz!
Will work on that budget and send to you.

Stay well,

Evelyn

On Dec 18, 2019, at 3:52 PM, Elizabeth Leasure <calcasure@ucdavis.edu> wrote:

Hi Peter and Evelyn. The modification from USAID adding funds for PREDICT just came in! While we likely won't be able to fully-execute the amendment before our SPO office closes for the holidays, we may be able to get the amendment at least sent out to you for signature before the break. **Can you please send me a budget for $694,684, which is the amount still owed for the approved YS budget?** If you have any questions, please let me know.

Thanks!
Liz

Elizabeth Leasure
Financial Operations Manager
One Health Institute
[redacted] *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: Bruce B Struminger <BStruminger@salud.unm.edu>
To: Woutrina A Smith <wasmith@ucdavis.edu>, Alexandra Zuber [REDACTED]
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, Oladele Ogunseitan <oladele.ogunseitan@uci.edu>, Jutta Lehmer <JLehmer@salud.unm.edu>, "Amy J Armistad" <AArmistad@salud.unm.edu>, "McNeil, Carrie S." <csmcnei@sandia.gov>, Constance Were <cwere@salud.unm.edu>
Subject: Re: Clinician Outreach and Communication Activity (COCA) Call: Outbreak of 2019 Novel Coronavirus (2019-nCoV)—Interim Guidance for Clinicians
Sent: Wed, 29 Jan 2020 06:17:45 +0000
AfricaCDC_NPHI_2019-nCoVbrief_28Jan20.pdf

PPS. Africa CDC had an all hands videoconference about nCoV yesterday mobilizing their ECHO networks connecting their MOH and NPHI focal points in 40+ countries. Attached is the presentation they shared. They will be doing a training in Senegal next week for staff from 15 labs that will be prepped for coronavirus diagnosis. This type of rapid dissemination of information and education and training that Africa CDC is able to activate across its network is what I hope the AFROHUN and SEAOHUN networks will be able to do within a year or so across their OHUN networks as soon as we get this capability implemented. Meanwhile, I am not sure how we might support the AFROHUN and SEAOHUN secretariats with their responses to the nCoV situation; possibly a topic for the EB call tomorrow. B

Bruce Baird Struminger, MD, MA
Senior Associate Director, ECHO Institute
Associate Professor of Medicine, Division of Infectious Diseases
University of New Mexico Health Sciences Center
Albuquerque, New Mexico
Mobile & WhatsApp: +1.505.922-5659
http://echo.unm.edu/

From: Bruce B Struminger <BStruminger@salud.unm.edu>
Date: Tuesday, January 28, 2020 at 10:57 PM
To: Woutrina A Smith <wasmith@ucdavis.edu>, Alexandra Zuber [REDACTED]>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, Oladele Ogunseitan <oladele.ogunseitan@uci.edu>, Jutta Lehmer <JLehmer@salud.unm.edu>, Amy J Armistad <AArmistad@salud.unm.edu>, "McNeil, Carrie S." <csmcnei@sandia.gov>, Constance Were <cwere@salud.unm.edu>
Subject: Re: Clinician Outreach and Communication Activity (COCA) Call: Outbreak of 2019 Novel Coronavirus (2019-nCoV)—Interim Guidance for Clinicians

PS. Can't remember if I shared Nicki Lurie's Washington Post opinion piece from last Friday.

https://www.washingtonpost.com/opinions/the-coronavirus-has-landed-in-the-us-heres-how-we-can-reduce-the-risk/2020/01/22/afebe9ee-3d53-11ea-baca-eb7ace0a3455_story.html

I shared the COCA call announcement via Slack to my Africa CDC RCC network colleagues in 40 countries who then shared it via Whats App over multiple networks. The COCA call on Friday will be popular, probably good to sign in early.

Bruce Baird Struminger, MD, MA
Senior Associate Director, ECHO Institute
Associate Professor of Medicine, Division of Infectious Diseases
University of New Mexico Health Sciences Center
Albuquerque, New Mexico
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http://echo.unm.edu/

From: Bruce B Struminger <BStruminger@salud.unm.edu>
Date: Tuesday, January 28, 2020 at 5:24 PM
To: Woutrina A Smith <wasmith@ucdavis.edu>, Alexandra Zuber <REDACTED>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, Oladele Ogunseitan <oladele.ogunseitan@uci.edu>, Jutta Lehmer <JLehmer@salud.unm.edu>, Amy J Armistad <AArmistad@salud.unm.edu>, "McNeil, Carrie S." <csmcnei@sandia.gov>, Constance Were <cwere@salud.unm.edu>
Subject: Re: Clinician Outreach and Communication Activity (COCA) Call: Outbreak of 2019 Novel Coronavirus (2019-nCoV)—Interim Guidance for Clinicians

This group may also find David Quammen's article published today in the NY Times of interest:
https://www.nytimes.com/2020/01/28/opinion/coronavirus-china.html

Our colleague, Peter Daszak, is nicely highlighted in a paragraph and Quammen makes a strong pitch for supporting pandemic preparedness as one of his summary points. " B

Bruce Baird Struminger, MD, MA
Senior Associate Director, ECHO Institute
Associate Professor of Medicine, Division of Infectious Diseases
University of New Mexico Health Sciences Center
Albuquerque, New Mexico
Mobile & WhatsApp: +1.505.922-5659
http://echo.unm.edu/

From: Woutrina A Smith <wasmith@ucdavis.edu>
Date: Tuesday, January 28, 2020 at 11:58 AM
To: Alexandra Zuber <REDACTED>
Cc: Bruce B Struminger <BStruminger@salud.unm.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Oladele Ogunseitan <oladele.ogunseitan@uci.edu>, Jutta Lehmer <JLehmer@salud.unm.edu>, Amy J Armistad <AArmistad@salud.unm.edu>, "McNeil, Carrie S." <csmcnei@sandia.gov>, Constance Were <cwere@salud.unm.edu>
Subject: Re: Clinician Outreach and Communication Activity (COCA) Call: Outbreak of 2019 Novel Coronavirus (2019-nCoV)—Interim Guidance for Clinicians

[[— External - this message has been sent from outside the University —]]

Yes we'll push this out to both secretariats today. Thanks guys. Wout

On Jan 28, 2020, at 6:32 AM, Alexandra Zuber <alexandrazuber@gmail.com> wrote:

Bruce, I think this would be terrific to circulate to the Secretariats - both for the content and also to display the power of ECHO in this space. I defer to Wout and Jonna to decide and send!

On Jan 27, 2020, at 3:52 PM, Bruce B Struminger <BStruminger@salud.unm.edu> wrote:

FYI. Not sure if you get these COCA announcements. Given this is a One Health issue, I am not sure if you want to share this with the secretariats or not as a potential resource they would be welcome to share across the networks and anyone is free to Zoom in. B

Bruce Baird Struminger, MD, MA
Senior Associate Director, ECHO Institute

Associate Professor of Medicine, Division of Infectious Diseases
University of New Mexico Health Sciences Center
Albuquerque, New Mexico
Mobile & WhatsApp: +1.505.922-5659
http://echo.unm.edu/
<image001.png>

From: Centers for Disease Control and Prevention <no-reply@emailupdates.cdc.gov>
Reply-To: Centers for Disease Control and Prevention <subscriptions@cdc.gov>
Date: Monday, January 27, 2020 at 12:24 PM
To: Bruce B Struminger <BStruminger@salud.unm.edu>
Subject: Clinician Outreach and Communication Activity (COCA) Call: Outbreak of 2019 Novel Coronavirus (2019-nCoV)—Interim Guidance for Clinicians

[[-- External - this message has been sent from outside the University --]]

Clinician Outreach and Communication Activity (COCA) Call: Outbreak of 2019 Novel Coronavirus (2019-nCoV)—Interim Guidance for Clinicians

Overview

Date: Friday, January 31, 2020
Time: 2:00pm–3:00pm (ET)

During this COCA Call, clinicians will learn about the current epidemiology, infection control and prevention recommendations, specimen collection and testing, and clinical management for patients with 2019-nCoV infection.

Continuing Education (CE) will not be offered for this COCA Call.

Special Request: Due to the high demand we anticipate for this COCA

A few minutes before the webinar begins, please click the link below to join:

REDACTED 34

Call, we kindly ask participants to access it in a group format, if at all possible, to allow for the maximum number of participants to attend.

Please note, there will be only a few introductory slides for this presentation. The subject matter covered during this webinar will not have an accompanying slide deck.

If you are unable to attend the live COCA Call, the transcript will be available herea few days after the call.

REDACTED

The Emergency Risk Communication Branch in the Division of Emergency Operations, Center for Preparedness and Response is responsible for the management of all COCA products.

For information about this update or other clinical issues, or to send your feedback, please contact us at coca@cdc.gov

- CDC Clinician Outreach and Communication Activity Facebook page—connect with COCA on Facebook
- Clinician Outreach and Communication Activity—resources for healthcare providers
- COCA RSS Feed—subscribe to be notified of conference calls, updates, and CDC guidance for health providers
- Crisis & Emergency Risk Communication Training—training program that draws from lessons learned during public health emergencies, and incorporates best practices from the fields of risk and crisis communication
- Health Alert Network—CDC's primary method of sharing cleared information about urgent public health incidents with public information officers; federal, state, territorial, and local public health practitioners; clinicians; and public health laboratories

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Centers for Disease Control and Prevention

1600 Clifton Rd Atlanta, GA 30329 1-800-CDC-INFO (800-232-4636) TTY: 888-232-6348

Questions or Problems | Unsubscribe

African Union

AFRICA CDC
Centres for Disease Control and Prevention
Safeguarding Africa's Health

Novel Coronavirus (2019-nCoV) Outbreak in China

Epidemiological situation and Africa CDC activities

28 January 2020

UCEXUSR0003555

Coronaviruses

- **Large family of viruses that cause diseases in mammals and birds**
- **Human infections occur initially through contact with animals, then spread person-to-person**
- **In humans, infection causes respiratory illness**
  - "the common cold"
  - Severe acute respiratory syndrome (SARS)
  - Middle East respiratory syndrome (MERS)

African Union

AFRICA CDC

UCDUSR0003556

2019-nCoV Timeline

Nov 2019
- Phylogenetic analysis estimates initial spillover event(s)

01 Dec 2019
- First symptom onset in a diagnosed cases

10 Jan 2020
- 2019-nCoV sequenced
- 41 cases diagnosed

21 Jan 2020
- WHO announces likely sustained human to human transmission
- 15 healthcare workers reported ill

African Union

AFRICA CDC

UCDUSR0003557

Transmission and Symptoms

- **Spreads person to person by respiratory droplets**
- **Symptoms begin 2-14 days after infection**
- **Symptoms:**
  - Unknown what percent of infected people show no, mild, or severe symptoms
  - Mild: fever, cough, and difficulty breathing
  - Severe: pneumonia, severe acute respiratory syndrome, kidney failure and death

African Union

AFRICA CDC

UCDUSR0003558

Epidemiologic Situation

as of 28 January 2020

Cases

- 4,473 total cases
  - 99% in China
  - Other countries with cases
    - Asia: Thailand, Japan, Malaysia, Singapore, South Korea, Vietnam, Cambodia, Nepal, Sri Lanka
    - Americas: United States, Canada
    - Oceana: Australia
    - Europe: France, Germany

Deaths/Recovered

- 107 total deaths
  - All in mainland China

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UCDUSR0003559

Map of affected countries, globally

28 January 2020

African Union

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UCDUSR0002580

Total confirmed 2019-nCoV cases by reporting date and location

10 January – 28 January 2020

African Union

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UCDUSR0002581

Africa CDC activities

28 January 2020

AFRICA CDC

UCDUSP0002582

General Response Activities

- Africa CDC activated its Emergency Operations Center
- Gates Foundation provides $5M to Africa CDC
- Weekly outbreak update and calls
- Brief African Union Permanent Representatives Committee
- Close coordination with WHO (AFRO, EMRO, HQ)

African Union

AFRICA CDC

UCDUSR0000583

Surveillance

- **Train and deploy epidemiologists (AVoHC roster) at headquarters and within the RCCs**
  - Compile information, prepare reports and rapid dissemination of within African Union and to Member States
- **Provide training and technical support to at risk African airports**
  - Receive direct flights from affected countries
  - High volume of passengers (e.g. Addis Ababa, Cairo, Cape Town, Casablanca, Lagos, Nairobi, Johannesburg, Mauritius)

African Union

AFRICA CDC

UCDUSR0002584

Healthcare Preparedness & Countermeasures

Epidemiologic week ##: [ADD DATE RANGE]

- **Working with AU Medical Services**
  - to ensure infection free Summit of Heads of States and Governments
- **Will coordinating with WHO for IPC guidelines**
  - To put infection prevention and control (IPC) measures in place at health care facilities to prevent nosocomial spread
- **Initiating Collaboration with NICD to develop clinical guidelines**

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UCDUSR0002585

Healthcare Preparedness & Countermeasures

Recommendations

- **Currently no vaccines or treatments exist**
- **General Precautions:**
  - Avoid non-essential travel to affected areas in China
  - Cover your cough or sneeze with your elbow or a tissue paper
  - Wash hands frequently with soap
  - If you have mild symptoms, stay at home.
    - Do not go to school, to work, or to other places until you are completely free of all symptoms.
  - If severe symptoms (difficulty breathing), go to a medical facility
    - Immediately notify the first person you encounter that you are worried that you have a respiratory virus.
  - If available, get vaccinated for the flu
- **NPHIs:**
  - Isolate suspected cases, while specimens are being taken and awaiting laboratory confirmation
  - Consider home quarantine of contacts

African Union

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Safeguarding Africa's Health

UCDUSR0002588

Laboratory

- **15 laboratories identified for 2019-nCoV detection capacity building**
- **Laboratory diagnostic training planned for Feb 5-7, 2020 at Institute of Pasteur Dakar**
  - Agenda is being finalized
- **Supply of primers and reagents being coordinated with partners**
  - Will be shipped directly to individual labs once received

African Union

AFRICA CDC

Thank you!

AFRICA CDC

Centres for Disease Control and Prevention

Safeguarding Africa's Health

UCDUSR0000588

Extra Slides

AFRICA CDC

UCDUSP0002589

Email points from NICD colleague:

1. Finalize clinical case definitions, and get them out to clinicians likely to see Chinese travelers and then also more broadly
2. Worry about nosocomial spread – so consider healthcare workers for testing
3. Isolate and identify close contacts, even while specimens are being taken and awaiting laboratory confirmation
4. Laboratory confirmation should be done using the quickest and most established relationships – wherever they may be
5. Take good quality specimens, emphasizing lower respiratory specimens, and not to assume one negative definitively excludes the infection

African Union

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UCDUSR0003570

Use of NPIs during Spanish flu - 1918

Hatchett RJ, Mecher CE, Lipsitch M. Public health interventions and epidemic intensity during the 1918 influenza pandemic. Proc Nat Acad Sci USA 2007;104:7582-7587.

African Union

AFRICA CDC

UCDUSR0003671

Table 6. Top 30 ranked cities in Africa receiving airline travellers from 18 high-risk cities (Figure 6) in mainland China over a period of three months, representing 15 days before Lunar New Year's Day and 2 and half months following Lunar New Year's Day.

Rank	City	Country/region	Volume	%*
1	Cairo	Egypt	56735	20.49
2	Johannesburg	South Africa	20530	7.42
3	Mauritius	Mauritius	18297	6.61
4	Addis Ababa	Ethiopia	17882	6.46
5	Casablanca	Morocco	15787	5.70
6	Nairobi	Kenya	12859	4.64
7	Entebbe	Uganda	8246	2.98
8	Accra	Ghana	8211	2.97
9	Lagos	Nigeria	8087	2.92
10	Lusaka	Zambia	7672	2.77
11	Dar Es Salaam	Tanzania	6760	2.44
12	Algiers	Algeria	6074	2.19
13	Luanda	Angola	5994	2.16
14	Khartoum	Sudan	5412	1.95
15	Abuja	Nigeria	4193	1.51
16	Lubumbashi	Congo (Kinshasa)	3546	1.28
17	Abidjan	Cote D'Ivoire	3511	1.27
18	Cape Town	South Africa	3461	1.25
19	Conakry	Guinea	3455	1.25
20	Tunis	Tunisia	2912	1.05
21	Libreville	Gabon	2786	1.01
22	Harare	Zimbabwe	2665	0.96
23	Dakar	Senegal	2659	0.96
24	Maputo	Mozambique	2560	0.92
25	Antananarivo	Madagascar	2515	0.91
26	Nouakchott	Mauritania	1955	0.71
27	Malabo	Equatorial Guinea	1864	0.67
28	Mahe Island	Seychelles	1850	0.67
29	Durban	South Africa	1815	0.66
30	Ndola	Zambia	1796	0.65

*The percentage of airline travellers received by each city in Africa out of the total volume of travellers leaving high-risk cities (18 cities) into Africa, based on air travel data from February to April 2018, obtained from the International Air Travel Association (IATA). The Lunar New Year in 2018 started from February 16th, 2018.

African Union

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UCDUSR0003572

BODS

rank	Location	Country	risk
1	Cairo	Egypt, Arab Rep.	0.000844
2	Algiers	Algeria	0.000640
3	Johannesburg	South Africa	0.000422
4	Addis Ababa	Ethiopia	0.000419
5	Mauritius	Mauritius	0.000315
6	Casablanca	Morocco	0.000301
7	Luanda	Angola	0.000218
8	Lagos	Nigeria	0.000199
9	Khartoum	Sudan	0.000184
10	Nairobi	Kenya	0.000176
11	Dar Es Salaam	Tanzania	0.000135
12	Cape Town	South Africa	0.000134
13	Accra	Ghana	0.000130
14	Lusaka	Zambia	0.000117
15	Conakry	Guinea	0.000116

· 11: Origins: [Wuhan, Shanghai, Beijing] - Relative Importation Risk
frica

African Union

CA CDC

UCDUSR0003673

IDM – China→Africa workers

Country	ISO_co	Migran	Constr	Pop	worker	Migran	Investn	Pop	worker
Angola	AGO		6693.26	30809762	25567	#VALUE!	1	12	1
Nigeria	NGA		3103.83	1.96E+08	10193	#VALUE!	4	1	2
Ethiopia	ETH		5521.74	1.09E+08	9663	#VALUE!	2	2	3
Zambia	ZMB	1143	2307.49	17351822	8780	7	5	22	4
Kenya	KEN		3729.19	51393010	8703	#VALUE!	3	8	5
Democratic Republic of the Congo	COD		1499.54	84068091	6293	#VALUE!	9	4	6
Liberia	LBR		221.36	4818977	5939	#VALUE!	32	35	7
Sudan	SDN	1370	821.25	41801533	5234	6	17	10	8
Ghana	GHA	261	1085.11	29767108	4899	13	11	13	9.5
Congo, Rep.	COG	952	747.54	5244363	4899	8	18	34	9.5
Uganda	UGA	366	2174.29	42723139	4686	11	6	9	11
Equatorial Guinea	GNQ		1025	1308974	4684	#VALUE!	14	46	12
Mozambique	MOZ		1108.75	29495962	4065	#VALUE!	10	14	13
Guinea	GIN	161	615	12414318	3765	16	21	27	14
Tanzania	TZA		1025.86	56318348	3691	#VALUE!	12.5	6.5	15.5
United Republic of Tanzania	TZA		1025.86	56318348	3691	#VALUE!	12.5	6.5	15.5
Cameroon	CMR		1892.39	25216237	2677	#VALUE!	7	16	17
Gabon	GAB	342	475.48	2119275	2281	12	23	43	18

African Union

AFRICA CDC

UCDUSR0003574

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Peter Daszak <daszak@ecohealthalliance.org>
Sent: 2/21/2020 1:13:57 AM
Subject: Fwd: Global Health NOW: Scientists vs. Conspiracy Theorists; Family Planning's Uneven Uptake; and UK Safe Consumption Fight

Getting great converge -- congrats & thanks again for doing it!
Jonna

---------- Forwarded message ---------
From: **Sara Anderson** <sara@bayareaglobalhealth.org>
Date: Thu, Feb 20, 2020 at 7:11 AM
Subject: Fwd: Global Health NOW: Scientists vs. Conspiracy Theorists; Family Planning's Uneven Uptake; and UK Safe Consumption Fight
To: Ben Plumley <ben@hannrat.com>, Jonna Mazet <jkmazet@ucdavis.edu>
Cc: <sara@bayareaglobalhealth.org>, Lisa Foster <lisa@herrengroup.com>, Hildy Baker <hildy.fong@berkeley.edu>

Jonna:

Your letter made the top story!

See you soon!

Best,
Sara

Sent from my iPhone

Begin forwarded message:

From: Johns Hopkins Bloomberg School of Public Health <globalhealthnow@outreach.jh.edu>
Date: February 20, 2020 at 6:08:13 AM PST
To: sara@resurge.org
Subject: Global Health NOW: Scientists vs. Conspiracy Theorists; Family Planning's Uneven Uptake; and UK Safe Consumption Fight
Reply-To: Johns Hopkins Bloomberg School of Public Health <globalhealthnow@outreach.jh.edu>

GHN News

A lab worker in Wuhan, Feb. 13, 2020. Image: Cheng Min/Xinhua via Getty

UCDUSR0003576

Scientists vs. Conspiracy Theorists

A group of 27 prominent public health experts denounced a rash of conspiracy theories suggesting that COVID-19 could have originated in a Wuhan lab, Science reports.

In a statement published in the Lancet yesterday, they strongly condemned rumors suggesting that COVID-19 does not have a natural origin, saying the analyses so far "overwhelmingly conclude that this coronavirus originated in wildlife."

"Conspiracy theories do nothing but create fear, rumours, and prejudice that jeopardise our global collaboration in the fight against this virus," they wrote.

The rumors charged that the coronavirus was engineered by local scientists and leaked in Wuhan, the epicenter of the epidemic, Reuters reports.

The lab in question—The Wuhan Institute of Virology—released a statement yesterday saying that internet rumors have "caused great harm to our research staff on the front line of scientific research."

Latest Numbers (from AP & CIDRAP):

- In mainland China: 74,576 cases; 2,118 deaths
- Outside China: 1,075 infections; 9 deaths
- 7 deaths (including 2 in Iran—the country's first cases)

Related:

South Korea city deserted after coronavirus church 'super-spreader' – Reuters

What's A 'Super-Spreading Event'? And Has It Happened With COVID-19? – NPR Goats and Soda

Let's Worry About Diagnostic Capacity, Not Just During Outbreaks – Forbes (commentary)

What It Takes to Annihilate a Coronavirus: Trying to destroy something that doesn't live is complicated – Medium

COVID-19 EXPERT REALITY CHECK

Why are Wild Animals Believed to Be the Source of this Outbreak?

About 60% of newly emerged and re-emerging pathogens share a common origin: the bodies of animals. Genetic and epidemiological evidence suggest that the novel coronavirus, like SARS, may have emerged from a so-called "wet market," where wild species that would rarely encounter each other in nature are crammed together, allowing microbes to spread between species and into humans. China claimed to have cracked down on these markets after the SARS outbreak, but when I visited a few years later, it wasn't hard to find one.

UCDUSR0003578

But such markets are only part of the problem. The loss of wildlife habitat around the world more generally is forcing wild species to cram into closer proximity to human settlements. Bats, for example, have been fingered as the source of Ebola, SARS, and a host of other pathogens. When we cut down the forests where they live, they come roost in our backyards and farms instead. It's this kind of novel, intimate contact that provides opportunities for the microbes that live in their bodies to spread into ours.

Sonia Shah is a science journalist and author of Pandemic: tracking contagions from cholera to Ebola and beyond. Her new book, The Next Great Migration: the Beauty and Terror of Life on the Move, will be published in June 2020.

Ed. Note: This insight and others are available in Global Health NOW's COVID-19 Expert Reality Check. Have a COVID-19 question? Email Dayna: dkerecm1@jhu.edu.

HIV/AIDS

UK Political Fight over Safe Consumption

"Stronger, cheaper" injectable drugs in Glasgow have spurred a resurgence of HIV/AIDS: Cases are 10X higher than in 2015.

Safe consumption sites reduce the risks of injecting drugs and allow health workers to reach marginalized populations. But despite calls for NHS approval, "facilities [have] become a bit of a political football," says researcher Andy McAuley.

Scotland's leadership supports such legislation but the UK has declined a pilot program they claim would "condone drug availability." There is hope that Boris Johnson may reverse course.

In 1986, the UK was among the first to launch needle exchanges which helped stem the spread of HIV/AIDS.

POLITICO

Note: This article is part of "Telescope: The New AIDS Epidemic", Politico's deep-dive investigation.

Related:

Rapid tests to help tackle Glasgow's HIV outbreak – BBC

Russian blogger's HIV documentary reaches millions, draws Kremlin praise – Reuters

'You'll Infect Us All': Russian Clinic Turns Away HIV-Positive Patient – The Moscow Times

Google Searches for HIV Tests Soar by 5,000% After Russian Blogger's Doc – The Moscow Times

FAMILY PLANNING

Uneven Uptake

Through efforts like Family Planning 2020, contraception has become a focal point of global health initiatives.

But uptake is uneven across age groups. A new JAMA study found that the prevalence of unmet need for family planning was 50.8% among adolescents (ages 15-19), compared to just 36.4% among adult women (ages 20-34).

The findings suggest a need for more age-specific efforts to expand access. Some countries like Nepal have made marked improvements on that front. Nepal launched adolescent-friendly services back in 2008 and scaled up the effort in 2015.

Another study published in PLOS also found uneven progress between countries when it comes to meeting contraceptive need. Among the 1.9 billion women of reproductive age worldwide in 2019:

- 1.1 billion have demand for family planning
- 842 million of them are using modern contraception
- 270 million have an unmet need for modern methods

Related:

The Surprisingly Fraught Question of Who Pays for Birth Control – The Atlantic

Trying To Decide What Birth Control To Use? Here's How To Make The Decision – NPR

UCDU5R0003580

BIG TOBACCO

A Campaign Against a Campaign

Philip Morris International may be running a global stop-smoking campaign—but make no mistake, PMI's sleek IQOS products are waiting in the wings to addict new users, according to a damning new report from the STOP Campaign, a tobacco industry watchdog.

While PMI touts its sleek IQOS products as an alternative for smokers, the analysis found that the products are a profitable new venture as cigarette sales wane.

Meanwhile, the company is also still trying to sell cigarettes.

The company has launched a new cigarette brand in Indonesia, is still marketing cigarettes to young people, and has launched several lawsuits against smoking regulations.

STOP (news release)

Related:

Prevalence of Electronic Cigarette Dependence Among Youth and Its Association With Future Use – JAMA

The great vape debate: are e-cigarettes saving smokers or creating new addicts? – The Guardian

Vape Shops Face a Choice: Close or Rebrand? – The New York Times

OPPORTUNITY

Calling all Communicators!

Applications are now open for the 2020 Leadership in Strategic Communication Workshop, hosted by the Johns Hopkins Center for Communication Programs.

The event will feature social and behavior change communication leaders with decades of experience implementing programs that shift norms, transform communities, and save lives.

- June 8-26, 2020
- Baltimore, MD
- **Early Registration Deadline: February 28, 2020**
- Application and full details

Women in Global Health have a new home: WomenLiftHealth, launched by the Stanford Center for Innovation in Global Health, shares ideas and resources—and shows off its inaugural cohort of leaders.

PLOS and the University of California have teamed up on new 2-year open-access agreement aimed at making it more affordable to publish in the leading suite of journals. PLOS

Targeting T cells may be the key to fighting cerebral malaria—a devastating form of the disease that primarily affects young children—according to research published

in the Journal of Clinical Investigation. NIH

Pesticide manufacturing giants rake in billions of dollars in profits from highly hazardous chemicals—and most of the sales are in poor countries, according to an analysis of popular products in 43 countries. The Guardian

Quick Hits

The mystery sickness bringing death and dismay to eastern Ethiopia – The Guardian

Hunger threatens over half of the population in South Sudan – UN via ReliefWeb

How the psychology of a $4.99 price tag might influence who undergoes heart surgery – STAT

Half of transgender youth avoid disclosing gender identity to healthcare providers – UPI

U.S. medical schools boost LGBTQ students, doctor training – AP

Associations between macrolide antibiotics prescribing during pregnancy and adverse child outcomes in the UK: population based cohort study – BMJ

Study: 50 million Americans donate to medical crowdfunding – Axios

Top not-for-profit hospitals offer less charity care, study finds – Modern Healthcare *Thanks for the tip, Dave Cundiff*

Paying attention to complaints can protect nurses from violence – Medical Xpress

The real 'paleo diet' may have been full of toxic metals – Science *Thanks for the tip, Cecilia Meisner!*

Issue No. 1525

Global Health NOW is an initiative of Johns Hopkins Bloomberg School of Public Health.

Views and opinions expressed in this email do not necessarily reflect those of the Bloomberg School. Contributors include Brian W. Simpson, MPH, Dayna Kanesman Myers, Annalise Winny, Melissa Hartman, Lindsay Smith Rogers, and Jackie Powder. Write us: diarecm1@jhu.edu, like us on Facebook and follow us on Twitter @GHN_News.

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From: Andrew Clements <aclements@usaid.gov>
Sent: Wed, 4 Mar 2020 11:27:39 -0800
Subject: Fwd: Invitation to USAID EPT-2 data discussion (March 18-19, 2020)
To: Jonna Mazet <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, "D. Phil Simon Anthony" <anthony@ecohealthalliance.org>, [redacted] "Filip Claes (AGAH)" <[redacted]>, "Wantanee (FAORAP) Kalpravidh" [redacted]
Cc: predictmgt@usaid.gov, faomgt@usaid.gov, whomgt@usaid.gov, pshetty@usaid.gov

Hi all,
For the March 18-19 data meeting, each or your 3 organizations should be prepared to talk about the findings from your USAID-supported work on triangulated/concurrent surveillance including LISN (in Vietnam) and risk characterization. Formal presentations are not required, but a summary handout would be appreciated.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

Begin forwarded message:

From: Andrew Clements <aclements@usaid.gov>
Date: February 24, 2020 at 9:45:58 PM GMT+1
To: "Wantanee (FAORAP) Kalpravidh" <[redacted]>, Jonna Mazet <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, "VonDobschuetz, Sophie (AGAH)" <[redacted]>, Wenqing <[redacted]>, Ann <[redacted]>, "Filip Claes (AGAH)" [redacted], William Karesh <Karesh@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>, "VAN KERKHOVE, Maria D." <[redacted]>, "SHINDO, Naboko" [redacted], "Barton Behravesh, Casey (CDC/OID/NCEZID)" <dlx9@cdc.gov>, "Towner, Jonathan (Jon) (CDC/OID/NCEZID)" <jst8@cdc.gov>, "zuz4@CDC.GOV" <zuz4@cdc.gov>, "Stokes, Martha M CIV (USA)" <martha.m.stokes.civ@mail.mil>, "Simon Anthony, D.Phil" <anthony@ecohealthalliance.org>, Brian Bird <bbird@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, "Higgs, Elizabeth (NIH/NIAID) [E]" <ehiggs@niaid.nih.gov>, "Carter, Hillary H. EOP/NSC" <Hillary_H_Carter@nsc.eop.gov>, monica.zamisch.ctr@darpa.mil, "Jessup, Christine (NIH/FIC) [E]" <Christine.Jessup@nih.gov>, Jean-Paul.Chretien@ncmi.detrick.army.mil, "Rosenthal, Josh P. (NIH/FIC) [E]" <rosenthj@ficod.fic.nih.gov>, jeffrey.j.morgan21.ctr@mail.mil, "Newman, Carl I CIV DTRA J3-7 (US)" <carl.i.newman.civ@mail.mil>, "Richards, Jean M CIV DTRA J3-7 (US)" <jean.m.richards5.civ@mail.mil>, viboudc@mail.nih.gov, "Bresee, Joseph (CDC/CCID/NCIRD)" <jsb6@CDC.GOV>
Cc: "Schar, Daniel (RDMA/OPH)" <dSchar@usaid.gov>, Cara Chrisman <cchrisman@usaid.gov>, Padmaja Shetty <pshetty@usaid.gov>, Patricia Bright <pbright@usaid.gov>, Cassandra Louis Duthil <clouisduthil@usaid.gov>, Anna'hin Shek <ashek@usaid.gov>, "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>, Marilyn Crane <mcrane@usaid.gov>, Ricardo Echalar <rechalar@usaid.gov>, "Greene, Richard (USAID/Dhaka/DIR)" <rgreene@usaid.gov>, "Tiffany D'Mello" <tdmello@usaid.gov>
Subject: Invitation to USAID EPT-2 data discussion (March 18-19, 2020)

Hi all,

USAID is planning to have a small 1.5-day meeting on March 18-19, 2020 to discuss data collected under our Emerging Pandemic Threats-2 program (2014-2019). The location will be Washington D.C. An agenda and the location of the venue will be forthcoming.

We hope you will be able to join us. This discussion is by invitation only and is limited to the

organizations you represent since we're trying to keep the numbers manageable. If you are not able to attend, please feel free to suggest another person from your organization who is familiar with emerging pandemic threats.

Please let me know if you have any questions.

Andrew

Andrew Clements, Ph.D.
Senior Scientific Adviser
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4251
E-mail: [illegible]

For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/ept2

From: Jennifer K Lane <jklane@ucdavis.edu>
To: Kat E Kerlin <kekerlin@ucdavis.edu>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, [redacted]
Subject: Re: Fact Sheet, formatted from your notes to reporters. Ok?
Sent: Tue, 31 Mar 2020 16:52:07 +0000
PREDICT_GVP_FactSheet_UCDavis.docx

Hi,
A few technical updates on viral nomenclature. I've also asked [redacted] for feedback on the GVP consortium question.

Jennie Lane, DVM, MPH
Field Veterinarian
One Health Institute
1089 Veterinary Medicine Dr.
School of Veterinary Medicine
University of California, Davis
jklane@ucdavis.edu

On Mar 31, 2020, at 6:48 AM, Kat E Kerlin <kekerlin@ucdavis.edu> wrote:

Hi Jonna,
Attached is a formatted "fact sheet" pasted from the info you've shared with reporters about PREDICT and GVP. Jenni mentioned your request for a fact sheet for reporters, and I think this, along with the 4-pager pdf, would serve well.

It includes minor copyedits and one addition I wanted to check with you, which is a brief paragraph about the core partners in the GVP consortium. Is this wording ok? (Full document attached.)
GVP organizers include a consortium of partners including former USAID Director Dennis Carroll, board member and UC Davis One Health Institute Executive Director Jonna Mazet, Peter Dazhak of EcoHealth Alliance and others.
I also substitute "2019-nCoV" where it said "Wuhan nCoV." Please let me know if that's incorrect.

Best of luck with the BBC call this morning. Thanks for all of your efforts!

Best,
Kat

Kat Kerlin
UC Davis News and Media Relations Specialist
UC Davis Strategic Communications
O: 530-752-7704
@UCDavis_Kerlin
Science & Climate
UC Davis Coronavirus Experts for Media

<PREDICT_GVP_FactSheet_UCDavis.docx>

PREDICT and Global Virome Project Fact Sheet

March 2020

PREDICT PROJECT

What and Who is PREDICT?

PREDICT enables global surveillance of pathogens that can spillover from animal hosts to people by building capacities to detect and discover viruses of pandemic potential. The project is part of USAID's Emerging Pandemic Threats program and is led by the UC Davis One Health Institute.

The core partners are USAID, EcoHealth Alliance, Metabiota, Wildlife Conservation Society, and Smithsonian Institution.

PREDICT has:

- Strengthened capacity in 60 laboratories to do viral detection and discovery in more than 30 countries around the world where field surveillance, biosafety & security, as well as wildlife conservation efforts have also been improved.
- Trained more than 6,800 people to find and characterize Disease X, including SARS-CoV-2.
- Detected and discovered approximately 1,200 viruses in viral taxonomic families that have the potential to infect people and cause epidemics, including more than 160 coronaviruses and characterized their spillover risk.
  - Ex: Discovering a new ebolavirus (https://www.nature.com/articles/s41564-018-0227-2)
  - Identifying pathogens, such as Marburg virus (press release: https://www.ucdavis.edu/news/marburg-virus-found-sierra-leone-bats), in areas, host species, and human-animal risk interfaces where they were not previously known to exist and before disease was diagnosed in people.

How PREDICT has helped the COVID-19 outbreak

Our teams have been on the frontline in China and other countries, providing technical assistance, laboratory identification, and consultations on infection control & transmission routes etc.

PREDICT strengthened capabilities at the Wuhan Institute of Virology (WIV) in the form of training, protocols, funding for equipment, and by enhancing international collaboration with key scientists there and the greater community, including connecting with scientists in other PREDICT-participating countries.

Our collaboration with the PREDICT country coordinator for China, Dr. Zhengli Shi, and with supplemental funding from NIH, provided critical data on the group of coronaviruses that the novel coronavirus, SARS-CoV2, found in Wuhan belongs to. We sampled more than 10,000 bats and about 2,000 other mammals, using PREDICT protocol Coronaviridae family-level PCR, to discover 52 novel SARS-related coronaviruses (SARSr-CoVs), including the closest relative of SARS-CoV-2. It's safe to say that PREDICT helped raise the flag that these viruses have pandemic potential.

The team also showed the serological evidence that people living at the wildlife-human interface in rural China are being exposed to these SARS-related coronaviruses – marking them as a "clear and present danger." The team showed the behavioral risk evidence for exposure and fevers of unknown origin were related to animal contact, such as through poultry and wildlife.

PREDICT shows importance of One Health and is proof-of-concept for GVP

At a larger scale, PREDICT project findings demonstrate the importance of multi-sectoral, One Health collaborations in emerging infectious disease control and prevention. This is especially important to address the repeatedly demonstrated risks from human-animal behavioral interactions. This has clearly been taken on board by the Chinese authorities investigating 2019-nCoV, which includes our collaborators.

PREDICT has provided a proof-of-concept for the feasibility of the Global Virome Project and has substantially advanced the progress in the countries that participated along the path toward understanding their emerging viral health risks

GLOBAL VIROME PROJECT

GVP aims to build a global coalition to discover all potential high-risk animal viruses capable of infecting people in order to empower communities to prevent and control emerging disease threats.

GVP organizers include a consortium of partners including former USAID Director Dennis Carroll, board member and UC Davis One Health Institute Executive Director Jonna Mazet, Peter Dazhak of EcoHealth Alliance and others.

GVP justification

- Ongoing and emerging uncontrolled disease outbreaks, especially affecting vulnerable populations with less improved public health infrastructure
- Increasing global health security risk
- Deaths in the thousands on an annual basis recently
- Challenges presented for societal function
- Global economic costs of epidemics in the billions

- Almost wholly unknown risk characterization for viral threats (geography, host species range, transmission risk characterization)

GVP likely impact

- Better characterization of viral risks in terms of geography, hosts, risk interfaces to enable prevention measures, public health campaigns, differential diagnoses by clinicians, and possibly even early development of prophylactics and treatments when warranted
- Ability to identify and control the transmission of viruses from animals to people at the source at the earliest possible stages of spillover
- Lowered risk for and impacts from future outbreaks

Sent: Tue, 19 May 2020 16:56:48 -0700
Subject: Re: Interview request on Global Virome Project - from The Economist
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Alok Jha <alokjha@economist.com>
Cc: Peter Daszak <daszak@ecohealthalliance.org>, Dennis Carroll <dcarroll008@gmail.com>, gvp@ucdavis.edu, Katherine E Kerlin <kekerlin@ucdavis.edu>, Mary Radford <maradford@ucdavis.edu>

Hi Alok,
This is Mary Radford, Jonna's assistant. Thank you for contacting her about her work and thinking of the Global Virome Project for your article. Jonna would be pleased to accept your request for an interview. She has these upcoming times available if any of these also work for Peter:
5/27: 8-9 or 9-10am PT
5/29: 8-9 or 9-10am PT
6/2: 9-10 or 10-11am PT
6/3: 8-9 or 9-10am PT
6/5: 8-9 or 9-10am PT
She asked me to copy Dennis for you as well.
Best,
Mary

Mary Radford
Executive Analyst for Dr. Jonna Mazet
One Health Institute - UC Davis SVM
O: +1 530 752 3630
maradford@ucdavis.edu
On Tue, May 19, 2020 at 5:07 AM Alok Jha <alokjha@economist.com> wrote:

Dear Dr Mazet and Dr Daszak,
(CC: Ms Kerlin)

I hope you are all well. I'm a science writer at The Economist, based in London, and I'm working on a feature for the paper on how the world could predict and prepare for the next pandemic. Given your extensive knowledge on these topics, I hoped we might talk in the coming days? I'd be very interested to hear about your own work in this area and, in particular, the ideas behind the Global Virome Project. Has that initiative become ever more important in the wake of covid-19?

My article will look at questions including: where the next zoonotic virus spillover could happen; what are the virus candidates (nipah, hendra, various influenzas, I guess?); potential locations (SE Asia, sub-Saharan Africa etc?); what is the current surveillance network like, how does it all work, where are the gaps, how should it change in response to covid-19?

If it would be possible to do a joint call with you both, I would very much appreciate it, though I appreciate co-ordinating timings for everyone might be difficult.

In addition, if you could put me in touch with Dr Dennis Carrol too for his input, I would be very grateful.

And if there are others you think I should be speaking to for the article, or if there are background articles or papers that you think might be useful for my research, then please do let me know.

Thank you and I look forward to hearing from you.

Best wishes,
Alok.

Alok Jha
Science correspondent

REDACTED

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From: Corina Grigorescu Monagin <cgmonagin@ucdavis.edu>
To: Andrew Clements <aclements@usaid.gov>
Cc: Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>, predict Sympa List <predict@ucdavis.edu>, Jaber Amine Belkhiria <jabelkhiria@ucdavis.edu>
Sent: Thu, 25 Jun 2020 20:17:57 +0000
Subject: [predict] Re: Update on 6-month extension of PREDICT-2 award (COVID-19 prevention and response)

Hi Andrew,

Just closing the loop on this. Jaber and I spoke with Philippe at the Senegal Mission yesterday. He doesn't have any concerns with our proposed partner (UCAD) or activities. We will continue to keep him in the loop.

Thanks
Corina

Corina Monagin, MPH, DrPH
Global Operations Senior Manager

One Health Institute
School of Veterinary Medicine
University of California Davis
1089 Veterinary Medicine Drive
Davis, CA 95616, USA

Mobile: +1.415.741.6996

From: Corina Grigorescu Monagin <cgmonagin@UCDAVIS.EDU>
Date: Thursday, June 11, 2020 at 12:22 PM
To: Andrew Clements <aclements@usaid.gov>
Cc: Chris Kreuder Johnson <ckjohnson@UCDAVIS.EDU>, David John Wolking <djwolking@ucdavis.edu>, "predictmgt@usaid.gov" <predictmgt@usaid.gov>, predict Sympa List <predict@ucdavis.edu>, Jaber Amine Belkhiria <jabelkhiria@ucdavis.edu>
Subject: Re: Update on 6-month extension of PREDICT-2 award (COVID-19 prevention and response)

Hi Andrew,

David covered most of it, but we are currently in the process of amending the sub award with UCAD. Activities include providing locally sourced PPE (following recent USAID guidelines) to schools and communities where PREDICT worked as well as virtual PPE training sessions. The UCAD team is organizing these activities in coordination with the COUS (the emergency operations center of the MOH). I'm happy to reach out to Philippe and link him with the team. In addition, although we are not directly working with ISRA during the extension, Dr Lo (our focal point there) is in communication with the UCAD team to provide technical input if needed.

Let me know if you have any questions!

Regards,
corina

From: Andrew Clements <aclements@usaid.gov>
Date: Thursday, June 11, 2020 at 9:18 AM
To: David John Wolking <djwolking@ucdavis.edu>
Cc: Corina Grigorescu Monagin <cgmonagin@UCDAVIS.EDU>, Chris Kreuder Johnson <ckjohnson@UCDAVIS.EDU>, "predictmgt@usaid.gov" <predictmgt@usaid.gov>, predict Sympa List <predict@ucdavis.edu>
Subject: Re: Update on 6-month extension of PREDICT-2 award (COVID-19 prevention and response)

Thanks, David (and Corina)!

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov
On Jun 11, 2020, at 5:39 PM, 'David J Wolking' via PREDICTMGT <predictmgt@usaid.gov> wrote:

Thanks Andrew,

Copying Corina here for updates on the situation. In short, we were working to reactivate the subaward with our partners ISRA in Senegal but could not come to consensus on a scope of work that was aligned with P2 extension goals (e.g., use of these funds for COVID-19 support). We are now working with our P2 UCAD partners as they are more directly connected with ministry response plans. Corina can share more details and reach out to Philippe to close the loop on plans.

It's timely now to remind all of our reactivated teams about the need to engage with USAID missions, so I'll send a kind reminder to that effect this week.

Best,

David

On Thu, Jun 11, 2020 at 3:51 AM Andrew Clements <aclements@usaid.gov> wrote:

see questions below.

Andrew Clements, Ph.D.
Senior Scientific Advisor
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E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/ept2

---------- Forwarded message ---------
From: **Philippe Mutwa** <pmutwa@usaid.gov>
Date: Thu, Jun 11, 2020 at 12:37 PM
Subject: Re: Update on 6-month extension of PREDICT-2 award (COVID-19 prevention and response)
To: Andrew Clements <aclements@usaid.gov>

Thank you for the update Andrew.
Who is leading the work in Senegal? I would like to talk to her/him for a better understanding and make sure we have a visibility of the entire work.
Regards

On Wed, Jun 10, 2020 at 10:08 AM Andrew Clements <aclements@usaid.gov> wrote:

Hi everyone,

I'm writing to provide an update on the COVID-19 support being

provided by PREDICT-2 as part of its extension to September 2020. Please note that the funding for these activities is from the GH/ETD FY19 regular budget and not redirected or emergency funds.

Objective 1: support of testing for suspected human cases

PREDICT-2 has reached out to the 27 target countries to see what their needs are and the project has reactivated its previous sub-awards with in-country partners. The requests have been varied and include PPE, lab reagents, and staff; see attached tracker of requests from countries. As you may have been aware, there was a pause on USAID providing PPE through its implementing partners until recently. New guidance and a FAQ are attached. I've asked PREDICT-2 to communicate with Missions either during these discussions or after so that you are aware of what is being discussed.

Objective 2: investigation of animal hosts and geographic sources of SARS-CoV-2 virus.

PREDICT-2 has been in discussion with Viet Nam, Thailand, Malaysia, Cambodia, Nepal, Indonesia, and Laos to identify (previously-collected) high priority samples for people that reported close contact with bats (hunting bats or bats sold at markets) and animals that are possible reservoir hosts (hipposideridae and rhinolophidae bats) and intermediate hosts (pangolins, wild carnivores in value chain). The plan is to test approximately 500 animal specimens (swabs for PCR) and 500 human specimens (serum for serology*) from each country. (Based on specimen priorities established to date, Indonesia will only have human specimens and Laos will only have animal specimens.) The plan for Burma with the recent extension is still pending. Under the extension, PREDICT-2 will also conduct market characterization work and analyses related to COVID-19. A detailed plan with species level data by country will be provided to the PREDICT-2 management

team in two weeks and will be then shared with Missions.

** Subject to the availability of a suitable serological test. At present one does not exist. If one does not materialize in the next month, PREDICT-2 will develop a second tier of animal samples to be tested.*

Lastly, the special Congressional notification for Burma, Cambodia, and Egypt has been completed.

Please let me know if you have any questions.

Andrew

--------- Forwarded message ---------
From: **Andrew Clements** <aclements@usaid.gov>
Date: Fri, Mar 13, 2020 at 9:27 PM
Subject: Announcement of 6-month extension of PREDICT-2 award until 9/30/2020 to support COVID-19 prevention and response
To: GHSD Global <ghsdglobal@usaid.gov>

Hi everyone,

As you may know, the PREDICT-2 project has been working since 2014 in 28 countries in Africa, Asia, and the Middle East to strengthen surveillance, lab capacity, and research related to understanding and preventing emerging zoonotic viruses. Last September, the project closed its country activities and the award end date was extended to March 31, 2020 to complete global analyses.

With the outbreak of COVID-19, PREDICT-2 is in a unique position to assist USAID and the global community to better understand the factors that lead to viral spillover, including the animals that carry the virus and the factors that lead to animal to human transmission. This information is critical for being able to identify measures that can be taken to reduce risk in the current and future COVID-19 epidemics, as well as apply these findings to other relevant outbreaks. The PREDICT-2 consortium partners are able to undertake this task using the human and animal serological samples that they have previously collected across several countries, as well as the results of their analyses of behavioral and other factors that promote spillover.

Specifically, PREDICT-2 was just extended to September 30, 2020 to focus on:

1. Conducting further testing of existing PREDICT samples, carry out additional analyses to identify animal sources for viruses, and characterize geographic and behavioral factors that increase risk of viral spillover from animals to humans. For the SARS-CoV-2 virus that causes COVID-19,

this translates into support for identification of the animal host(s) and geographic range of this virus. The goal is to identify animal and human populations and countries at risk for future spillovers of the virus. This will be accomplished by using SARS-CoV-2-specific molecular and serological tests to screen a prioritized sub-set of previously collected samples in 7 countries* in Asia (Indonesia, Laos, Malaysia, Burma^, Nepal, Thailand, Vietnam) in which PREDICT-2 had strengthened surveillance and lab capacity. This work will not involve new sampling of animals or people.

2. Providing technical and commodity assistance (if needed beyond any support already provided by USAID partners, WHO, CDC, or other donors) to laboratories in up to 26 countries** in Africa, Asia, and the Middle East for testing of samples from suspect human cases of COVID-19. Rapid detection is crucial for effective containment efforts including contact tracing. The following countries had lab capacity strengthened under the PREDICT-2 project: Bangladesh, Cambodia^, Cameroon, Côte d'Ivoire, DR Congo, Egypt^, Ethiopia, Ghana, Guinea, India, Indonesia, Jordan, Kenya, Laos, Liberia, Malaysia, Mongolia, Burma^, Nepal, Rep of Congo, Rwanda, Senegal, Sierra Leone, Tanzania, Uganda, Vietnam.

^ Subject to special notification to Congress.

The next stepS will be for PREDICT-2 to begin reaching out to country counterparts to quickly assess needs, determine if previous sub-contracts can be renewed, and develop a detailed work plan. I will share more information with you as it becomes available.

Please let me know if you have any questions or concerns.

Andrew

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
E-mail: [redacted]

For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2

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https://groups.google.com/a/usaid.gov/d/msgid/ghsdglobal/CAJT_2LH31w3wO%3DEaKg%3DP0%3Dw%3DXs-M2ZJPOCx6vgOyd0pyw%2Bxg%40mail.gmail.com.

--

Philippe R. Mutwa, MD, PhD

Global Health Security Agenda Advisor

USAID | U.S. Agency for International Development

REDACTED

--
David J. Wolking
Senior Manager, Global Programs, One Health Institute
Global Operations Officer, PREDICT Project of USAID Emerging Threats Division
Senior Manager, PREDICT Project
School of Veterinary Medicine
University of California, Davis
--

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https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CA%2BZH_9b18QcEj6KQgP6e=n%2B_DZ9YyOC6BRQxHQkP1eFnvXPBw%40mail.gmail.com.

From: Andrew Clements <aclements@usaid.gov>
Sent: Fri, 25 Sep 2020 00:13:00 -0700
To: Elizabeth Leasure <ealeasure@ucdavis.edu>
Cc: David John Wolking <djwolking@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, "ksaylors@labyrinthgh.com" <ksaylors@labyrinthgh.com>, predict Sympa List <predict@ucdavis.edu>
Subject: [predict] Re: REQUEST: Laos expenditures for GHSD activities CY2020

Got it. Thanks.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Sep 25, 2020, at 2:34 AM, Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:

Hi Andrew. For your information, the figure I provided is fully-loaded (in case it comes up).

Thanks,
Liz

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>
Sent: Thursday, September 24, 2020 5:32 PM
To: Andrew Clements <AClements@usaid.gov>; Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
Cc: Karoon Chanachai <kchanachai@usaid.gov>; Daniel Schar <dschar@usaid.gov>; David John Wolking <djwolking@ucdavis.edu>; Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>; predictmgt@usaid.gov; ksaylors@labyrinthgh.com
Subject: Re: REQUEST: Laos expenditures for GHSD activities CY2020

Dear Liz and Andrew,

Apologies on this. Liz already replied with the estimated figure. I missed that email before sending you the request again. Please ignore my recent e-mail.
Thank you very much.

Best,
Sudarat

Sent from my mobile.

On 25 Sep 2020, at 7:14 AM, Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov> wrote:

Dear Liz and Andrew,

Our deadline to have the budget figure is Sep 24 COB, 3.30 pm(ICT).

Please let us know that you are comfortable if we use 50 k for this task (in case we do not hear from you within timeline). Today is the last day of our financial admin and this is the task that need to be completed before her departure. Thanks.

Best regards,
Sudarat

Sent from my mobile.

On 23 Sep 2020, at 1:52 PM, Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov> wrote:

Thanks Andrew. For this task, it requires expenditure in US dollar amounts.

Dear Liz: Please provide expenditure incurred during April-Sep 2020 in USD, Thank you very much.

Best regards,
Sudarat Damrongwatanapokin, D.V.M., Ph.D.
Regional Animal Health Advisor
USAID Regional Development Mission Asia
REDACTED
E-mail: sdamrongwatanapokin@usaid.gov
Tel: REDACTED Fax: REDACTED
Telework: Monday-Friday 8.00 am- 5.00 pm

On Wed, Sep 23, 2020 at 1:40 PM Andrew Clements <aclements@usaid.gov> wrote:
See below.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov
Begin forwarded message:

From: "Elizabeth Leasure' via PREDICTMGT" <predictmgt@usaid.gov>
Date: September 23, 2020 at 1:08:18 AM GMT+2
To: Andrew Clements <aclements@usaid.gov>
Cc: David John Wolking <djwolking@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU> REDACTED REDACTED "predictmgt@usaid.gov" <predictmgt@usaid.gov>
Subject: RE: REQUEST: Laos expenditures for GHSD activities CY2020
Reply-To: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>

Hi Andrew. Yes, there are expenses incurred for Lao PDR during the extension period of Apr 2020-Sept 2020, but no expenses on or after October 1".

Thanks,
Liz

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: Andrew Clements <aclements@usaid.gov>
Sent: Monday, September 21, 2020 3:26 AM
To: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
Cc: David John Wolking <djwolking@ucdavis.edu>; Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU> REDACTED predictmgt@usaid.gov
Subject: REQUEST: Laos expenditures for GHSD activities CY2020

Hi Liz,

See request below. I have already indicated there will be not expenses after Oct 1, 2020.

Thanks!

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov
Begin forwarded message:

From: Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>
Date: September 21, 2020 at 11:59:10 AM GMT+2
To: "Clements, Andrew(ANE/TS)" <AClements@usaid.gov>
Cc: Karoon Chanachai <kchanachai@usaid.gov>, Angela Wang <awang@usaid.gov>
Subject: Laos expenditure for GHSD activities CY2020

A query from our admin:

Predict: Please kindly check if there are any expenditures incurred (Jan-Jun, 2020), or will be incurred in CY2020 (Jul-Sep, 2020) and Oct -Dec 2020.

Thank you.

Best regards,
Sudarat Damrongwatanapokin, D.V.M., Ph.D.
Regional Animal Health Advisor
USAID Regional Development Mission Asia
REDACTED
E-mail: sdamrongwatanapokin@usaid.gov

Tel: REDACTED, Fax: REDACTED
Telework: Monday-Friday 8.00 am- 5.00 pm

--

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To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/BYAPR08MB5590B132F1AFEACC426D395A23B0%40BYAPR08MB5590.namprd08.prod.outlook.com.

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Wed, 4 Jan 2017 23:14:39 -0800
Subject: Re: PREDICT Management Team Agenda - Monday January 9, 2017 @ 10AM PST
To: David J Wolking <djwolking@ucdavis.edu>
Cc: Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Cassandra Louis Duthil <clouisduthil@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Eddy Rubin <erubin@metabiota.com>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Lindsay Parish <lparish@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Shana Gillette <sgillette@usaid.gov>, William Karesh <karesh@ecohealthalliance.org>, PREDICTMGT <predictmgt@usaid.gov>, "Cara J. Chrisman" <cchrisman@usaid.gov>, Ava Sullivan <sullivan@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Amanda Fuchs <fuchs@ecohealthalliance.org>, Catherine Machalaba <Machalaba@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, Molly Turner <turner@ecohealthalliance.org>, Taylor Einicki <teinicki@metabiota.com>
PREDICT SAC Meeting Agenda (Jan. 10-11 2017).docx

Hi again,
Just sharing the latest version of our semi-annual consortium meeting agenda for discussion on the call.

Cheers,

David

On Wed, Jan 4, 2017 at 4:56 PM, David J Wolking <djwolking@ucdavis.edu> wrote:

> Hi there,
> Attached and below is the call-in information and agenda for PREDICT's Management Team call next Monday January 9, 2017 at 10AM PST/1PM EST.

I'll follow-up with the calendar reminder next.

Best,

David

PREDICT Management Team Agenda

Monday, January 9, 2017

10:00am PST/1:00pm EST

#800-444-2801, Access code REDACTED

International Dial-in number: REDACTED **(toll charges apply)**

Standing items

USAID Updates

1. **Administrative items**
    a. Annual report feedback
    b. CIPs for GHSA Phase 2 countries (DRC and Rwanda request)
    c. Senior behavioral surveillance coordinator update

d. Metabiota travel situation and ITA for DRC

e. Yellow fever plans and carry-over in DRC

f. GHSA M&E

2. **Mission communication round-up**

a. Indonesia

b. Ethiopia

c. Uganda

d. CIV

e. Sierra Leone

f. Guinea

g. Liberia

3. **Semi-annual Consortium meeting, January 10-11 in Pacifica, CA:** last call for agenda comments, feedback, or questions (agenda will be shared before the call)

4. **FAO collaboration/coordination updates (Billy)**

5. **Other coordination and engagement priorities (Billy)**

USAID | PREDICT

Global Health Security Agenda

PREDICT Semi-Annual Consortium Meeting
Best Western Plus Lighthouse Hotel
105 Rockaway Beach Ave, Pacifica, CA
January 10-11, 2017

Agenda

January 10th

9:00 am	**Welcome, agenda overview, and goals for meeting** (Jonna)
9:15 am	**Evolving planning landscape & GHSA updates** (Alisa)
9:45 am	**Modeling** (Peter and Kevin) -Deep Forest, viral risk ranking, modeling deliverables, etc. -How modeling can help achieve GHSA and additional EPT goals
11:00 am	**Break**
11:15 am	**Surveillance** - *Revisiting pathways* (Chris and Peter) -*Strategizing surveillance for maximum impact* (Chris)
12:00 pm	**Working lunch onsite** (Surveillance cont.; Chris) - *Select country-specific updates* identified interfaces, working relationships, achievements, concerns, etc.
1:30 pm	**Characterizing risk for surveillance data discussion** - *How can we help teams to do this in country?* - *Review options to display data; basic metrics for PREDICT-1 data*
2:00 pm	**Ebola Host Project** - Progress & challenges in three countries (Karen, Jon, Brian) - Ebola serology and PCR testing update (Tracey and Simon)
3:00 pm	**Break**
3:30 pm	**Viral detection** (Tracey and Simon) - Coronaviruses, a case study in viral characterization - What's new in PREDICT testing
4:30 pm	**Laboratory capacity discussion & country-specific concerns**
5:00 pm	**Agenda overflow & breakout rooms available as needed**
7:00 pm	**PREDICT team dinner** **Location:** Puerto 27, 525 Crespi Drive, Pacifica, CA

January 11th

9:00 am	**Behavior session** (Karen and Emily) - DRC/RoC value chain flagship - Overall progress to date and preliminary insights - Next steps
10:00 am	**Capacity update** (David) - PREDICT's e-book and distribution to global community - GHSA capacity strengthening objectives
10:30 am	**Break**
11:00 am	**Data management** (Damien and Tammie) - Updates and review of new apps for entering human, animal, specimen, and test result data - Discussion on data entry challenges, timelines, and minimizing delays
12:00 pm	**Lunch onsite with EIDITH demo/training**
1:00 pm	**Progress Tracking** (Liz and David) - Monitoring & Evaluation - Focus on GHSA priority diseases and milestones - Reporting discussion
1:45 pm	**Data sharing and One Health evaluations** (Billy and Catherine)
2:15 pm	**Highlights of partner coordination** (All)
3:00 pm	**Break**
3:30 pm	**Global Virome Project discussion** (Jonna, Peter, Eddy)
4:00 pm	**Outstanding issues & parking lot**
4:30 pm	**Manuscripts planned for global level** (All) -CoV and others in review or preparation

Zoom Meeting connection details for remote participants
Join from PC, Mac, Linux, iOS or Android: REDACTED
Or iPhone one-tap (US Toll): +14086380968 REDACTED or +16465588656 REDACTED
Or Telephone:
Dial: +1 408 638 0968 (US Toll) or +1 646 558 8656 (US Toll)
Meeting ID: REDACTED
International numbers available: here

Meeting Participants (as of January 4, 2017):

Suzan Murray, SI
Dawn Zimmerman, SI
Eddy Rubin, MB
Karen Saylors, MB
Beth Edison, MB
Damien Joly, MB
Christian Lange, MB
Amanda Fine, WCS
Carolina Churchill, WCS
Helen Lee, WCS
Simon Anthony, CII/EHA
Peter Daszak, EHA
Billy Karesh, EHA
Jon Epstein, EHA
Kevin Olival, EHA
Carlos Zambrana-Torrelio EHA
Noam Ross, EHA
Emily Hagan, EHA
Catherine Machalaba, EHA
Ava Sullivan, EHA
Ron Waldman, George Washington University
Lonnie King, OSU
Jim Hughes, Emory University
Jonna Mazet, UCD
Tracey Goldstein, UCD
Chris Johnson, UCD
Terra Kelly, UCD
REDACTED
David Wolking, UCD
Liz Leasure, UCD
Kirstin Gilardi, UCD
Megan Doyle, UCD
Alisa Pereira, USAID
Cara Chrisman, USAID

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Thu, 26 Jan 2017 08:24:21 -0800
Subject: Re: Reminder: PREDICT EB call this Friday (January 27, 2017) from 9-11AM PST/12-2PM EST
To: Amanda Fine <afine@wcs.org>, Brian Bird [redacted], Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Damien Joly <djoly@metabiota.com>, Eddy Rubin <erubin@metabiota.com>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Jon Epstein <epstein@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Karen Saylors <ksaylors@metabiota.com>, Simon Anthony <sja2127@columbia.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, William Karesh <karesh@ecohealthalliance.org>, Sarah Olson <solson@wcs.org>, "Prof. Woutrina Smith" <wasmith@ucdavis.edu>, "Murray, Suzan" <MurrayS@si.edu>
Cc: Alison Andre <andre@ecohealthalliance.org>, Amanda Fuchs <fuchs@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, Emma Lane <lane@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, Megan Doyle <mmdoyle@ucdavis.edu>, Molly Turner <turner@ecohealthalliance.org>, Taylor Einicki <teinicki@metabiota.com>
PREDICT EB Agenda (1.27.17) JM.docx
PREDICT surveillance status.xlsx

PREDICT EB,
Please find below (and attached) tomorrow's call agenda, a supporting doc for the surveillance team update, and of course the call-in information.

Talk to you soon,

David

Executive Board Meeting

Friday, January 27, 2017

9:00am PST/12:00pm EST

#800-444-2801, Access code [redacted]

International Dial-in number: [redacted] **(toll charges apply)**

Agenda

1. **Management team and admin updates**

   USAID team news

   Subaward updates and status

   Senior behavioral risk coordinator and timeline

   Best Practices for Subcontract/Subaward Monitoring and Mentoring

   Volunteers

2. **GHSA M&E meeting read-out and implications (Jonna)**

3. **Follow-up from Semi-annual Consortium meeting:** (link to all PPTs on Box: [redacted]

4. **Outbreak updates (HPAI round-up, saiga dieoff in Mongolia, others?) - All**

5. **Mission communications round-up (All)**

    a. **Communicate, communicate, communicate!**

    b. **West Africa**

    c. **Other regions**

6. **EPT partner coordination updates (Billy)**

7. **Global Virome Project update (Jonna/Peter/Eddy)**

8. **Operations Team updates:**

    Surveillance (Chris)

    Lab (Tracey & Simon)

    Behavior (Karen)

    M&A (Peter)

    Capacity (Woutrina)

    IM (Damien)

    EHP (Brian, Jon, Karen/Eddy)

9. **Other recent meeting updates?**

- REDISSE meetings in West Africa
- Zoonotic Disease Prioritization Workshop meetings
- Others?

Standing Items:

Publications and ResearchGate update...

Related grant proposals or conferences?

Call for Abstracts: 60th Annual American Society for Biological Safety (ABSA) Conference

On Tue, Jan 24, 2017 at 8:18 PM, David J Wolking <djwolking@ucdavis.edu> wrote:

Hi EB,
Just a reminder about this week's PREDICT call on a rather unorthodox day (Friday January 27th at 9AM PST/12PM EST).

I'll follow up with an agenda soon but if you have any items you would like to bring to my attention, please share them by Wednesday COB.

Cheers,

David

Executive Board Meeting
Friday, January 27, 2017
9:00am PST/12:00pm EST
#800-444-2801, Access code REDACTED
International Dial-in number: REDACTED **(toll charges apply)**

Agenda

1. **Management team and admin updates**
   USAID team news
   Subaward updates and status
   Senior behavioral risk coordinator and timeline
   Best Practices for Subcontract/Subaward Monitoring and Mentoring
   Volunteers

2. **GHSA M&E meeting read-out and implications (Jonna)**

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4. **Outbreak updates (HPAI round-up, saiga dieoff in Mongolia, others?) - All**

5. **Mission communications round-up (All)**
   a. **Communicate, communicate, communicate!**
   b. **West Africa**
   c. **Other regions**

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7. **Global Virome Project update (Jonna/Peter/Eddy)**

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   Surveillance (Chris)
   Lab (Tracey & Simon)
   Behavior (Karen)
   M&A (Peter)
   Capacity (Woutrina)
   IM (Damien)
   EHP (Brian, Jon, Karen/Eddy)

9. **Other recent meeting updates?**
   - REDISSE meetings in West Africa
   - Zoonotic Disease Prioritization Workshop meetings
   - Others?

Standing Items:
Publications and ResearchGate update…
Related grant proposals or conferences?
Call for Abstracts: 60th Annual American Society for Biological Safety (ABSA) Conference

	A	B	C	D	E
1	Country	Wildlife	Humans	Domestic/live stock	Domestic/livestock in coordination with FAO
2	Cambodia	Yes	Yes	Yes	Yes
3	Malaysia	Yes	Yes	Yes	not planned
4	Egypt	Yes	Yes	No	Yes
5	Nepal	Yes	Yes	No	Yes
6	China	Yes	Yes	No	pending
7	Jordan	Yes	pending	Yes	Yes
8	Kenya	Yes	pending	Yes	Yes
9	Bangladesh	Yes	pending	Yes	Yes
10	Sierra Leone	Yes	not planned	Yes	No
11	Uganda	Yes	Yes	Yes	pending
12	Guinea	Yes	not planned	Yes	Yes
13	Indonesia	Yes	pending	No	Yes
14	Lao PDR	Yes	pending	No	Yes
15	Liberia	Yes	not planned	Yes	Yes
16	Thailand	Yes	pending	No	Yes
17	Vietnam	Yes	pending	No	Yes
18	Cameroon	Yes	pending	No	Yes
19	Dem. Republic of Congo	Yes	Yes	No	pending
20	Ethiopia	Yes	pending	No	pending
21	Ghana	Yes	pending	No	pending
22	Mongolia	Yes	not planned	not planned	not planned
23	Myanmar	Yes	pending	No	pending
24	Republic of Congo	Yes	pending	not planned	not planned
25	Rwanda	Yes	Yes	pending	not planned
26	Tanzania	Yes	pending	No	Yes
27	Cote d'Ivoire	Yes	pending	No	pending
28	India	pending	pending	pending	not planned
29	Senegal	pending	pending	No	pending

	A	B	C	D	E
1	Country	Wildlife	Humans	Domestic/live stock	Domestic/livestock in coordination with FAO
2	Cambodia	Yes	Yes	Yes	Yes
3	Malaysia	Yes	Yes	Yes	No
4	Egypt	Yes	Yes	No	Yes
5	Nepal	Yes	Yes	No	Yes
6	China	Yes	Yes	No	No
7	Jordan	Yes	No	Yes	Yes
8	Kenya	Yes	No	Yes	Yes
9	Bangladesh	Yes	No	Yes	No
10	Sierra Leone	Yes	No	Yes	No
11	Uganda	Yes	No	Yes	No
12	Guinea	Yes	No	No	Yes
13	Indonesia	Yes	No	No	Yes
14	Lao PDR	Yes	No	No	Yes
15	Liberia	Yes	No	No	Yes
16	Thailand	Yes	No	No	Yes
17	Vietnam	Yes	No	No	Yes
18	Cameroon	Yes	No	No	No
19	Dem. Republic of Congo	Yes	No	No	No
20	Ethiopia	Yes	No	No	No
21	Ghana	Yes	No	No	No
22	Mongolia	Yes	No	No	No
23	Myanmar	Yes	No	No	No
24	Republic of Congo	Yes	No	No	No
25	Rwanda	Yes	No	No	No
26	Tanzania	Yes	No	No	No
27	Cote d'Ivoire	Yes	No	No	No
28	Gabon	No	No	No	No
29	India	No	No	No	No
30	Senegal	No	No	No	No

From: Alisa Pereira <apereira@usaid.gov>
Sent: Tue, 31 Jan 2017 13:15:54 -0500
Subject: Re: VAT Challenges with PREDICT-2
To: Elizabeth Leasure <ealeasure@ucdavis.edu>
Cc: Andrew <aclements@usaid.gov>, Shana Gillette <sgillette@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>

Thanks... feel free to re-remind us again after we get some of these critical issues resolved.

Alisa Pereira
Deputy Director
Emerging Threats Division
Global Health Bureau, USAID/Washington
Telephone: 202-712-5221
Cell: REDACTED
e-mail: apereira@usaid.gov

On Tue, Jan 31, 2017 at 1:11 PM, Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:

The key personnel and new subaward/subcontract actions that have been pending definitely take precedence, but the VAT issue has been lingering, so I would like to get it resolved by the end of February, if possible. Okay to wait until we get the urgent items handled though. Just wanted to get this on your radar.

Thanks,

Liz

Elizabeth Leasure

One Health Institute

University of California, Davis

530-754-9034 (office)

REDACTED (cell)

From: Alisa Pereira [mailto:apereira@usaid.gov]
Sent: Tuesday, January 31, 2017 10:08 AM
To: Elizabeth Leasure
Cc: Andrew; Shana Gillette; Jonna Mazet; David John Wolking
Subject: Re: VAT Challenges with PREDICT-2

We will certainly bring him up to speed, but we may want to be strategic on timing. He has a whole stack of actions for our unit ranging from ceiling increases to key personnel changes to buy ins, and more. If this request is not urgent, I would recommend that we wait until he can clear out some of these actions before stacking another one onto the pile. That being said -- if it is urgent, we will ask for another meeting and walk him through the issues. Please advise.

Alisa Pereira

Deputy Director

Emerging Threats Division

Global Health Bureau, USAID/Washington

Telephone: 202-712-5221

Cell: REDACTED

e-mail: apereira@usaid.gov

On Tue, Jan 31, 2017 at 1:01 PM, Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:

Hi all. Just a heads up that the information requested by Deborah (see below) to facilitate AO approval to pay VAT in China and Viet Nam is still pending submission. I think I have all the information I need, but I haven't yet put it into the format requested. I will do that as soon as I can. Since Ryland Marbray is now our AO, it would be very helpful if one of you could touch base with Ryland and bring him up to speed with regard to the VAT challenges and the way forward that Deborah and August had worked out.

Thanks,

Liz

Elizabeth Leasure

One Health Institute

University of California, Davis

530-754-9034 (office)

REDACTED (cell)

From: Deborah Adeole [mailto:dadeole@usaid.gov]
Sent: Wednesday, November 23, 2016 10:52 AM
To: Elizabeth Leasure
Subject: VAT Challenges with PREDICT-2

Hello Liz,

I am writing to follow-up on our discussion regarding the challenges the team has experienced in trying obtain VAT exemptions from China, Cameroon, and Vietnam. As we discussed, I would like to have a written description of the team's effort to obtain these exemptions. For each country, can you please address the following:

1. Has it been determined whether the Federal Government or overseas development assistance is exempt from VAT?
2. If so, what is the process to affect the exemption?
3. What efforts have been made to secure the exemption following this process?
4. Have you had communication with the RLO? If so, what was the guidance provided? Please provide the RLO's name.

I know you already have a lot of this written up so I hope it will not be too much of a task to compile the information. Would it be possible to have a response back by next Tuesday, November 29th?

Many Thanks Liz,

Deborah O. Adeola, Contracting & Agreement Officer

U.S. Agency for International Development | USAID
Office of Acquisition and Assistance
1300 Pennsylvania Avenue, NW (SA-44, 569-C)
Washington, DC 20523-7101
Office: 202-567-4524 | Email: dadeola@usaid.gov | Web: www.usaid.gov

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Thu, 2 Feb 2017 12:25:40 -0800
Subject: Re: FW: Key Personnel Letter approval (Leilani Francisco)
To: Peter Daszak <daszak@ecohealthalliance.org>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, Evelyn Luciano <luciano@ecohealthalliance.org>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Alison Andre <andre@ecohealthalliance.org>, Elizabeth S Chase <eschase@ucdavis.edu>

Hi Peter,
Jonna wanted me to reach out to you soon after this change was approved to find a time for the PREDICT leadership team to meet with Leilani before you all visit USAID/Washington. I'm not proposing any dates at this time, just wanted to plant the seed before plans are made.

Maybe we can discuss together in Beijing....

David

On Thu, Feb 2, 2017 at 9:47 AM, Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:

The Key Personnel change has been approved. Official approval letter is attached for your records.

Thanks,

Liz

Elizabeth Leasure

One Health Institute

University of California, Davis

530-754-9034 (office)

530-304-1403 (cell)

From: Ryland Marbray [mailto:rmarbray@usaid.gov]
Sent: Thursday, February 02, 2017 9:14 AM
To: Elizabeth Leasure
Cc: Alisa Pereira; Shana Gillette; Andrew Clements
Subject: Key Personnel Letter approval (Leilani Francisco)

Please disregard yesterdays Key Personnel approval letter and accept the corrected version attached below.

Best,

Ryland Marbray
Agreements Contracting Officer

USAID Office of Acquisition & Assistance
M/OAA/E3

1300 Pennsylvania Ave., NW,
Rm. 567-B, SA-44
Washington, DC 20523

To: David J Wolking <djwolking@ucdavis.edu>
Cc: "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>
From: Rudovick Kazwala [redacted]
Subject: RE: Tanzania: request for HPAI preparedness from PMO
Sent: Sun, 26 Feb 2017 13:09:25 +0300

Hi David,
I suggest we do Sunday evening your time. Monday morning Tanzania.
Have a nice weekend too!

From: David J Wolking
Sent: 2/25/2017 10:07 PM
To: David J Wolking; Rudovick Kazwala
Cc: Prof. Jonna Mazet
Subject: Re: Tanzania: request for HPAI preparedness from PMO

Hi Prof,

Pole sana just seeing this message, I can connect with you tomorrow morning my time around 7am PST if that works. Otherwise Monday morning your time Sunday evening for me, is also an option if you prefer that.

Asante and enjoy the weekend,

David

On Sat, Feb 25, 2017 at 02:39 Rudovick Kazwala REDACTED wrote:

Hi David
Do want to loop even Saturday morning PST
If have have specific time. I am flexible.
Thanks

From: David J Wolking
Sent: 2/25/2017 12:26 AM
To: David J Wolking
Cc: Professor Kazwala; Prof. Jonna Mazet
Subject: Re: Tanzania: request for HPAI preparedness from PMO

Hi Prof,
Just checking in to see if we can connect some time soon to discuss this request letter. I can make myself available at anytime.

Enjoy the weekend,

David

On Wed, Feb 22, 2017 at 11:53 AM, David J Wolking <djwolking@ucdavis.edu> wrote:

Hi Prof,
Just looping you in, Jonna and I talked today and decided to forward the PMO's letter to USAID with the caveat that we were still exploring with you how best to manage the request and potential OHCU expectations. Perhaps you and I could talk tomorrow about the letter, context, and possible next steps?

Hope the meetings are going well in Dar and thanks for joining the RIFA interview today...

Best,

David

---------- Forwarded message ----------
From: **David J Wolking** <djwolking@ucdavis.edu>
Date: Wed, Feb 22, 2017 at 11:50 AM
Subject: Tanzania: request for HPAI preparedness from PMO
To: "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Shana Gillette <sgillette@usaid.gov>
Cc: "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Elizabeth Leasure <calcasure@ucdavis.edu>

Hi Andrew, Alisa, and Shana,
Yesterday Jonna received a letter from the Prime Minister's Office in Tanzania (attached) that by appearance was intended for broad distribution to solicit support for preparedness and response activities for HPAI. The letter included a list of activities and projected costs.

We are in the process of following up with our Principle Investigator/Country Coordinator Professor Kazwala, who has been involved with the One Health Coordination Unit leading the preparedness and response efforts to determine if there are any in-country sensitivities or expectations for PREDICT involvement in particular. Prof is in meetings in Dar this week and has been in contact with OHCU members.

In our opinion, the request is more aligned with P&R and FAO's scope, though we would be happy to discuss more active PREDICT involvment if you feel it is warranted, perhaps on our next management team call or earlier if a quicker turnaround is deemed appropriate.

Please let us know how you would like to proceed and we will of course pass on additional information when available.

Best,

David

--
Sent from Gmail Mobile

From:	David J Wolking <djwolking@ucdavis.edu>
To:	Clements, Andrew (GH/HIDN) <AClements@usaid.gov>;Shana Gillette <sgillette@usaid.gov>;Alisa Pereira Emerging Threats Division <apereira@usaid.gov>
CC:	Prof. Jonna Mazet <jkmazet@ucdavis.edu>;Elizabeth Leasure <ealeasure@ucdavis.edu>;PREDICTMGT <predictmgt@usaid.gov>
Sent:	3/8/2017 6:07:34 PM
Subject:	Re: Tanzania: request for HPAI preparedness from PMO

Hi Andrew, Alisa, and Shana,

Jonna responded to this request from the Prime Minister's Office in Tanzania with a nice letter that we were exploring options with you all at USAID. Since it was an official request from the PMO, we will need to follow-up soon and would appreciate your guidance and perspective on how to engage (if at all) in preparedness plans or how we might strategize or collaborate with EPT partners (FAO and P&R in particular) on the most appropriate response given each partner's strengths and focus.

Professor Kazwala continues to participate productively in the One Health Coordination Unit meetings but has not made any commitments on behalf of PREDICT as we wait to hear from you on the best way to proceed.

Thanks,

David

On Wed, Feb 22, 2017 at 11:50 AM, David J Wolking <djwolking@ucdavis.edu> wrote:
Hi Andrew, Alisa, and Shana,

Yesterday Jonna received a letter from the Prime Minister's Office in Tanzania (attached) that by appearance was intended for broad distribution to solicit support for preparedness and response activities for HPAI. The letter included a list of activities and projected costs.

We are in the process of following up with our Principle Investigator/Country Coordinator Professor Kazwala, who has been involved with the One Health Coordination Unit leading the preparedness and response efforts to determine if there are any in-country sensitivities or expectations for PREDICT involvement in particular. Prof is in meetings in Dar this week and has been in contact with OHCU members.

In our opinion, the request is more aligned with P&R and FAO's scope, though we would be happy to discuss more active PREDICT involvment if you feel it is warranted, perhaps on our next management team call or earlier if a quicker turnaround is deemed appropriate.

Please let us know how you would like to proceed and we will of course pass on additional information when available.

Best,

David

From: Andrew Clements <aclements@usaid.gov>
Sent: Fri, 28 Apr 2017 13:33:37 +0200
Subject: Results of Abstract Selection for PMAC 2018
To: William Karesh <Karesh@ecohealthalliance.org>, "Subhash Morzaria (FAORAP)" [REDACTED], "Juan (AGAH) [REDACTED] Lubroth" [REDACTED], Jonna Mazet <jkmazet@ucdavis.edu>, dpwolking@ucdavis.edu, daszak@ecohealthalliance.org, "Mirela (TCE) Hasibra" [REDACTED]
Cc: Dennis Carroll <dcarroll@usaid.gov>, Lindsay Parish <lparish@usaid.gov>, Alisa Pereira <apereira@usaid.gov>

From a quick scan and some guessing, it appears that a significant number (15-20) of the 81 accepted abstracts were from EPT-2's implementing partners (FAO, PREDICT, OHW). The countries/regions represented include Bangladesh, Egypt, Ethiopia, Indonesia, Jordan, Laos, Malaysia, Vietnam, East Africa, and Southeast Asia. Topics include OH, workforce, AMR, AI, MERS, filoviruses, and henipaviruses.

Well done! Thanks to everyone on the FAO and PREDICT teams who helped make this happen.

Andrew P. Clements, Ph.D.
Senior Scientific Adviser
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Apr 28, 2017, at 11:10 AM, Prince Mahidol Award Conference <pmaconference@mahidol.ac.th> wrote:

Dear Colleagues,

We are pleased to announce the results of Abstract Selection for the Prince Mahidol Award Conference 2018 in the Table below. We would like to take this opportunity to express our sincere thanks to all submitters for your contribution to the Prince Mahidol Award Conference 2018.

Thank you and best regards,
PMAC Secretariat

List of 81 selected abstracts

Abstract ID	Title	Submitter
A002	Pilot study to evaluate the knowledge, attitudes and practices about rabies in Ouagadougou (Burkina Faso)	Madi Savadogo
A017	Networks of communication during the multi-organizational response to the January 2017 H5N8 zoonotic disease outbreak in Uganda.	Steven Ssendagire
A018	Collaboration capacity of organizations that participated in the response to the January 2017 H5N8 zoonotic disease outbreak in Uganda	Steven Ssendagire
A019	Surveillance of antimicrobial resistance (AMR) in pig and chicken in Viet Nam	Pawin Padungtod
A020	Prioritization of Disease Emergence Risk Factors for the Republic of Korea Using a Nationwide Survey of Subject Matter Experts: A Model	Jonathan Sleeman

	for Other Countries or Regions	
A022	Safe poultry slaughter mitigate the risk of human exposure to HS HPAI at household sectors in Egypt	Lotfi Allal
A026	Academic-public health-community partnership for prevention and control of intestinal parasites infection in endemic area using One Health approach: a field observational research	Aulia Rahmi Pawestri
A040	Global Health Security: tracking the money	Rebecca Katz
A043	Viet Nam Coordinated Surveillance for Influenza and Other Viruses with Pandemic Potential	Pawin Padungtod
A045	Costing tools for global health security	Rebecca Katz
A051	Therapeutic Potential Of Bacteriophage Isolated From Sewage For Multidrug Resistant Escherichia Coli Infection In Mice	Belayneh Getachew
A052	Making the World Safe from the Threats of Emerging Infectious Diseases	Maysa Al-Khateeb
A064	One Health Approach towards management of the Aflatoxicosis outbreak in Bukomansimbi district, Central Uganda.	Angella Musewa
A068	Decision Support for Evidence-based Integration of Disease Control	Rebecca Katz
A070	Building resilience to emerging infectious diseases: Political and governance lessons from eradicating polio	Stephen Matlin
A071	What does One Health look like: Examining the practice of multisector collaborations for zoonoses prevention and control in India	Syed Shahid Abbas
A072	A One Health approach to economic evaluation: Aggregating multiple streams of dissimilar information for multisector decision making for rabies prevention & control in India	Syed Shahid Abbas
A085	Exposure patterns at animal-human interfaces associated with H5N1 influenza upsurge in human in Egypt during 2014-2015: An epidemiological investigation under one health initiative	Lotfi Allal
A123	Fecal Contamination of Water Sources in and Around Volcanoes National Park, Rwanda	Venant Nzibaza
A136	Pre-empting the Compatibility Problem: How Multisectoral Cooperation Can Weaken Responses to EIDs and What To Do About It	Mara Pillinger
A141	Reducing the risk of zoonotic disease transmission between people and wildlife in east-central Africa: Gorilla Doctors' Employee Health Program for park workers and community members	Kirsten Gilardi
A142	Study on live-bird markets (LBMs) trade network of Shanghai to assess seasoning market closure policy against H7N9	Wu Xiujuan

A156	Investigation of the risk factors to human Brucellosis in Mubende district Uganda, 2014	Asiimwe Karimu Grace
A158	Free roaming dog population dynamics, and knowledge, attitude and practices (KAP) on rabies in major cities of Ethiopia and Kenya	Habtamu Taddele Menghistu
A160	Containing antibiotic resistance: a One Health Chinese-Swedish research collaboration	Oliver James Dyar
A163	Using Public-Private-Community Partnerships to increase access and improve efficiency of malaria treatment and control in Senegal	Elaine Baruwa
A164	Enhancing Prevention, Detection and Response to zoonoses and AMR through Transformations of One Health workforce in Tanzania	Robinson Mdegela
A171	The survey of poultry value chain and the H7N9 entry risk assessment of the live bird wholesale market in Guangxi, Yunnan, Hunan three provinces of China	Chaojian Shen
A173	Risk mitigation for Influenza A (H7N9) spread outside of China through informal poultry trade	Qi Yu
A175	Ongoing PREDICT 2 work in Lao PDR: Synchronized surveillance between PREDICT and FAO at the Wildlife-Livestock-Human Interface.	Soubanh Silithammavong
A178	Genomic surveillance of pathogenic bacteria and antibiotic resistance genes in hospitals, farms, and communities in Lima, Peru.	Pablo Tsukayama
A181	System review of regulations on antibiotic use in food animals and a case study on stakeholders' concern on broiler farm in northwestern China	Jingyi Xu
A185	Flu Near You: Crowdsourcing Influenza-Like Illness Reporting in the United States	John Brownstein
A192	Understanding socio-economic aspects for sustainable interventions to reduce antimicrobial usage and antimicrobial resistance in small and household poultry farms in Vietnam	Bao Truong
A199	SEAOHUN, a Network of Universities Supporting One Health Workforce Development in Southeast Asia	Ratsuda Poolsuk
A226	Effect of Agricultural Pesticide Exposure to Malaria Incidence and Anopheles Susceptibility in Endemic Area in Central Java	Renti Mahkota
A230	Using Public-Private Partnership to improve access to malaria treatment and prevention services in Rivers state, Nigeria	Gafar Alawode
A242	Strengthening preparedness to arbovirus infections in Mediterranean and Black Sea Countries: the MediLabSecure effort towards the integrated surveillance in the context of One Health strategy.	Maria Grazia Dente
A246	Unlocking community partnerships can be effective, sustainable strategies for successful risk reduction against seasonal dengue fever outbreaks: Experiences from urban clusters in Delhi, India	Sumit Mazumdar

A248	MERS-CoV surveillance in cameis: Harmonization and flexibility in a multi-country project	Sophie von Dobschuetz
A254	Shifting from live bird markets to slaughterhouses to mitigate risk for avian influenza	Thuy Nguyen
A260	Evidence for optimal policies: The case for investment in for malaria elimination in Bangladesh, Indonesia, and Papua New Guinea	Katie Fox
A261	Serological Biosurveillance for Spillover of Henipaviruses and Filoviruses at Agricultural and Hunting Human-Animal Interfaces in Peninsular Malaysia	Jonathan Epstein
A277	Reducing childhood diarrhoea risks through improved environmental sanitation: Empirical evidence from three decades of public health interventions in India	Papiya Mazumdar
A280	EpiCore: Crowdsourcing Epidemic Intelligence Across the Globe	Mark Smolinski
A283	Tackling High-Burden Infections to Combat AMR: Quality Standards for Antibiotic Prescribing for Community-Acquired Pneumonia and Acute Exacerbation of COPD in Vietnam	Ryan Li
A285	Developing public programs on emerging infectious diseases at the Smithsonian Institution: Lessons for pandemic risk communication	Sabrina Sholts
A287	Can behavioural interventions improve the rational use of antibiotics in low- and middle-income countries?	Virginia Wiseman
A291	Assessing the Strength of One Health University Networks though Social Network Analysis	Ian Allen
A292	EpiCore: initial experience with an innovative system for outbreak verification	Lawrence Madoff
A295	Strengthening the Global Workforce to Battle Infectious Disease Threats through Universities: the One Health Workforce Project	Katharine Pelican
A297	Evidence for the normative appeal of collaboration: Assessing collaborative performance in two regional One Health university networks	Kaylee Myhre Errecaborde
A299	A New Tool for Supporting Multisectoral Antimicrobial Resistance Action Planning: One Health Systems Mapping and Analysis Resource Toolkit	Katharine Pelican
A302	Spatio-temporal spread trend and eco-epidemiological drivers of Japanese Encephalitis in Guangxi, China: an eco-health approach to controlling zoonoses	XIANYAN TANG
A303	Implementing National Antibiotic Action Plans for Reducing Antibiotic Resistant Bacteria in Animals	Thomas Shryock
A312	Analyzing the importance of land conversion as a driver of disease emergence in tropical forests	Carlos Zambrana-Torrelio

A317	Participatory One Health Disease Detection (POD0): A Novel Approach for Community-Based Reporting of Emerging Infectious Diseases	Lertrak Srikitjakarn
A321	AfyaData: A Set of Digital, One Health, Community-Based Tools for Reporting of Emerging Infectious Diseases	Euron Karimuribo
A328	Analyzing the economics of disease emergence from deforestation to support better practices in the extractive industries and reduce pandemic risk.	Carlos Zambrana-Torrelio
A332	Antimicrobial Stewardship Program:Is it possible in low resource country?	Upasana Acharya
A338	RISK ASSESSMENT FOR THE TRANSMISSION OF EMERGING ZOONOTIC VIRUSES IN MYANMAR	Ohnmar Aung
A346	Strengthened Public Health Laboratories Improve Disease Surveillance in the East African Community	Willy Were
A388	Epidemiology of Extend Spectrum Beta-lactamase in Lao PDR	Rene Niehus
A393	Cross-sectional surveillance for Middle East Respiratory Syndrome Coronavirus in Camels and Associated Livestock in Ethiopia	Elias Walelign
A405	Temporal and geographical comparison between two highly pathogenic avian influenza global epidemics	Paula Caceres
A409	Data Integration for Proactive Animal Health Policies. Evidence from Ethiopia, Nigeria and Uganda	Alessandra Falcucci
A410	The OIE`s World Animal Health Information System (WAHIS) as a Tool for Monitoring Progress in the Global Strategy for the Elimination of Dog-Mediated Rabies	Paula Caceres
A417	Animal, Human and Wildlife Sector Collaboration on Development of One Health Capacity: A Pilot on Integrated Prevention and Control of Emerging Infectious Diseases and Zoonoses in Indonesia	Nurhayati Nurhayati
A430	Tackling "non-natural disasters" through the One Health approach in Indonesia	Asfri Rangkuti
A433	How well are antibiotics regulated in Thailand?	Angkana Sommanustweechai
A434	Unregulated antibiotic distribution in a competitive market: factors driving high consumption and AMR	Angkana Sommanustweechai
A438	Achieving resilience to emerging infectious diseases with the poultry production systems -- development of a production-led strategy for the progressive control of avian influenza and management of AMR in Bangladesh	Eric Brum
A441	Development of Thai-Surveillance of Antimicrobial Consumption: a Foundation for Tracking Progress Towards Success	Angkana Sommanustweechai

A442	Sink surveillance, an innovative approach to identify HPAI and other emerging zoonotic pathogens in live bird markets in Bangladesh	Eric Brum
A444	Proactive Case Detection and Community Participation for the Elimination of Malaria Study in Cambodia	Shunmay Yeung
A445	A PRACTICAL SOLUTION FOR COMBATING MRSA IN DEVELOPING COUNTRIES	Palitha Gunawardena
A446	Why do community livestock continue to be ignored within emerging disease surveillance programmes? Addressing the systemic bias for intensified livestock production within animal disease surveillance systems	Eric Brum
A458	Social, Economic and Behavioural Drivers of Antibiotic Use By Informal Providers in Rural West Bengal in India.	Meenakshi Gautham
A478	Self-medication in pastoralist communities of Western Uganda: The tragedy of "Ngombe", a once powerful antibiotic.	Benon Asiimwe
A484	Strengthening One Health in Uganda: an After-Action Review of Crimean Congo Hemorrhagic Fever Outbreak Response	Winyi Kaboyo
A500	Taking One Health Solutions To The Community: A Case Of Rabies Eradication Efforts Through Future One Health Workforce In Kenya	Kimeli Peter

From: Katherine Leasure <kaleasure@ucdavis.edu>
To: 'PREDICTMGT' <predictmgt@usaid.gov>
CC: predict@ucdavis.edu <predict@ucdavis.edu>;'Jonna Mazet' <jkmazet@ucdavis.edu>
Sent: 5/3/2017 11:34:59 PM
Subject: PREDICT International Travel Requests

Please find below international travel requests for your review and approval. Please let me know if you have any questions. Thanks!!

1. Monagin (Senegal): $1,350 airfare/$251 (Dakar) max daily per diem
2. Euren (Laos): $1,200 airfare/$212 (Vientiane) max daily per diem
3. McIver (Laos): $1,400 airfare/$212 (Vientiane) max daily per diem
4. Olival (Thailand): $2,500 airfare/$246 (Bangkok) max daily per diem

Travel Requests –

1. UC Davis would like to request travel approval for Dr. Corina Monagin to travel from Los Angeles, CA, USA to Dakar, Senegal from May 27 to June 10, 2017 for meetings with partners, and training and roll-out of human syndromic surveillance activities.

Trip purpose: Dr. Monagin will be traveling to Dakar, Senegal to have working meetings with PREDICT-2 program partners at the Interstate School of Veterinary Medicine and Sciences of Dakar (EISMV), the University Cheikh Anta Diop (UCAD), and the Senegalese Institute of Agricultural Research (ISRA). These working meetings will focus on preparations for the roll-out of surveillance activities in the country. Dr. Monagin will also be leading a training for human syndromic surveillance in preparation for roll-out of activities.

2. Metabiota would like to request travel approval for Mr. Jason Euren, Research and Implementation Coordinator, to travel from San Francisco, CA, USA to Vientiane, Laos from May 27 to June 5, 2017 to complete human surveillance training in both hospital and community settings, as well as provide additional trainings on animal field data collection.

Trip purpose: In Vientiane, Jason Euren will join Dr. David McIver, Asia Regional Coordinator, to complete an intensive, week-long training on human surveillance for the PREDICT program. Part of this training will occur at the Khong District Hospital, in Champasak Province, and part of it will take place in the village of Na Pa Kieb, Champasak Province. This training will cover the selection and enrollment of participants to the PREDICT program, data collection and interviewing techniques, data upload to the EIDITH database, and biological sample collection in the community setting. Trainings for animal surveillance will include introducing updates to field data collection tools, biosafety and biosecurity updates and re-trainings, sample management and storage, updated blood collection techniques, and EIDITH data upload overview and re-training. These trainings will take place both at the PREDICT office in Vientiane, at the National Animal Health Laboratory, as well as on-site in Na Pa Kieb Village, Champasak Province.

3. Metabiota would like to request travel approval for Dr. David McIver, Asia Regional Coordinator, to travel from Nanaimo, British Columbia, Canada to Vientiane, Laos from May 27 to June 5, 2017 to complete human surveillance training in both hospital and community settings, as well as provide additional trainings on animal field data collection.

Trip purpose: In Vientiane, Dr. McIver will join Jason Euren, Research and Implementation Coordinator, to complete an intensive, week-long training on human surveillance for the PREDICT program. Part of this training will occur at the Khong District Hospital, in Champasak Province, and part of it will take place in the village of Na Pa Kieb, Champasak Province. This training will cover the selection and enrollment of participants to the PREDICT program, data collection and interviewing techniques, data upload to the EIDITH database, and biological sample collection in the community setting. Trainings for animal surveillance will include introducing updates to field data collection tools, biosafety and biosecurity updates and re-trainings, sample management and storage, updated blood collection techniques, and EIDITH data upload overview and re-training. These trainings will take place both at the PREDICT office in Vientiane, at the National Animal Health Laboratory, as well as on-site in Na Pa Kieb Village, Champasak Province.

4. EcoHealth Alliance would like to request travel approval for Dr. Kevin Olival to travel from New York,

NY, USA to Bangkok, Thailand from May 24 - May 28, 2017 to participate in team meetings, sampling trips, and community surveillance.

Trip purpose: Dr. Olival will join the PREDICT team in conducting human community surveillance in Chonburi province, and meet with PREDICT implementing partners. Meetings with the team will occur on May 25; the sampling trips are planned for May 26-27.

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

From: Andrew Clements <aclements@usaid.gov>
Sent: Tue, 6 Jun 2017 08:40:19 +0200
To: Brian Bird <bhbird@ucdavis.edu>
Cc: PREDICTMGT <predictmgt@usaid.gov>, PREDICT-outbreak <predict-outbreak@ucdavis.edu>
Subject: [predict] [predict-outbreak] Re: Update from DRC Bas-Uele Ebola outbreak

Thanks, Brian

Can you clarify what is meant by Predict "awaiting permission to proceed from USAID"?

Is that permission from me or the Mission or both?

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Adviser
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Jun 6, 2017, at 12:00 AM, Brian Bird <bhbird@ucdavis.edu> wrote:

Update from the field team. Most current information is from end day 03 June.

As of that date, there were no persons remaining on the contact trace list as they had either cleared the 21-day monitoring window, or were removed as suspected cases were ruled-out by laboratory diagnostics. Fingers crossed it stays that way.

Regarding the request for PREDICT assistance in field ecology studies in the outbreak area, the team was able to clarify that all potential partners were requested to submit proposals of activities for consideration. The PREDICT team has limited their preliminary discussions to only bat and rodent sampling, while awaiting permission to proceed from USAID. There is a coordination meeting by the MoH this week to sort out details, and hopefully gain more information on what exactly is requested from PREDICT during this activity. I will share details as I get them.

All the best to you!

-brian

From: Brian Bird <bhbird@ucdavis.edu>
Date: Friday, June 2, 2017 at 8:52 PM
To: PREDICTMGT <predictmgt@usaid.gov>
Cc: PREDICT-outbreak <predict-outbreak@ucdavis.edu>
Subject: Update from DRC Bas-Uele Ebola outbreak

Hi all,

I am handing correspondence for this one while Jonna is in transit to Tanzania.

We received a request to support ecological investigations in the outbreak area this evening. The letter requests ecological investigations similar to what was completed during the 2012 Isiro *Bundibugyo ebolavirus* outbreak. Update to the Outbreak form and the Letter of request is attached. Fortunately, as the form and other sources indicate the numbers of suspected cases continues to drop and many persons were removed from the contact trace in the past few days as they passed the 21-day monitoring window. Hopefully this trend continues.

One concern is that in the past few days it was indicated that at least 9 organizations may be invited to conduct

ecological investigations. I have asked the team to clarify if there is a level of coordination at the GoDRC level for the potential multiple requests to many different partner organizations or was only PREDICT invited (see entries for May 30 and 31st). I will pass on that information when I receive it.

Have a great evening or morning!

-Brian

Brian H. Bird DVM, MSPH, PhD
One Health Institute
1089 Veterinary Medicine Dr.
School of Veterinary Medicine
University of California, Davis
bhbird@ucdavis.edu

--

You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
To unsubscribe from this group and stop receiving emails from it, send an email to predictmgt+unsubscribe@usaid.gov.
To post to this group, send email to predictmgt@usaid.gov.
To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/49CBE735-5D66-465B-BEE3-6755562863D%40ucdavis.edu.

<PREDICT-DRC_EVD Outbreak Bas-Uclc_03June2017_.doc>

From: Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>
Sent: Sat, 1 Jul 2017 13:48:29 +0700
Subject: Re: EPT2 Evaluation- Host government counterparts
To: Tom Hughes <tom.hughes@ecohealthalliance.org>
Cc: Daniel Schar <dSchar@usaid.gov>, "Clements, Andrew(ANE/TS)" <AClements@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, Jon Epstein <epstein@ecohealthalliance.org>, Allison White <white@ecohealthalliance.org>

Noted, Thanks.

Best regards,
Sudarat Damrongwatanapokin, D.V.M., Ph.D.
Regional Animal Health Advisor
USAID Regional Development Mission Asia
REDACTED
E-mail: sdamrongwatanapokin@usaid.gov
Tel: REDACTED, Fax: REDACTED

On Fri, Jun 30, 2017 at 2:20 PM, Tom Hughes <tom.hughes@ecohealthalliance.org> wrote:

Hi Dr Sudarat,

Forgot to include Dr Chandra's title have added below.

Thanks.

Tom

Tom Hughes

Senior Scientist
Project Coordinator - Malaysia

EcoHealth Alliance
460 West 34th Street - 17th floor
New York, NY 10001

REDACTED (Mobile)

0060 (0)3 6157 6035 (Telephone)
0060 (0)3 6157 6035 (fax)
www.ecohealthalliance.org

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From: Tom Hughes on behalf of Tom Hughes <tom.hughes@ecohealthalliance.org>
Sent: Friday, June 30, 2017 1:42 PM
To: Sudarat Damrongwatanapokin
Cc: Daniel Schar; Clements, Andrew(ANE/TS); Jonna Mazet; Jon Epstein; Allison White
Subject: Re: EPT2 Evaluation- Host government counterparts

Hi Dr Sudarat,

Good to talk to you this morning. Here are the details you requested -

Peninsular Malaysia -

Dr Chong Chee Kheong,

Director, Disease Control Division,

Ministry of Health Malaysia.

drchongck@moh.gov.my

Jeffrine Rovie Ryan Japning,

Principal Research Officer, Ex-Situ Conservation Division,

Manager, National Wildlife Forensic Laboratory,

Department of Wildlife and National Parks Peninsular Malaysia.

jeffrine@wildlife.gov.my

Dr Chandrawathani Panchadcharam,
Assistant Director, Laboratory Services, Diagnostic & Quality Assurance Division,
Department Of Veterinary Services Malaysia.
REDACTED

Sabah -

Dr. Sen Nathan,

Manager, Wildlife Rescue Unit,

Assistant Director, Sabah Wildlife Department.

REDACTED

Dr Christina Rundi,

Director, Sabah State Health Department,

REDACTED

Please let me know if you have any questions or require any additional details.

Thanks.

Tom

Tom Hughes

Senior Scientist
Project Coordinator - Malaysia

EcoHealth Alliance
460 West 34th Street - 17th floor
New York, NY 10001

REDACTED (Mobile)

0060 (0)3 6157 6035 (Telephone)
0060 (0)3 6157 6035 (fax)
www.ecohealthalliance.org

EcoHealth Alliance integrates innovative science-based solutions and partnerships that increase capacity to achieve two interrelated goals: protecting global health by preventing the outbreak of emerging diseases and safeguarding ecosystems by promoting conservation.

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You'll need Skype CreditFree via Skype

From: Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>

Sent: Thursday, June 29, 2017 2:04 PM
To: REDACTED, Tom Hughes; Valitutto, Marc; Ohnmar Aung; Supaporn Wacharapluesadee; Jon Epstein; soubanh Silthammavong; dibesh@cmdn.org; REDACTED
Cc: Kevin Olival, PhD; Daniel Schar; Clements, Andrew(ANE/TS); Jonna Mazet
Subject: Fwd: EPT2 Evaluation- Host government counterparts

Dear Marc and Ohnmar Aung, ZhengLi, Soubanh,Supaporn, Tom, Enkee, Dibesh, and Supaorn

Emerging Threat Division is now starting an external evaluation of the EPT2 program. This evaluation will identify whether the objectives of the program are on track for completion. The evaluation identifies on how well the EPT2 program has contributed to the knowledge base, implementation and sustainability of efforts to prevent, detect and respond to emerging pandemic threats, and furthered "One Health." It also focuses on the contribution of the EPT2 program in achieving the objectives of Global Health Security Agenda (GHSA.) Projects that make up the EPT2 program include: PREDICT (Prime - University of California-Davis), Preparedness and Response (P&R) (Prime - DAI Global), and One Health Workforce (OHW) (Prime - University of Minnesota), as well as agreements with WHO and FAO."

We are collecting contact info of the appropriate host government counterparts **(name, title, organization, email)** that you have worked with who will be able to comment on the EPT2 program. The evaluation team will be sending a survey questionnaire to them.

Please email us the contact info (name, title, organization, email) of the appropriate host government counterparts by Friday June 30 COB.

The country list that required information of appropriate government counterparts from PREDICT2:

1) Burma:

Name:
Title:
Organization:
Contact info:
E-mail address:

2) China:
Name:
Title:
Organization:
Contact info:
E-mail address:

3) Laos:
Name:
Title:
Organization:
Contact info:
E-mail address:

4) Malaysia
Name:
Title:
Organization:

Contact info:
E-mail address:

5) Mongolia
Name:
Title:
Organization:
Contact info:
E-mail address:

6) Nepal:
Name:
Title:
Organization:
Contact info:
E-mail address:

7)Thailand:
Name:
Title:
Organization:
Contact info:
E-mail address:

Thank you very much and apologize for such a short notice.

Best regards,
Sudarat Damrongwatanapokin, D.V.M., Ph.D.
Regional Animal Health Advisor
USAID Regional Development Mission Asia
REDACTED
E-mail: sdamrongwatanapokin@usaid.gov
Tel: REDACTED Fax: REDACTED

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Fri, 18 Aug 2017 15:05:08 -0700
Subject: Re: Reminder - PREDICT Management Team Call Monday August 21 @ 10AM PDT/1PM EDT
To: David J Wolking <djwolking@ucdavis.edu>
Cc: Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Cassandra Louis Duthil <clouisduthil@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Eddy Rubin <erubin@metabiota.com>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Leilani Francisco <francisco@ecohealthalliance.org>, Lindsay Parish <lparish@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Shana Gillette <sgillette@usaid.gov>, William Karesh <karesh@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, Brooke Genovese <bgenovese@ucdavis.edu>, Evelyn Luciano <luciano@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Catherine Machalaba <Machalaba@ecohealthalliance.org>, Molly Turner <turner@ecohealthalliance.org>, PREDICTMGT <predictmgt@usaid.gov>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Amanda Andre <amanda.andre@ecohealthalliance.org>

Hi again,
Below is a short though dense agenda for Monday's call.

Best,

David

PREDICT Management Team Agenda

Monday, August 21, 2017

10:00-11:00PM PDT/1:00-2:00pm EDT

#800-444-2801, Access code REDACTED

International Dial-in number: REDACTED **(toll charges apply)**

Standing items

USAID Updates

1. **Administrative items**
   a. Budget planning and next steps
   b. Y4 workplan discussion
   c. EPT-2 external evaluation updates
   d. September 2017 semi-annual consortium meeting plans
   e. Upcoming call cancellations
2. **Guinea feedback from Mandy's visit**
3. **Sierra Leone campaign strategy and Breakthrough-ACTION coordination updates**

On Thu, Aug 17, 2017 at 9:58 AM, David J Wolking <djwolking@ucdavis.edu> wrote:

Hi PREDICT Management Team,
Just sharing a reminder about our call on Monday August 21 @ 10AM PDT/1PM EDT. I will share the calendar invite and agenda soon.

Best,

David

UCDUSR00036038

From: Katherine Leasure <kaleasure@ucdavis.edu>
To: 'PREDICTMGT' <predictmgt@usaid.gov>
CC: 'Predict inbox' <predict@ucdavis.edu>;'Jonna Mazet' <jkmazet@ucdavis.edu>
Sent: 9/8/2017 12:11:28 AM
Subject: PREDICT International Travel Requests

Please find below international travel requests for your review and approval. Please let me know if you have any questions. Thanks!

1. Dawson (Switzerland): $600 airfare/$478 (Geneva) max daily per diem
2. Abu-Basha (Switzerland): $700 airfare/$478 (Geneva) max daily per diem
3. Ali (Switzerland): $600 airfare/$478 (Geneva) max daily per diem
4. Francisco, Latinne, Hagan (Indonesia): $1100 airfare each/$362 (Jakarta) max daily per diem
5. Ayukekbong (DRC): $1050 airfare/$394 (Kinshasa) max daily per diem
6. Gillis (Laos): $2100 airfare/$212 (Vientiane) max daily per diem
7. Camara, Kalivogui, Sagno, Doumbouya, Kourouma, Haba, Kondiano, Doumbouya (Sierra Leone): $400 ground transport/$221 (Makeni) max daily per diem
8. Kane, N'diaye, Dahourou (Sierra Leone): $2433 airfare each/$221 (Makeni) max daily per diem

Travel Requests –

1. EcoHealth Alliance would like to request travel approval for Patrick Dawson to travel from New York, New York, USA to Geneva, Switzerland from September 24-28, 2017 to participate in a WHO/FAO/OIE tripartite meeting on Middle East Respiratory Syndrome Coronavirus (MERS-CoV).

Trip purpose: Mr. Dawson will be attending the high-level meeting as PREDICT Country Liaison for Egypt and Jordan (part of the MERS-CoV epi-zone) to discuss MERS-CoV scientific developments and priority setting for animal and human health sectors with representatives from World Health Organization, Food and Agriculture Organization of the United Nations, and the World Organization for Animal Health. As the Country Liaison for both Egypt and Jordan, Mr. Dawson is researching the epidemiology of MERS-CoV through the PREDICT project, and his participation will ensure continued coordination with WHO, FAO, and OIE for PREDICT in the Middle East.

2. EcoHealth Alliance would like to request travel approval for Dr. Ehab Abu-Basha to travel from Amman, Jordan to Geneva, Switzerland from September 24-28, 2017 to participate in a WHO/FAO/OIE tripartite meeting on Middle East Respiratory Syndrome Coronavirus (MERS-CoV).

Trip purpose: Dr. Abu-Basha will be attending the high-level meeting as PREDICT Country Coordinator for Jordan (part of the MERS-CoV epi-zone) to discuss MERS-CoV scientific developments and priority setting for animal and human health sectors with representatives from World Health Organization, Food and Agriculture Organization of the United Nations, and the World Organization for Animal Health. His participation in this meeting is critical as his leadership on PREDICT Jordan is significantly focused on MERS-CoV and other Coronaviruses (a PREDICT priority viral family).

3. EcoHealth Alliance would like to request travel approval for Dr. Mohamed Ali to travel from Cairo, Egypt to Geneva, Switzerland from September 24-28, 2017 to participate in a WHO/FAO/OIE tripartite meeting on Middle East Respiratory Syndrome Coronavirus (MERS-CoV).

Trip purpose: Dr. Ali will be attending the high-level meeting as PREDICT Country Coordinator for Egypt (part of the MERS-CoV epi-zone) to discuss MERS-CoV scientific developments and priority setting for animal and human health sectors with representatives from World Health Organization, Food and Agriculture Organization of the United Nations, and the World Organization for Animal Health. His participation in this meeting is critical as his leadership on PREDICT Egypt is significantly focused on MERS-CoV and other Coronaviruses (a PREDICT priority viral family).

4. EcoHealth Alliance would like to request travel approval for Dr. Leilani Francisco, Dr. Alice Latinne, and Ms. Emily Hagan to travel from New York City, NY, USA to Jakarta Indonesia from October 11-21, 2017 for Behavioral Risk Training and implementation, coordination, and planning.

Trip purpose: Dr. Francisco, Dr. Latinne and the EHA team will be meeting with Indonesia PREDICT implementing partners to discuss human sampling coordination and behavioral research. This will also serve as a time for the Dr. Francisco, the Behavioral Risk global lead, and Emily Hagan, to visit with the Eijkman team members and behavioral risk qualitative researchers in Indonesia for a training after the recent approval of the Indonesia IRB. This will be a refresher training for qualitative data collection methods and a training for community and hospital surveillance data collection. The team will also be traveling to North Sulawesi for scoping visits and meetings with the hospital partners who will be implementing hospitals syndromic surveillance.

5. Metabiota would like to request travel approval for Dr. James Ayukekbong, PREDICT Regional Coordinator for Central Africa, to travel from Yaoundé, Cameroon to Kinshasa, Democratic Republic of Congo from October 9-16,2017 to perform monitoring and evaluation of Year 3 field activities.

Trip purpose: In Kinshasa Dr. Ayukekbong will perform monitoring and evaluation of Year 3 field activities, discuss and establish strategic and operational plans for Year 4. To reduce the cost of field supplies, Dr. Ayukekbong will be carrying lab materials to the DRC team.

6. Metabiota would like to request travel approval for Amethyst Gillis, Global Laboratory QA/QC Coordinator, to travel from Yaoundé, Cameroon, to Vientiane, Laos from October 8-20, 2017 for technical laboratory trainings.

Trip purpose: In Vientiane, Amethyst will conduct comprehensive technical laboratory trainings for both the National Animal Health Laboratory and the National Center for Laboratory and Epidemiology. These trainings will cover all PREDICT protocols, ranging from sample storage and preparation, extraction, PCR, and preparation of genetic material for sequencing, as well as extensive trainings on biosafety and biosecurity.

7. UC Davis would like to request travel approval for Professor Alpha Camara, Dr. Douokoro Kalivogui, Mr. Mathias Sagno, Mr. Mohamed Idriss Doumbouya, Ms. Mariame Kourouma, Mr. Dan Marcelin Haba, Mr. Marcel Sidiki Kondiano, and Mr. Kalil Doumbouya to travel from Conakry, Guinea to Makeni, Sierra Leone from September 30 to October 8, 2017 for a refresher field animal sampling and biosecurity training.

Trip purpose: The individuals traveling have been invited to participate in a field training in Sierra Leone focusing on biosafety, biosecurity, safe animal sampling procedures, field organization, GPS, data recording and entry, and PPE. This training serves as a refresher training for those individuals who were last trained more than 6 months previous, as well as an opportunity to further specialize in difficult field techniques such as blood collection of wild animals. Trainees will spend time with both a UC Davis veterinary specialist, Dr. Brian Bird, as well as have time to learn and share experiences from the Sierra Leone team themselves, furthering capacity of the West African region as a whole. We anticipate that the trainees will then be able to take the skills learned from this experience and pass them onto other individuals in their home country.

8. UC Davis would like to request travel approval for Professor Yaghouba Kane, Dr. Amadou N'diaye, and Dr. Deuedonné Dahourou to travel from Dakar, Senegal to Makeni, Sierra Leone from September 30 to October 10, 2017 for a refresher field animal sampling and biosecurity training.

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Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

UCDJSR0003641

From:	Andrew Clements <aclements@usaid.gov>
To:	Katherine Leasure <kaleasure@ucdavis.edu>
CC:	PREDICTMGT <predictmgt@usaid.gov>;Predict inbox <predict@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent:	9/8/2017 7:03:59 AM
Subject:	Re: PREDICT International Travel Requests

Travel to Switzerland approved.

All other travel approved subject to mission concurrence.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Sep 8, 2017, at 2:12 AM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

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Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

--
You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
To unsubscribe from this group and stop receiving emails from it, send an email to predictmgt+unsubscribe@usaid.gov.
To post to this group, send email to predictmgt@usaid.gov.
To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/029101d32837%2404c24830%240e46d890%24%40ucdavis.edu.

From: David J Wolking <djwolking@ucdavis.edu>
To: Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 9/20/2017 1:21:02 PM
Subject: Re: Review: GHSA report - Africa (part 1of 2)

Thanks! Pole sana on an evening review for a riveting 70 pager :-(

D

On Tue, Sep 19, 2017 at 10:47 PM, Jonna Mazet <jkmazet@ucdavis.edu> wrote:
Wow -- if anybody could read this report and still say that we're not contributing to GHSA, there's just no pleasing them.
I think we sound great in this document.
Thank you,
J

On Tue, Sep 19, 2017 at 4:07 PM, David J Wolking <djwolking@ucdavis.edu> wrote:
Hey there,

Consolidated Africa and Asia here for review. Use this one instead of the previous as a few edits came in for Africa too.

On Tue, Sep 19, 2017 at 1:48 PM, David J Wolking <djwolking@ucdavis.edu> wrote:
Jonna,

Here's the draft of the monster report. Still working on Asia but hopefully that's quicker as only 4 countries and not as highly scrutinized. A few questions still out to leads to tie up loose ends but getting close. I'll do a final review/spell/grammar check on the final read through.

Sent: Wed, 20 Sep 2017 16:32:01 -0700
Subject: Re: Request for information for Breakthrough Action/ Sierra Leone
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Brian Bird <bhbird@ucdavis.edu>
Cc: David J Wolking <djwolking@ucdavis.edu>, Leilani Francisco <francisco@ecohealthalliance.org>
PREDICT Global Flyer.pdf

Please add the flyer attached to the packet for them. I also think you should bring all of the bat technical material, including the current version of the bat book. Also, direct them www.predict.global for more information?
Thanks,
J

On Wed, Sep 20, 2017 at 12:30 PM, Brian Bird <bhbird@ucdavis.edu> wrote:

FYI- I took Andrew off this email reply.

My thought would be we could send them the four-pager that we wrote for EHP (see attached GHSA-ified scoping document),

During the face to face meeting, I was hoping to present some of the slides that I showed at the NYC meeting plus the general PREDICT intro slides in Sierra Leone. I looked at that presentation just now wondering if we could share it straight away, but I think without someone actually talking through the slides the messages are a bit hard to follow if you aren't familiar with the project or not an emerging infectious disease wonk.

I don't think I've seen a short overall PREDICT intro document… although I'll bet one exists. If so, we could send that too?

-b

From: Andrew Clements <aclements@usaid.gov>
Date: Wednesday, September 20, 2017 at 11:54 AM
To: Brian Bird <bhbird@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Leilani Francisco <francisco@ecohealthalliance.org>
Subject: Request for information for Breakthrough Action/ Sierra Leone

See request below. Thanks!

Andrew P. Clements, Ph.D.

Senior Scientific Advisor

Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health

U.S. Agency for International Development

Mobile phone: 1-571-345-4253

Email: aclements@usaid.gov

Begin forwarded message:

From: Kama Garrison <kgarrison@usaid.gov>
Date: September 20, 2017 at 6:11:44 PM GMT+2
To: Andrew Clements <AClements@usaid.gov>, Shana Gillette <sgillette@usaid.gov>
Cc: Anton Schneider <aschneider@usaid.gov>
Subject: Breakthrough Action/ Sierra Leone

I have in my notes from the call the other day to ask if you all have any overall presentations about PREDICT (their approach, outcomes etc) and anything specific to the work they are doing in Sierra Leone (reports or presentations) that can be sent to BT-A just so they have some sort of idea of what PREDICT does. This will be new for them so anything to give them some overview before they arrive on Sunday would be helpful.

--

Kama G. Garrison, MPH
Sr. Social Behavior Change Advisor

USAID/GH/MCHN/RPD

Ph: 571.551.7379
M: REDACTED

USAID | PREDICT

FROM THE AMERICAN PEOPLE

REDUCING PANDEMIC RISK, PROMOTING GLOBAL HEALTH

PREDICT, a project of USAID's Emerging Pandemic Threats (EPT) program, was initiated in 2009 to strengthen global capacity for detection and discovery of zoonotic viruses with pandemic potential. Those include coronaviruses, the family to which SARS and MERS belong; paramyxoviruses, like Nipah virus; influenza viruses; and filoviruses, like the ebolavirus.

PREDICT has made significant contributions to strengthening global surveillance and laboratory diagnostic capabilities for new and known viruses.

Now working with partners in 31 countries, PREDICT is continuing to build platforms for disease surveillance and for identifying and monitoring pathogens that can be shared between animals and people. Using the One Health approach, the project is investigating the behaviors, practices, and ecological and biological factors driving disease emergence, transmission, and spread. Through these efforts, PREDICT will improve global disease recognition and begin to develop strategies and policy recommendations to minimize pandemic risk.

SURVEILLANCE

PREDICT's surveillance for emerging pathogens focuses on areas of the world at the highest risk for zoonotic disease emergence. The goal is to move countries away from a reactive post-outbreak response to a proactive approach in which pathogens of pandemic potential are discovered at their source before large-scale epidemics occur in people.

PREDICT's disease surveillance strategy is based on the inextricable link between animals, humans, and the environment. Rather than prescribing an across-the-board surveillance plan, PREDICT works in each focus country to cultivate targeted, measurable, adaptive, and responsive approaches that are integrated across health and environmental sectors.

CAPACITY STRENGTHENING

Preparing for emerging disease threats requires investments in infrastructure, institutions, and human resources across a broad array of health and social systems to operationalize One Health platforms. In collaboration with country governments and EPT partners, PREDICT is committed to developing the infrastructure and core skills and capabilities required by tomorrow's One Health workforce.

Through PREDICT, more than 2,500 people (and counting) have been trained in biosafety, field epidemiology and surveillance, laboratory diagnostics, social sciences and behavioral risk investigations, and modeling and analytics, creating an extensive network of global One Health professionals to support long-term zoonotic disease surveillance.

PATHOGEN DISCOVERY & DIAGNOSTICS

PREDICT's diagnostic success lies in the use of broadly reactive consensus (genus/family level) PCR supplemented with high throughput sequencing. These powerful tools produce specific, high-resolution data allowing for rapid detection of known and new potential pathogens. To date, PREDICT has developed and optimized detection protocols and capacities in laboratories in all of the countries in which we have engaged, ensuring regional capacity to detect pandemic threats.

The PREDICT approach is especially important for the diagnosis of mystery illnesses in medical hospitals and veterinary labs where testing options are often limited. By testing targeted samples based on the circumstances that promote disease transmission and the route of exposure, PREDICT can detect known and novel pathogens in tandem, rather than sequentially.

BEHAVIORAL RISK

PREDICT uses a multidisciplinary approach to identify groups of populations at highest risk of exposure to emerging pathogens, and the 'how' and the 'why' of risk.

Our teams assess community perceptions of animal exposure and disease risk and evaluate widely held assumptions of community practices (e.g., high risks from bushmeat hunting). PREDICT is identifying and monitoring the risk factors for zoonotic diseases with pandemic threat potential.

Our methods will lead to well-rounded understanding of disease spillover and transmission dynamics, essential to the design and evaluation of mitigating interventions, and to informing policy by identifying barriers to change and acceptable alternatives.

MODELING & ANALYTICS

PREDICT will use state-of-the-art modeling and analytic approaches to guide surveillance and help countries develop disease control and prevention strategies. PREDICT is producing next-generation, fine-scale hotspots maps, combining in-country data on land use, socioeconomic, and agricultural changes with surveys of human behavior, market value chains, and livestock production to identify where zoonoses will spillover, where they will amplify, and who is at risk.

By using data direct from PREDICT viral testing and conducting outbreak scenario modeling, PREDICT will provide information on which pathogens are most likely to become pandemic and which control and mitigation strategies can be most effective.

INFORMATION MANAGEMENT

PREDICT works closely with host governments and partners to interpret and share information through systems designed to protect and ensure data quality and accuracy. PREDICT data are managed in a purposefully-designed internal information management system, in which all data undergo a rigorous quality control process. Diagnostic test results are interpreted in light of all available scientific literature by PREDICT virologists.

After interpretation, results are provided to host governments for examination, to inform policy, and for approval for public release through the PREDICT data site powered by HealthMap. This open access platform allows users to visualize PREDICT data along with disease events worldwide (http://data.predict.global).

ONE HEALTH PARTNERSHIPS

PREDICT at its core is built upon One Health partnerships. Cross-disciplinary collaborations are critical for gaining a more full understanding of the integral links between human, animal, and environmental health that can provide opportunities for prevention or early detection and control of disease threats. By working across sectors and including a diverse range of stakeholders and expertise, PREDICT helps operationalize efforts that promote public health, effective natural resource management, and development.

On a country basis and at a global level, PREDICT enables and supports implementation of One Health practices. Toward this goal, PREDICT has worked closely with a wide range of government ministries, scientific institutions, local organizations, and other stakeholders to further One Health initiatives. These have taken the form of inter-ministerial data sharing and interpretation, interdisciplinary capacity building and surveillance, and coordinated outbreak response activities. Building on these best practices, PREDICT is working with Emerging Pandemic Threats program partners to develop an evidence base to demonstrate the value of the One Health approach.

Website: http://predict.global | Email: predict@ucdavis.edu

USAID | UC DAVIS VETERINARY MEDICINE | EcoHealth Alliance | METABIOTA

UCDUSR00003650

From: Andrew Clements <aclements@usaid.gov>
Sent: Thu, 21 Sep 2017 19:53:06 +0200
Subject: Re: Request for information for Breakthrough Action/ Sierra Leone
To: Brian Bird <bhbird@ucdavis.edu>
Cc: Kama Garrison <kgarrison@usaid.gov>, David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, "francisco@ecohealthalliance.org" <francisco@ecohealthalliance.org>

Thanks, Brian.

I'll let Kama pass these along to B-A.

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Sep 21, 2017, at 5:46 PM, Brian Bird <bhbird@ucdavis.edu> wrote:

Hi Andrew and Kama,

We thought that these two introductory documents would help orient the BTA teams to the flavor of PREDICT activities overall and the EHP specifically.

You can also refer them to our general website at: www.predict.global

I'm looking forward to meeting with them and discussing things further in my upcoming trip to SL.

Hope you are both doing great!

-Brian

Brian H. Bird DVM, MSPH, PhD

Global Lead Sierra Leone and

Multi-Country Ebola operations

PREDICT-USAID

One Health Institute

1089 Veterinary Medicine Dr.

School of Veterinary Medicine

University of California, Davis

Email: bbbird@ucdavis.edu

Skype: brianhbird1

http://www.vetmed.ucdavis.edu/obi/predict/index.cfm

From: Andrew Clements <aclements@usaid.gov>
Date: Wednesday, September 20, 2017 at 11:54 AM
To: Brian Bird <bbbird@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Leilani Francisco <francisco@ecohealthalliance.org>
Subject: Request for information for Breakthrough Action/ Sierra Leone

See request below. Thanks!

Andrew P. Clements, Ph.D.

Senior Scientific Advisor

Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health

U.S. Agency for International Development

Mobile phone: 1-571-345-4253

Email: aclements@usaid.gov

Begin forwarded message:

From: Kama Garrison <kgarrison@usaid.gov>
Date: September 20, 2017 at 6:11:44 PM GMT+2

To: Andrew Clements <AClements@usaid.gov>, Shana Gillette <sgillette@usaid.gov>
Cc: Anton Schneider <aschneider@usaid.gov>
Subject: Breakthrough Action/ Sierra Leone

I have in my notes from the call the other day to ask if you all have any overall presentations about PREDICT (their approach, outcomes etc) and anything specific to the work they are doing in Sierra Leone (reports or presentations) that can be sent to BT-A just so they have some sort of idea of what PREDICT does. This will be new for them so anything to give them some overview before they arrive on Sunday would be helpful.

--

Kama G. Garrison, MPH
Sr. Social Behavior Change Advisor

USAID/GH/MCHN/RPD

Ph: 571.551.7379
M: REDACTED

<PREDICT Global Flyer[1].pdf>

<PREDICT West Africa - Sierra Leone-Guinea-Liberia-GHSA scoping document_FINAL.pdf>

From: Andrew Clements <aclements@usaid.gov>
Sent: Fri, 22 Sep 2017 18:07:48 +0200
Subject: Re: Triangulated Surveillance, FrontLines Story
To: David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>
Cc: PREDICTMGT <predictmgt@usaid.gov>

Actually, he may want totals since 2009. Could you provide numbers for Predict 1 and Predict 2 separately and he can add them together if he wants both. Thanks!

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Sep 22, 2017, at 12:43 PM, Andrew Clements <aclements@usaid.gov> wrote:

Hi David and Jonna,

I got this request from the public affairs person in the RDMA mission. He is writing a piece on EPT for the Agency's newspaper (Frontlines) and would like the following cumulative totals (
across
Burma, Thailand, Cambodia, China, Laos, Indonesia, Malaysia, and Vietnam)
for PREDICT-2 (2014-2017):

people t
rained
animals sampled
Labs supported
tests conducted
Viruses detected (separate existing and new if you have it; otherwise just total number).

Other questions:

- USAID PREDICT talks about a worldwide pool of 320,000 viruses. Is this still accurate?
- A Scientific American <https://www.scientificamerican.com/article/the-virus-hunters/> article said each USAID PREDICT bat sample (in DRC) cost $43.40. Is that the same cost in Thailand? And is that not/a good thing to mention?

If any of these are difficult/time-consuming to get, let me know.

He requested the information

by COB Monday if possible.

Please let me know if you have any questions.

Thanks!

Andrew

---------- Forwarded message ----------
From: Andrew Clements <aclements@usaid.gov>
Date: Fri, Sep 22, 2017 at 12:17 PM
Subject: Re: Triangulated Surveillance, FrontLines Story
To: Richard Nyberg <rnyberg@usaid.gov>
Cc: Daniel Schar <dschar@usaid.gov>, Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>

Hi Richard,

I'll ask PREDICT for a break-out for the SEA Region. Unless I hear otherwise, I'll assume you want the following countries included:

Burma, Thailand, Cambodia, China, Laos, Indonesia, Malaysia, and Vietnam.

Andrew

On Fri, Sep 22, 2017 at 11:23 AM, Richard Nyberg <rnyberg@usaid.gov> wrote:

> Hi Andrew,
>
> I've pulled together a lot of material for the FrontLines story, but I could use some more stats for Southeast Asia. For example, I was wondering if you could pull out numbers that relate to our accomplishments to date for the ASEAN region (SE Asia) for the attached, which I took from the USAID PREDICT website.
>
> Trained xxx
>
> Sampled xxx
>
> # Labs
>
> # Viruses detected
>
> [image: Inline image 1]
>
> - Also, USAID PREDICT talks about a worldwide pool of 320,000 viruses. Is this still accurate?

- Finally, I saw a Scientific American <https://www.scientificamerican.com/article/the-virus-hunters/> piece that said each USAID PREDICT bat sample (in DRC) cost $43.40. Is that the same cost in Thailand? And is that not/a good thing to mention?

If there is anything else in terms of numbers for SE Asia you think might be good to mention, and you have it at your fingertips, please send along -- but please don't spend much time on it.

I'm on a rather tight deadline, so if possible, could you send whatever you can

by COB Monday?

Many thanks and have a nice weekend.

Best,

Richard

On Thu, Sep 14, 2017 at 2:26 PM, Andrew Clements <aclements@usaid.gov> wrote:

> Thanks, Dan (and Richard)!
>
> *Andrew P. Clements, Ph.D.*
>
> *Senior Scientific Advisor*
>
> *Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health*
>
> *U.S. Agency for International Development*
>
> *Mobile phone: 1-571-345-4253 <(571)%20345-4253>*

Email: aclements@usaid.gov <aclements@usaid.gov>

On Sep 14, 2017, at 3:35 AM, Daniel Schar <dschar@usaid.gov> wrote:

Dear Andrew and Lindsay,

I wanted to let you know our wonderfully supportive DOCS team lead, Richard Nyberg, has successfully pitched the triangulated surveillance partnership to be profiled in USAID FrontLines. The pitch is attached here.

The story would focus on PREDICT 2 and FAO's work in partnership with the governments of Thailand and Laos in realizing the synchronized surveillance paradigm and the expected benefits that will yield. Likely, it would be timed for the November issue to coincide with global OH day.

We also have cued up a shorter, visual-laden version of the story to appear on the USAID Stories website. That will likely go live in the coming weeks. We will let you know once this is online and as the FrontLines story develops.

Best,

Dan

<DRAFT FrontLines Pitch Sampling Bats Pigs and People to Net New Viruses .docx>

--

RICHARD NYBERG

*Senior Regional Communications Advisor*U.S. Agency for International

Development

Regional Development Mission for Asia (USAID/RDMA)

REDACTED

REDACTED | myberg@usaid.gov | *USAID.gov/asia-regional

<http://www.usaid.gov/asia-regional>*

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<http://www.flickr.com/usaidasia> |YouTube: USAIDRDMA

<http://www.youtube.com/usaidrdma>

--

Andrew Clements, Ph.D.
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E-mail: aclements@usaid.gov

*For more information on USAID's Emerging Pandemic Threats program, see: *
http://www.usaid.gov/ept2

--

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
E-mail: aclements@usaid.gov

*For more information on USAID's Emerging Pandemic Threats program, see: *
http://www.usaid.gov/ept2

<PREDICT infographic-full project-0617.png>

From:	Katherine Leasure <kaleasure@ucdavis.edu>
To:	'PREDICTMGT' <predictmgt@usaid.gov>
CC:	'Predict inbox' <predict@ucdavis.edu>;'Jonna Mazet' <jkmazet@ucdavis.edu>
Sent:	10/6/2017 10:30:18 PM
Subject:	Change to Approved ITA - A. Gillis to Laos postponed to October 30

Hi Andrew. Metabiota has provided an amended ITA for Amethyst Gillis, reflecting the change in her travel dates. The updated TDY form is also attached for submission to the mission. Please let me know if you have any questions. Thank you!

AMENDED ITA:

Metabiota would like to request travel approval for Amethyst Gillis, Global Laboratory QA/QC Coordinator, to travel from Yaoundé, Cameroon, to Vientiane, Laos from October 30 to November 10, 2017 for technical laboratory trainings. From November 13-15, 2017, Amethyst will be taking PTO days in Laos before returning to Cameroon on November 15.

Trip purpose: In Vientiane, Amethyst will conduct comprehensive technical laboratory trainings for both the National Animal Health Laboratory and the National Center for Laboratory and Epidemiology. These trainings will cover all PREDICT protocols, ranging from sample storage and preparation, extraction, PCR, and preparation of genetic material for sequencing, as well as extensive trainings on biosafety and biosecurity.

From: Katherine Leasure [mailto:kaleasure@ucdavis.edu]
Sent: Monday, October 02, 2017 1:54 PM
To: 'PREDICTMGT'
Cc: 'Predict inbox'; 'Jonna Mazet'
Subject: Change to Approved ITA - A. Gillis to Laos postponed

Hi Andrew. The previously approved travel for Amethyst Gillis to Laos has been postponed as not all of the team and supplies are going to be available for her current dates. Metabiota will be forwarding an amended ITA soon, but I wanted to make you aware of the change given the upcoming departure date. Dave McIver has been in contact with Andy Corwin, so the mission is aware of the delay. Please let me know if you have any questions. Thanks!

Metabiota would like to request travel approval for Amethyst Gillis, Global Laboratory QA/QC Coordinator, to travel from Yaoundé, Cameroon, to Vientiane, Laos from October 8-20, 2017 for technical laboratory trainings.

Trip purpose: In Vientiane, Amethyst will conduct comprehensive technical laboratory trainings for both the National Animal Health Laboratory and the National Center for Laboratory and Epidemiology. These trainings will cover all PREDICT protocols, ranging from sample storage and preparation, extraction, PCR, and preparation of genetic material for sequencing, as well as extensive trainings on biosafety and biosecurity.

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

Lao PDR Temporary Duty Information Form (Last update: August 2017)
(send completed form to ehuertas@state.gov, manseoerm@state.gov, and samsaphone@state.gov)

Submitted by: Insert Name, Office

Dates of travel:	From: 10/30/2017 To: 11/15/2017
TDY objective:	To conduct comprehensive technical laboratory trainings for both the National Animal Health Laboratory and the National Center for Laboratory and Epidemiology. These trainings will cover all PREDICT protocols, ranging from sample storage and preparation, extraction, PCR, and preparation of genetic material for sequencing, as well as extensive trainings on biosafety and biosecurity.
USAID activity	Zoonotic disease surveillance, capacity building
Individuals visiting Laos (from RDMA, Washington, Implementing Partner):	Amethyst Gillis, Metabiota
Required meetings to be arranged:	N/A
Site visits required:	Will visit National Animal Health Laboratory (NAHL) and National Center for Epidemiology and Laboratory (NCLE)
Data to be collected:	N/A
Is a DIP note or letter of introduction requested:	☐ Yes ☒ No *Note: DIP notes are required for site visits and meetings with high-level GOL officials. Names of GOL officials must also be provided.*
Is motor pool requested:	☐ Yes ☒ No
Is Embassy access requested:	☐ Yes ☒ No
Have the visitors met with the AMB/DCM before:	☐ Yes ☒ No
Is Laos staff recommended to accompany all meetings:	☐ Strongly recommended ☒ Optional, but at the Laos Office discretion
Additional Comments:	Embassy access is requested if a briefing for AMB is expected.

*Only a limited number of hotels meet Embassy Lao security and safety requirements for eCC travelers. As of August 2017 these are: (1) Lao Plaza Vientiane, (2) Landmark Mekong Riverside, (3) Settha Palace, (4) Dhawara Vientiane, and (5) Crowne Plaza.

From: Katherine Leasure <kaleasure@ucdavis.edu>
To: 'PREDICTMGT' <predictmgt@usaid.gov>
CC: 'Predict inbox' <predict@ucdavis.edu>;"Jonna Mazet' <jkmazet@ucdavis.edu>
Sent: 10/9/2017 10:30:19 PM
Subject: PREDICT International Travel Requests

Please find below international travel requests for your review and approval. Please let me know if you have any questions. TDY forms are attached for David McIver and Karen Saylors' requested travel to Laos. Thanks!

1. Keatts (Cambodia): $2500 airfare/$236 (Phnom Penh) max daily per diem
2. Kelly (Ghana): $2000 airfare/$331 (Accra) max daily per diem
3. Goldstein (Thailand, Cambodia): $4,300 airfare/$246 (Bangkok), $251 (Siem Reap) max daily per diems
4. McIver (Laos): $1400 airfare/$212 (Vientiane) max daily per diem
5. Saylors (Laos): $700 airfare/$212 (Vientiane) max daily per diem
6. Valitutto (Myanmar): $4000 airfare/$287 (Yangon) max daily per diem

Travel Requests –

1. UC Davis would like to request approval for Dr. Lucy Keatts to travel from Washington DC, USA to Phnom Penh, Cambodia from November 5-12, 2017 to participate in training, data analyses, coordination meetings and field surveillance in support of the PREDICT country-coordinator for Cambodia.

Trip Purpose: Dr. Keatts will travel to Cambodia to conduct a training for PREDICT team members, work on data analysis, and to meet with government and non-governmental partners regarding coordination of PREDICT-2 sampling activities. Dr Keatts will oversee and offer technical guidance for the concurrent sampling of human, livestock and wildlife planned for November 8-12 2017 at the rodent trade hub in Kandal Province.

2. UC Davis would like to request approval for Dr. Terra Kelly to travel from Flagstaff, AZ, USA to Accra, Ghana from November 12-19, 2017 to meet with implementing partners, and conduct training for the PREDICT human surveillance team.

Trip purpose: Dr. Kelly will be traveling to Accra and Boabeng-Fiema to meet with PREDICT implementing partners and visit hospitals and clinics that will be implementing the human disease surveillance activities. Dr. Kelly will also be conducting training for PREDICT human disease surveillance partners on data entry and management in the EIDITH database for laboratory results reporting.

3. UC Davis would like to request travel approval for Dr. Tracey Goldstein to travel from Sacramento, CA, USA, to Siem Reap, Cambodia from November 17-22, 2017 for the FAO Laboratory Technical Advisory Group (Lab-TAG) meeting.

Trip purpose: Dr. Goldstein has been invited to attend the 2017 Laboratory Technical Advisory Group meeting in Siem Reap, coordinated by FAO. **Thailand has been included on the ITA, as Dr. Goldstein will need to stay overnight in Bangkok while transiting to/from the meeting location.*

4. Metabiota would like to request travel approval for Dr. David McIver, PREDICT Asia Regional Coordinator, to travel from Nanaimo, British Columbia, Canada, to Vientiane, Laos from November 4-12, 2017 to attend the Lao PDR USAID EPT-2 partners meeting, and visit the PREDICT Lao PDR field site for ethnographic interview training and conduction.

Trip purpose: In Vientiane, Drs. McIver and Saylors will attend the Lao PDR USAID EPT-2 partners meeting, which will involve representatives from PREDICT, P&R, One Health Workforce, FAO, the Department of Livestock and Fisheries, Ministry of Health, and USAID Lao PDR. After the EPT-2 meeting, Drs. McIver and Saylors will travel to Champasak Province to hold a training on ethnographic interviewing, and to conduct a number of these interviews in Na Pa Kieb village and the local wildlife market.

5. Metabiota would like to request travel approval for Dr. Karen Saylors, Director of Scientific

Operations, to travel from San Francisco, CA, USA to Vientiane, Laos from November 4-12, 2017 to attend the Lao PDR USAID EPT-2 partners meeting, and visit the PREDICT Lao PDR field site for ethnographic interview training and conduction.

Trip purpose: In Vientiane, Drs. McIver and Saylors will attend the Lao PDR USAID EPT-2 partners meeting, which will involve representatives from PREDICT, P&R, One Health Workforce, FAO, the Department of Livestock and Fisheries, Ministry of Health, and USAID Lao PDR. After the EPT-2 meeting, Drs. McIver and Saylors will travel to Champasak Province to hold a training on ethnographic interviewing, and to conduct a number of these interviews in Na Pa Kieb village and the local wildlife market.

6. The Smithsonian Institution would like to request travel approval for Dr. Marc Valitutto to travel from Washington, DC, USA to Yangon, Myanmar for the period of December 2-17, 2017 to monitor surveillance activities, meet with in-country lab partners, and conduct a PREDICT-related study involving bat collaring.

Trip purpose: The purpose of the trip is for routine monitoring of in-country surveillance activities for the dry season, and to meet with in-country lab partners who are commencing analysis. Dr. Valitutto will also be conducting a PREDICT- related study involving bat collaring in association with a focus surveillance site.

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

Lao PDR Temporary Duty Information Form (Last update: August 2017)
(send completed form to [illegible], [illegible], and [illegible])

Submitted by: Karen Saylors, Metabiota Inc.

Dates of travel:	From: 11/4/2017 To: 11/12/2017
TDY objective:	To attend the Lao PDR USAID EPT-2 partners meeting, which will involve representatives from PREDICT, P&R, One Health Workforce, FAO, the Department of Livestock and Fisheries, Ministry of Health and USAID Lao PDR. After the EPT-2 meeting, Karen Saylors, David McIver and Soubanh Sillitharavong will travel to Champasak Province to hold a training on ethnographic interviewing and to conduct a number of these interviews in Na Pa Kieb village and the local wildlife market.
USAID activity	Zoonotic disease surveillance, capacity building
Individuals visiting Laos (from RDMA, Washington, Implementing Partner):	Karen Saylors, PhD – Metabiota, Inc.
Required meetings to be arranged:	N/A.
Site visits required:	Champasak Province, Na Pa Kieb Village
Data to be collected:	Ethnographic interviews
Is a DIP note or letter of introduction requested:	☐ Yes ☒ No *Note: DIP notes are required for site visits and meetings with high-level GOL officials. Names of GOL officials must also be provided.*
Is motor pool requested:	☐ Yes ☒ No
Is Embassy access requested:	☒ Yes ☐ No
Have the visitors met with the AMB/DCM before:	☐ Yes ☒ No
Is Laos staff recommended to accompany all meetings:	☐ Strongly recommended ☒ Optional, but at the Laos Office discretion
Additional Comments:	Karen Saylors, along with David McIver, will be pleased to meet with Dr. Andy Cowin, Alex Heurta, and any other interested parties to discuss the ongoing successes of the PREDICT program, and to discuss plans for the upcoming implementation year.

*Only a limited number of hotels meet Embassy Lao security and safety requirements for eCC travelers. As of August 2017 these are: (1) Lao Plaza Vientiane, (2) Landmark Mekong Riverside, (3) Settha Palace, (4) Dhavara Vientiane, and (5) Crowne Plaza.

Lao PDR Temporary Duty Information Form (Last update: August 2017)
(send completed form to [illegible], [illegible], and [illegible])

Submitted by: David McIver, Metabiota Inc.

Dates of travel:	From: 11/4/2017 To: 11/12/2017
TDY objective:	To attend the Lao PDR USAID EPT-2 partners meeting, which will involve representatives from PREDICT, P&R, One Health Workforce, FAO, the Department of Livestock and Fisheries, Ministry of Health and USAID Lao PDR. After the EPT-2 meeting, David McIver, Karen Saylors and Soubanh Sillthamsiwong will travel to Champasak Province to hold a training on ethnographic interviewing and to conduct a number of these interviews in Na Pa Kieb village and the local wildlife market.
USAID activity	Zoonotic disease surveillance, capacity building
Individuals visiting Laos (from RDMA, Washington, Implementing Partner):	David McIver, PhD – Metabiota, Inc.
Required meetings to be arranged:	N/A.
Site visits required:	Champasak Province, Na Pa Kieb Village
Data to be collected:	Ethnographic interviews
Is a DIP note or letter of introduction requested:	☐ Yes ☒ No *Note: DIP notes are required for site visits and meetings with high-level GOL officials. Names of GOL officials must also be provided.*
Is motor pool requested:	☐ Yes ☒ No
Is Embassy access requested:	☐ Yes ☐ No
Have the visitors met with the AMB/DCM before:	☐ Yes ☒ No
Is Laos staff recommended to accompany all meetings:	☐ Strongly recommended ☒ Optional, but at the Laos Office discretion
Additional Comments:	David McIver, along with Karen Saylors, will be pleased to meet with Dr. Andy Cowin, Alex Hearita, and any other interested parties to discuss the ongoing successes of the PREDICT program, and to discuss plans for the upcoming implementation year.

*Only a limited number of hotels meet Embassy Lao security and safety requirements for eCC travelers. As of August 2017 these are: (1) Lao Plaza Vientiane, (2) Landmark Mekong Riverside, (3) Settha Palace, (4) Dhavara Vientiane, and (5) Crowne Plaza.

From: "Katherine Leasure" <kaleasure@ucdavis.edu>
To: "William B. Karesh" <karesh@ecohealthalliance.org>, "Claes, Filip \(FAO\RAP\)" [redacted], "Sophie Von dobschuetz" [redacted]
Cc: "Morzaria, Subhash \(TCE\)" [redacted], "Predict inbox" <predict@ucdavis.edu>, "Amanda Andre" <amanda.andre@ecohealthalliance.org>, "Wantanee Kalpravidh" [redacted], "Peter Black" [redacted]
Sent: Thu, 12 Oct 2017 12:39:49 -0700
Subject: [predict] RE: PREDICT All Country meeting January 9,10,11 2018

Good afternoon all,

We are at the proposal stage with hotel/meeting venues, and hope to have a final decision on location soon. I will send a follow-up once that information is available, so the invitation letters can be updated accordingly.

Best,
Katie

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

From: William B. Karesh [mailto:karesh@ecohealthalliance.org]
Sent: Wednesday, October 11, 2017 12:11 PM
To: Claes, Filip (FAO\RAP); Sophie Von dobschuetz
Cc: Morzaria, Subhash (TCE); Predict inbox; Amanda Andre; Katherine Leasure; Wantanee Kalpravidh; Peter Black
Subject: Re: PREDICT All Country meeting January 9,10,11 2018

Dear Filip and Sophie,

Please find attached invitation letters to the PREDICT all country meeting. I do not yet know the name of the hotel or facility where the meeting will be held in Brussels, but we will update you as soon as we know.

Billy

From: Andrew Clements <aclements@usaid.gov>
To: Katherine Leasure <kaleasure@ucdavis.edu>
CC: PREDICTMGT <predictmgt@usaid.gov> predict@ucdavis.edu <predict@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 10/18/2017 11:36:36 AM
Subject: Re: Change to Approved ITA - K. Saylors to Laos/Vietnam

Thanks, Katie.

Additional travel to Vietnam approved subject to mission concurrence.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Oct 17, 2017, at 11:34 PM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. Please find below an amended ITA for Karen Saylors travel to Laos (currently pending USAID Laos concurrence). She will be traveling from Laos to Vietnam for PREDICT, as WCS has requested Karen's assistance with human surveillance training for their team. I've included the amended and previous ITA below; changes highlighted in yellow. Please let me know if you have any questions. Thanks!

AMENDED ITA:
Metabiota would like to request travel approval for Dr. Karen Saylors, Director of Scientific Operations to travel from San Francisco, CA, USA to Vientiane, Laos from November 4-11, 2017 to attend the Lao PDR USAID EPT-2 partners meeting, and then travel to the PREDICT Lao PDR field site for ethnographic interview training and conduction. From Vientiane, Laos, she will travel to Hanoi, Vietnam from November 11-18, 2017, for qualitative training with the Wildlife Conservation Society team.

Trip purpose: Laos - In Vientiane, Drs. McIver and Saylors will attend the Lao PDR USAID EPT-2 partners meeting, which will involve representatives from PREDICT, P&R, One Health Workforce, FAO, the Department of Livestock and Fisheries, Ministry of Health, and USAID Lao PDR. After the EPT-2 meeting, Drs. McIver and Saylors will travel to Champasak province, Lao PDR, to hold a training on ethnographic interviewing and to conduct a number of these interviews in Na Pa Kieb village and the local wildlife market. Vietnam - Dr. Saylors will assist the Wildlife Conservation Society team with qualitative human surveillance training and then go to Ho Chi Minh City and Dong Nai for a field visit and provision of ethics training, general protocol guidelines training and human surveillance questionnaire training. *[*1,300 airfare/$212 (Vientiane), $278 (Hanoi), $306 (Ho Chi Minh City), $207 (Dong Nai) max daily per diems]*

PREVIOUS ITA:
Metabiota would like to request travel approval for Dr. Karen Saylors, Director of Scientific Operations, to travel from San Francisco, CA, USA to Vientiane, Laos from November 4-12, 2017 to attend the Lao PDR USAID EPT-2 partners meeting, and visit the PREDICT Lao PDR field site for ethnographic interview training and conduction.

Trip purpose: In Vientiane, Drs. McIver and Saylors will attend the Lao PDR USAID EPT-2 partners meeting, which will involve representatives from PREDICT, P&R, One Health Workforce, FAO, the Department of Livestock and Fisheries, Ministry of Health, and USAID Lao PDR. After the EPT-2 meeting, Drs. McIver and Saylors will travel to Champasak Province to hold a training on ethnographic interviewing, and to conduct a number of these interviews in Na Pa Kieb village and the local wildlife market.

Katherine Leasure

HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

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You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
To unsubscribe from this group and stop receiving emails from it, send an email to predictmgt+unsubscribe@usaid.gov.
To post to this group, send email to predictmgt@usaid.gov.
To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/026301d3478f%248a6e3f90%24a0fabeb0%24%40ucdavis.edu.

From: Andrew Clements <aclements@usaid.gov>
To: David J Wolking <djwolking@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 12/13/2017 1:44:57 PM
Subject: Fwd: Predict GHSA Country Allocations

FYI. Just shared this with Richard and Robbin.

---------- Forwarded message ----------
From: **Andrew Clements** <aclements@usaid.gov>
Date: Wed, Dec 13, 2017 at 3:43 PM
Subject: Re: Predict GHSA Country Allocations
To: Richard Greene <rgreene@usaid.gov>
Cc: "Boyer, Robbin" <rboyer@usaid.gov>, PREDICTMGT <predictmgt@usaid.gov>, "Carroll, Dennis(GH/HIDN)" <DCarroll@usaid.gov>

PREDICT estimates that 75% of Ebola funds will be spent by May/June 2018. These figures do not account for approval of new subs in the ceiling increase, which would increase the expenditure rates, and result in reaching the 75% of Ebola funds expenditure earlier than May 2018.

On Tue, Dec 12, 2017 at 7:07 PM, Andrew Clements <aclements@usaid.gov> wrote:
Thanks. I read this as confirming that it may be possible to add addition funding if warranted as you described.

Please do not get fixated on the current pipeline and monthly burn rate since they are not accurate reflections of what Predict can do. Predict has been slowed down by delays in OAA approving sub-awards and the ceiling increase (which is linked to sub-award approval). Once that finally clears, I expect a jump in the project's expenditure rate.

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Dec 12, 2017, at 5:03 PM, Richard Greene <rgreene@usaid.gov> wrote:

Hi Andrew,

Please note that as of September 30, $25.9 million remains unexpended in the GHSA portion of the P2 cooperative agreement, about 50% of the total obligated amount with less than two years of operation remaining. Under USAID incremental funding guidance, this pipeline situation, at this time, would not justify additional incremental funding or a reduction in the scope of work of the agreement.

Now that there is flexibility in country levels, this will allow P2 to propose how it can optimally utilize its available funding to meet its objectives. If the pipeline in comparison to the time remaining warrants, USAID, consistent with our July 18 email, will consider appropriate action. In reviewing your recent expenditure reports, there is considerable pipeline in a number of countries that could be used in the near-term to draw down the project's large pipeline and get you closer to a point where normal incremental funding could be considered.

Please let us know if you have additional questions,

Richard

Robbin

On Fri, Dec 8, 2017 at 2:34 AM, Andrew Clements <aclements@usaid.gov> wrote:
Hi Richard and Robbin,

Please confirm that you are okay with the possible consequences of PREDICT shutting down other country programs early if (1) funds are shifted over to the EHP countries and (2) no further Ebola funds are obligated if the current funds run out.

I will not ask PREDICT to proceed until I hear back from you.

Andrew

---------- Forwarded message ----------
From: **Jonna Mazet** <jkmazet@ucdavis.edu>
Date: Fri, Dec 8, 2017 at 12:43 AM
Subject: Re: Predict GHSA Country Allocations
To: Andrew Clements <aclements@usaid.gov>
Cc: David J Wolking <djwolking@ucdavis.edu>, "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>, Shana Gillette <sgillette@usaid.gov>, Amalhin Shek <ashek@usaid.gov>, "predict@ucdavis.edu" <predict@ucdavis.edu>

Dear Andrew,
We appreciate the clarification. We still need confirmation as to whether you are instructing us to use money slated for other countries in Yr 5 to complete the under-funded Ebola Host Project. My concern is that the promised additional funding for the Ebola Host Project will be delayed or will not come through, and then we have to tell Uganda (or pick whatever country whose funds we use) that they have to shut-down early.
Please advise and confirm that you understand the implications of this potential unintended consequence.
We do appreciate that we will not be held any longer to the previously-imposed country caps, except for the $9M (allocated to P-2) for DRC & Ghana combined, and the minimums assigned for the three Ebola Host Project countries.
Please confirm this understanding as well, so that I can proceed with 100% confidence.
Thank you,
Jonna

Richard S. Greene
Senior Infectious Disease Strategy Advisor
Office of Health, Infectious Diseases, and Nutrition
Bureau for Global Health
USAID
Tel: (571) 551-7364
E-mail: rgreene@usaid.gov

[redacted]

For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/ept/

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Senior Scientific Advisor
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U.S. Agency for International Development
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UCDU5R00003670

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Andrew Clements <aclements@usaid.gov>
CC: David J Wolking <djwolking@ucdavis.edu>
Sent: 12/13/2017 5:44:14 PM
Subject: Re: Predict GHSA Country Allocations

Thanks,
J

On Wed, Dec 13, 2017 at 6:44 AM, Andrew Clements <aclements@usaid.gov> wrote:
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Cc: David J Wolking <djwolking@ucdavis.edu>, "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>, Shana Gillette <sgillette@usaid.gov>, Amalhin Shek <ashek@usaid.gov>, "predict@ucdavis.edu" <predict@ucdavis.edu>

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For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2/

UCDUSR0003673

From: Katherine Leasure <kaleasure@ucdavis.edu>
To: 'PREDICTMGT' <predictmgt@usaid.gov>
CC: 'Predict inbox' <predict@ucdavis.edu>;jkmazet@ucdavis.edu <jkmazet@ucdavis.edu>
Sent: 1/4/2018 2:36:54 AM
Subject: PREDICT International Travel Requests

Please find below international travel requests for your review and approval. Please let me know if you have any questions. Thanks!

1. Smith (Ethiopia): $2,500 airfare/$400 (Addis Ababa) max daily per diem
2. Hagan (Indonesia): $1,250 airfare/$362 (Jakarta), $146 (Langowan) max daily per diems
3. Francisco (Indonesia, Thailand): $1,450 airfare/$362 (Jakarta), $146 (Langowan), $246 (Bangkok) max daily per diems
4. Silthammavong (Thailand): $408 airfare/$246 (Bangkok) max daily per diem
5. Tremeau-Bravard (Guinea): $2,200 airfare/$327 (Conakry) max daily per diem

Travel Requests –

1. UC Davis would like to request travel approval for Dr. Woutrina Smith to travel from Davis, CA, USA to Addis Ababa, Ethiopia from January 21-26, 2018 for meetings and training with the PREDICT Ethiopia team.

Trip purpose: Dr. Smith is the Predict global Ethiopia and Capacity Team lead who works closely with country coordinators and implementing teams on project planning. Her visit will provide an opportunity to work with project teams on human surveillance planning and implementation, and to coordinate ongoing wildlife surveillance activities. **A portion of the trip will also be to work on USAID Livestock Systems Innovation Lab REACH project activities, so travel costs will split between the two projects.*

2. Ecohealth Alliance would like to request travel approval for Emily Hagan to travel from New York City, NY, USA to Langowan, Indonesia by way of Jakarta, Indonesia on January 20-29, 2018, to conduct human surveillance site visits and additional training with the local PREDICT partners.

Trip Purpose: In her role as Behavioral Risk Research Coordinator, Ms. Hagan will be traveling with Dr. Leilani Francisco to meet with implementing partners to lead in-depth planning sessions on project implementation, human sampling coordination, and behavioral research in Langowan, Indonesia, which is the site of Eijkman Hospital and a hub for PREDICT-2's human and animal sample collection. During this trip, Dr. Francisco and Ms. Hagan will provide support and further training in topics surrounding human sampling and robust behavioral risk research methodology to ensure the successful continuation of the human-focused components of the program in Indonesia.

3. Ecohealth Alliance would like to request travel approval for Dr. Leilani Francisco to travel from New York City, NY, USA to Langowan, Indonesia by way of Jakarta, Indonesia from January 20-28, 2018 to conduct human surveillance site visits and additional training with the local PREDICT partners. From Jakarta, Indonesia, she will travel to Bangkok, Thailand to participate in the Global Virome Project meeting which will take place on January 29, 2018 as part of the side-meeting for the Prince Mahidol Award Conference 2018 (PMAC 2018) January 29-February 2, 2018.

Trip Purpose: Indonesia – in her role as Global Director of Behavioral Risk Surveillance for PREDICT-2, Dr. Francisco will be traveling with Ms. Emaily Hagan to meet with implementing partners to lead in-depth planning sessions on project implementation, human sampling coordination, and behavioral research in Langowan, Indonesia, which is the site of Eijkman Hospital and a hub for PREDICT-2's human and animal sample collection. During this trip, Dr. Francisco and Ms. Hagan will provide support and further training in topics surrounding human sampling and robust behavioral risk research methodology to ensure the successful continuation of the human-focused components of the program in Indonesia. Thailand – the GVP meeting will bring together the core group, working group chairs and global stakeholders for presentations and meetings regarding various critical topics to move the project forward, including best practices for implementation, country coordination and governance. This will enable GVP to coordinate global planning and project implementation for the coming years, and will provide the unique opportunity to bring all stakeholders and key personnel from around the world to one location. This meeting is key to implementing the project successfully.

4. Metabiota would like to request travel approval for Mr. Soubanh Silthammavong, PREDICT Laos

Country Coordinator, to travel from Lao, People's Democratic Republic to Bangkok, Thailand on January 28 to February 4, 2018 to attend the Prince Mahidol Award Conference 2018 (PMAC).

Trip purpose: The Prince Mahidol Award Conference is focused on the importance of multi-sectoral alliance across the animal, human and environmental sectors to address threats posed by infectious disease and antimicrobial resistance. While attending, Mr. Silithammavong will be presenting a poster titled, "Ongoing PREDICT 2 Work in Lao PDR: Synchronized Surveillance Between PREDICT and FAO at the Wildlife-Livestock-Human Interface."

5. UC Davis would like to request travel approval for Dr. Alexandre Tremeau-Bravard to travel from Sacramento, CA, USA to Conakry, Guinea from February 14 to March 2, 2018 to perform laboratory training.

Trip Purpose: In Conakry, Dr. Tremeau-Bravard will train lab staff from the Viral Hemorrhagic Fever Laboratory and will include staff from the Laboratoire Central de diagnostique Vétérinaire and Laboratory of National Institute of Public Health, Conakry to prepare, handle and test samples using PREDICT protocols.

Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

From:	Andrew Clements <aclements@usaid.gov>
To:	Katherine Leasure <kaleasure@ucdavis.edu>
CC:	PREDICTMGT <predictmgt@usaid.gov>;Predict inbox <predict@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent:	1/4/2018 11:20:47 AM
Subject:	Re: PREDICT International Travel Requests

Approved subject to mission concurrence.

On Thu, Jan 4, 2018 at 4:36 AM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

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https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/048d01d3850d%24442aefd0%24cc80cf70%24%40ucdavis.edu

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Andrew Clements, Ph.D.
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Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4233
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/ept2/

From: Andrew Clements <aclements@usaid.gov>
To: Katherine Leasure <kaleasure@ucdavis.edu>
CC: PREDICTMGT <predictmgt@usaid.gov>;Predict inbox <predict@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 1/19/2018 12:33:14 PM
Subject: Re: Urgent ITA for D. McIver - Thailand/Laos

Approved subject to mission concurrence.

Andrew

On Fri, Jan 19, 2018 at 1:38 AM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. Metabiota has submitted an urgent ITA request for David McIver travel to Thailand and Laos. Dr. McIver received a last minute invitation from Eddy Rubin and Dennis Carroll to participate in the GVP side meetings in Bangkok. For efficiency, he would also take the opportunity to travel on to Lao to launch human surveillance activities (TDY form attached). Our apologies for the late submission of this request; please let me know if you have any questions. Thanks!

1. McIver (Thailand, Laos): $1754 airfare/$246 (Bangkok), $212 (Vientiane)

Travel Request –

1. Metabiota would like to request travel approval for Dr. David McIver, PREDICT Asia Regional Coordinator to travel from Nanaimo, British Columbia, Canada to Bangkok, Thailand from January 28 to February 3, 2018, and from Bangkok, Thailand to Vientiane, Lao People's Democratic Republic from February 3 -10, 2018. While in Bangkok, Dr. McIver will attend the Global Virome Project side meetings and Prince Mahidol Award Conference 2018 (PMAC). In Lao PDR, Dr. McIver will launch human surveillance activities at Khong Hospital.

Trip purpose: Thailand – While in Bangkok, Dr. McIver will attend the Prince Mahidol Award Conference 2018, as well as Global Virome Project side meetings. Dr. McIver has been making strides to bring GVP to the attention of scientists, academics, and potential funding bodies in Canada. He will attend the PMAC GVP meeting for the official launch of the program and to participate in further discussions about how the program will operate. Lao PDR - While in Lao PDR, Dr. McIver will launch human surveillance activities at Khong Hospital including re-training regarding surveillance implementation and workflow as well as two days for oversight of enrolment of the first few patients.

Katherine Leasure

HR/Payroll/Financial Assistant

One Health Institute

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UCDU5R0003680

From: Andrew Clements <aclements@usaid.gov>
To: David J Wolking <djwolking@ucdavis.edu>
CC: Jonna Mazet <jkmazet@ucdavis.edu>;PREDICTMGT <predictmgt@usaid.gov>
Sent: 1/24/2018 9:59:03 AM
Subject: Re: PREDICT activities related to bushmeat consumption in Central Africa

Thanks, David. This is good for now. A colleague who works on bushmeat trade was interested in seeing where PREDICT might be doing complementary work.

On Wed, Jan 24, 2018 at 1:16 AM, David J Wolking <djwolking@ucdavis.edu> wrote:
Hi Andrew,

We also have a few countries in Africa and Asia that work on wildlife value chain and in restaurants that could be considered "bushmeat" (e.g., surveillance at the interface between hunters/trappers/traders and consumers). At a glance there's work happening in Bangladesh, Cameroon, Ghana, Guinea, Sierra Leone, Liberia, Laos, Nepal, Viet Nam, Thailand, Cambodia, Indonesia, Senegal, Malaysia, and China.

I'd have to dig deeper to check on specifics if needed. Are there certain aspects of our work with bushmeat that you are particularly interested in? ROC and DRC are the two countries with the focused integration of bushmeat behavioral risk investigations and sample collection but there are elements of that scope happening in other countries to some extent.

I'm happy to provide more info if helpful.

David

On Tue, Jan 23, 2018 at 12:03 PM, Andrew Clements <aclements@usaid.gov> wrote:
Other than ROC and DRC, are there other country work plans that specifically include activities related to bushmeat?

Andrew P. Clements, Ph.D.
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From: Andrew Clements <aclements@usaid.gov>
To: Peter Daszak <daszak@ecohealthalliance.org>
CC: Jonna Mazet <jkmazet@ucdavis.edu>;William B. Karesh <karesh@ecohealthalliance.org>;Dennis Carroll <dcarroll@usaid.gov>;Alisa Pereira <apereira@usaid.gov>;djwolking@ucdavis.edu <djwolking@ucdavis.edu>
Sent: 1/30/2018 10:18:31 AM
Subject: Re: Can Virus Hunters Stop The Next Pandemic Before It Happens?

I suppose you're correct. The optimist in me thinks it's accidental ignorance, but perhaps it is deliberate ignorance on the part of people who have made a career thinking inside the box.

On Tue, Jan 30, 2018 at 11:46 AM, Peter Daszak <daszak@ecohealthalliance.org> wrote:

I think part of the problem is that journalists fish for people with counter-opinions to create a dialog in a piece. It's a pretty good piece other than the couple of quotes near the end. We definitely talk about sampling on interfaces in our communications, but I guess we can be more focused on that. I do think some folks have a pre-set view of programs they aren't involved in and just don't tune into the message.

Cheers,

Peter

Peter Daszak

President

EcoHealth Alliance

460 West 34th Street – 17th Floor

New York, NY 10001

Tel. +1 212-380-4473

www.ecohealthalliance.org

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.

From: Andrew Clements [mailto:aclements@usaid.gov]
Sent: Tuesday, January 30, 2018 4:35 AM
To: Jonna Mazet; William B. Karesh; Dennis Carroll; Peter Daszak; Alisa Pereira; dpredding@ucdavis.edu
Subject: Can Virus Hunters Stop The Next Pandemic Before it Happens?

Unfortunately, it appears that Tesh and Rosenberg think that Predict is randomly sampling animals for viruses as a way to find zoonoses.

Guess we need to do a better job communicating that the Predict animal surveillance is targeted where there is human contact and that human surveillance is also being conducted at the same sites to look for zoonoses.

Andrew P. Clements, Ph.D.

Senior Scientific Advisor

Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health

U.S. Agency for International Development

Mobile phone: 1-571-345-4253

Email: aclements@usaid.gov

https://www.smithsonianmag.com/science-nature/how-to-stop-next-animal-borne-pandemic-180967908/

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Senior Scientific Advisor
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For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2/

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Fri, 2 Feb 2018 08:10:32 -0800
Subject: Reminder: PREDICT Management Team Call - Tuesday February 6 2018 @ 10AM PST/1PM EST
To: Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Cassandra Louis Duthil <clouisduthil@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Eddy Rubin <erubin@metabiota.com>, Leilani Francisco <francisco@ecohealthalliance.org>, Lindsay Parish <lparish@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, Shana Gillette <sgillette@usaid.gov>, William Karesh <karesh@ecohealthalliance.org>, Elizabeth Leasure <eeleasure@ucdavis.edu>
Cc: PREDICTMGT <predictmgt@usaid.gov>, Molly Turner <turner@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, Amanda Andre <amanda.andre@ecohealthalliance.org>, Brooke Genovese <bgenovese@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Ava Sullivan <sullivan@ecohealthalliance.org>, Catherine Machalaba <Machalaba@ecohealthalliance.org>,
REDACTED

Hi there,
Just a reminder about next week's Management Team call on Tuesday February 6 2018 @ 10AM PST/1PM EST.

We will follow-up with an agenda early next week.

Enjoy the weekend,

David

Subject: Re: Authorship Form for your Science Manuscript
From: gaof [redacted]
Sent: Tue, 6 Feb 2018 18:52:31 +0800
Cc: awynn@aaas.org, Nathan Wolfe <nwolfe@metabiota.com>, Dennis Carroll <dcarroll@usaid.gov>, "Subhash (FAORAP) Morzaria [redacted], Oyewale Tomori [redacted], Jonna Mazet [redacted], Ariel Pablos-Mendez [redacted], Peter Daszak <daszak@ecohealthalliance.org>
To: Carlos Morel [redacted]

Carlos
Msny thanks. You are right
Best
George

发自我的 iPhone George Gao

在 2018年2月1日，上午5:49，Carlos Morel [redacted] 写道：

> Please note that the email of Prof. George Fu Gao is wrong, my reply copied to all came back informing this. His correct email is [redacted]
> Sincerely,

Carlos Morel

2018-01-31 17:38 GMT+02:00 Anita Wynn <science_editors@aaas.org>:

> Dear Author of Manuscript aap7463:

Please fill out the Authorship, Conflict of Interest and License to Publish forms for Manuscript Number aap7463 The Global Virome Project.. Navigate to the forms as detailed below and hit the save and submit? button at the end of the form, the completed forms will then be accessible to your editor. DO NOT click submit on the Submit Revision tab unless you are submitting the completed revision.

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To complete your forms, please log in at https://cts.sciencemag.org. If you are logging in for the first time, please use the email address at which you received this correspondence as your user ID. If you have not previously set or have forgotten your password, please click Forgot your Password to (re)set it.

Once logged in, you should see the manuscript listed. Click on the pencil button in the Actions column and you should see the Conflict of Interest and License Agreement tabs. Click on these tabs and fill out the required information on each of these pages. Please note that both Conflict of Interest and License forms must be completed. If you have not yet provided ORCID information to Science already, you can register with ORCID directly from our site. Either do this by clicking the green iD button on the Authors tab, or click My Account and go to the Identifiers tab where there is also a green iD button that will connect to ORCID. ORCID information is required for first and corresponding authors and encouraged for all authors.

EACH AUTHOR MUST COMPLETE RELEVANT FORMS BEFORE THE MANUSCRIPT CAN BE ACCEPTED. Below is a list of the email account we have associated with each author on this manuscript, and is the one that must be used as the username to register/login. If this email address is incorrect, please contact us at submit_help@aaas.org.

Nathan Wolfe - nwolfe@metabiota.com

Dennis Carroll - dcarroll@usaid.gov
Subhash Morzaria - REDACTED
Oyewale Tomori - REDACTED
Jonna A. K. Mazet - REDACTED
Carlos Morel - REDACTED
Ariel Pablos-Méndez REDACTED
Peter Daszak - daszak@ecohealthalliance.org
George Gao - REDACTED

Thank you for your attention.

Sincerely,

The Editors
Science

--

--
Carlos M. Morel MD DSc
Director
National Institute of Science and Technology for Innovation in Neglected Diseases (INCT-IDN)
Centre for Technological Development in Health (CDTS)
Oswaldo Cruz Foundation (Fiocruz)
REDACTED
Tel REDACTED Fax REDACTED
Email REDACTED or REDACTED
Twitter @cmmorel
http://www.researcherid.com/rid/B-4079-2009

From: [redacted]
To: Katherine E Kerlin <kekerlin@ucdavis.edu>, "watson@ecohealthalliance.org" <watson@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>, "watson@ecohealthalliance.org" <watson@ecohealthalliance.org>, Anthony Ramos <ramos@ecohealthalliance.org>, Robert Kessler <kessler@ecohealthalliance.org>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, Eunah Regina Cho <eecho@ucdavis.edu>, Matthew Blake <mblake@ucdavis.edu>
Subject: RE: FAO - News Article: USAID and FAO working together to pre-empt the next global pandemic
Sent: Wed, 14 Mar 2018 23:03:11 +0000

Hi everyone,

I am sharing an FAO news article to add to the GVP database compiled by Robert.

Best,
[redacted]

---------- Forwarded message ----------
From: **William B. Karesh** <karesh@ecohealthalliance.org>
Date: Wed, Mar 14, 2018 at 2:18 PM
Subject: FAO - News Article: USAID and FAO working together to pre-empt the next global pandemic
To: Jonna Mazet <jkmazet@ucdavis.edu>, Chris Johnson <ckjohnson@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>

http://www.fao.org/

USAID and FAO working together to pre-empt the next global pandemic

Seventy-five percent of new infectious diseases that emerged in recent decades had their origins in animals.

9 March 2018, Rome - A United States-FAO partnership working to strengthen the capacity of developing countries to manage outbreaks of diseases in farm animals has in just 12 months succeeded in training over 4,700 veterinary health professionals in 25 countries in Africa, Asia and the Middle East.

The FAO-provided technical trainings covered a gamut of key competencies, including disease surveillance and forecasting, laboratory operations, biosafety and biosecurity, prevention and control methods and outbreak response strategies.

All told, 3,266 vets in Asia, 619 in West Africa, 459 in East Africa, and 363 in the Middle East benefitted. They are on the front line of the effort to stop new diseases at their source. (Full list below)

"Over the course of this relationship we've learned that there are many mutually beneficial areas of interest between the food and agricultural community and the human health community," said Dennis Carroll, Director of USAID's Global Health Security and

Development Unit.

"A partnership with FAO not only enables us to protect human populations from future viral threats, but also to protect animal populations from viruses that could decimate food supplies. It's not just a global health, infectious disease issue, but also a food security, food safety, and economic growth issue," Carroll added.

"Some 75 percent of new infectious diseases that have emerged in recent decades originated in animals before jumping to us *Homo sapiens*, a terrestrial mammal. This is why improving adequately discovering and tackling animal disease threats at source represents a strategic high-ground in pre-empting future pandemics," said Juan Lubroth, FAO Chief Veterinary Officer

"A proactive approach is absolutely critical, and for that, the world needs well-trained, up-to-speed professionals — biologists, ecologists, microbiologists, modellers, physicians and veterinarians — which is why the United States' consistent support for building up that kind of capacity has been invaluable," Lubroth said.

Viral risks

Population growth, agricultural expansion and environmental encroachment, and the rise of inter-continental food supply chains in recent decades have dramatically altered how diseases emerge, jump species boundaries, and spread, FAO studies have shown.

A new study just published by USAID's Dennis Carroll and experts from several institutions including FAO suggests that just 0.01 percent of the viruses behind zoonotic disease outbreaks are known to science. The authors have proposed an international partnership, The Global Virome Project, aimed at characterizing the most risky of these. Doing so would allow more proactive responses to disease threats, with benefits not only for public health but also for the livelihoods of poor, livestock-depending farming communities.

Partnering for global health security

The close FAO-USAID partnership on animal health goes back over a decade.

Experts from the two organizations are meeting in Rome this week to review progress achieved in the past year and how to respond to threats like species-jumping zoonotic illnesses and the growing trends of antimicrobial resistance and options for intervention measures in food production and protection of public health.

In addition to trainings, via the USAID- Emerging Pandemic Threats (EPT) programme, FAO conducts research and advises on policy in order to help countries increase their resilience to disease emergence and protect animal and human health.

UCDUSR0003688

And to enable rapid responses by governments to disease events FAO has leveraged USAID support to work with the United Nations Humanitarian Response Depots to establish a series of emergency equipment and gear stockpiles in 15 countries that facilitate rapid and adequate responses to outbreaks.

FAO is also key player and advisor to the Global Health Security Agenda (GHSA), a growing partnership of over 60 countries, NGOs and international organizations working to improve early detection of and responses to infectious disease threats. USAID support under the GHSA umbrella is helping FAO engage with 17 countries in Africa and Asia to strengthen capabilities to detect and respond to zoonotic diseases.

Thanks to USAID support for the EPT and GSHA, FAO is actively tackling disease issues and building national capacities in over 30 countries

Economic impacts as well as health consequences

Beyond the risks posed to human health, animal diseases can cost billions of dollars and hamstringing economic growth.

The most damaging outbreaks of high impact disease in recent decades all had an animal source, including H5N1 highly pathogenic avian influenza, H1N1 pandemic influenza, Ebola, severe acute respiratory syndrome (SARS) and Middle East Respiratory Syndrome (MERS).

For example, the H5N1 outbreak of the mid-2000s caused an estimated $30 billion in economic losses, globally; a few years later, H1N1 racked up as much as $55 billion in damages.

Not to mention that for millions of the world's poorest people, animals are their primary capital assets — "equity on four legs". Losing them can push these families out of self-reliance and into destitution.

Note to editors. The countries where the trainings took place were: Bangladesh, Burkina Faso, Cambodia, Cameroon, China, Democratic Republic of the Congo, Egypt, Ghana, Guinea, Indonesia, Jordan, Kenya, Laos People's Democratic Republic , Liberia, Mali, Myanmar, Nepal, Senegal, Sierra Leone, United Republic of Tanzania, Uganda and Viet Nam.

William B. Karesh, D.V.M
Executive Vice President for Health and Policy

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President, OIE Working Group on Wildlife

Co-chair, IUCN Species Survival Commission - Wildlife Health Specialist Group

EPT Partners Liaison, USAID Emerging Pandemic Threats - PREDICT-2 Program

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

From: "William B. Karesh" <karesh@ecohealthalliance.org>
To: REDACTED
Cc: Anne Laudisoit <laudisoit@ecohealthalliance.org>, David Wolking <djwolking@ucdavis.edu>, PREDICT-outbreak <predict-outbreak@ucdavis.edu>
Sent: Tue, 29 May 2018 20:26:14 +0000
Subject: [predict] [predict-outbreak] Re: ROC Ebola preparedness

I don't think it's worth spending more time filing out a form, why don't you just remove us from the list of people putting time into the effort.
We just spend about 30-45 minutes/day seven days a week minutes reading the daily reports from PREDICT, WHO, and news sources, talking to people, etc to stay abreast of the situation.

BK

William B. Karesh, D.V.M
Executive Vice President for Health and Policy

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EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

On May 29, 2018, at 4:18 PM, REDACTED wrote:

Hi Billy and Anne,

David informed me of a suggestion that was made on MT call to internally track activities related to Ebola preparedness in ROC. Would you be able to complete a PREDICT outbreak form for internal racking purposes, and share with us?

Best,
REDACTED

REDACTED
Fellow
One Health Institute
School of Veterinary Medicine
University of California, Davis

From: William B. Karesh <karesh@ecohealthalliance.org>
To: David Wolking <djwolking@ucdavis.edu>
CC: Brian Bird <bhbird@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>;Corina Grigorescu Monagin <cgmonagin@ucdavis.edu>;Chris Johnson <ckjohnson@ucdavis.edu>;Tracey Goldstein <tgoldstein@ucdavis.edu>;Simon Anthony <anthony@ecohealthalliance.org>;Karen Saylors <ksaylors@metabiota.com>;Jon Epstein <epstein@ecohealthalliance.org>;Anne Laudisoit <laudisoit@ecohealthalliance.org>;Predict inbox <predict@ucdavis.edu>
Sent: 6/4/2018 5:46:48 PM
Subject: Re: [predict] EBO-SURSY overview

Thanks David!

Here is the draft presentation FAO sent me to review, but Sophie said that there was still a slide or two missing.

Food and Agriculture Organization
of the United Nations

Ebolavirus and Animals

Our knowledge to date and how animal health can support the public health emergency

UCDUSR0003693

Speakers

- **Lee Myers**

  Manager a.i. Emergency Management Centre for Animal Health (EMC-AH)

  Coordinator of FAO's Ebola Incident Command Group (ICG)

- **Cyprien Felix Biaou**

  Livestock Development Officer, FAO sub-regional Office for Central Africa (FAO-SFC)

- **Claudia Pittiglio**

  Ecologist

  Global Early Warning and Prevention System (GLEWS) and Emerging Pandemic Threats Programme Phase 2 (EPT-2)

- **Sophie von Dobschuetz**

  Global Surveillance coordinator (EPT-2)

  Emergency Prevention system for transboundary Animal Diseases (EMPRES-AH)

UCDUSR0003694

Webinar Content – Ebola and Animals

- Presentation of FAO's activities
  - Global level (Lee MYERS)
  - Regional and country levels (Cyprien BIADU)
- Susceptibility of animal species
  - Wildlife (Claudia PITTIGLIO)
  - Domestic (Sophie VON DOBSCHUETZ)
- Availability of diagnostic tests for animal samples (Sophie VON DOBSCHUETZ)
- What AH agencies and partners are doing (Sophie VON DOBSCHUETZ)

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UCDUSR0003696

FAO Ebola Incident Coordination Group (ICG)

- In the spirit of One Health, FAO is supporting the efforts of the public health sector in response to the EVD outbreak in the Democratic Republic of the Congo.
- An FAO Ebola ICG organized as an internal FAO group with focal points working together to connect the efforts of FAO personnel at the national, regional and headquarters levels.
- The Emergency Management Centre for Animal Health (EMC-AH) leads the ICG from FAO/HQ and is the focal point for WHO GOARN, OIE and other global partners.

FAO Ebola ICG Key Roles

- Maintain situational awareness and share updates from multiple sources,
- Coordinate communication among FAO personnel,
- Offer recommendations for development of FAO policy and risk communication materials,
- Support the FAO country office and national veterinary services, FAO regional office, and WHO upon request, to include possible deployment of emergency responders and resources,
- Provide guidance and tools for emergency response, as warranted, and
- Assess response progress and strategies.

FAO Ebola Information

Key Messages, Talking Points and FAQs

- Developed key messages and talking points for Chief Veterinary Officers, FAO staff, and others involved in the animal health sector relative to the current EVD outbreak in DRC.
- Updated Ebola FAQs
- Created an FAO website dedicated to Ebola virus: www.fao.org/ag/againfo/programmes/en/empres/ebola/index.html

Relevant publications from FAO

http://www.fao.org/3/i-i4984e.pdf

http://www.fao.org/docrep/014/i2407e/i2407e00.pdf

http://www.fao.org/3/i-i5070e.pdf

UCDUSR0003700

FAO HQ Support

Survey of animal sector surveillance activities and latest findings on susceptibility in wild and domestic animal species.

- Hosting today's webinar "Ebola and animals – Our knowledge to date and how the animal health sector can support the public health emergency"
- Updating the FAO assessment from 2015 on the risks of human exposure to EBV from contact with animals or their products: http://www.fao.org/3/a-i4364e.pdf

FAO urges any unusual animals morbidity or mortality be reported immediately to the DRC animal health authorities.

Webinar Content – Ebola and Animals

- Presentation of FAO's activities
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Support to Incident Management and preventing food security issues

"At this point, during an emergency response focused on saving human lives, FAO and partners highly discourage the collection of samples from animals for Ebola testing in affected areas."

However, the outbreak is a renewed opportunity to collaborate, share knowledge, share logistics, address risk communication issues (One Health Approach including food safety) and to anticipate on impact on food security and stigmatisation of farmers affected or at risk

Context of the Ebola outbreak in DRC

- not the only challenge the country is facing. Others include massive population displacement, food and security and malnutrition, and multiple simultaneous outbreaks of cholera, measles and polio
- This outbreak is a combination of two patterns of Ebola outbreaks : isolated rural outbreaks + outbreaks in small towns
- Remoted and forested area inhabited by populations for which animals and wild meat represent main sources of proteins and income
- Many terrestrial and water routes that connect villages, disease epicentres and large cities (Kin, Brazza, Pointe Noire) through the Congo river

High potential for further amplification

UCDUSR0003705

FAO support to partners on the field

- Two countries priority 1 by WHO : DRC and Congo
- Other countries (priority 2 and 3) : joint UN actions

DRC: affected

- Outbreak management meetings (Comité National de Coordination de la MVE et équipe Labo)
- Office space Mbandaka
- Motor vehicles (3) and motorbikes (4) to WHO vaccination teams in Mbandaka
- 150 EPPs to support WHO and field investigations
- Sitreps
- Food security sensitive events : information and preparedness for actions

Congo : non affected

- Preparedness meetings and field missions (risk Communication)
- Local stock of EPPs (300) direct use or support to PH use when required
- Sitreps
- Food security sensitive events : information and preparedness for actions (see Tufts of the animal/wildlife sector)

UCDUSR0003706

Webinar Content – Ebola and Animals

- Presentation of FAO's activities
  - Global level (Lee MYERS)
  - Regional and country levels (Cyprien BIADU)
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- What AH agencies and partners are doing (Sophie VON DOBSCHUETZ)

© Basicmedical Key

Phylogeny of the family Filoviridae

Wildlife: Susceptibility of Bats – Field studies

Fruit bats (*Pteropodidae*) are considered natural hosts for EBOV (e.g. *Epomops spp., Hypsignathus spp., and Myonycteris spp….*)

- Assumed link between EBOV outbreaks and bats (*wildlife deaths, geo-distribution*)
- Several studies on seropositivity of fruit bats to EBOV (*Olson, 2012; Ogawa, 2015; Pourrut, 2007, 2009; Hayman 2010, 2012; De Nys poster, 2017*)

Several bat species are exposed to EBOV and survive infections

Assumed epidemiological links: 2002-3 Congo & Gabon, 2007 Gabon & Congo, 2014 Gabon

Hypsignathus monstrosus

Wildlife: Susceptibility of Bats – laboratory studies

Viral replication
Species dependent

No clinical signs

(Swanepoel, 1995; Foxwater, 2018)

- No virus in bat secretions or excretions except scarce evidence in feces (Swanepoel, 1995) → Intermittent shedding?

Epomops franquetti

No virus isolation from naturally infected bats

Rousettus aegyptiacus

UCDUSR0003710

Wildlife: Susceptibility of mammals field studies

- Non-human primates and duikers (tiny African antelope): high mortality during EBOV outbreaks (virus isolated / RNA amplified from carcasses) *(Leroy, 2004; Bermejo, 2006; Wittmann, 2007)*
- EBOV RNA found in wild small rodents (no virus isolation or sequence confirmation) *(Morvan, 1999)*
- No evidence in other animals (bush pigs, brush-tailed porcupines...) *(CFSPH, 2016)*

How do they get infected ?

Webinar Content – Ebola and Animals

- Presentation of FAO's activities
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- What AH agencies and partners are doing (Sophie VON DOBSCHUETZ)

Domestic animals: Susceptibility of pigs and ferrets laboratory studies

- Ferrets intranasally inoculated with EBOV died; high virus titers were found in liver and spleen *(Cross et al., 2016)*
- EBOV causes fever and severe lung pathology in pigs; replication with high virus titers *(Kobinger, 2011)*
- Large scale sero-surveys undertaken in Uganda in 2015/2016 (n=650 pigs) and Sierra Leone/Guinea in 2016/2017. Results pending. *(Atherstone and Diedrich, personal comm.)*
- Pigs shed EBOV (resp. tract) and transmit to naïve pigs and macaques *(Kobinger, 2011; Weingartl, 2012)*
- Pig mortalities prior to human outbreaks????

Domestic animals: Susceptibility of dogs and cats field and laboratory studies

- Dogs have shown to develop immune reaction to EBOV in highly infected areas. No RNA or antigen detected. (Allela, 2005)
- Canine and feline cells: susceptible to EBOV-GP mediated infection BUT infectivity reduced significantly compared to NHP/human cells (Hey, 2016)
- Dogs/cats feed on animal carcasses (and human carcasses? e.g. during an ongoing outbreak…)
- High uncertainty about viraemia, virus shedding or clinical signs in dogs or cats

Could dogs/cats transmit the virus mechanically?
> Needs field verification

Webinar Content – Ebola and Animals

- Presentation of FAO's activities
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Currently used diagnostic tests for animal samples - virology

- Virus isolation with cell culture (e.g. Vero E6 cells) → highly accurate
- RNA detection (tissue/blood) by PCR methods →
  Rapid and sensitive
- LAMP assay: target trailer region of ZEBOV: Se and SP (Kurosaki, 2007)

Limitations in the use of current virological tests: BSL-4 lab, trained staff, time, cost, sample transport, handling risk, virus isolation on carcasses unsuccessful so far, new/divergent strains, sampling restriction (LAMP), viraemia suspected to be short.

UCDUSR0003716

Currently used diagnostic tests for animal samples - serology

- Most-antigen based ELISAs can detect EBOV antigens (GP, VP40 or NP) Rapid and sensitive; Sensitivity and Specificity promising in tissue samples
- Immunological assays: detect IgM and IgG (with prolonged virus circulation)
  - ELISA antibody based: Good Sensitivity and Specificity
- IFA/Immunoblotting } Easy to perform / Difficult to interpret

Limitations in the use of current serology tests: BSL-4 lab, trained staff, time, cost, sample handling risk, cross-reaction. No commercially available kits for large-scale antibody monitoring in different species.

New sampling and testing approaches

- Serological assay based on Luminex tech., promising results *(Ayouba, 2017)* - adapted to screen bats, rodents, primates, goats, pigs, duikers

- Rope chew sampling: Pigs can shed EBOV up to 7 days with saliva; Easy pooling *(Weingartl, personal comm.)*
  - Can be a viable sample collection and testing (RNA) method
  - Sampling is non-invasive (generally accepted)

- Ongoing work on diagnostic tests in swine: both virus and antibody detection semi-validated *(Weingartl, personal comm.)*

- In humans: Rapid, easy-to-use & transportable RT-(q)PCR methods are being tested in field settings (high SE & SP) *(Jones, 2018; Baava, 2018)* - rapid PoC test available "GeneXpert Ebola" *(Semper, 2016)*

UCDUSR0003718

Challenges with diagnostics

- Only few BSL-4 laboratories worldwide; animal infection studies are expensive
- Lack of commercially available serological tests for large-scale screening
- Sampling of animals during ongoing human outbreak not encouraged, however
  - Viraemia short (1-2 days in pigs?; *Weingartl, personal comm.*)
  - Virus presence in carcasses only 3-4 days *(CFSPH, 2016)*
  - Antibodies in pigs seem to start dropping after 21 days post infection… unclear how long they persist *(Weingartl, personal comm.)*

Issues with interpretation of tests

- Interpretation of laboratory results: what does a 'positive' sample really mean?
  - Lack of positive controls to validate tests for animal samples
  - Difficulties with validating existing tests in the field
  - Species-specific tests (except for Luminex)
- Impact of positive laboratory results in animals on value chain dynamics and livelihoods, social consequences
  - Risk communication is crucial, adapted to target audiences
  - Policy advice on risk mitigation measures
  - Cross-border and trade aspects/regulations?

UCDUSR0003720

Risk communication and mitigation

Links (confirmed/assumed) to human outbreaks so far have been from wildlife

- Sporadic and rare events; but with disastrous consequences for public health
- Messages / interventions should focus on
  - Reducing human exposure risks during wild meat hunting, preparation, selling and consumption practices
  - Reducing contact of domestic with wild animals

"People should not handle, slaughter, dress, sell, prepare or consume meat that originates from wild animals or livestock that are sick or that have died from unknown causes.

Any unusual morbidity or mortality of animals should be reported to the animal health authorities."

UCDUSR0003721

Susceptibility of animals to Ebolavirus what we know to date

Update of FAO's 2015 risk assessment in progress:

- Literature review (Xavier Roche, FAO EMPRES-AH)
- Updates from partner agencies and institutions
- Expert opinion

Publication of FAO's Ebola risk assessment update planned for June 2018

Jan 2015 assessment available online:
http://www.fao.org/3/a-i4364e.pdf

UCDUSR0003722

Webinar Content – Ebola and Animals

- Presentation of FAO's activities
  - Global level (Lee MYERS)
  - Regional and country levels (Cyprien BIADU)
- Susceptibility of animal species
  - Wildlife (Claudia PITTIGLIO)
  - Domestic (Sophie VON DOBSCHUETZ)
- Availability of diagnostic tests for animal samples (Sophie VON DOBSCHUETZ)
- What AH agencies and partners are doing (Sophie VON DOBSCHUETZ)

UCDUSR0003723

What AH-related agencies and partners are doing

IAEA

FLI

cirad

Canadian Food Inspection Agency

OIE

CIFOR

IRD

Institut Pasteur

WCS

PREDICT 2

USAID

UC DAVIS

EcoHealth Alliance

METABIOTA

USAID

FAO's component of the USAID-funded GHSA Programme

Global Health Security Agenda:
« build countries' capacity to help create a world safe and secure from infectious disease »

Target countries: 14 GHSA countries in Africa

Goal: build and increase capacity of veterinary services to early detect and control priority zoonotic diseases in a One Health approach

Haemorrhagic fevers, including Ebola: prioritized by 9 project countries

UCDUSR0003725

PREDICT-2 : Hosts, Viruses and Geography

Viral Family Level Testing
Filoviruses,
Paramyxoviruses,
Orthomyxoviruses,
Coronaviruses,
Flaviviruses

Hosts
Humans
Wildlife
Domestic Animals

USAID | Emerging Pandemic Threats Program 2 (EPT-2)

Asia	Africa	M.E.
Bangladesh	Cameroon	Jordan
Cambodia	Cote d'Ivoire	Egypt
China	DR Congo	
Lao PDR	Ethiopia	
India	Gabon	
Indonesia	Ghana	
Nepal	Kenya	
Malaysia	Republic of Congo	
Mongolia	Rwanda	
Myanmar	Senegal	
Thailand	Tanzania	
Vietnam	Uganda	

Overarching Goals of Ebola Host Project (EHP) - different from the main PREDICT-2 project:

- To determine the animal origins and potential spillover of the 2014-2016 EBOV-Makona outbreak
- Detect other novel filoviruses and pandemic threats
- Enhance in-country capacities
  - field ecology, surveillance, laboratory
- Contributes to GHSA action packages
  - Zoonotic Disease, surveillance, laboratory capacity strengthening, workforce development, emergency operations, reporting/information systems

Sierra Leone, Guinea, Liberia

2014-16 Ebola outbreak West Africa - affected areas

Source: CDC, January 2016

USAID | Emerging Pandemic Threats Program 2 (EPT-2)

UCDUSR0003727

PREDICT-2 EHP Successes

- Capacity Gains:
  - **60 PREDICT staff & 110 gov't staff trained**
    - Field ecology, cold chain transport, biosafety and security, sample storage and data management, lab testing
  - First comprehensive One Health zoonotic disease surveillance teams in-country
- Partner Engagement
  - Active in over 50 communities
  - Liberia: Arcellor Mittal
  - EPT (P&R) and host governments
- One Health Platforms
  - National level and district One Health platforms supported with by PREDICT

USAID | Emerging Pandemic Threats Program 2 (EPT-2)

UCDUSR0003728

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Sustainable Wildlife Management Programme

Recipient: Global (ACP Countries)

Budget: 45 M€ (Intra ACP strategy 11th EDF)

Partners: FAO, CIFOR, CIRAD, WCS

Duration: 7 years (84 Months)

Goal: to **reduce hunting of wildlife to sustainable levels**, protecting endangered wildlife species, conserving biodiversity, maintaining the essential ecological roles of wildlife within forested and savanna ecosystems, and **securing stocks and flows of provisioning ecosystems services essential to some of the poorest and most politically marginalized people on the earth.**

UCDUSR0003730

Sustainable Wildlife Management Programme

- **REPUBLIC OF CONGO** - Sustainable community management of hunting within logging concessions
- **GABON** - Sustainable community management of hunting in the quasi-closed catchment of a small town and in a low human density context
- **DEMOCRATIC REPUBLIC OF CONGO** - Sustainable community management of hunting within and outside of protected areas
- **ZIMBABWE & ZAMBIA** - Community commercial conservancy as a wildlife-based land use option in populated communal lands
- **MADAGASCAR** - Shifting subsistence consumption of highly vulnerable endemic species to resilient exotic and domestic species
- **SENEGAL, MALI, CHAD, SUDAN** - Sustainable management of migratory waterbirds within wetlands for the benefit of local communities
- **PAPUA NEW GUINEA** - Revitalizing customary management practices for hunted species in the Pacific Islands
- **GUYANA** - Integrated sustainable hunting and fishing on indigenous lands buffering a protected area

UCDUSR0003731

EBO-SURSY – target countries

OIE: EBO-SURSY – objectives and activities

http://www.rr-africa.oie.int/projects/EBOSURSY/LEAFLET_E

UCDUSR0003733

Food and Agriculture Organization
of the United Nations

Ebolavirus and Animals

Thank you for your attention.

Any questions?

UCDUSR0003734

From: Andrew Clements <aclements@usaid.gov>
Sent: Sat, 16 Jun 2018 06:11:58 -0700
Subject: Fwd: PRO/AH/EDR> Rift Valley fever - Kenya (04): (WJ)
To: "Lisa Kramer (Nairobi/EA/RHH)" <lkramer@usaid.gov>, REDACTED Zimmermand@si.edu
Cc: alongwagar@usaid.gov, rechalar@usaid.gov, Angela Wang <awang@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, bhbird@ucdavis.edu, djwolking@ucdavis.edu, spaige@usaid.gov, akibria@usaid.gov, Dennis Carroll <dcarroll@usaid.gov>, rgreene@usaid.gov

FYI

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

Begin forwarded message:

From: promed-edr@promedmail.org
Date: June 16, 2018 at 5:29:56 AM GMT+2
To: promed-post@promedmail.org, promed-edr-post@promedmail.org, promed-ahead-post@promedmail.org
Subject: PRO/AH/EDR> Rift Valley fever - Kenya (04): (WJ)
Reply-To: promedNOREPLY@promedmail.org

RIFT VALLEY FEVER - KENYA (04): (WAJIR)
****
A ProMED-mail post
<http://www.promedmail.org>
ProMED-mail is a program of the
International Society for Infectious Diseases
<http://www.isid.org>

In this update:
[1] Human, animal
[2] Human cases, livestock movement
[3] Human death toll
[4] Response to human cases

******
[1] Human, animal
Date: Thu 14 Jun 2018
Source: The Nation [edited]
<https://www.nation.co.ke/counties/marsabit/Marsabit-residents-warned-against-use-of-animal-products/3444778-4612844-gq87d7/index.html>

Marsabit County residents have been warned against use of animal products following a ban on slaughter of animals in Wajir County due to a Rift Valley fever outbreak.

Speaking during a crisis meeting on Thursday [14 Jun 2018], county director for public health Adano Kochi said that one out of 2 samples that had been sent to Kemri [Kenya Medical Research Institute] came back positive for RVF.

Mr Kochi said a 15-year-old boy who lost his life was not suffering from RVF as per the laboratory results from Kemri.

"We have one patient at Marsabit Referral Hospital who has been undergoing treatment for kala-azar, and according to the results, she is also suffering from RVF," said Mr Kochi.

According to a report from the team that has been conducting surveillance, small stock from neighbouring Wajir and Mandera counties are all heading to Moyale market to cash [in] on the festive season.

The county director for veterinary services, Boku Bodha, said animals, especially small stock, are being ferried from both Wajir and Mandera to Moyale market. He said that the situation is putting Marsabit County residents at risk.

"Mass slaughter of livestock during the Idd celebration is likely to pose a greater risk to the people. Luckily, RVF does not affect poultry, so our people can use chicken as a substitute," said Mr Bodha.

Livestock are mainly from areas bordering Badanrero, Bute, Buna, Basir, Lakole, Rahmu, Daandu, Qofole and wider Wajir and Mandera counties.

Mr Bodha said that in the past 3 weeks, the county has experienced increased cases of abortion in both camels and small stock as well as increased vector populations.

He added that 5 camels were found dead in Funanyatta while a farmer in Bori lost 5 of his 12 camels that aborted.

"Abortion in livestock, haemorrhage and fever characterise RVF in animals. We have received reports of increased cases in other areas like Badanrero, Amballo, Ittir, Kargi, Olturot, Loglogo, Korr and Laisamis," said Mr Bodhi. North Horr, Balesa, Demo, Shuur and Maikona are also affected.

Following the crisis, the veterinary department plans to enhance surveillance, institute ring vaccination to control disease spread, increase public awareness, institute quarantine of livestock, restrict home slaughter, and close livestock markets.

"Due to stagnant waters around homesteads and night enclosures, there is marked increase in population of mosquitoes and other biting flies, which have been a menace to livestock in the county," said Mr Bodha.

[Byline: Irene Mwenda]

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Communicated by:
ProMED-mail
<promed@promedmail.org>

******

[2] Human cases, livestock movement
Date: Fri 15 Jun 2018
Source: Star [edited]
<https://www.the-star.co.ke/news/2018/06/15/wajir-officials-arrest-five-traders-in-fight-against-rift-valley-fever_c1772912>

The Wajir Health department has arrested 5 people for violating a ban on sale of livestock products to control the spread of Rift Valley fever.

Health executive Abdihakim Billow said 6 people have died from the disease. The latest victim succumbed yesterday [14 Jun 2018] at Wajir County Referral Hospital. The woman from Basir in Eldas subcounty was among the 1st patients admitted to the hospital. The number of those infected is now 19.

Billow said the 5 will be charged with violating the ban.

The ban is being enforced by a joint team of public health officials, veterinary staff, and police.

Speaking to the press in Wajir town, Billow said new cases have been reported in Dasheg, Rabaqerany and in Diif, Wajir South. Most victims are admitted to Wajir County Referral Hospital and Eldas Subcounty Hospital.

Wajir county hospital CEO Ahmed Abdinur said nurses and doctors have been working round the clock to treat patients diagnosed with the disease.

He said his worry is the outbreak might get out of control. "We are doing everything humanly possible to save the lives of the victims. As you know, it is highly contagious, and it requires a high level of handling. It is our hope and prayer that the number of victims will not increase," Abdinur said.

On Wednesday [13 Jun 2018], the government asked Kenyans to avoid eating uninspected meat. Director of Medical Services Jackson Kioko and Veterinary Services director Obadiah Njagi called for immediate reporting of sudden deaths and abortions in livestock.

[Byline: Stephen Astariko]

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Communicated by:
ProMED-mail
<promed@promedmail.org>

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[3] Human death toll
Date: Wed 13 Jun 2018
Source: Star [edited]
<https://www.the-star.co.ke/news/2018/06/13/death-toll-from-rift-valley-fever-rises-to-six_c1772582>

The death toll from Rift Valley Fever in Wajir has risen to 6 after one more person died while receiving treatment. At least 10 cases have been confirmed within the area.

The 1st case was reported on 4 Jun [2018] after 2 relatives were referred to a local hospital with high fever and bleeding from the mouth.

One of the patients died the same day of their admission, a situation that has seen the government create a task force in order to reduce new incidences and prevent more deaths. The team comprises members from both the national and county government.

Obadiah Njagi, director of veterinary services, warned locals against handling meat that has not been inspected.

"To aid in early detection and response in the event of an outbreak, all reports of sudden deaths and abortions of livestock should be reported to the nearest veterinary office or any other office," Njagi said in a statement on Wednesday [13 Jun 2018].

He added: "It is highly advised that all persons who experience fever of unknown origin should also report to the nearest health facility immediately."

Rift Valley fever is a viral disease that primarily affects animals but also has the capacity to infect humans.

The disease results in significant economic losses due to death and abortion among RVF-infected livestock, especially among camels and goats.

Some of the symptoms [in humans] associated with the fever are high fever, bleeding gums, body weakness, among others.

On 13 Jun [2018], the government banned the consumption of meat that had not been inspected. Locals objected to the ban on grounds that they depend on their livestock to feed their family.

According to WHO, the current outbreak has ecological and sub-regional geographical connotations. Livestock population movements are high in the sub-region, including cattle raiding activity between Uganda-Kenya-South Sudan.

"The ongoing heavy rains and flooding in Kenya and other countries in East Africa have also resulted in increased vector density. These factors could contribute to further spread of the disease in the sub-region."

[Byline: Rhoda Odhiambo]

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Communicated by:
ProMED-mail from HealthMap Alerts
<promed@promedmail.org>

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[4] Response to human cases
Date: Wed 13 Jun 2018
Source: Daily Nation [edited]
<https://www.nation.co.ke/counties/wajir/Rift-Valley-fever-kills-one-more-in-Wajir/3444790-4610378-b4ymrz/index.html>

One more person has died of suspected Rift Valley fever (RVF) in Wajir, bringing death toll to 6 as panic grips the county.

The victim, who was receiving treatment at the Wajir Referral Hospital, succumbed to the disease on Tuesday night [12 Jun 2018].

Dr Adam Hassan, deputy head in charge of preventive and promotive health care services, said 19 cases have been reported since the outbreak. Basir area in Eldas is worst hit with 17 cases reported from the area.

Mr Hassan said that a majority of the cases have reported contact with meat, and most of them involved individuals who slaughtered and distributed meat.

He added that they have set up 4 isolation centres in Wajir Referral Hospital, Basir, Arbajahan, and Eldas health centres in an effort to control the spread of the disease.

According to Harry Kimtai, Principal Secretary Livestock, the 200 000 doses [of vaccine for animals] will help curb the spread of the disease that has so far claimed the lives of 5 people in Wajir county.

Although no case of RVF has been reported in Tana River, Mandera, and Garissa counties, a team of livestock experts from the ministry have also been sent to the ground to help in the vaccination exercise.

Mr Kimtai said the ministry has already sent an alert to 20 counties; Uasin Gishu, Trans Nzoia, Nakuru, Laikipia, Kajiado, Baringo, Wajir, Garissa, Marsabit, Meru, Machakos, Taita Taveta, Tana River, Mombasa, Kwale, Kilifi, Nyeri, Tharaka Nithi, Murang'a, and Kiambu to immediately commence animal vaccination and vector control.

"We are asking all the county governments to start animal vaccination and cooperate with our team so that we can contain the spread of this disease," he said.

However, an enhanced surveillance system has identified 4 counties as potential hotspots. These are, Marsabit, Wajir, Kajiado and Kitui.

The PS noted that already the director of veterinary services has informed the county directors and offered technical advice on disease detection and response.

At the same time, the directorate has set up an RVF alert centre using a toll-free line 0800 721 433 for immediate disease notification and response.

Mr Kimtai said a joint multiagency RVF outbreak technical committee comprising public health and animal health experts has been set up to assess the risk situation and advise the government on mitigation measures.

To contain the spread of the disease in Wajir, he said that, already, medical supplies including laboratory equipment and personal protective equipment have been supplied to departments of human and animal health technical support.

Rift Valley fever is a mosquito-borne viral zoonosis, which periodically causes disease outbreaks in humans and livestock and is known to have been endemic in sub-Saharan Africa since 1912.

People with RVF have either no symptoms or a mild illness associated with fever and liver abnormalities. Patients usually experience fever, generalized weakness, back pain, and dizziness at the onset of the illness, and weight loss.

In animals, sheep and cattle may have nasal discharge, excess salivation, and loss of appetite, weakness, or diarrhoea.

[Byline: Boniface Mwaniki and Bruhan Makong]

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Communicated by:
ProMED-mail
<promed@promedmail.org>

[This Rift Valley fever (RVF) outbreak has both human and animal health consequences and reducing risk to both requires a One Health approach. The loss of camels and small ruminants has social and economic consequences for their owners. Where access to banks is limited, these animals become a store of value as well as a critical source of family income.

The Kenya ministries of health and agriculture issued an alert for the risk of Rift Valley fever due to heavy rains and flooding and named 15 counties as high-risk areas (see Rift valley fever - Kenya: alert, prevention http://promedmail.org/post/20180531.5830703). The director of veterinary services, Obadiah Njagi, said that there was increased risk of RVF due to increased cases of flooding. He noted that flooding not only caused displacement of people and animals but also increased the risk of diseases transmitted by mosquitoes such as RVF, a viral disease of livestock, which also affects human beings if they get into contact with blood or tissues from infected animals. As Mods. AS and CRD noted in the previous ProMED-mail post, outbreaks of RVF are closely associated with periods of heavy rains and prolonged flooding, as with those driven by the warm phase of the El Nino/Southern Oscillation (ENSO) phenomenon, increasing habitat suitability for vector populations. In East Africa, RVF epidemics take place periodically every 10-15 years; the last major outbreak occurred in 2006-2007. RVF is more likely to affect small ruminants and cattle. Rainfall facilitates mosquito eggs to hatch. _Aedes_ mosquitoes acquire the virus from feeding on infected animals and may potentially

vertically transmit the virus to their eggs so that new generations of infected mosquitoes may hatch from their eggs. This provides a potential mechanism for maintaining the virus in nature, as the eggs of these mosquitoes may survive for periods of up to several years in dry conditions. Once livestock is infected, a wide variety of mosquito species may act as the vector for transmission of RVFV and can spread the disease.

These moderator comments also provide some key references. Parts of their information and much more on RVF, its epidemiology, diagnosis, and prevention are available in Chapter 2.1.18 of OIE's Terrestrial Animal Health Manual, at
<http://www.oie.int/fileadmin/Home/eng/Health_standards/tahm/2.01.18_RVF.pdf>.

HealthMap/ProMED-mail map of Wajir, Kenya:
<http://healthmap.org/promed/p/597>. - Mod.TY]

[See Also:
Rift Valley fever - Kenya (03): (WJ) camel, human, OIE
http://promedmail.org/post/20180609.5847976
Rift Valley fever - Kenya (02): (WJ) susp
http://promedmail.org/post/20180609.5847216
Rift valley fever - Kenya: alert, prevention
http://promedmail.org/post/20180531.5830703
2011

Undiagnosed disease, camel - Kenya: RFI
http://promedmail.org/post/20110222.0586
2010

Rift Valley fever - Kenya: alert, prevention
http://promedmail.org/post/20100520.1675
2008

Rift Valley fever - Kenya (02): (NE), alert, prevention
http://promedmail.org/post/20081114.3586
Rift Valley fever - Kenya: multiple virus lineages
http://promedmail.org/post/20080915.2881]
.....sb/jh/ty/msp/jh
##
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##
##

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From: Peter Daszak <daszak@ecohealthalliance.org>
To: Andrew Clements <aclements@usaid.gov>
Cc: "cchrisman@usaid.gov" <cchrisman@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, "djwolking@ucdavis.edu" <djwolking@ucdavis.edu>, "ashek@usaid.gov" <ashek@usaid.gov>
Subject: RE: Next Predict Brownbag
Sent: Mon, 2 Jul 2018 15:07:42 +0000

Great – let's do July 30th. I'm assuming that we'd get more people if my talk was scheduled around lunch – so would 12pm work?

Cheers,

Peter

Peter Daszak
President

EcoHealth Alliance
460 West 34th Street – 17th Floor
New York, NY 10001

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@PeterDaszak
@EcoHealthNYC

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.

From: Andrew Clements [mailto:aclements@usaid.gov]
Sent: Friday, June 29, 2018 10:30 AM
To: Peter Daszak
Cc: cchrisman@usaid.gov; Alisa Pereira; Jonna Mazet; djwolking@ucdavis.edu; ashek@usaid.gov
Subject: Next Predict Brownbag

Hi Peter,

Jonna said you were open on either July 30 or Aug 1 for the next brown bag.

July 30 after 11:00 and before 1:30 or after 3:30 is good for me.

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

From: Andrew Clements <aclements@usaid.gov>
To: Katherine Leasure <kaleasure@ucdavis.edu>;Alexandria Huerta <ahuerta@state.gov>
CC: PREDICTMGT <predictmgt@usaid.gov>;Predict inbox <predict@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 7/11/2018 2:09:18 PM
Subject: Re: Change to Approved ITA - A. Gillis (Laos)

Thanks.

Dan/Sadarat/Alexandria : see delay in dates for Laos visit.

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4233
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/ept2/

On Wed, Jul 11, 2018 at 2:25 AM, Katherine Leasure <kalcasure@ucdavis.edu> wrote:

Hi Andrew. Per Metabiota, the previously approved travel for Amethyst Gillis to Laos has been postponed, as the supplies required to complete the training will not arrive prior to the proposed departure date. A copy of the ITA is included below for reference, with changes highlighted in yellow; an updated TDY form is also attached. Please let me know if you have any questions. Thanks!

Metabiota would like to request travel approval for Amethyst Gillis, PREDICT Laboratory QAQC Coordinator, to travel from Yaounde, Cameroon to Vientiane, Lao PDR from July 23-27~~July 15-28~~, 2018 to support PREDICT-2 laboratory activities.

Trip purpose: In Vientiane, Ms. Gillis will conduct comprehensive technical laboratory trainings for both the National Animal Health Laboratory and the National Center for Laboratory and Epidemiology. These trainings will cover all PREDICT protocols, including sample storage and preparation, extraction, PCR, preparation of genetic material for sequencing, results interpretation and positive sample follow up.

Katherine Leasure

HR/Payroll/Financial Assistant

One Health Institute

University of California, Davis

530-752-7526

530-752-3318 FAX

kalcasure@ucdavis.edu

predictmgt+unsubscribe@usaid.gov

predictmgt@usaid.gov

https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/03b501d418ad%24ba4749f0%242ed5dd0%24%40ucdavis.edu

From: Katherine Leasure <kaleasure@ucdavis.edu>
To: 'PREDICTMGT' <predictmgt@usaid.gov>
CC: 'Predict inbox' <predict@ucdavis.edu>;"Jonna Mazet' <jkmazet@ucdavis.edu>
Sent: 8/29/2018 7:25:43 PM
Subject: [predict] Change to Approved ITA - A. Gillis (Laos Extended)

Hi Andrew. Per Metabiota, Amethyst Gillis would like to extend her previously approved travel to Lao PDR through September 7 to allow time to perform some troubleshooting in the laboratory to resolve a testing issue. A copy of the previously approved ITA is included below for reference, and an updated TDY form is attached if needed by the Mission. Please let me know if you have any questions. Thanks!

Metabiota would like to request travel approval for Amethyst Gillis, PREDICT Laboratory QAQC Coordinator, to travel from Yaounde, Cameroon to Vientiane, Lao PDR from August 24 to September 1, 2018 to support PREDICT-2 laboratory activities.

Trip purpose: Ms. Gillis will conduct comprehensive technical laboratory refresher trainings for the National Animal Health Laboratory and will check in on laboratory progress at the National Center for Laboratory and Epidemiology. These refresher trainings will cover all PREDICT protocols, including sample storage and preparation, extraction, PCR, preparation of genetic material for sequencing, results interpretation and positive sample follow up.

Katherine Leasure
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

Lao PDR Temporary Duty Information Form (Last update: August 2017)
(send completed form to ahuertas@state.gov, manivongsm@state.gov, and samsaphonem@state.gov)

Submitted by: Amethyst Gillis, Metabiota Inc.

Dates of travel:	From: 8/24/2018 To: 9/7/2018
TDY objective:	Support PREDICT-2 laboratory activies. Conduct comprehensive technical laboratory trainings for National Animal Health Laboratory and check in on progress at the National Center for Laboratory and Epidemiology. Ms. Gillis would like to extend her previously approved travel to September 7 in order to perform some troubleshooting in the laboratory to resolve a testing issue.
USAID activity	Provide technical laboratory trainings and assess laboratory activity
Individuals visiting Laos (from RDMA, Washington, Implementing Partner):	Amethyst Gillis, Metabiota, Inc.
Required meetings to be arranged:	N/A
Site visits required:	None
Data to be collected:	None
Is a DIP note or letter of introduction requested:	☐ Yes ☒ No *Note: DIP notes are required for site visits and meetings with high-level GOL officials. Names of GOL officials must also be provided.*
Is motor pool requested:	☐ Yes ☒ No
Is Embassy access requested:	☐ Yes ☒ No
Have the visitors met with the AMB/DCM before:	☐ Yes ☒ No
Is Laos staff recommended to accompany all meetings:	☐ Strongly recommended ☒ Optional, but at the Laos Office discretion
Additional Comments:	

*Only a limited number of hotels meet Embassy Lao security and safety requirements for eCC travelers. As of August 2017 these are: (1) Lao Plaza Vientiane, (2) Landmark Mekong Riverside, (3) Settha Palace, (4) Dhansara Vientiane, and (5) Crowne Plaza.

From: Katherine Leasure <kaleasure@ucdavis.edu>
To: 'Andrew Clements' <aclements@usaid.gov>;'PREDICTMGT' <predictmgt@usaid.gov>
CC: 'Predict inbox' <predict@ucdavis.edu>
Sent: 8/30/2018 7:45:03 PM
Subject: [predict] Re: Change to Approved ITA - A. Gillis (Laos Extended)

Hi Andrew. I followed up with Cassandra this morning as I hadn't seen a response to this change for Amethyst. She sent a notification to the Mission regarding the extended travel. Given the limited time available for rebooking flights, I will let Metabiota know this afternoon to proceed with the change, unless we hear otherwise from you. Thanks!

From: Katherine Leasure [mailto:kaleasure@ucdavis.edu]
Sent: Wednesday, August 29, 2018 12:26 PM
To: 'PREDICTMGT'
Cc: 'Predict inbox'; 'Jonna Mazet'
Subject: Change to Approved ITA - A. Gillis (Laos Extended)

Hi Andrew. Per Metabiota, Amethyst Gillis would like to extend her previously approved travel to Lao PDR through September 7 to allow time to perform some troubleshooting in the laboratory to resolve a testing issue. A copy of the previously approved ITA is included below for reference, and an updated TDY form is attached if needed by the Mission. Please let me know if you have any questions. Thanks!

Metabiota would like to request travel approval for Amethyst Gillis, PREDICT Laboratory QAQC Coordinator, to travel from Yaounde, Cameroon to Vientiane, Lao PDR from August 24 to September 1, 2018 to support PREDICT-2 laboratory activities.

Trip purpose: Ms. Gillis will conduct comprehensive technical laboratory refresher trainings for the National Animal Health Laboratory and will check in on laboratory progress at the National Center for Laboratory and Epidemiology. These refresher trainings will cover all PREDICT protocols, including sample storage and preparation, extraction, PCR, preparation of genetic material for sequencing, results interpretation and positive sample follow up.

Katherine Leasure
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

Lao PDR Temporary Duty Information Form (Last update: August 2017)
(send completed form to ahuerta@state.gov, manivongsa@state.gov, and samaphone@state.gov)

Submitted by: Amethyst Gillis, Metabiota Inc.

Dates of travel:	From: 8/24/2018 To: 9/7/2018
TDY objective:	Support PREDICT-2 laboratory activies. Conduct comprehensive technical laboratory trainings for National Animal Health Laboratory and check in on progress at the National Center for Laboratory and Epidemiology. Ms. Gillis would like to extend her previously approved travel to September 7 in order to perform some troubleshooting in the laboratory to resolve a testing issue.
USAID activity	Provide technical laboratory trainings and assess laboratory activity
Individuals visiting Laos (from RDMA, Washington, Implementing Partner):	Amethyst Gillis, Metabiota, Inc.
Required meetings to be arranged:	N/A
Site visits required:	None
Data to be collected:	None
Is a DIP note or letter of introduction requested:	☐ Yes ☒ No *Note: DIP notes are required for site visits and meetings with high-level GOL officials. Names of GOL officials must also be provided.*
Is motor pool requested:	☐ Yes ☒ No
Is Embassy access requested:	☐ Yes ☒ No
Have the visitors met with the AMB/DCM before:	☐ Yes ☒ No
Is Laos staff recommended to accompany all meetings:	☐ Strongly recommended ☒ Optional, but at the Laos Office discretion
Additional Comments:	

*Only a limited number of hotels meet Embassy Lao security and safety requirements for eCC travelers. As of August 2017 these are: (1) Lao Plaza Vientiane, (2) Landmark Mekong Riverside, (3) Settha Palace, (4) Dhansara Vientiane, and (5) Crowne Plaza.

From: Katherine Leasure <kaleasure@ucdavis.edu>
To: 'PREDICTMGT' <predictmgt@usaid.gov>
CC: 'Predict inbox' <predict@ucdavis.edu> jkmazet@ucdavis.edu <jkmazet@ucdavis.edu>
Sent: 9/10/2018 1:12:37 AM
Subject: Time Sensitive: PREDICT International Travel Request (J. Epstein)

Hi Andrew. Please find below an international travel request for Jon Epstein to India. I'm very sorry for the late submission. This was my error; the request from EHA got lost in a backlog of emails. Please let me know if you have any questions. Thank you!

1. Epstein (India): $1700 airfare/$288 (Kerala) max daily per diem

Travel Request –

1. EcoHealth Alliance would like to request travel approval for Jon Epstein to travel from New York City, NY, USA to Kerala, India from September 23-26, 2018 for a meeting with FAO, state health officials, in-country partners and Country Coordinator of PREDICT-India.

Trip purpose: As Regional Lead of PREDICT- India, Dr. Jon Epstein will visit Kerala to attend a meeting to discuss PREDICT project activities. FAO, state health officials, in-country partners and the PREDICT- India Country Coordinator plan to discuss PREDICT's role in the prevention of disease emergence in India, including outbreak preparedness.

Katherine Leasure
One Health Institute
University of California, Davis
530-752-7526
530-752-3318 FAX
kaleasure@ucdavis.edu

From: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
To: Andrew Clements <aclements@usaid.gov>
Cc: PREDICTMGT <predictmgt@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Predict inbox <predict@ucdavis.edu>, Kevin N Gonzalez <kngonzalez@ucdavis.edu>, Hannah R Chale <hrchale@UCDAVIS.EDU>
Subject: RE: PREDICT Year 4 Equipment Purchase Request #7
Sent: Thu, 13 Sep 2018 16:39:21 +0000

Thanks!

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: Andrew Clements <aclements@usaid.gov>
Sent: Thursday, September 13, 2018 9:17 AM
To: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
Cc: PREDICTMGT <predictmgt@usaid.gov>; Jonna Mazet <jkmazet@ucdavis.edu>; David John Wolking <djwolking@ucdavis.edu>; Predict inbox <predict@ucdavis.edu>; Kevin N Gonzalez <kngonzalez@ucdavis.edu>; Hannah R Chale <hrchale@UCDAVIS.EDU>
Subject: Re: PREDICT Year 4 Equipment Purchase Request #7

Thanks, Liz.

Equipment request for 4 countries is approved.

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/ept2

On Thu, Sep 13, 2018 at 6:14 PM Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:
Hi Andrew. That is my understanding for Lao PDR and Cameroon. For DRC, this freezer is replacing an existing freezer that is experiencing issues with unstable temperature control.

Thanks,
Liz

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: Andrew Clements <aclements@usaid.gov>
Sent: Thursday, September 13, 2018 4:59 AM
To: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
Cc: predictmgt@usaid.gov; Jonna Mazet <jkmazet@ucdavis.edu>; David John Wolking <djwolking@ucdavis.edu>; predict@ucdavis.edu; Kevin N Gonzalez <kngonzalez@ucdavis.edu>; Hannah R Chale <hrchale@UCDAVIS.EDU>
Subject: Re: PREDICT Year 4 Equipment Purchase Request #7

Hi Liz,

Sorry for the delay.

Can you confirm that the reason for the new freezers in Cameroon, DRC, and Laos is that the existing ones have run out of room?

Thanks!

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Sep 7, 2018, at 8:12 PM, Elizabeth Leasure <eleasure@ucdavis.edu> wrote:

> Hi Andrew. Please find attached a request for authorization to purchase freezers for Columbia University (primarily for storage of Liberia samples), Cameroon, DRC, and Lao PDR. These items were not originally included in the proposal budget and now require approval. Please let me know if you have any questions or require any additional information to proceed.
>
> Thanks!
> Liz
>
> Elizabeth Leasure
> One Health Institute
> University of California, Davis
> 530-754-9034 (office)
> REDACTED (cell)
>
> <Equipment Request_Year 4_No. 7_9.7.18_final.pdf>
> <Vendor quotes_Y4 No.7.pdf>

Sent: Tue, 25 Sep 2018 21:50:17 -0700
Subject: Re: predict country workshops - next project year
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: "Claes, Filip (AGAH)" <REDACTED>
Cc: Peter Daszak <daszak@ecohealthalliance.org>, "Wantanee (FAORAP) Kalpravidh" <REDACTED>, "Dacre, Ian (FAORAP)" <REDACTED>, David J Wolking <djwolking@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>
image001.jpg
image001.jpg

I will -- let's get together then,
Jonna

On Tue, Sep 25, 2018 at 5:54 PM Claes, Filip (FAORAP) <REDACTED> wrote:

Thanks for the update Jonna.

Will you be in Bangkok for the GVP meeting in October?

Flip

From: REDACTED [mailto REDACTED] **On Behalf Of** Jonna Mazet
Sent: Wednesday, September 26, 2018 7:03 AM
To: Claes, Filip (FAORAP) <REDACTED>
Cc: Peter Daszak <daszak@ecohealthalliance.org>; Kalpravidh, Wantanee (FAORAP) REDACTED; Dacre, Ian (FAORAP) REDACTED; David J Wolking <djwolking@ucdavis.edu>; Christine Kreuder Johnson <ckjohnson@ucdavis.edu>; Tracey Goldstein <tgoldstein@ucdavis.edu>
Subject: Re: predict country workshops - next project year

Hi Filip,

Sorry for the delay -- I have been in Mongolia and Denmark.

I wasn't aware of the Laos meeting but will check-in with the Metabiota team that leads that country. We are planning an All Country wrap-up for late summer/early fall in Davis. As always, we'd love FAO involvement in that one. We have some other meetings planned between now and then for regular management and to keep on track for end of project success, and we'd be happy to coordinate on those to see which might well with shared objectives.

We need to get country-level meetings on our radar, so we'll ping the teams and find out what;s on the horizon.

Thanks for reaching out and coordinating on this stuff.

Jonna

On Wednesday, September 12, 2018, Claes, Filip (FAORAP) REDACTED wrote:

Hello Jonna and Peter,

FAO is having its planning meeting for the last year of EPT-2.

Our Laos team brought to our attention that there is a country level workshop planned to discuss results, including link with livestock and FAO work (somewhere in January? Which is before the March deadline for results)

Question1: will there be more such meetings in different countries? If yes, which ones, so I can ask the team leaders to slot this in.

Question2: any plan to have such a meeting at regional or global level?

Greets from Bangkok,

Flip

Filip Claes, PhD

Regional Laboratory Coordinator

Emergency Centre for Transboundary Animal Diseases (ECTAD)

Food and Agriculture Organization of the United Nations (FAO)

Regional Office for Asia and the Pacific

REDACTED

Tel: REDACTED

Email: REDACTED

Sent: Thu, 27 Sep 2018 11:45:31 -0700
Subject: Dennis Carroll in town October 10
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Jim Karkanias <jim.karkanias@czbiohub.org>, Peter Kim@ucsf.edu
Cc: Nathan Wolfe <nwolfe@metabiota.com>, [redacted], Dennis Carroll <DCarroll@usaid.gov>

Dear Jim & Peter,
Hope things are well with you.
Dennis Carroll will be in town on October 10 to work with Dean Jamison at UCSF on an economic analysis for the Global Virome Project. If you are available and would like an update, we would be happy to meet. We have 2 pm available.
Coincidentally, I have a meeting with Joe DeRisi at 3 pm to discuss exploring collaborations during my upcoming sabbatical at UCSF, so I will be in your office that afternoon anyway.
Let us know if it is a good time to catch up,
Jonna

Jonna AK Mazet, DVM, MPVM, PhD
Professor of Epidemiology & Disease Ecology
Executive Director, One Health Institute
Global Director, PREDICT Project of USAID Emerging Pandemic Threats Program

School of Veterinary Medicine
University of California
1089 Veterinary Medicine Drive
Davis, CA 95616, USA
+1-530-752-3630
onehealthinstitute.net

For scheduling and logistical issues, please contact:
Ms. Brooke Genovese
bgenovese@ucdavis.edu
+1-530-752-3630

From: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
To: Jonna Mazet <jkmazet@ucdavis.edu>
Cc: Predict inbox <predict@ucdavis.edu> REDACTED, Hannah R Chale <hrchale@UCDAVIS.EDU>
Subject: RE: For JM review: New subaward request (UCSF - GVP)
Sent: Fri, 28 Sep 2018 18:43:24 +0000

Okay, thanks. I'll hold off on submitting to Andrew until I hear back from you confirming whether or not changes to the description are needed.

Liz

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: Jonna Mazet <jkmazet@ucdavis.edu>
Sent: Thursday, September 27, 2018 9:22 PM
To: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
Cc: Predict inbox <predict@ucdavis.edu>; REDACTED; Hannah R Chale <hrchale@UCDAVIS.EDU>
Subject: Re: For JM review: New subaward request (UCSF - GVP)

Hi Liz,
We already have others doing items (ii) and somewhat (iv) on the first list below, so I think I need to discuss with Ben and Nita before we go forward. That said, that we have some of this already covered won't affect Dean Jamison's portion here, only Metabiota's future part. So the amounts to UCSF and the majority of this agreement won't change., only the description. I'll try to call Ben tomorrow between other meetings. The Basis of Selection memo is good to go.
Thanks for the prep,
J

On Tue, Sep 25, 2018 at 4:20 PM Elizabeth Leasure <calcasure@ucdavis.edu> wrote:
Hi Jonna. The subaward letter and basis of selection memo for the new UCSF subaward for GVP are attached for your review/approval. The SOW is also included below for your review/edits. Once approved I'll send the request package on to Andrew. Only AOR approval is required for this one. Thanks!

Scope of work

The goal of the Global Viroma Project Benefit Cost Analysis (GVP/BCA) is to quantify the expected range of costs and benefits that would follow from the implementation of GVP. The following preliminary work plan is divided into two areas: epidemiologic modeling and economic modeling. The epidemiologic modeling consists of four core efforts: (i) data acquisition and analysis on numbers of cases and deaths caused by historical emergent virus events, (ii) estimation of characteristics of emergent viruses, (iii) mathematical modeling of the epidemiological impact of emergent viruses, and constructing stochastic event catalogs to characterize the probability and severity of outbreaks, (iv) estimating the mortality and morbidity reductions yielded by potential GVP benefits (e.g. vaccines).

The economic modeling consists of three elements: (i) defining a framework for conceptualizing GVP's various costs and benefits (vaccines, therapeutics, capacity-building for surveillance etc.), via consultations with GVP stakeholders (ii) modeling the economic impact of the emerging virus events developed in the epidemiological modeling, as above), and (iii) estimating the economic benefits yielded by GVP outputs (e.g. value of deaths averted, economic shock mitigated, etc.) The plan outlined above is conditional on the final approved budget envelope, and may be adjusted accordingly.

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*

530-754-9034 *(office)*
Skype: *ralstasurv*

From: Andrew Clements <aclements@usaid.gov>
Sent: Wed, 3 Oct 2018 17:38:08 +0200
Subject: Re: PREDICT FY19 workplan and budget
To: Elizabeth Leasure <ealeasure@ucdavis.edu>
Cc: "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>, Amalhin Shek <ashek@usaid.gov>, PREDICTMGT <predictmgt@usaid.gov>, Predict inbox <predict@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>

Hi Liz,

Can you clarify the $5,041,470 number (year 5 expected) for Ebola funding in the summary table?

Thanks!

Andrew

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2

On Fri, Aug 31, 2018 at 6:39 AM David J Wolking <djwolking@ucdavis.edu> wrote:

Hi Andrew, Alisa, Mandy, Amalhin, and the USAID team,
We are pleased to present PREDICT's FY19 workplan & budget. I'm attaching all workplan documents here, which include:

- PREDICT's FY19 Workplan: Global and All-country activities and Country Briefs from all P2 countries, including Phase 1 GHSA country narratives (Word)
- The GHSA template for all Phase 1 Africa and Asia countries (Excel)
- PREDICT's Y5 budget (Excel)

Please let us know if you have any questions. I will of course have this on our agenda for the next management team call for anything that requires follow-up. Consistent with your helpful guidance, USAID missions and field offices have been briefed and in many cases worked collaboratively on these plans with our Country Coordinators, but all are waiting AOR and USAID/W approval for circulation of final approved plans.

We are proud of the work involved in these plans and look forward to carrying them out with global and host country partners over the next year. It's an exciting time for the project.

Best,

David Wolking, PREDICT Global Operations Manager (on behalf of the PREDICT Consortium)
Contact: predict@ucdavis.edu

From: Andrew Clements <aclements@usaid.gov>
Sent: Thu, 4 Oct 2018 12:00:59 +0200
Subject: Re: PREDICT FY19 workplan and budget
To: David J Wolking <djwolking@ucdavis.edu>
Cc: "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>, Amanda Faust <apaust@usaid.gov>, Amalhin Shek <ashek@usaid.gov>, PREDICTMGT <predictmgt@usaid.gov>, Predict inbox <predict@ucdavis.edu>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>

Hi David,

You have my AOR approval for the year 5 work plan and budget. Any issues raised by USAID Missions can be worked out between Mission and local PREDICT staff.

Andrew

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
E-mail: aclements@usaid.gov

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- The GHSA template for all Phase 1 Africa and Asia countries (Excel)
- PREDICT's Y5 budget (Excel)

Please let us know if you have any questions. I will of course have this on our agenda for the next management team call for anything that requires follow-up. Consistent with your helpful guidance, USAID missions and field offices have been briefed and in many cases worked collaboratively on these plans with our Country Coordinators, but all are waiting AOR and USAID/W approval for circulation of final approved plans.

We are proud of the work involved in these plans and look forward to carrying them out with global and host country partners over the next year. It's an exciting time for the project.

Best,

David Wolking, PREDICT Global Operations Manager (on behalf of the PREDICT Consortium)
Contact: predict@ucdavis.edu

Sent: Mon, 22 Oct 2018 21:49:37 -0700
Subject: Re: GVP.Thai NVP
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: "Kevin J. Olival" <olival@ecohealthalliance.org>
Cc: Dennis Carroll <dcarroll@usaid.gov>, REDACTED, David McIver <dmciver@metabiota.com>, Sam Halabi <sfh9@georgetown.edu>, Cara Chrisman <cchrisman@usaid.gov>, "Damrongwatanapokin, Sudarat (RDMA/OPH)" <sdamrongwatanapokin@usaid.gov>, Subhash Morzaria REDACTED

GVP Implentation Bangkok 2018.pptx

Jonna's Draft

On Mon, Oct 22, 2018 at 9:29 PM Kevin Olival <olival@ecohealthalliance.org> wrote:

Dear all,
Draft slides for my Modeling talk tomorrow,

[redacted]

Cheers,
Kevin

Kevin J. Olival, PhD
Vice President for Research
USAID PREDICT-2 Modeling & Analytics Coordinator

EcoHealth Alliance
460 West 34th Street – 17th floor
New York, NY 10001

1.212.380.4478 (direct)
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www.ecohealthalliance.org

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

On Oct 19, 2018, at 5:00 AM, Dennis Carroll <dcarroll@usaid.gov> wrote:

All, attached is the introductory overview I plan to present in Bangkok
d

Dr Dennis Carroll
Director
Emerging Threats
Global Health
USAID
301-646-6235

Begin forwarded message:

From: Dennis Carroll <dcarroll@usaid.gov>
To: DCarroll <dcarroll@usaid.gov>, Dowen Carroll <REDACTED>, Cara Chrisman <cchrisman@usaid.gov>
Subject: GVP.Thai NVP

PP copy of the Thai presentation

Dr. Dennis Carroll
Director, Emerging Threats Program
Bureau for Global Health
U.S. Agency for International Development

Office: 571-551-7109
Mobile: REDACTED

<Mail Attachment.html><GVP.Thai.NVP.10.05.18 [Autosaved].pptx>

From: Peter Daszak <daszak@ecohealthalliance.org>
To: Jonna Mazet <jkmazet@ucdavis.edu>;Tracey Goldstein (tgoldstein@ucdavis.edu) <tgoldstein@ucdavis.edu>;Simon Anthony <sja2127@columbia.edu>
CC: William B. Karesh <karesh@ecohealthalliance.org>;Kevin Olival <olival@ecohealthalliance.org>;Jon Epstein <epstein@ecohealthalliance.org>;Alison Andre <andre@ecohealthalliance.org>
Sent: 2/5/2019 7:10:22 PM
Subject: prioritizing labs for DTRA

Hi All,

Can we have a call to discuss the lab prioritization for DTRA? I'm assuming we would need to do that tomorrow (Thursday) so we can get ready for the Friday deadline. We can juggle times to make it work…

Cheers,

Peter

Peter Daszak
President

EcoHealth Alliance
460 West 34th Street – 17th Floor
New York, NY 10001

Tel. +1 212-380-4474
Website: www.ecohealthalliance.org
Twitter: @PeterDaszak

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that prevent pandemics and promote conservation.

From: Andrew Clements <aclements@usaid.gov>
Sent: Wed, 13 Mar 2019 06:13:06 -0700
Subject: OIE report: MERS in Kenya camels
To: [redacted] William Karesh <Karesh@ecohealthalliance.org>, dawson@ecohealthalliance.org, Zimmermannd@si.edu, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Dennis Carroll <dcarroll@usaid.gov>, lparish@usaid.gov, Alisa Pereira <apereira@usaid.gov>, cchitsman@usaid.gov, rgreene@usaid.gov, akhoris@usaid.gov, nhrichel@usaid.gov [redacted] Juan (AGAH) [redacted] Lubroth" [redacted] "Lisa Kramer (Nairobi/EA/RHA)" <lkramer@usaid.gov>, alongwagar@usaid.gov, athaiyah@usaid.gov

FYI. I assume this is work supported by FAO under EPT-2.

http://www.oie.int/wahis_2/public/wahid.php/Reviewreport/Review?page_refer=MapFullEventReport&reportid=29718

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Tue, 9 Apr 2019 09:48:59 -0700
To: Dana Ellis <dellis@metabiota.com>
Cc: David Wolking <djwolking@ucdavis.edu>, Predict inbox <predict@ucdavis.edu>, David McIver <dmciver@metabiota.com>, Beth Edison <bedison@metabiota.com>, Karen Saylors <ksaylors@metabiota.com>
Subject: [predict] Re: Y5 SAR reports and profiles

Thanks!

On Fri, Apr 5, 2019 at 3:21 PM Dana Ellis <dellis@metabiota.com> wrote:

Hi David,
Please find attached our Y5 SAR M&E reports as well as profiles for individuals from Cameroon, DRC, and Laos.
As always, let me know if you need any clarification or additional information!
Have a great weekend,
Dana

--
Dana Ellis
Project Coordinator, PREDICT | Metabiota
email: dellis@metabiota.com
cell REDACTED

CONFIDENTIALITY NOTICE: The information contained in this electronic mail (email) transmission (including attachments), is intended by Metabiota for the use of the named individual or entity to which it is addressed and may contain information that is privileged or otherwise confidential. It is not intended for transmission to, or receipt by, any individual or entity other than the above named addressee except as otherwise expressly permitted in this email transmission. If you have received this email in error, please delete it without copying or forwarding it, and notify the sender of the error by email reply.

From: Dennis Carroll <dcarroll@usaid.gov>
Sent: Sat, 15 Jun 2019 10:31:43 -0400
Subject: Re: Thank you for coming last night!
To: Jonna Mazet <jkmazet@ucdavis.edu>
Cc: Robert Kessler <kessler@ecohealthalliance.org>, "Keusch, Gerald T" <keusch@bu.edu>, Peter Daszak <daszak@ecohealthalliance.org>

Likewise Robert. Great fun. Thanks for all your work in putting it all together.
d

Sent from my iPhone

On Jun 14, 2019, at 11:09 PM, Jonna Mazet <jkmazet@ucdavis.edu> wrote:

> It was a pleasure, Robert!
> So fun to do a tag team talk with two of my favorites -- Peter's not too bad, either.
> Sorry for my rapid departure. Only one night in my own bed, short as it was, these two weeks.
> Have a nice weekend, all,
> Jonna

On Fri, Jun 14, 2019 at 4:46 AM Robert Kessler <kessler@ecohealthalliance.org> wrote:

> I wanted to shoot you all a note to say thank you very much for joining us last night and sharing your work and your vision. There was a great energy in the room and that was absolutely thanks to the incredible caliber of our speakers last night. Thank you so much and I've attached the image I shot of the four of you so that you have it.
> Thank you again!

--

Robert Kessler
Development Associate

EcoHealth Alliance
460 West 34th Street – 17th floor
New York, NY 10001

646.868.4711 (direct)
[redacted] (mobile)
212.380.4465 (fax)
www.ecohealthalliance.org

EcoHealth Alliance leads cutting-edge scientific research into the critical connections between human and wildlife health and delicate ecosystems. With this science, we develop solutions that prevent pandemics and promote conservation.

From:	Andrew Clements <aclements@usaid.gov>
To:	Katherine Leasure <kaleasure@ucdavis.edu>;Schar, Daniel (RDMA/OPH) <dSchar@usaid.gov>;Damrongwatanapokin, Sudarat (RDMA/OPH) <sDamrongwatanapokin@usaid.gov>
CC:	PREDICTMGT <predictmgt@usaid.gov>;Predict inbox <predict@ucdavis.edu>;Jonna Mazet <Jkmazet@ucdavis.edu>
Sent:	6/27/2019 8:41:03 AM
Subject:	Re: Change to Pending ITA - D. McIver (Laos Postponed)

Thanks, Katie.

Dan/Sudarat: see below.

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4231
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/ept2

On Wed, Jun 26, 2019 at 11:16 PM Katherine Leasure <kaleasure@ucdavis.edu> wrote:
Hi Andrew. Per Metabiota, the below travel for David McIver to Laos has been postponed, with new dates TBD. A new ITA will be submitted when the rescheduled travel dates have been confirmed. Based on Tone's response to the request for concurrence, it appears that the Laos Mission is already aware of this, but I will follow-up on that email chain to confirm that David's trip is being rescheduled. Please let me know if you have any questions. Thank you!

Metabiota would like to request travel approval for Dr. David McIver, Epidemiologist, to travel from Nanaimo, Canada to Vientiane, Laos from June 28 to July 6, 2019 to hold PREDICT2 wrap up meetings with in-country partners.

Trip purpose: In Vientiane, Dr. McIver will coordinate and participate in national-level meetings with PREDICT2 partners including the Ministry of Health, the Ministry of Livestock and Fisheries, as well as USAID members from the embassy. Following these meetings, Dr. McIver will travel to Champasack province for similar meetings with provincial and district governments, as well as partner hospitals and communities. These meetings are intended to be a part of the final, program close-out activities for the PREDICT2 program. Results from the global and local programs will be presented to all partners and local results will be shared as appropriate with hospitals and communities. In Vientiane, Dr. McIver will also arrange to meet with mission representatives at the US embassy to debrief on PREDICT2 as the EPT2 program comes to a close.

--
Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
530-752-7526

--
You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
To unsubscribe from this group and stop receiving emails from it, send an email to predictmgt+unsubscribe@usaid.gov.
To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CAD6-xMKnnG3hrf4G%3DVZm-_NzAeVd6FKMEsg9_0uwopZTJw%40mail.gmail.com.

From: "Tammie O'Rourke" <torourke@metabiota.com>
Sent: Wed, 3 Jul 2019 08:11:52 -0700
Subject: Re: PREDICT EB Call - June 26th @ 9 am PDT/12 pm EDT
To: David J Wolking <djwolking@ucdavis.edu>
Cc: Elizabeth Leasure <ealeasure@ucdavis.edu>, Brian H Bird <bhbird@ucdavis.edu>, Amanda Fine [REDACTED] Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Corina Grigorescu Monagin <cgmonagin@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Karen Saylors [REDACTED], Simon Anthony <sja2127@columbia.edu>, Woutrina A Smith <waasmith@ucdavis.edu>, Jon Epstein <epstein@ecohealthalliance.org>, Kevin Olival <olival@ecohealthalliance.org>, Tracey Goldstein <tgoldstein@ucdavis.edu>, William Karesh <karesh@ecohealthalliance.org>, "Murray, Suzan" <murrays@si.edu>, "Churchill, Carolina" [REDACTED] Jonna Mazet <jkmazet@ucdavis.edu>, Sarah Olson [REDACTED] [REDACTED] [REDACTED], "Vaitutto, Marc" <vaituttom@si.edu>, Dawn Zimmerman <zimmermand@si.edu>, Evelyn Luciano <luciano@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Amanda Andre <amanda.andre@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, Molly Turner <turner@ecohealthalliance.org>, Brooke Genovese <bgenovese@ucdavis.edu>, predict Sympa List <predict@ucdavis.edu>

Hi all,
Below is the indicator report as of today for those interested in the latest numbers. I am sorry for the delay in sending it out.
Tammie

Indicator
countries with data
countries with tests approved by government
animals sampled
humans sampled
human questionnaires
specimens
tests
animals tested
humans tested
animal specimens tested
human specimens tested
tests approved by government
tests active testing ongoing
sequences interpreted
sequences waiting interpretation
individuals barcoded
average days between event and data submission
average days between event and data submission for data submitted in last 2 weeks
number of events/test batches waiting for country input
number of events waiting for IH review
number of test batches waiting for IH review
number of barcode test batches waiting for IH review

On Tue, Jun 25, 2019 at 10:13 PM David J Wolking <djwolking@ucdavis.edu> wrote:

Hi there,
Below is the agenda and call-in details for our meeting tomorrow.

Talk soon,

David

PREDICT Executive Board Meeting
Wednesday, June 26, 2019

9:00-11:00am PST/12:00-2:00pm EST
Zoom link: REDACTED
Additional Zoom info below agenda

1. Administrative items
- Y5 mod update & guidance
- Status of subaward amendments and budget expectations
- Ramp up, burn rates, and close-out plans
- Updates on July 9th congressional briefing & other future events
- Bali is on!
- Asia bat book update
- Sample disposition plan update
- Update on final report

2. Brief read out on UCD Data Conference

3. Preview of PREDICT findings (USAID request)

4. Product Packages - aka Cool Stuff (another USAID request)
- #1 - Viral discovery & pathogen highlights

5. Objective team updates

6. Mission communications & country roundup essentials
- DRC outbreak updates
- Guidance for country wrap up meetings (TZ, Uganda, Laos, others?)
- Guinea
- Others?

7. Publication, media, and conference updates
- PREDICT All Country Meeting, Bali, Indonesia (September 15-17, 2019)
- DTRA Biological Threat Reduction Program Review meeting Warsaw, Poland (Sep 17-19, 2019)
- ID week 2019, Infectious Disease Society of America, Washington DC (October 2-6, 2019)
- 19th International Congress on Infectious Diseases, Kuala Lumpur (February 20-23, 2020)

8. AOB

Zoom Call-in info
Zoom link: REDACTED
Or iPhone one-tap :
US: +16468769923, REDACTED or +16699006833, REDACTED
Or Telephone:
Dial(for higher quality, dial a number based on your current location):
US: +1 646 876 9923 or +1 669 900 6833
Meeting ID: REDACTED
International numbers available: https://zoom.us/u/depX2cn5i

On Fri, Jun 21, 2019 at 3:12 PM Elizabeth Leasure <calcasurc@ucdavis.edu> wrote:

Hi everyone. Just a quick reminder that our next EB call is scheduled for next Wednesday, June 26th at 9 am PDT/12 pm EDT. As

usual, an agenda will be sent out prior to the call.

Please note that our **July 10th call is cancelled** due to scheduling conflicts, but our July 24th call is still on the books.

Thanks,

Liz

Elizabeth Leasure

Financial Operations Manager

One Health Institute

REDACTED *(cell)*

530-754-9034 (office)

Skype: eleasure

--
Tammie O'Rourke
Metabiota
Senior Information Management Developer
Emerging Pandemic Threats - PREDICT Program
tel +1-250-618-2460

From: Katherine Leasure <kaleasure@ucdavis.edu>
To: PREDICTMGT <predictmgt@usaid.gov>
CC: Predict inbox <predict@ucdavis.edu>; Jonna Mazet <Jkmazet@ucdavis.edu>
Sent: 7/5/2019 8:56:52 PM
Subject: PREDICT International Travel Requests

Please find below an international travel request for your review and approval: a TDY form is also attached for David McIver's Laos travel. Please let me know if you have any questions. Thanks!

1. McIver (Laos): $1500 airfare/$212 (Vientiane) max daily per diem

Travel Request –

1. Metabiota would like to request travel approval for Dr. David McIver, Epidemiologist, to travel from Nanaimo, Canada to Vientiane, Laos from August 1- 13, 2019 to hold PREDICT2 wrap up meetings with in-country partners.

Trip purpose: In Vientiane, Dr. McIver will coordinate and participate in national-level meetings with PREDICT2 partners including the Ministry of Health, the Ministry of Livestock and Fisheries, as well as USAID members from the embassy. Following these meetings, Dr. McIver will travel to Champasack province for similar meetings with provincial and district governments, as well as partner hospitals and communities. These meetings are intended to be a part of the final, program close-out activities for the PREDICT2 program. Results from the global and local programs will be presented to all partners and local results will be shared as appropriate with hospitals and communities. In Vientiane, Dr. McIver will also arrange to meet with mission representatives at the US embassy to debrief on PREDICT2 as the EPT2 program comes to a close.

--
Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
530-752-7526

Lao PDR Temporary Duty Information Form (Last update: August 2017)
(send completed form to [illegible], [illegible], and [illegible])

Submitted by: David McIver, Metabiota Inc.

Dates of travel:	From: 8/1/2019 To: 8/13/2019
TDY objective:	To hold PREDICT2 wrap up meetings with the national, provincial, and district governments, as well as partner hospitals and communities.
USAID activity	To hold PREDICT2 wrap up meetings with in-country partners as well as partner hospitals and communities.
Individuals visiting Laos (from RDMA, Washington, Implementing Partner):	Dr. David McIver, Metabiota, Inc.
Required meetings to be arranged:	Meet with USAID mission if possible and available.
Site visits required:	Champasak province to meet with partner hospitals and communities.
Data to be collected:	N/A
Is a DIP note or letter of introduction requested:	☐ Yes ☒ No *Note: DIP notes are required for site visits and meetings with high-level GOL officials. Names of GOL officials must also be provided.*
Is motor pool requested:	☐ Yes ☒ No
Is Embassy access requested:	☒ Yes ☐ No
Have the visitors met with the AMB/DCM before:	☒ Yes ☐ No
Is Laos staff recommended to accompany all meetings:	☐ Strongly recommended ☒ Optional, but at the Laos Office discretion
Additional Comments:	

*Only a limited number of hotels meet Embassy Lao security and safety requirements for eCC travelers. As of August 2017 these are: (1) Lao Plaza Vientiane, (2) Landmark Mekong Riverside, (3) Settha Palace, (4) Dhavara Vientiane, and (5) Crowne Plaza.

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Tue, 23 Jul 2019 22:18:16 -0700
Subject: Re: P2 EB Call - July 24, 2019 @ 9AM Pacific
To: "Prof. Woutrina Smith" <wasmith@ucdavis.edu>
Cc: David John Wolking <djwolking@ucdavis.edu>, "Jonna A. K. Mazet" <jkmazet@ucdavis.edu>

Good stuff just sent you a Cameroon team prez that will be there, have fun!

On Tue, Jul 23, 2019, 9:01 PM Woutrina Smith <wasmith@ucdavis.edu> wrote:

Hi Davidi and Jonna, I'm a maybe for EB call Wednesday just FYI. I'm going to try to join and will hopefully just have arrived at my hotel in Kampala for OHCEA fun. Thx, Wout

---

On Jul 24, 2019, at 4:31 AM, David J Wolking <djwolking@ucdavis.edu> wrote:

Hi PREDICT EB,
The agenda and Zoom link for tomorrow's call are below along with a few supporting attachments.

Talk soon!

David

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Wednesday, July 24, 2019
9:00-11:00am PDT/12:00-2:00pm EDT
Zoom link: [redacted]
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- Y5 and extension updates
- Status of subaward amendments and budget expectations
- Ramp up and burn rates...
- Updates on July 9th congressional briefing & other future events
- Bali updates - link to agenda
- Bali meeting sponsor letters
- DDL status

2. Project closeout updates

- Close-out cards (David)
- Sample disposition feedback and discussion (Corina and Tracey)
- Data disposition plan updates (Tammie et al)
- Equipment and supplies (Liz)
- Financial close-out (Liz)

3. Update on final report (David)

4. Preview of PREDICT findings - *2 attachments*

5. Product Packages - aka Cool Stuff - reactions to the first edition on viral discovery and next steps...

6. Objective team updates

7. Mission communications & country roundup essentials

- Tanzania insight into extension communications
- Updates on country wrap up meetings
- Guinea update
- DRC outbreak updates
- Lacs meeting with US Ambo'
- Viet Nam EPT program review meeting
- Mission fact sheets and briefer requests
- Next Gen and Breakthrough Action coordination

8. Publication, media, and conference updates

- New add - any new abstracts, pubs, concepts to share (standing item) - *see attached abstracts from Rwanda and Nepal*
- PREDICT All Country Meeting, Bali, Indonesia (September 15-17, 2019)
- DTRA Biological Threat Reduction Program Review meeting Warsaw, Poland (Sep 17-19, 2019)
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- 19th International Congress on Infectious Diseases, Kuala Lumpur (February 20-23, 2020)

9. AOB

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Or iPhone one-tap :
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International numbers available: https://zoom.us/u/depX2cn5i

<P2 Abstracts (Nepal and Rwanda).docx>

<Bat Life History and Coronavirus Shedding.docx>

<Application of SEEDNet Modeling Tool for Outbreak Preparedness & Response.docx>

Sent: Tue, 23 Jul 2019 22:47:50 -0700
Subject: Re: P2 EB Call - July 24, 2019 @ 9AM Pacific
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Woutrina Smith <wasmith@ucdavis.edu>
Cc: David J Wolking <djwolking@ucdavis.edu>

Thanks -- travel safe,
J

On Tue, Jul 23, 2019 at 9:01 PM Woutrina Smith <wasmith@ucdavis.edu> wrote:

Hi Davidi and Jonna, I'm a maybe for EB call Wednesday just FYI. I'm going to try to join and will hopefully just have arrived at my hotel in Kampala for OHCEA fun. Thx, Wout

---

On Jul 24, 2019, at 4:31 AM, David J Wolking <djwolking@ucdavis.edu> wrote:

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<P2 Abstracts (Nepal and Rwanda).docx>

<Bat Life History and Coronavirus Shedding.docx>

<Application of SEEDNet Modeling Tool for Outbreak Preparedness & Response.docx>

From: Andrew Clements <aclements@usaid.gov>
Sent: Wed, 31 Jul 2019 07:00:24 -0700
Subject: Re: Change to Approved Group ITA: Bali-All Country Meeting
To: Katherine Leasure <kaleasure@ucdavis.edu>
Cc: PREDICTMGT <predictmgt@usaid.gov>, Predict inbox <predict@ucdavis.edu>, Jonna Mazet <Jkmazet@ucdavis.edu>

Approved

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Jul 30, 2019, at 6:58 PM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. I just wanted to follow-up, as I had not yet heard back. We've had a few additional changes to the attendee list since my previous email, so I've updated the table below accordingly; the total number of attendees would increase by one (5 add/4 cancel). Please let me know if you have any questions. Thanks!

PARTICIPANT CHANGE	NAME	DEPARTURE LOCATION	AIRFARE COST
ADD	Ronald Waldman	Washington, DC, USA	$2,500
ADD	John Mackenzie	Crawley, Australia	$500
ADD	Sandra Samules	Monrovia, Liberia	$1,200
ADD	Jimmy Lee	Kuala Lumpur, Malaysia	$750
ADD	Islam Shariful	Dhaka, Bangladesh	$1,000
CANCEL	Allan Kwallah	Nairobi, Kenya	$2,000
CANCEL	Elizabeth Leasure	Davis, CA, USA	$1,600
CANCEL	Jackson Poulton	Monrovia, Liberia	$1,200
CANCEL	Tom Hughes	Kuala Lumpur, Malaysia	$750

On Wed, Jul 24, 2019 at 4:56 PM Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. Please find below changes to the group ITA submitted for travel to Bali for the PREDICT All-Country Meeting (adding two members of the External Advisory Panel, and cancelling Allan Kwallah per Smithsonian Institution). Please let me know if you have any questions. Thanks!

PARTICIPANT CHANGE	NAME	DEPARTURE LOCATION	AIRFARE COST
ADD	Ronald Waldman	Washington, DC, USA	$2,500
ADD	John Mackenzie	Crawley, Australia	$500
CANCEL	Allan Kwallah	Nairobi, Kenya	$2,000

Travel Request:
PREDICT-2 requests approval for the individuals listed in the attached spreadsheet to travel from their respective departure locations to Bali, Indonesia to participate in the PREDICT-2 All Country Meeting to be held September 15-17, 2019 (2-3 days travel time needed depending on departure location).

Trip purpose: This final 3-day meeting for the PREDICT Consortium will bring together global and in-country project staff for presentations and workshops covering a number of topics, including award and project close-out, highlights and achievements over the past 10 years, and future directions for One Health surveillance and health security globally and in each country. This meeting will enable PREDICT-2 to capture successes and future directions for the project final report and celebrate the hard work of the this amazing and unique global consortium. This meeting is key to completing the project successfully.

--
Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
530-752-7526

--
Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
530-752-7526

--
You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
To unsubscribe from this group and stop receiving emails from it, send an email to predictmgt+unsubscribe@usaid.gov.
To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CAD6-xMLZrw2hFJVTygoFELMNdAWD&CT3rTOQ4kkderRmwMEPVA%40mail.gmail.com.

From: Karen Saylors [REDACTED]
Sent: Thu, 8 Aug 2019 11:40:19 -0700
To: David J Wolking <djwolking@ucdavis.edu>
Cc: David McIver <dmciver@metabiota.com>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Corina Grigorescu Monagin <cgmonagin@ucdavis.edu>
Subject: [predict] Re: USAID support to INRB
RENFORCEMENT inrb.JPG
USAID Capacity Strengthening to the INRB.docx

Hi David,
Here you go. Let me know if you need anything else.

Best,
Karen

On Thu, Aug 8, 2019 at 8:21 AM Karen Saylors <[REDACTED]> wrote:

I can pull that together for you David by 10:30 or so.
Cheers,
Karen

On Thu, Aug 8, 2019 at 8:11 AM David J Wolking <djwolking@ucdavis.edu> wrote:

Hi there,
USAID asking for some specifics on support to INRB (see below). Want me to just screen the final report profiles and pull this together or do you have something from other work or briefings you could screen and repurpose into a few short bullets?

They need this today of course. What else is new.

David

---------- Forwarded message ---------
From: **Lisa Kramer** <lkramer@usaid.gov>
Date: Thu, Aug 8, 2019 at 6:56 AM
Subject: Re: USAID support to INRB
To: David J Wolking <djwolking@ucdavis.edu>
Cc: Andrew Clements <aclements@usaid.gov>

Hi David,
further to the message I just sent, if you have any specifics about support for diagnostics and response to outbreaks in DRC, that would be great.
Thanks

Lisa Kramer
Regional Emerging Threats Advisor
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
[REDACTED] | LKramer@usaid.gov
USAID.gov | @USAIDKenya | @USAIDEastAfrica | Flickr | YouTube

On Thu, Aug 8, 2019 at 2:48 PM Lisa Kramer <lkramer@usaid.gov> wrote:

Hello David,

USAID/DRC will host a high-level visitor and we are looking for some specific bullets about support that has strengthened INRB. Jean-Felly has provided a preliminary list below. Can you add to this for me? I don't need extensive text, just bullet points. I think they need these today if possible.

thanks,
Lisa

Lisa Kramer
Regional Emerging Threats Advisor
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
REDACTED | LKramer@usaid.gov
USAID.gov | @USAIDKenya | @USAIDEastAfrica | Flickr | YouTube

---------- Forwarded message ---------
From: **Jean-Felly Numbi** <jnumbi@usaid.gov>
Date: Thu, Aug 8, 2019 at 2:43 PM
Subject: Re: USAID support to INRB
To: Bethany Haberer <bhaberer@usaid.gov>
Cc: Lisa Kramer <lkramer@usaid.gov>

Hi Bethany,
Over 10 passed years, PREDICT has contributed to INRB staff capacity building in virology skills;
Provided modern equipment such are high capacity Mobil Lab that is used for Ebola testing, Machinery to produce liquid Azote that allows storing samples below 12O celsius degrees.
Through virus sampling, PREDICT was able to store over 128,000 virus (among them known virus as unknown virus)
Thanks,
Jean-Felly.

On Thu, Aug 8, 2019 at 2:03 PM Bethany Haberer <bhaberer@usaid.gov> wrote:

> Hi Jean Felly and Lisa,
> Would you have a couple of examples of how USAID has strengthened the INRB over the years? The DART would like to include it in their briefing materials. Just a bullet or two would be great if you have the information at your fingertips.
> Thanks,
> Bethany
>
> **Bethany A. Haberer**
> Deputy Health Office Director | USAID/République démocratique du Congo
> REDACTED | bhaberer@usaid.gov

--
Jean-Felly Numbi
USAID-DRC TB& Infectious Disease Advisor
Office Phone #: REDACTED
Cellular Phone #

USAID Capacity Strengthening to the
Institut National de Recherche Biomédicale (INRB)

The PREDICT team has been hosted by the National Institute for Biomedical Research, which is the nation's leading infectious disease reference laboratory. The main focus of the PREDICT work in DRC was to further characterize and understand the potential for viral disease emergence, and this proximity to leading national emerging infectious disease specialists has enabled PREDICT to reinforce skills, such as training scientists on new molecular diagnostic techniques and virology expertise, and USAID has provided opportunities for supervised internships at the PREDICT laboratory.

The guidance and mentorship provided by PREDICT in DRC has enabled the expansion of available expertise at the National Institute for Biomedical Research (INRB) in terms of increased capacity, with laboratory trainings provided to broad groups of trainees including government staff, medical and veterinary students, and other health specialists. Not only did dozens of people learn the steps involved in preparing samples for testing, performing the testing, and interpreting results, they also learned about the proper management of a highly functional laboratory, which includes keeping inventory, sample workflow to avoid contamination, and preparing for maintaining sample integrity in the event of power outages. PREDICT has provided INRB with -80 freezers and equipment to produce liquid nitrogen, which allows for safe sample storage.

Through human and animal sampling, PREDICT was able to store and analyze over 128,000 viruses (among them known virus as unknown virus) :
83 viruses detected (53 new virus and 30 knew virus);
7222 specimens were stored;
2,179 individuals sampled (570 humans and 1,609 animals);
14,841 tests run for 5 viral families.

On several occasions the PREDICT team was able to assist the INRB and the DRC government with the response to disease outbreaks in the country. This included responding to 3 separate Ebola virus outbreaks (by providing personal protective equipment, capacity for field and laboratory testing of samples, and logistical support), a Yellow Fever outbreak in all 26 provinces (providing cold chain support and purchasing mobile laboratory facilities), and an outbreak of unknown origin at the Lola Ya Bonobo sanctuary in Kinshasa (providing diagnostic testing support and investigation recommendations). PREDICT testing confirmed the presence of Zaire Ebola virus RNA from a human, which was part of an outbreak response in which PREDICT assisted the government of DRC in identifying the causative agent of an unknown hemorrhagic fever; this yielded the first sequence of this outbreak's strain and helped contribute to the rapid containment of the epidemic.

DEMOCRATIC REPUBLIC OF CONGO

USAID | PREDICT

Global Health Security Agenda

WORKFORCE DEVELOPMENT

23	5	67	11
STAFF	STUDENTS	GOVERNMENT	OTHER

ONE HEALTH SURVEILLANCE

LAB STRENGTHENING

IMPACT

104 trained in One Health skills

2,179 individuals sampled (570 humans and 1,609 animals)

276 individuals interviewed in behavioral risk investigations

14,841 tests for 5 viral families

83 viruses detected

www.predict.global

VIRAL FINDINGS

From: Karen Saylors [redacted]
Sent: Thu, 8 Aug 2019 15:31:15 -0700
To: David J Wolking <djwolking@ucdavis.edu>
Cc: David McIver <dmciver@metabiota.com>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Corina Grigorescu Monagin <cgmonagin@ucdavis.edu>
Subject: [predict] Re: USAID support to INRB

Hi David.
Yes I was wondering about the numbers that Jean Felly and Charles inserted but I couldn't verify them in EIDITH today, so thanks for cleaning those up!
best,
Karen

On Thu, Aug 8, 2019 at 2:19 PM David J Wolking <djwolking@ucdavis.edu> wrote:

> Hey Karen,
> Sending this "final" version onto Lisa now. I'm attaching the semi-annual dashboard as more current until we do the final report profile. Just FYI - a lot of the #s used in the bullets were not matching what we have in EIDITH or my files and I have no idea where Jean Felly got that "128K viruses detected" figure. That's orders of magnitude more than we've detected in this entire project over the past decade.

Thanks for the quick turnaround while in transit today!

David

On Thu, Aug 8, 2019 at 11:40 AM Karen Saylors [redacted] wrote:

> Hi David,
> Here you go. Let me know if you need anything else.

Best,
Karen

On Thu, Aug 8, 2019 at 8:21 AM Karen Saylors [redacted] wrote:

> I can pull that together for you David by 10:30 or so.
> Cheers,
> Karen

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They need this today of course. What else is new.

David

---------- Forwarded message ---------
From: **Lisa Kramer** <lkramer@usaid.gov>
Date: Thu, Aug 8, 2019 at 6:56 AM
Subject: Re: USAID support to INRB
To: David J Wolking <djwolking@ucdavis.edu>
Cc: Andrew Clements <aclements@usaid.gov>

Hi David,
further to the message I just sent, if you have any specifics about support for diagnostics and response to outbreaks in DRC, that would be great.
Thanks

Lisa Kramer
Regional Emerging Threats Advisor
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
REDACTED LKramer@usaid.gov
USAID.gov | @USAIDKenya | @USAIDEastAfrica | Flickr | YouTube

On Thu, Aug 8, 2019 at 2:48 PM Lisa Kramer <lkramer@usaid.gov> wrote:

Hello David,

USAID/DRC will host a high-level visitor and we are looking for some specific bullets about support that has strengthened INRB. Jean-Felly has provided a preliminary list below. Can you add to this for me? I don't need extensive text, just bullet points. I think they need these today if possible.

thanks,
Lisa

Lisa Kramer
Regional Emerging Threats Advisor
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
REDACTED LKramer@usaid.gov
USAID.gov | @USAIDKenya | @USAIDEastAfrica | Flickr | YouTube

---------- Forwarded message ---------
From: **Jean-Felly Numbi** <jnumbi@usaid.gov>
Date: Thu, Aug 8, 2019 at 2:43 PM
Subject: Re: USAID support to INRB
To: Bethany Haberer <bhaberer@usaid.gov>
Cc: Lisa Kramer <lkramer@usaid.gov>

Hi Bethany,
Over 10 passed years, PREDICT has contributed to INRB staff capacity building in virology skills;
Provided modern equipment such are high capacity Mobil Lab that is used for Ebola testing, Machinery to produce liquid Azote that allows storing samples below 120 celsius degrees.
Through virus sampling, PREDICT was able to store over 128,000 virus (among them known virus as unknown virus)
Thanks,
Jean-Felly.

On Thu, Aug 8, 2019 at 2:03 PM Bethany Haberer <bhaberer@usaid.gov> wrote:

Hi Jean Felly and Lisa,
Would you have a couple of examples of how USAID has strengthened the INRB over the years? The DART would like to include it in their briefing materials. Just a bullet or two would be great if you have the information at your fingertips.
Thanks,
Bethany

Bethany A. Haberer
Deputy Health Office Director, USAID/République démocratique du Congo
REDACTED bhaberer@usaid.gov

--

Jean-Felly Numbi
USAID-DRC TB& Infection Disease Adviser
Office Phone #: +
Cellular Phone #: REDACTED

From: Katherine Leasure <kaleasure@ucdavis.edu>
To: PREDICTMGT <predictmgt@usaid.gov>
CC: Predict inbox <predict@ucdavis.edu>; Jonna Mazet <Jkmazet@ucdavis.edu>
Sent: 8/23/2019 11:59:39 PM
Subject: Change to Approved Group ITA: Bali-All Country Meeting

Hi Andrew. Please find below changes to the group ITA submitted for travel to Bali for the PREDICT All-Country Meeting. Please let me know if you have any questions. Thanks!

PARTICIPANT CHANGE	NAME	DEPARTURE LOCATION	AIRFARE COST
ADD	Desalegn Belay	Addis Ababa, Ethiopia	$1400
ADD	Waithana Theppanga	Vientiane, Laos	$400
CANCEL	John Brownstein	Boston, MA, USA	$1200
CANCEL	Beyene Meges	Addis Ababa, Ethiopia	$1400

CHANGE TO TRIP DETAILS (additional non-PREDICT travel):
Daniel O'Rourke (Metabiota) will travel from Nanaimo, Canada to Narita, Japan from September 2-10, 2019 for non-PREDICT travel. He will travel from Narita, Japan to Bali, Indonesia from September 11-18, 2019 for the PREDICT-2 All-Country Meeting. He will return from Bali to Nanaimo, Canada.

Tammie O'Rourke (Metabiota) will travel from Nanaimo, Canada to Bali, Indonesia from September 13-18, 2019 for the PREDICT-2 All-Country Meeting. She will travel from Bali to Lombok, Indonesia from September 19-24, 2019 for non-PREDICT travel. She will return from Lombok to Nanaimo, Canada.

Matthew LeBreton (Metabiota) will travel from Yaounde, Cameroon to Bali, Indonesia from September 12-18, 2019 for the PREDICT-2 All-Country Meeting. From Bali he will travel to Sydney, Australia from September 18-22, 2019 for non-PREDICT travel. He will return from Sydney to Yaounde, Cameroon.

Dr. Christian Lange will travel from Kiev, Ukraine to Bali, Indonesia from September 12-23, 2019 for the PREDICT-2 All-Country Meeting and non-PREDICT travel (September 18-23). From Bali, he will travel to Adelaide, Australia from September 23-29, 2019 for additional non-PREDICT travel. He will return from Adelaide to Nanaimo, Canada.

Dawn Zimmerman (Smithsonian) will travel from Washington, DC, USA to Ketapang, Indonesia from September 8-12, 2019 for non-PREDICT travel. She will travel from Ketapang, Indonesia to Bali, Indonesia from September 13-18, 2019 for the PREDICT-2 All-Country Meeting. She will return from Bali to Washington, DC.

****transportation costs will not exceed that of ticket to Bali for meeting dates.***

--
Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
530-752-7526

From: Andrew Clements <aclements@usaid.gov>
To: Katherine Leasure <kaleasure@ucdavis.edu>
CC: PREDICTMGT <predictmgt@usaid.gov>;Predict inbox <predict@ucdavis.edu>;Jonna Mazet <Jkmazet@ucdavis.edu>
Sent: 8/26/2019 8:54:12 AM
Subject: Re: Change to Approved Group ITA: Bali-All Country Meeting

Thanks. Approved.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Aug 24, 2019, at 1:59 AM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. Please find below changes to the group ITA submitted for travel to Bali for the PREDICT All-Country Meeting. Please let me know if you have any questions. Thanks!

PARTICIPANT CHANGE	NAME	DEPARTURE LOCATION	AIRFARE COST
ADD	Desalegn Belay	Addis Ababa, Ethiopia	$1400
ADD	Waithana Theppanga	Vientiane, Laos	$400
CANCEL	John Brownstein	Boston, MA, USA	$1200
CANCEL	Beyene Meges	Addis Ababa, Ethiopia	$1400

CHANGE TO TRIP DETAILS (additional non-PREDICT travel):
Daniel O'Rourke (Metabiota) will travel from Nanaimo, Canada to Narita, Japan from September 2-10, 2019 for non-PREDICT travel. He will travel from Narita, Japan to Bali, Indonesia from September 11-18, 2019 for the PREDICT-2 All-Country Meeting. He will return from Bali to Nanaimo, Canada.

Tammie O'Rourke (Metabiota) will travel from Nanaimo, Canada to Bali, Indonesia from September 13-18, 2019 for the PREDICT-2 All-Country Meeting. She will travel from Bali to Lombok, Indonesia from September 19-24, 2019 for non-PREDICT travel. She will return from Lombok to Nanaimo, Canada.

Matthew LaBreton (Metabiota) will travel from Yaounde, Cameroon to Bali, Indonesia from September 12-18, 2019 for the PREDICT-2 All-Country Meeting. From Bali he will travel to Sydney, Australia from September 18-22, 2019 for non-PREDICT travel. He will return from Sydney to Yaounde, Cameroon.

Dr. Christian Lange will travel from Kiev, Ukraine to Bali, Indonesia from September 12-23, 2019 for the PREDICT-2 All-Country Meeting and non-PREDICT travel (September 18-23). From Bali, he will travel to Adelaide, Australia from September 23-29, 2019 for additional non-PREDICT travel. He will return from Adelaide to Nanaimo, Canada.

Dawn Zimmerman (Smithsonian) will travel from Washington, DC, USA to Ketapang, Indonesia from September 8-12, 2019 for non-PREDICT travel. She will travel from Ketapang, Indonesia to Bali, Indonesia from September 13-18, 2019 for the PREDICT-2 All-Country Meeting. She will return from Bali to Washington, DC.

****transportation costs will not exceed that of ticket to Bali for meeting dates.***

--
Katherine Leasure
HR/Payroll/Financial Assistant
One Health Institute
530-752-7526

--

You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
To unsubscribe from this group and stop receiving emails from it, send an email to predictmgt+unsubscribe@usaid.gov.
To view this discussion on the web visit https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CAD6-xMJ2NsjP5WoPeOrEJK6vXyQ%3DcZXa6FrXooff0qq2xvAJHw%40mail.gmail.com.

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Mon, 28 Oct 2019 09:09:08 -0700
Subject: Re: Reminder: PREDICT Management Team Call - Tuesday October 29, 2019 @ 8:30AM Pacific
To: "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>
Cc: Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Amalhin Shek <ashek@usaid.gov>, "Cara J. Chrisman" <cchrisman@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>, Tracey Goldstein <tgoldstein@ucdavis.edu>, Karen Saylors <kssaylors@labyrinthgh.com>, Alison Andre <andre@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Catherine Machalaba <Machalaba@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, PREDICTMGT <predictmgt@usaid.gov>, "Prof. Woutrina Smith" <wasmith@ucdavis.edu>

Hi there,

Below is the agenda and Zoom details for tomorrow's call.

Best,

David

PREDICT Management Team Meeting Agenda
Tuesday, October 29, 2019
8:30-9:30AM PST/11:30-12:30pm EST
Zoom link: REDACTED
Additional Zoom info below agenda

USAID Updates

1. Administrative items
Extension period funding updates
Key personnel change
Proposed March/April meeting?

2. On close-out - standing item
Review/discussion of USAID close-out tracker & Predict tracking tools

3. Mission, partner communications & country roundup essentials
- Guinea close-out meeting on YouTube (~23rd minute)
- Jordan report update
- Others?

4. Publication, media, and conference updates
- Finding Outbreaks Faster: Metrics for One Health Surveillance https://www.salzburgglobal.org/multi-year-series/outbreaks/pageId/session-641.html
- WAHO One Health Meeting (end of October 2019)
- Africa CDC meeting in Addis Ababa on One Health Africa Platform (November 14-15, 2019)
- DTRA Monkeypox Networking event, Dakar Senegal (November 18-20, 2019)

- 19 International Congress on Infectious Diseases, Kuala Lumpur (February 20-23, 2020)
- PMAC, Bangkok, Thailand (January 28-31, 2020)
- World Health Summit

5. AOB

Zoom Call-in info
Zoom link: REDACTED

Or iPhone one-tap :
US: +16468769923,[redacted] or +16699006833,[redacted]
Or Telephone:
Dial(for higher quality, dial a number based on your current location):
US: +1 646 876 9923 or +1 669 900 6833
Meeting ID: [redacted]

On Fri, Oct 25, 2019 at 12:29 PM David J Wolking <djwolking@ucdavis.edu> wrote:

Hi there,
Just a friendly reminder about next week's PREDICT Management Team call (Tuesday October 29, 2019 @ 8:30AM Pacific). I'll send along an agenda with the Zoom info early next week. If you have any items you'd like me to include, please let me know.

Enjoy the weekend,

David

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Fri, 3 Jan 2020 06:59:31 -0800
Subject: PREDICT MT Call Tuesday January 7th @ 8:30AM Pacific
To: "Cara J. Chrisman" <cchrisman@usaid.gov>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Amalhin Shek <ashek@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>, "William B. Karesh" <karesh@ecohealthalliance.org>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>
Cc: Tracey Goldstein <tgoldstein@ucdavis.edu>, "Prof. Woutrina Smith" <wasmith@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Catherine Machalaba <Machalaba@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, Aleksei Chmura <chmura@ecohealth.net>

Hi there,

Below is the agenda and Zoom details for next week's call.

Enjoy the weekend!

David

PREDICT Management Team Meeting Agenda
Tuesday, January 7, 2020
8:30-9:30AM PST/11:30-12:30pm EST
Zoom link: REDACTED
Additional Zoom info below agenda

USAID Updates

1. Administrative items
- *March 25-27, 2020 meeting updates (save the date, plans and preparation, etc.)*
- *GAO GHSA audit news (Viet Nam and Indonesia visits)?*

2. On close-out - standing item
- *Review/discussion of USAID close-out tracker & Predict tracking tools*
- Feedback on data sharing platforms (DDL flexibility & Open Science Framework)

3. Final report updates

4. Mission, partner communications & country roundup essentials

5. Publication, media, and conference updates
- 19th International Congress on Infectious Diseases, Kuala Lumpur (February 20-23, 2020)
- PMAC, Bangkok, Thailand (January 28-31, 2020)

6. AOB

Zoom Call-in info
Zoom link: REDACTED
Or iPhone one-tap :
US: +16468769923, REDACTED or +16699006833, REDACTED
Or Telephone:
Dial(for higher quality, dial a number based on your current location):
US: +1 646 876 9923 or +1 669 900 6833
Meeting ID: REDACTED

On Thu, Jan 2, 2020 at 9:09 AM David J Wolking <djwolking@ucdavis.edu> wrote:

> Happy New Year!
> Just a reminder about our scheduled PREDICT MT call next week Tuesday January 7th @ 8:30AM Pacific. I'll follow-up with the agenda before the call.

Best,

David

Sent: Mon, 16 Mar 2020 08:48:08 -0700
Subject: Re: prepping for management call and data meeting next week
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: David J Wolking <djwolking@ucdavis.edu>
Cc: Andrew Clements <aclements@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>

Sorry, scratch that. She will not be on this call due to the National Geographic interview.
Mary

On Mon, Mar 16, 2020 at 8:42 AM Jonna Mazet <jkmazet@ucdavis.edu> wrote:

> Hi all,
> Jonna can join around 10:30. She has an interview with a National Geographic reporter at 10:00.
> Mary

On Sun, Mar 15, 2020 at 8:55 PM David J Wolking <djwolking@ucdavis.edu> wrote:

> Thanks Andrew,
> Shared the agenda with our team. Let's plan to use the Zoom info below.

Talk soon,

David

Topic: P2 Management Team Prep
Time: Mar 16, 2020 10:00 AM Pacific Time (US and Canada)

Join Zoom Meeting
[redacted]

Meeting ID: [redacted]
Password: [redacted]

One tap mobile
+16699006833,[redacted]US (San Jose)
+13462487799,[redacted]US (Houston)

Dial by your location
+1 669 900 6833 US (San Jose)
+1 346 248 7799 US (Houston)
+1 646 876 9923 US (New York)
+1 253 215 8782 US
+1 301 715 8592 US
+1 312 626 6799 US (Chicago)
Meeting ID: [redacted]
Find your local number: https://onehealth.zoom.us/u/adNXEpXrr9

On Sun, Mar 15, 2020 at 3:20 PM Andrew Clements <aclements@usaid.gov> wrote:

> Here's what I was thinking for the P2 management meeting on Mar 17, 10. Let me know if you have any comments/ suggestions.
>
> 1. Short summary of high-level accomplishments

A. Findings

B. Capacity strengthening

C. New/expanded partnerships

i. Donors

ii. USG

iii. Others

2. Lessons learned (what worked well and what needed improvement)

A. Project management (work plans, reporting, M&E, communications, etc.)

B. Data management/sharing

C. Working with in-country institutions/partners

3. What work within P2 was not finished (due to lack of time and/or funds), but should be followed up on

4. CoV Extension

A. Timing of outreach to countries and development of detailed work plan

B. press/public engagement management related to the extension

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov

On Mar 14, 2020, at 8:35 PM, Christine Kreuder Johnson <ckjohnson@ucdavis.edu> wrote:

Hi Andrew,

Great idea, does Monday at 10am Pacific time work for you? Agenda for the USAID management mtg would be v helpful, so we know how to prepare and if we'll be asked to present. We should have a draft ppt to share by CoB pacific time Monday.

/ckj

From: Andrew Clements <aclements@usaid.gov>
Date: Friday, March 13, 2020 at 1:33 PM
To: David John Wolking <djwolking@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>
Cc: PREDICTMGT <predictmgt@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>

Subject: prepping for management call and data meeting next week

Hi David and Chris,

Would it be possible to do a preview (no more than 1 hour) on Monday of what PREDICT will be presenting next week during the management call on 3/17 and the data meeting on 3/18 an 3/19?

This weekend I will send a draft agenda for the 3/17 management discussion.

Andrew

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health

U.S. Agency for International Development

Mobile phone: 1-571-345-4253
E-mail: [redacted]

For more information on USAID's Emerging Pandemic Threats program, see http://www.usaid.gov/ept2

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Fri, 8 May 2020 07:15:50 -0700
Subject: Reminder: PREDICT Management Team Call - Tuesday May 12 @ 8:30AM Pacific
To: Aleksei Chmura <chmura@ecohealthalliance.org>, Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Alison Andre <andre@ecohealthalliance.org>, Amalhin Shek <ashek@usaid.gov>, Ava Sullivan <sullivan@ecohealthalliance.org>, "Cara J. Chrisman" <cchrisman@usaid.gov>, Catherine Machalaba <Machalaba@ecohealthalliance.org>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Karen Saylors [redacted], Peter Daszak <rdaszak@ecohealthalliance.org>, "predict@ucdavis.edu" <predict@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>

Hi there,
Just a reminder about next week's PREDICT Senior Management Team Call (Tuesday May 12 @ 8:30AM Pacific).

I'll follow-up early next week with an agenda and Zoom link. If there is anything in particular you'd like included, please let me know.

Enjoy the weekend,

David

--
David J. Wolking
Senior Manager, Global Programs, One Health Institute
Global Operations Officer, PREDICT Project of USAID Emerging Threats Division
Senior Manager, PREEMPT Project
School of Veterinary Medicine
University of California, Davis

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Andrew Clements <aclements@usaid.gov>
CC: Peter Daszak <daszak@ecohealthalliance.org>;Elizabeth Leasure <ealeasure@ucdavis.edu>;David J Wolking <djwolking@ucdavis.edu>;Aleksei Chmura <chmura@ecohealthalliance.org>;Christine Kreuder Johnson <ckjohnson@ucdavis.edu>;PREDICTMGT <predictmgt@usaid.gov>
Sent: 5/8/2020 4:03:23 PM
Subject: Re: Additional request for information on WIV (sorry!)--ASAP

My additions in **blue** below for your assistance.
Hope it's helpful.
Jonna

On Wed, May 6, 2020 at 4:22 AM Andrew Clements <aclements@usaid.gov> wrote:
Peter/Liz,

In the continuing saga of WIV, there was a briefing for the acting Administrator yesterday followed by a request for some additional information. I started responses below -- please add/subtract/correct as needed. Thanks!

Andrew

1) List of countries that Predict has worked in - please split between Predict 1 & 2

PREDICT-1 (20 countries): Bangladesh, Bolivia, Brazil, Cambodia, Cameroon, China, DRC, Gabon, Indonesia, Laos, Malaysia, Mexico, Nepal, Peru, Rep. of Congo, Rwanda, Tanzania, Thailand, Uganda, Vietnam

PREDICT-2 (28 countries): Bangladesh, Cambodia, Cameroon, China, Cote d'Ivoire, DRC, Egypt, Ethiopia, Ghana, Guinea, India, Indonesia, Jordan, Kenya, Laos, Liberia, Malaysia, Mongolia, Myanmar, Nepal, Rep. of Congo, Rwanda, Senegal, Sierra Leone, Tanzania, Thailand, Uganda, Vietnam

2) Name of any other labs in China that Predict has worked with (aside from WIV).

Predict's work in China was fully vetted and approved by USAID through subrecipient approval and work planning processes. The project has subawarded activities to: East China Normal University (no lab work), Guangdong Institute of Public Health (GDIPH)/GDCDC), Institute of Microbiology of Chinese Academy of Sciences, Wuhan University School of Public Health (no lab work), Guangdong Entomological Institute (GDEI) (no lab work), and Wuhan Institute of Virology and has collaborated with and/or trained individuals through workshops, etc. in Yunnan Institute of Endemic Disease Control and Prevention (approved as subawardee but no agreement executed), Institute of Pathogen Biology Chinese Academy of Medical Science (approved as subawardee but no agreement executed), Chinese Center for Disease Control & Prevention (CCDC), Guangxi Normal University, Shanghai Municipal Center for Disease Control and Prevention (SHCDC), Guangdong Provincial Center for Disease Control and Prevention (GDCDC), and the and Guangdong Zhanjiang Ratproof Institution, among others. Further, PREDICT developed and maintained close

collaborative relationships with prefecture level CDCs that are located in Fengkai (Zhaoqing), Deqing (Zhaoqing), Yunfu, Yunan (Yunfu), Dabu (Meizhou), Jiaoling (Meizhou), Pingyuan (Meizhou), Xinyi (Maoming), Heping (Heyuan), Lianping (Heyuan), Lianshan (Qingyuan), Lianzhou (Qingyuan), Shaoguan, Zhanjiang, Dongguan, Jiangmen, Huizhou, Zhongshan, Luoding, and Yangjiang.

3) Was the sub-agreement with WIV through UCD and what was the scope (training, supplies, reagents, equipment, staff time??)

Sub-agreement through EcoHealth Alliance. [I couldn't find a WIV sub-agreement that I approved; only saw a WUSPH sub-agreement. Was the WIV sub-agreement approved as part of the original cooperative agreement?] Yes, the Wuhan Institute of Virology subaward was approved as part of the original cooperative agreement process and again through the ceiling raise process.
Scope: "Will manage all laboratory diagnostics and associated staff". Budget justifications include: diagnostic testing supplies and materials (reagents, supplies and consumables), secure sample storage, salaries and fringe, and travel.

4) Other than Eco Health were any other consortium members working with WIV?

No.

5) How does the sub-agreement compare (monetarily) with other sub-agreements that PREDICT held in other countries. Is it the largest? One of the smallest?

[please fill in] Predict-2's country activity subagreements ranged in annual allotments from approximately $40,000 to $750,000. Thus, the Wuhan Institute of Virology subaward was on the lower end of all awards during most years.

6) How many PREDICT staff were working in the WIV at any given time (not including WIV staff that were working under the sub-agreement)?

Zero

7) Is WIV state-run? (Its China, so assume it is state-run)

Yes, it is parastatal.

8) What other organizations (like the NIH) were also supporting work at WIV and at what level of funding?

At least NIH. The Predict Project was never in a position to track other funders or the extent of collaborative relationships held by WIV.

Andrew Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4233
E-mail: aclements@usaid.gov

For more information on USAID's Emerging Pandemic Threats program, see: http://www.usaid.gov/ept2

From: Tracey Goldstein <tgoldstein@ucdavis.edu>
To: Carolyn Forlee <cforlee@ucdavis.edu>
CC: Woutrina A Smith <wasmith@ucdavis.edu>;Elizabeth Leasure <ealeasure@ucdavis.edu>;Corina Grigorescu Monagin <cgmonagin@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>;Oladele Ogunseitan <oladele.ogunseitan@uci.edu>;Alexandra Zuber <alexandrazuber@atahealthstrategies.com>;Miriam Rabkin <mr84@columbia.edu>;Kevin Olival <olival@ecohealthalliance.org>;Peter Daszak <daszak@ecohealthalliance.org>;vipat@seaohun.org <vipat@seaohun.org>;ratsuda@seaohun.org <ratsuda@seaohun.org>;Rabkin, Miriam <mr84@cumc.columbia.edu>
Sent: 5/13/2020 5:34:11 PM
Subject: Re: REMINDER: May 13th SEAOHUN call

Thanks Carolyn!

And one additional late breaker item to add:
Mission communication and monthly updates

On Wed, May 13, 2020 at 7:55 AM Carolyn Forlee <cforlee@ucdavis.edu> wrote:

Dear All,

Just a reminder of today's call at 5:30pm PDT.

Agenda:

- Secretariat staff updates
- June 15 Programmatic OHUN call for Obj 1?
- Weekly Secretariat call for Obj 2
- Tranche 4 funding
- Digital competition
- Update on Cambodia, Lao, and Philippines about using the OHW-NG fund
- Update on INDOHUN subaward approval

Thank you,

Carolyn

Carolyn Forlee

Administrative Assistant

One Health Institute | Office for Global Programs

School of Veterinary Medicine

University of California, Davis

530-752-4859 TEL

cforlee@ucdavis.edu

--

From: Marilyn Crane <mcrane@usaid.gov>
Sent: Thu, 11 Jun 2020 15:56:25 -0400
Subject: Re: OHW-NG Tranche 4 RDMA supplemental funding
To: Woutrina A Smith <wasmith@ucdavis.edu>
Cc: onehealthnextgen Sympa List <onehealthnextgen@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>

Hi Woutrina,
I understand that there will be a need to manage the expansion country costs through the global budget and SEAOHUN. Aside from LOE and the SME line, however, there does not appear to be any funds available for these countries. For example, nearly all of SEAOHUN's budget is administrative. The rest is subawards. How much is being set aside for each of the countries?

Thanks.
Marilyn

On Thu, Jun 11, 2020 at 3:41 PM Woutrina A Smith <wasmith@ucdavis.edu> wrote:

Hi Marilyn,

So sorry you got an older version of the work plan yesterday by mistake! See attached version. This version includes the work plan for all countries including Thailand (that had come in last), and this version had the same two activities proposed for the newer countries of Cambodia, Laos, Myanmar and Philippines to facilitate discussion with missions and country teams to determine interest and next steps for them, as I think I had mentioned in my email yesterday. The two illustrative activities per country in this version had been updated with the country-specific names, and you will recall that there are not subawards set up with those countries so we will have to manage the costs through the secretariat and global budgets once we determine the level of interest in moving forward. The global budget currently includes support for the technical SME expertise side of those illustrative activities and we can sort further details as needed. The Secretariat did not request a separate activity budget and plans to prioritize supporting the country level activities administratively at this time. We can talk further as needed.

Best wishes, Woutrina

From: Marilyn Crane <mcrane@usaid.gov>
Date: Thursday, June 11, 2020 at 12:01 PM
To: Woutrina A Smith <wasmith@ucdavis.edu>
Cc: onehealthnextgen Sympa List <onehealthnextgen@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>
Subject: Re: OHW-NG Tranche 4 RDMA supplemental funding

Hi Woutrina,

Angela and I took a preliminary look at the package, and we have a few initial questions.

1. The work plan narrative is missing Thailand. Where is it?

2. The work plans for Cambodia, Myanmar, Laos, and the Philippines are exactly the same-- including all of them referencing Cambodia and CAMBOHUN. Would you kindly adjust so that the narrative descriptions are relevant to each country?

3. Is there an activity budget for SEAOHUN? Where are the budgets for Cambodia, the Philippines, Burma, and Laos?

Thank you in advance.

Marilyn

On Thu, Jun 11, 2020 at 1:30 PM Marilyn Crane <mcrane@usaid.gov> wrote:

Hi Woutrina,

The documents have been received. We will review them and get back to you if we have any questions.

With best regards,

Marilyn

On Wed, Jun 10, 2020 at 7:39 PM Woutrina A Smith <wasmith@ucdavis.edu> wrote:

Hi Marilyn,

Attached are the compiled work plans and budget files for the Tranche 4 RDMA COVID-19 emergency funding for $1.5m. Please keep in mind that the founding OHUN (Malaysia, Indonesia, Thailand, and Vietnam) activities have been socialized with the missions and may also benefit from further discussions as needed once you review and share the activity details with the missions. However, the activities proposed to benefit the newer SEAOHUN countries of Cambodia, Laos, Myanmar, and Philippines have not yet been explored with local missions given the quick turnaround deadlines, and we look forward to having those discussions as you and the Secretariat may suggest.

As an aside, I am also attaching the IPC activity planning tool that I mentioned on our OHW-NG MT call today, for you to look over and to share with others if you deem it helpful.

Best wishes, Woutrina

Woutrina Smith, DVM, MPVM, PhD
Professor of Infectious Disease Epidemiology

Associate Director, UCD One Health Institute
Technical Director, USAID One Health Workforce - Next Gen
Co-Director, UCGHI Planetary Health Center of Expertise
School of Veterinary Medicine, UC Davis
1089 Veterinary Medicine Dr
Davis, CA 95616
wasmith@ucdavis.edu
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Marilyn Crane
Senior International Higher Education Advisor
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Office of Infectious Disease

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Telephone: (202) 916-2073
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Email: mcrane@usaid.gov

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Telephone: (202) 916-2073
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From: Woutrina A Smith <wasmith@ucdavis.edu>
To: Marilyn Crane <mcrane@usaid.gov>
Cc: onehealthnextgen Sympa List <onehealthnextgen@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>
Subject: Re: OHW-NG Tranche 4 RDMA supplemental funding
Sent: Fri, 12 Jun 2020 14:44:58 +0000

Hi Marilyn,

The two illustrative activities to offer to the four newer SEAOHUN countries are online activities that can adapt and utilize some of the existing training materials that we have or will soon be developed. These activities were selected in part due to the low in country costs involved given the lack of existing subawards in place while still wanting to engage the countries within this scope. Once we know if there is interest in moving forward, we can work with the Secretariat to explore how to provide some limited personnel support in country beyond what his program officer our teams will do on their behalf. Funds may come from Secretariat or global budgets once we know more details. The timeline was just too rapid to engage in the initial discussions with these countries early on, so we are looking forward to doing so as you may advise. I estimate the funds going to benefit each of the four newer SEAOHUN countries in this supplemental funding award is $50k/country at this time.

Best wishes, Woutrina

From: Marilyn Crane <mcrane@usaid.gov>
Date: Thursday, June 11, 2020 at 12:55 PM
To: Woutrina A Smith <wasmith@ucdavis.edu>
Cc: onehealthnextgen Sympa List <onehealthnextgen@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>
Subject: Re: OHW-NG Tranche 4 RDMA supplemental funding

Hi Woutrina,

I understand that there will be a need to manage the expansion country costs through the global budget and SEAOHUN. Aside from LOE and the SME line, however, there does not appear to be any funds available for these countries. For example, nearly all of SEAOHUN's budget is administrative. The rest is subawards. How much is being set aside for each of the countries?

Thanks,
Marilyn

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Email: [redacted]

From: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
To: predict Sympa List <predict@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>
Subject: FW: REQUEST: Laos expenditures for GHSD activities CY2020
Sent: Thu, 24 Sep 2020 16:39:47 +0000

FYI-

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: Elizabeth Leasure
Sent: Thursday, September 24, 2020 9:39 AM
To: Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>; Andrew Clements <aclements@usaid.gov>
Cc: Karoon Chanachai <kchanachai@usaid.gov>; Daniel Schar <dSchar@usaid.gov>; David John Wolking <djwolking@ucdavis.edu>; Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>; predictmgt@usaid.gov; REDACTED Roypim Techo <rtecho@usaid.gov>
Subject: RE: REQUEST: Laos expenditures for GHSD activities CY2020

Hi Sudarat. The best I can do is an estimate, as costs are still being incurred for September and final financial reporting has not yet occurred. A total of $171,117 was earmarked for Laos during the extension period, and we expect to spend the full amount by the end of September. I hope this information is sufficient.

Thanks,
Liz

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>
Sent: Tuesday, September 22, 2020 11:53 PM
To: Andrew Clements <aclements@usaid.gov>; Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
Cc: Karoon Chanachai <kchanachai@usaid.gov>; Daniel Schar <dSchar@usaid.gov>; David John Wolking <djwolking@ucdavis.edu>; Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>; predictmgt@usaid.gov; REDACTED Roypim Techo <rtecho@usaid.gov>
Subject: Re: REQUEST: Laos expenditures for GHSD activities CY2020

Thanks Andrew. For this task, it requires expenditure in US dollar amounts.

Deal Liz: Please provide expenditure incurred during April-Sep 2020 in USD. Thank you very much.

Best regards,
Sudarat Damrongwatanapokin, D.V.M., Ph.D.
Regional Animal Health Advisor
USAID Regional Development Mission Asia
REDACTED
E-mail: sdamrongwatanapokin@usaid.gov
REDACTED
Telework: Monday-Friday 8.00 am- 5.00 pm

On Wed, Sep 23, 2020 at 1:40 PM Andrew Clements <aclements@usaid.gov> wrote:
See below.

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov
Begin forwarded message:

From: "Elizabeth Leasure' via PREDICTMGT" <predictmgt@usaid.gov>
Date: September 23, 2020 at 1:08:18 AM GMT+2
To: Andrew Clements <aclements@usaid.gov>
Cc: David John Wolking <djwolking@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>, "ksaylors@labyrinthgh.com" <ksaylors@labyrinthgh.com>, "predictmgt@usaid.gov" <predictmgt@usaid.gov>
Subject: RE: REQUEST: Laos expenditures for GHSD activities CY2020
Reply-To: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>

Hi Andrew. Yes, there are expenses incurred for Lao PDR during the extension period of Apr 2020-Sept 2020, but no expenses on or after October 1st.

Thanks,
Liz

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: Andrew Clements <aclements@usaid.gov>
Sent: Monday, September 21, 2020 3:26 AM
To: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
Cc: David John Wolking <djwolking@ucdavis.edu>; Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>; ksaylors@labyrinthgh.com; predictmgt@usaid.gov
Subject: REQUEST: Laos expenditures for GHSD activities CY2020

Hi Liz,

See request below. I have already indicated there will be not expenses after Oct 1, 2020.

Thanks!

Andrew

Andrew P. Clements, Ph.D.
Senior Scientific Advisor
Emerging Threats Division/Office of Infectious Diseases/Bureau for Global Health
U.S. Agency for International Development
Mobile phone: 1-571-345-4253
Email: aclements@usaid.gov
Begin forwarded message:

From: Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>

Date: September 21, 2020 at 11:59:10 AM GMT+2
To: "Clements, Andrew(ANE/TS)" <AClements@usaid.gov>
Cc: Karoon Chanachai <kchanachai@usaid.gov>, Angela Wang <awang@usaid.gov>
Subject: Laos expenditure for GHSD activities CY2020

A query from our admin:

Predict: Please kindly check if there are any expenditures incurred (Jan-Jun, 2020), or will be incurred in CY2020 (Jul-Sep, 2020) and Oct -Dec 2020.

Thank you.

Best regards,
Sudarat Dazzrongwatanapokin, D.V.M., Ph.D.
Regional Animal Health Advisor
USAID Regional Development Mission Asia
REDACTED
E-mail: sdazzrongwatanapokin@usaid.gov
REDACTED
Telework: Monday-Friday 8.00 am- 5.00 pm

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You received this message because you are subscribed to the Google Groups "PREDICTMGT" group.
To unsubscribe from this group and stop receiving emails from it, send an email to
predictmgt+unsubscribe@usaid.gov.
To view this discussion on the web visit
https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/BYAPR08MB5590B132F1AFEACC426D395A23B0%40BYAPR08MB5590.namprd08.prod.outlook.com.