From: "William B. Karesh" <karesh@ecohealthalliance.org>
To: David Wolking <djwolking@ucdavis.edu>, Predict inbox <predict@ucdavis.edu>
Sent: Wed, 11 Apr 2018 00:08:28 +0000
Subject: [predict] Fwd: Minutes for PREDICT-2 Focal points Jordan
Meeting minutes Feb 28th, 2018.docx
ATT00001.htm

FYI

Begin forwarded message:

From: Ehab Abu-Basha <[redacted]>
Subject: Minutes for PREDICT-2 Focal points
Date: April 4, 2018 at 2:32:46 PM PDT
To: rachel dodeen <rachel.dodeen@MOA.GOV.JO>, BELAL SHAQARIN <[redacted]>, Sultan Mabdalla <[redacted]>, "Hijazeen, Zaidoun (FAOJO)" <[redacted]>, "[redacted]", "nisreen.hmoud@rss.jo" <nisreen.hmoud@rss.jo>, "Maysa Al-Khateeb" <malkhateeb@usaid.gov>, "khaled@badiafund.gov.jo" <khaled@badiafund.gov.jo>
Cc: Daniel Sinclair <dsinclair@usaid.gov>, "ahalverson@usaid.gov" <ahalverson@usaid.gov>, Patrick Dawson <dawson@ecohealthalliance.org>, "Ava Sullivan" <sullivan@ecohealthalliance.org>, "William B. Karesh" <karesh@ecohealthalliance.org>

Dear All,
Please see in the attached file the minutes for PREDICT-2 Jordan Focal points meeting (Feb 28th, 2018). I also need response for the field trip on April 16th, 2018.

Best Regards,

Ehab

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

Meeting minutes

Predict-2 Jordan Project Focal Points Regular Meeting

March 28th, 2018.

Place: Ministry of Health, Amman, Jordan.

Attendees:

- Myasa Al-Khateeb /USAID
- Dr. Laura Sawalha/WHO
- Dr. Sultan Alqasrawi/MOH
- Dr. Nisreen Al-Hmoud, Royal Scientific Society
- Dr. Ehab Abu-Bahsa/ PREDICT-2 Jordan Coordinator

Absence due to other commitment: Dr. Ziadoun Hijazeen/ FAOJO, Dr. Racel Dodeen/MOA, Eng. Belal Shqarin/MOE, Eng. Khaled MArafi/Badia Fund

Points of discussion

1. Follow up on the activities of PREDICT-2 project.

- The PREDICT-2 country coordinator briefed the attendees about the activities of PREDICT team that accomplished during the period January-March, 2018. All bats were collected from Wadi Alseer and Ajloun sites (approx. 235 bats for this season, and total of 800 bats). All bats were analyzed/or in process for conventional PCR for Paramyxoviruses, Coronaviruses, Filoviruses, and Influenza virus. Positive samples are/will be further sent for sequencing. Human team collected 230 samples from Ajloun and Al-Ramtha, 100 samples from Zarqa, and will finish soon 100 samples from Wadi Al-seer-Amman (total of 430 humans' samples for this season, 630 samples if we added the one from last year). Capacity Building for two laboratories in the south is in progress.

- The project coordinator thanked Dr. Sultan, MOH, for his great efforts to facilitate the human samples collection in different Health Directorates.

- Dr. Nisreen Al-Hmoud/ Royal Scientific Society, mentioned about regional project for Coronavirus in bats. This is project will start very soon and will collaborate closely with PREDICT. Dr. Nisreen will elaborate more on this project in the future.

- Mayas Al-Khateeb / USAID-Amman, suggested a field visit to camel farm, JUST Laboratories, and Princess Haya Center. The purpose of the visit is to engage the focal points with some of PREDICT-2 Jordan work activity. The proposed time is April 16th, 2018 (focal points to confirm their availability).

- Dr. Sultan mentioned that there are a number of vets works at MOH, this was very interesting , Dr.Sultan will help to provide number of Vets that work at the MOH.

2. One Health Approach Discussion

- Dr. Laura/WHO talked about efforts of WHO to implements One Health at the Human Animal Interface between (MOH and MOA level). The National action plan will be soon ready after few editing (Dr. Laura will send this once done).

1- Pandemic Influenza Preparedness (PIP) 2018 Work plan activities.

- A national consultant to Provide support to MOH to develop the "Influenza Risk assessment Report Including Animal Human Interface".

- Support MOH to Prepare for the HAI committee meeting to share epidemiological/laboratory surveillance Data including experts from OIE, FAO, and EMPHNET.

2- Support the National action Plan to combat AMR (2018-2022) activities related to Objective two "Strengthen the knowledge and evidence based Surveillance and research".
3- Support MOH to conduct Simulation table Top Exercise to test and Update the "National Pandemic Influenza Preparedness and Response Plan".

- The USAID, MoH, WHO and RSC Focal points discussed conference that was organized by Eastern Mediterranean Public Health Network (EMPHNET). One of the subject that was raised in this conference is the One Health Approach. Dr. Laura mentioned that this concept was raised as no one approach this before. Maysa/USAID suggested that we should meet with EMPHNET to discuss and know more about their role specially they are supported by CDC. We did not get invitation as PREDICT-2 Jordan and USAID as well.

Action Points:

1- Field Trip to JUST and Al-Ramtha camel farm on April 16th, 2018.

2- Joint Workshop in surveillance system and Public Health between MOH, MOA, PREDCIT-2 Jordan and Royal Veterinary College/UK (through Educational Twining Program between JUST and RVC). This need further discussion and preparation in separate meetings.

3- Dr.Sultan to provide the number and distribution of vets at MOH.

4- Meeting with EMPHNET, OIE regional Consultant, and MOA Consultant for Animal Health services representative.

5- Dr.Mohammed Al Abdallat is now working as consultant at the prime ministry, Dr.Sami El sheikh replaced him, he will be PREDICT focal point with Dr.Sultan

From: Cara Chrisman <cchrisman@usaid.gov>
Sent: Thu, 19 Apr 2018 08:48:14 -0400
To: Elizabeth Leasure <ealeasure@ucdavis.edu>, Predict inbox <predict@ucdavis.edu>
Cc: Andrew Clements <aclements@usaid.gov>, Ashna Kibria <akibria@usaid.gov>, PREDICTMGT <predictmgt@usaid.gov>
Subject: [predict] PREDICT-2 OAA Actions - Updated List

Hi Liz,
I hope all is well (I think you might be on vacation, if so, hope it's going well!). Ashna will be meeting with OAA next Wednesday and so we wanted to check in to ensure that we have the most up to date list of pending P-2 actions for her to reference during the meeting.

I've slightly modified the most recent list that I have from you to reflect what I'm aware of having evolved, however, I realize that a number of these may be able to now be removed from the list based on recent events, but wanted to confirm with you before altering.

If possible before the Wed 4/25 3pm (EDT) meeting, could you provide us with an updated list with any edits/updates or additions?

Thanks,
Cara

PREDICT
- Obligation of balance of FY2018 core funds + associated actions - Status: Still pending, REQM completed and moved to OAA.
- VATs:
  - China - Status: Complete
  - Vietnam - Status: Complete
  - Cameroon - Status: Complete
  - Egypt - Status: ?
- Further clarification on Myanmar (Burma) provision interpretation and application. Status: Perhaps no longer needed with updated provisions forthcoming?
- Kenya – Response on Suspension of Activities questions. Status: Still needed or not per recent emails?
- Motor Vehicle Request in SL Y4 #2. Status: Completed
- Additional items?

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: (571) 551-7413
Cell: [redacted]
E-mail: cchrisman@usaid.gov

From: Leilani Francisco <francisco@ecohealthalliance.org>
Sent: Mon, 30 Apr 2018 10:56:39 -0700
To: Elizabeth Leasure <ealeasure@ucdavis.edu>
Cc: Peter Daszak <daszak@ecohealthalliance.org>, William Karesh <karesh@ecohealthalliance.org>, "predict@ucdavis.edu" <predict@ucdavis.edu>
Subject: [predict] Re: Leilani to join EB on 5/2?

Hi Liz,
I'm planning on joining the call.
Best,
Leilani

On Apr 30, 2018, at 10:57 PM, Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:

> Hi Leilani, Billy, and Peter. Just checking in to confirm whether or not Leilani will be able to join the EB call on Wednesday since she appears to be traveling.
>
> Thanks!
> Liz
>
> *Elizabeth Leasure*
> *Financial Operations Manager*
> *One Health Institute*
> REDACTED *(cell)*
> *530-754-9034 (office)*
> *Skype: ealeasure*

Sent: Wed, 2 May 2018 16:45:30 -0700
Subject: Re: Thai colleagues' training at CII
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Kevin Olival <olival@ecohealthalliance.org>
Cc: REDACTED Peter Daszak <daszak@ecohealthalliance.org>, Brooke Watson <watson@ecohealthalliance.org>, Alice Latinne <latinne@ecohealthalliance.org>

Hi Kevin,
Not sure I understand completely, but we only have budget and offer from CII for one visit, which has already been offered to and accepted by our Mahidol & Chula colleagues. This is extremely high-level and time intensive training & the funding will be exhausted by this one training.In addition, our Thai colleagues are contributing Thai funds to make the whole thing happen in a collaborative way, rather than a general offer of training. Therefore, the collaborative training should be characterized as a US-Thai success story, but please not as an offer or acknowledgement that any further trainings will be available.

Please will you follow-up with her, as you were there and know the history and have the personal relationship.
Others of us in the mix are likely only to confuse things more.

Thanks,
Jonna

On Wed, May 2, 2018 at 3:40 PM, Kevin Olival <olival@ecohealthalliance.org> wrote:

> Just wanted to send a quick email follow up about this. Supaporn, Alice, Leilani, Emily, and myself met with Sudarat and Dan two days ago for an in-country brief and this came up quickly. It seemed from our conversation that Sudarat doesn't have an agenda here, but was just trying to share this with the Department of Medical Sciences (DMSC) as Dennis was having extensive discussions about GVP at PMAC with them (during some dinner?) and they were excited about the opportunity/expecting some follow up? Sudarat did acknowledge that she wasn't sure of resources for the travel etc, so she's aware that any support for training may be resource constrained. I let her know you guys would follow up, but that to my knowledge the discussion was so far was primarily around training for Mahidol and Chulalongkorn staff - and I wasn't sure of how this was budgeted, etc. I also said that space within Ian's lab could be an issue, as I know Simon had mentioned that before with trainings.
> Cheers,
> Kevin
>
> On May 1, 2018, at 8:08 AM, Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov> wrote:
>
> Dear REDACTED
> I also would like to share this with DMSC colleagues, is this OK?
> Sudarat

Sent from my mobile.

On May 1, 2018, at 4:15 AM, REDACTED > wrote:

> Dear colleagues,
> I hope this email finds you well. I am putting everyone in touch regarding the opportunity for colleagues from Thailand to receive training for VirCapSeq and related bioinformatics at the Center for Infection and Immunity at Columbia University.
> Please let me know how the UC Davis team can help facilitate the planning. We are excited for this wonderful opportunity.
> Best wishes,
> Eri

REDACTED
One Health Institute

From: William B. Karesh <karesh@ecohealthalliance.org>
To: Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 6/6/2018 11:25:20 AM
Subject: Ebola funding

WASHINGTON (AP) — Seeking to revive a $15 billion plan to pare back spending that has languished on Capitol Hill, the White House on Tuesday dropped a proposal to cut $252 million in leftover funding to fight the Ebola virus in Africa.

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.

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: Tue, 10 Jul 2018 17:40:24 -0700

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

1. Zimmerman (Kenya): $2000 airfare/$410 (Nairobi) max daily per diem
2. Francisco, Hagan, Martinez (Liberia): $3,500 airfare each/$295 (Monrovia), $116 (Other) max daily per diems
3. Daszak (China, Malaysia, Singapore): $10,500 airfare [REDACTED] /$377 (Beijing), $262 (Kunming), $262 (Baoshan), $256 (Kota Kinabalu), $156 (Kinabatangan), $425 (Singapore) max daily per diems

Travel Requests –

1. The Smithsonian Institution would like to request travel approval for Dr. Dawn Zimmerman to travel from Washington, DC, USA to Nairobi, Kenya for the period of July 29 (leaving US) to August 11 (returning to US), 2018 to participate in high-level meetings, conduct community engagement, and meet with members of the partner lab and country coordinator. *Please note, eCC will reflect dates in Kenya, July 30 through August 10.*

Trip Purpose: Dr. Zimmerman will assist the Kenyan PREDICT team in conducting community engagement in Laikipia*; In addition, Dr. Zimmerman will continue to: 1) evaluate lab testing progress and help with governmental reports for approval to release test results*; 2) guide human behavioral risk data analysis* and manuscript preparation; 3) help with graduate student projects (2 MSc and 1 PhD students working under P2 program); 4) hold a stakeholder's meeting to discuss project end and outputs with partners; 5) plan last trainings for CVL and two KEMRI Labs (influenza and hemorrhagic labs).
**critical to project implementation*

July 29 depart US
July 30 arrive in evening (Dusit hotel through Aug 1st)
July 31 – Aug 1 meet with P2 team at IPR
Aug 2 – transfer to Mpala (stay at Mpala Research Centre through August 7th)
Aug 3-4 – community engagement (requested to occur on a Friday and Saturday)
Aug 5 – meet with P2 team before their departure back to Nairobi
Aug 6 – 8 Non-P2 work at Mpala
Aug 7 – transfer to NBO, meeting at ILRI (both P2 and non-P2 work; Dusit hotel through Aug 10th)
Aug 8 – 10 – Meetings (time/date TBD) with USAID, KWS, DVS, UoN – to include a stakeholder's meeting
Aug 10 PM – depart NBO in evening
Aug 11 – arrive in US

2. EcoHealth Alliance would like to request travel approval for Dr. Leilani Francisco, Ms. Emily Hagan, and Ms. Stephanie Martinez, to travel from New York, NY, USA, to Monrovia, Liberia, from August 4-12, 2018, to conduct a site visit during which the Behavioral Risk Team will be providing training, implementation support, coordination, and guidance for future planning for the PREDICT Liberia team. This visit will include a review of physical and procedural practices to ensure full compliance with all IRB protocols, as well as new and refresher trainings in areas pertaining to human surveillance data collection.

Trip purpose: Dr. Francisco is the Global Director of Behavioral Risk Surveillance for PREDICT-2 and will travel to Liberia to conduct a site visit to ensure the successful, high-quality completion of data collection, analysis, and reporting. This will include an audit of the privacy protections for all human-related data, the creation of privacy data plans for long-term storage of study-related files, and as needed, booster sessions on compliance and adherence to protocols. A capacity needs assessment conducted through discussions with the in-country team determined that additional training around steps for finalizing data collection and moving to the next phase of scientific capacity building, which includes data cleaning, data analysis, and report writing would be beneficial to the project. The EHA team will meet with PREDICT Liberia behavioral researchers to provide requested booster trainings and support in any other areas of concern identified by either team. During this visit, the EHA team will also provide training on the implementation plan for the use and roll-out of the West Africa "Living Safely with Bats" communication tool. Each member of the team listed has a unique role and professional expertise. Dr. Francisco, along with her role for PREDICT-2, is also the EHA Partner Lead for Ecological and Biological Human Surveillance. Ms. Hagan plays a leadership role in both of these efforts as well. She is also

the EIDITH database and data collection trainer. Ms. Martinez also plays a key role in the two abovementioned efforts. She is also EHA's Lead Qualitative Analyst and will be providing intensive hands on support to the team. Upon completion of the training, Dr. Francisco, Ms. Hagan, and Ms. Martinez may spend time in the field with the Liberia team, as well as accompany them on observational trips in the local area to observe their work in action.

3. EcoHealth Alliance would like to request travel approval for Dr. Peter Daszak to travel from Newark, New Jersey, USA to Beijing, Kunming, and Baoshan, China; Kota Kinabalu, and Kinabatangan, Malaysia; and Singapore, Singapore from August 10-30, 2018 for meetings with in-country partners for PREDICT and GVP operations.

Trip purpose: China – In Beijing, Dr. Daszak will meet with the PREDICT in-country laboratory team lead from the Institute of Microbiology, Chinese Academy of Sciences, government officials from Chinese CDC and the National Natural Science Foundation of China for the Global Virome Project in China. Dr. Daszak will also visit PREDICT surveillance sites in Kunming and a potential site in Baoshan along the wild life trade value chain, as well as meet with field coordinator Dr. Guangjian Zhu and the human surveillance team for PREDICT field work. Dr. Daszak will be in China for ten nights. Malaysia – In Kota Kinabalu, Dr. Daszak will meet with PREDICT partners and government officials from Sabah Wildlife Department, the Ministry of Tourism and Culture Malaysia, Sabah Office, and give a lecture at the Development and Health Research Unit (DHRU) Universiti of Malaysia Sabah (UMS). Dr. Daszak will make a visit to the PREDICT surveillance site in Kinabatangan with in-country coordinator Tom Hughes. Dr. Daszak will be in Malaysia for nine nights. Singapore – Dr. Daszak will meet with Dr. Linfa Wang and Dr. Danielle Anderson from Duke-NUS Medical School for GVP discussion in Singapore on his way back to the U.S. Dr. Daszak will be in Singapore for one night.

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

From: Sarah Paige <spaige@usaid.gov>
Sent: Sat, 28 Jul 2018 13:22:31 -0700
Subject: Re: Ebola - Cameroon/Gabon
To: "William B. Karesh" <karesh@ecohealthalliance.org>
Cc: Andrew Clements <aclements@usaid.gov>, "Subhash Morzaria (FAORAP)" <[redacted]>, Sophie Von dobschuetz <[redacted]>, "Priya Markanday (TCES)" <[redacted]>, Charles Bebay <[redacted]>, Yilma Makonnen <[redacted]>, "Myers, Lee (AGAH)" <[redacted]>, Jonna Mazet <jkmazet@ucdavis.edu>, Brian Bird <bhbird@ucdavis.edu>, Lisa Kramer <lkramer@usaid.gov>, "Andrea Long-Wagar ScM,MPH,CPH" <alongwagar@usaid.gov>, "Kendra (Jakarta/Health) Chittenden" <kchittenden@usaid.gov>, Ricardo Echalar <rechalar@usaid.gov>, "outbreak@usaid.gov" <outbreak@usaid.gov>, "lparish@usaid.gov" <lparish@usaid.gov>, "rgreene@usaid.gov" <rgreene@usaid.gov>, Angela Wang <awang@usaid.gov>

Thank you for the update. I was assuming as much. I appreciate the quick investigation. Please continue to keep me updated. I'm en route to Yaounde right now.
Best
Sarah

Sent from my iPhone

On Jul 27, 2018, at 6:51 PM, William B. Karesh <karesh@ecohealthalliance.org> wrote:

> Yes, so far we can't find any other confirmatory information either.
> 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 Jul 27, 2018, at 10:02 PM, Andrew Clements <aclements@usaid.gov> wrote:
>
> FYI. No evidence so far of an actual event.
>
> *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: Dennis Carroll <dcarroll@usaid.gov>
Date: July 27, 2018 at 2:06:49 PM EDT
To: "RYAN, Michael J." <REDACTED>
Cc: "FORMENTY, Pierre B.h." <REDACTED>, "ALLAIN IOOS, Sophie" <REDACTED>, Andrew Clements <aclements@usaid.gov>, outbreak <REDACTED>, "DRURY, Patrick Anthony" <REDACTED>, "FALL, Ibrahima-Soce" <REDACTED>, "BRIAND, Sylvie" <REDACTED>, "STEWART, Anthony" <REDACTED>, "MORGAN, Oliver" <REDACTED>, "HAROUNA DJINGAREY, Mamoudou" <REDACTED>, "BARBOZA, Philippe" <REDACTED>, goarn <REDACTED>, "Ehrhardt, Derek T. (CDC/CGH/GID)" <fev1@cdc.gov>, "KENNEY, Erin Maura" <REDACTED>
Subject: Re: Ebola - Cameroon/Gabon

Totally agree. Great job in clarifying - in such a short time A great example of teamwork in action
d

Sent from my iPhone

On Jul 27, 2018, at 12:51 PM, RYAN, Michael J. <REDACTED> wrote:

Excellent work Sophie and all. Know it's probably a dead end but really appreciate the effort and follow up……sometimes keeping the world safe involves a lot of false alarms….

Let's still keep our ears open on this one

Best and bon weekend to those who will get one…

Mike

From: FORMENTY, Pierre B.h.
Sent: 27 July 2018 18:45
To: ALLAIN IOOS, Sophie; RYAN, Michael J.; Andrew Clements
Cc: Dennis Carroll; outbreak; DRURY, Patrick Anthony; FALL, Ibrahima-Soce; BRIAND, Sylvie; STEWART, Anthony; MORGAN, Oliver; HAROUNA DJINGAREY, Mamoudou; BARBOZA, Philippe; goarn; DRURY, Patrick Anthony
Subject: RE: Ebola - Cameroon/Gabon

Dear Sophie,

Thank you to you and the Outbreak Team in AFRO and HQ for the quick report

Best regards,

Pierre

From: ALLAIN IOOS, Sophie
Sent: 27 July 2018 18:44
To: RYAN, Michael J.; Andrew Clements; FORMENTY, Pierre B.h.
Cc: Dennis Carroll; outbreak; DRURY, Patrick Anthony; FALL, Ibrahima-Soce; BRIAND, Sylvie; STEWART, Anthony; MORGAN, Oliver; HAROUNA DJINGAREY, Mamoudou; BARBOZA, Philippe; goarn; DRURY, Patrick Anthony
Subject: RE: Ebola - Cameroon/Gabon

Dear Mike, Andrew and Pierre,

We were able to reach many counterparts in different organizations-NGOs-ref labs (USA- CDC, ECDC, MSF-multi section, CIRMF, Pasteur Cameroon, French military health services, ANSES/CIRAD…) and GOARN reached as well partners (UNICEF, IFRC, MSF ….).
Our colleagues were not aware of this rumor : ECDC did a comprehensive search in addition to the one we performed through specific Epidemic Intelligence process and were not able to find anything.

Other partners will look at it in coming hours but it seems that at this stage, it could be a "false alert" .
The good thing is that our colleagues are alerted and they will come back to us in case there is alert/signal to report.

Have a nice evening,
Kind regards

Sophie

Dr Sophie Ioos
Detection, Verification and Risk Assessment – DVA unit
Team Lead - Epidemic Intelligence & Assessment (ERA) team
Health Emergency Information and Risk Assessment (HIM) department
WHO Health Emergencies Programme- WHE
World Health Organization
20 Avenue Appia
Phone : +41 22 791 2404
Mobile : +41 079 44 12 242
Email adress : iooss@who.int

From: RYAN, Michael J.
Sent: 27 July 2018 15:24
To: Andrew Clements; DRURY, Patrick Anthony; FALL, Ibrahima-Soce; BRIAND, Sylvie; FORMENTY, Pierre B.h.; MORGAN, Oliver; ALLAIN IOOS, Sophie; HAROUNA DJINGAREY, Mamoudou; STEWART, Anthony
Cc: Dennis Carroll; outbreak
Subject: RE: Ebola - Cameroon/Gabon

Thanks Andrew

We'll follow up through RO and country office

Best

Mike

From: Andrew Clements [mailto:aclements@usaid.gov]
Sent: 27 July 2018 15:19
To: DRURY, Patrick Anthony; FALL, Ibrahima-Soce; BRIAND, Sylvie; RYAN, Michael J.; FORMENTY, Pierre B.h.
Cc: Dennis Carroll
Subject: Re: Ebola - Cameroon/Gabon

Some additional information: Billy is in Brazzaville at the moment and

EcoHealth Alliance is the implementing partner for PREDICT in that 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 Jul 27, 2018, at 8:39 AM, Andrew Clements <aclements@usaid.gov> wrote:

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: "William B. Karesh" <karesh@ecohealthalliance.org>
Date: July 27, 2018 at 7:52:00 AM EDT
To: Jonna Mazet <jkmazet@ucdavis.edu>, Andrew Clements <AClements@usaid.gov>, PREDICT-oubreak <predict-outbreak@ucdavis.edu>
Subject: Ebola - Cameroon/Gabon

on the local French Radio news this morning - suspicion of an Ebola outbreak along the Cameroon-Gabon border.

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.

From: Murray, Suzan <MurrayS@si.edu>
To: jkmazet@ucdavis.edu <jkmazet@ucdavis.edu>;Peter Daszak <daszak@ecohealthalliance.org>
Sent: 10/4/2018 8:23:06 AM
Subject: Interesting meeting

With Milken Institute

Might be worth us putting our heads together sometime soon

S

From: [redacted]
To: Cara Chrisman <cchrisman@usaid.gov>, Guillaume Chanaud <guichanaud@gmail.com>
Cc: "spwa@hotmail.com" <spwa@hotmail.com>, Jonna Mazet <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Kevin Olival PhD <olival@ecohealthalliance.org>, Dennis Carroll <dcarroll@usaid.gov>
Subject: RE: Disease X in Thailand
Sent: Wed, 10 Oct 2018 17:36:44 +0000

Dear Guillaume,

I am delighted to hear that the filming session went well. Thank you for keeping us updated, and good luck with next steps!

Best wishes,
Eri

Eri Togami DVM MPH
Fellow
One Health Institute
School of Veterinary Medicine
University of California, Davis

From: Cara Chrisman [mailto:cchrisman@usaid.gov]
Sent: Wednesday, October 10, 2018 9:24 AM
To: Guillaume Chanaud <guichanaud@gmail.com>
Cc: [redacted] s[redacted]; Jonna Mazet <jkmazet@ucdavis.edu>; Peter Daszak <daszak@ecohealthalliance.org>; Kevin Olival PhD <olival@ecohealthalliance.org>; Dennis Carroll <dcarroll@usaid.gov>
Subject: Re: Disease X in Thailand

Dear Guillaume,

That's wonderful news, glad to hear that the footage looks good and definitely look forward to hearing more about the film as it moves forward. Best of luck with the post-production process!

Best,
Cara

Cara J. Chrisman, PhD
Senior Infectious Diseases Technical Advisor
U.S. Agency for International Development (USAID) Contractor
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Division
2100 Crystal Drive, CP3-8091A, Arlington, VA 22202
Desk: (571) 551-7413
Cell: [redacted]
E-mail: cchrisman@usaid.gov

GHSI-III - Social Solutions International, Inc. prime contractor

On Wed, Oct 10, 2018 at 4:36 AM Guillaume Chanaud <[redacted]> wrote:
Good morning to all of you,

This message is an update regarding the filming session in Thailand last week.

First I would like to thank everyone involved and those who helped to organize this first filming session for the film.

I've checked some footage and I am definitely satisfied with it, it has the potential to make a really good pilot.
The next step is the post production process, then finding producers.

I will keep you in the loop, and I hope we will be able to work again together on this film.

Best regards,

Guillaume

Le mer. 15 août 2018 à 20:32, [redacted] a écrit :

Dear Supaporn and Guillaume,

This message is regarding the Disease X documentary in relation to the Global Virome Project (GVP)/PREDICT. By copy of this email, I am putting you in touch to discuss synergies between your respective schedules for filming wildlife sampling in Thailand.

Guillaume, Supaporn is an emerging infectious disease expert and the Country Coordinator for the PREDICT project in Thailand. As you may have heard from my colleagues, PREDICT is a large scale wildlife virus discovery project operating in over 30 countries, and is the proof-of-concept laying out the first steps for GVP.

I have communicated your interest in filming on the field to Supaporn, and she is happy to accommodate your request. I have also shared your Disease X proposal document (PDF) with her. Supaporn has two bat sampling trips planned in Ratchaburi on August (31 Aug - 1 Sept), and also at the end of September 2018. The macaque sampling is also planned at the same place in September. I hope you will be able to find synergies in your schedule, and it would be great if you could keep me in the loop to help us stay up to date.

Best wishes,

[redacted]

--

Guillaume Chanaud
Digital Colorist | Director
Web : guillaumechanaud.com
[redacted]

From:	David J Wolking <djwolking@ucdavis.edu>
To:	Clements, Andrew (GH/HIDN) <AClements@usaid.gov>;Alisa Pereira Emerging Threats Division <apereira@usaid.gov>;Cara J. Chrisman <cchrisman@usaid.gov>;Amalhin Shek <ashek@usaid.gov>
CC:	Prof. Woutrina Smith <wasmith@ucdavis.edu>;predict@ucdavis.edu <predict@ucdavis.edu>
Sent:	2/6/2019 9:10:53 AM
Subject:	[predict] Scheduling P2 Capacity Team brownbag

Hi USAID team,

Just following up from our management team call yesterday with regard to scheduling the next brownbag session highlighting our capacity and workforce strengthening successes. Dr. Smith, P2's capacity strengthening lead, has a few dates in mid/late March available that might coincide with when Dennis is in DC, though not sure if Richard and others are also available. Would the week of March 18th work? Alternatively, Dr. Smith is also free the week of April 15th.

We are thinking the March dates might be ideal if the USIAD team is free, but defer to you all for guidance.

Thanks!

David

From: Hongying Li <li@ecohealthalliance.org>
Sent: Sun, 17 Feb 2019 23:32:31 +0800
Subject: Re: [Reminder] GVP newsletter blurb
To: REDACTED
Cc: Peter Daszak <daszak@ecohealthalliance.org>, Samtha Maher <maher@ecohealthalliance.org>, Jonna Mazet <jkmazet@ucdavis.edu>
China Virome Project Update_Feb 2019.docx

Hi REDACTED
Thanks for extending the deadline. Attached please find a brief update from the China side. Please get Peter and Dennis to review the text and check the photos.

Thanks,
Hongying

On Wed, Feb 13, 2019 at 2:59 AM REDACTED> wrote:

> Hi Hongying,
>
> Happy belated lunar new year! I agree that it would be better to include an updated summary of China's progress, including key messages from your Feb 15-17 meeting. I am fine to wait, and am looking forward to reading your update next Monday, Feb 18.
>
> Have a great meeting,
>
> REDACTED
>
> **From:** Hongying Li [mailto:li@ecohealthalliance.org]
> **Sent:** Tuesday, February 12, 2019 10:45 AM
> **To:** REDACTED
> **Cc:** Peter Daszak <daszak@ecohealthalliance.org>; Samtha Maher <maher@ecohealthalliance.org>; Jonna Mazet <jkmazet@ucdavis.edu>
> **Subject:** Re: [Reminder] GVP newsletter blurb
>
> Hi REDACTED
>
> Thanks for the reminder.
>
> For the updates from China, can we wait until Feb. 18 next Monday? We are meeting in Beijing during Feb. 15-17, so I'm hoping there will be a more clear message after that. Please let me know.
>
> Best,
>
> Hongying

On Wed, Feb 6, 2019 at 7:32 PM REDACTED wrote:

Hi Peter and Hongying,

I hope you are well. I am sending a friendly reminder about the blurb for our next iteration of the GVP newsletter. Your blurb does not have to be long, and your assigned topics are as follows: Peter – GVP structural change; Hongying – Updates from China. I have attached the newsletter from last October for your reference.

Please send your blurb to me by EOB **Friday Feb 15**. Thanks for helping share the exciting news!

Best,

REDACTED

China Virome Project: Help Lead the Way

The final decision was made by China side at the meetings in Beijing on February 15-16, to announce the official launch of China Virome Project in mid-April 2019.

Figure 1 Meetings with internatioal (left) and Chinese representatives (middle, right)

Led by Dr. George (Fu) Gao, authorities and researchers from Chinese Academy of Sciences, Chinese Center of Disease Control and Prevention, National Natural Science Foundation of China are working closely with GVP global team to establish the working committee and develop a central proposal. Funding will be made available from Chinese government to support the project.

From: [redacted]
To: Hongying Li <li@ecohealthalliance.org>
CC: Peter Daszak <daszak@ecohealthalliance.org>;Samtha Maher <maher@ecohealthalliance.org>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 2/20/2019 9:34:52 AM
Subject: RE: [Reminder] GVP newsletter blurb

Thank you very much Hongying, received!

[redacted]

From: Hongying Li [mailto:li@ecohealthalliance.org]
Sent: Sunday, February 17, 2019 7:33 AM
To: [redacted]
Cc: Peter Daszak ; Samtha Maher ; Jonna Mazet
Subject: Re: [Reminder] GVP newsletter blurb

Hi [redacted]

Thanks for extending the deadline. Attached please find a brief update from the China side. Please get Peter and Dennis to review the text and check the photos.

Thanks,
Hongying

On Wed, Feb 13, 2019 at 2:59 AM [redacted] wrote:
Hi Hongying,

Happy belated lunar new year! I agree that it would be better to include an updated summary of China's progress, including key messages from your Feb 15-17 meeting. I am fine to wait, and am looking forward to reading your update next Monday, Feb 18.

Have a great meeting,

[redacted]

From: Hongying Li [mailto:li@ecohealthalliance.org]
Sent: Tuesday, February 12, 2019 10:45 AM
To: [redacted]
Cc: Peter Daszak <daszak@ecohealthalliance.org>; Samtha Maher <maher@ecohealthalliance.org>; Jonna Mazet <jkmazet@ucdavis.edu>
Subject: Re: [Reminder] GVP newsletter blurb

Hi [redacted]

Thanks for the reminder.

For the updates from China, can we wait until Feb. 18 next Monday? We are meeting in Beijing during Feb. 15-17, so I'm hoping there will be a more clear message after that. Please let me know.

Best,
Hongying

On Wed, Feb 6, 2019 at 7:32 PM [redacted] wrote:
Hi Peter and Hongying,

I hope you are well. I am sending a friendly reminder about the blurb for our next iteration of the GVP newsletter. Your blurb does not have to be long, and your assigned topics are as follows: Peter – GVP

structural change; Hongying – Updates from China. I have attached the newsletter from last October for your reference.
Please send your blurb to me by EOB **Friday Feb 15**. Thanks for helping share the exciting news!

Best,
REDACTED

From: Nicole R Gardner <nrgardner@ucdavis.edu>
To: predict-surveillance Sympa List <predict-surveillance@ucdavis.edu>, Julie Rushmore <rushmore@ucdavis.edu>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, "karesh@ecohealthalliance.org" <karesh@ecohealthalliance.org>, "machalaba@ecohealthalliance.org" <machalaba@ecohealthalliance.org>
Subject: Surveillance Call Agenda - Thur Mar 28
Sent: Wed, 27 Mar 2019 16:15:45 +0000

Hi Surveillance Team,

Our next call will be **Thursday, Mar 28 at 10am PT / 1pm ET**. Please send any additional agenda items for the upcoming call.

**Data Cleaning Reminder: Please return cleaned human illness and livelihood extracts. We would like to close out these two extracts before introducing more data cleaning topics on future calls.

Agenda

- Cross-partner behavioral risk analysis themes
- EIDITH questionnaire assessment update
- Testing Update
- Serology Shipment Check-in

Join Zoom Meeting
REDACTED

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

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

Meeting ID: REDACTED

International numbers: REDACTED

Nicole

Nicole Gardner
EID Operations Specialist
One Health Institute
University of California, Davis

From: Peter Daszak <daszak@ecohealthalliance.org>
To: [redacted], Anthony Ramos <ramos@ecohealthalliance.org>
Cc: Alison Andre <andre@ecohealthalliance.org>, Aleksei Chmura <chmura@ecohealthalliance.org>, Jonna Mazet <jkmazet@ucdavis.edu>, "Dennis Carroll (DCarroll@usaid.gov)" <DCarroll@usaid.gov>, 'Cara Chrisman' <cchrisman@usaid.gov>, "Keusch, Gerald T" <keusch@bu.edu>
Subject: RE: Cosmos Club Event, June 13
Sent: Wed, 22 May 2019 04:11:00 +0000

Re. the video – I don't think we'll have time in the session, and I'd rather have Dennis speaking directly to the audience. I was thinking we could run it during the cocktail hour, but it's GVP focused and the Event is really supposed to be linking back to the Committee Report as the key theme.

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: [redacted]
Sent: Tuesday, May 21, 2019 7:44 PM
To: Peter Daszak; Anthony Ramos
Cc: Alison Andre; Aleksei Chmura; Jonna Mazet; Dennis Carroll (DCarroll@usaid.gov); 'Cara Chrisman'; Keusch, Gerald T
Subject: RE: Cosmos Club Event, June 13

Hi Peter,

All sounds good -- Jonna and I will be there, and perhaps we can show the SciAni video in Dennis's section.

Looking forward to a great event,
[redacted]

From: Peter Daszak [mailto:daszak@ecohealthalliance.org]
Sent: Monday, May 20, 2019 8:36 PM
To: Anthony Ramos <ramos@ecohealthalliance.org>
Cc: Alison Andre <andre@ecohealthalliance.org>; Aleksei Chmura <chmura@ecohealthalliance.org>; Jonna Mazet <jkmazet@ucdavis.edu>; [redacted]; Dennis Carroll (DCarroll@usaid.gov) <DCarroll@usaid.gov>; 'Cara Chrisman' <cchrisman@usaid.gov>; Keusch, Gerald T <keusch@bu.edu>
Subject: RE: Cosmos Club Event, June 13
Importance: High

Hello everyone,

I know Anthony has reached out to some of you but I just want to chime in and make sure that you reserve the date for our upcoming event. We've all been busy at EHA arranging our annual benefit last week, but we're now working on the details for the June 13th event, including run of show, media and policy outreach.

The title of the event is "Celebrating a Decade of Fighting Pandemics at their Source".

We'll begin at 6pm with a cocktail hour and your speaking slots begin at 7pm. I'll introduce you, in the following order:

- Jerry – you lead off with a 10-15 mins discussion of the IOM/NAS Committee findings on the issue of global surveillance for emerging zoonoses
- Jonna – you're next with 10-15 mins on PREDICT and the EPT – how this built on the findings of the report, and helped solidify a global network for preventing EIDs
- Dennis – you're last with 10-15 mins on future directions – how we can build a global structure prevent the next pandemic.

We wrap with me fielding Q&A at about 8:30pm and the event winds down about 9pm. We'll then have dinner with a select group either at the Cosmos Club or a closeby restaurant.

We'll have a projector and screen for powerpoint slides, but please make sure you don't have too many – 10-15 mins goes quickly!

Please let me know if you need any information/details and I look forward to seeing you all on the night.

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: Anthony Ramos [mailto:ramos@ecohealthalliance.org]
Sent: Tuesday, May 14, 2019 10:21 AM
To: Brooke Genovese
Cc: Peter Daszak; Alison Andre; Aleksei Chmura; REDACTED
Subject: Re: Cosmos Club Event, June 13

Hi Brooke,

We are sending out invites this week via email. The event starts at 6pm with a cocktail hour and the guest speakers go on at 7pm. We wrap up with a Q&A about 8:30pm and the event winds down about 9pm.

Let me know if you have any other questions,
Anthony

Anthony M. Ramos

Senior Director, Marketing and Development

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.

On Mon, May 13, 2019 at 5:26 PM Brooke Genovese <bgenovese@ucdavis.edu> wrote:

Hi Peter & Anthony,

Could you let us know what the timing of the Cosmos Club event is? We're assuming something like 5:00 – 6:30pm cocktail hour.

Thanks!
-Brooke

From: David J Wolking <djwolking@ucdavis.edu>
To: Kevin Olival <Olival@ecohealthalliance.org>;Peter Daszak <daszak@ecohealthalliance.org>;Ava Sullivan <sullivan@ecohealthalliance.org>
CC: Brooke Genovese <bgenovese@ucdavis.edu>;predict@ucdavis.edu <predict@ucdavis.edu>;Eunah Regina Cho <eecho@ucdavis.edu>
Sent: 7/2/2019 11:08:29 AM
Subject: Fwd: [predict] PREDICT News & July 9 Briefing

Hi Kevin, Peter, and Ava,

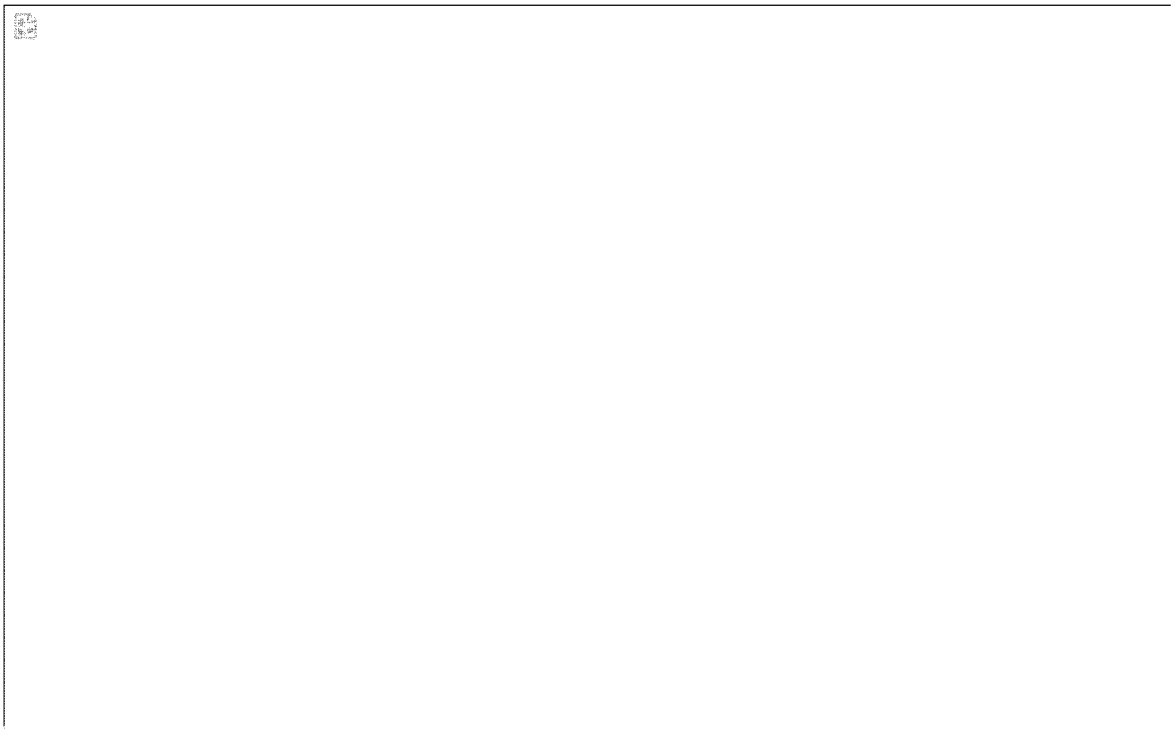
Just sharing what we ended up producing for this first round of "Cool Stuff"/Products that we've been discussing on MT and EB calls for a month. For July, we were thinking of highlighting M&A team work (EID Insights, etc.)... This one ended up being a heavy lift for our communications team, much heavier than anticipated, so maybe we could find time to strategize how to deliver something professional and compelling but without a ton of energy invested. Brooke (copied here) has been POC for this stuff so reach out to her with any questions.

FYI - I'm going to hit teams with final report guidelines and timelines very soon, so most of us (including my communications team) will be slammed with that scope for the next 2 months.

Cheers and Happy 4th!

David

---------- Forwarded message ---------
From: **PREDICT Consortium** <predict@ucdavis.edu>
Date: Tue, Jul 2, 2019 at 11:03 AM
Subject: [predict] PREDICT News & July 9 Briefing
To: <predict@ucdavis.edu>



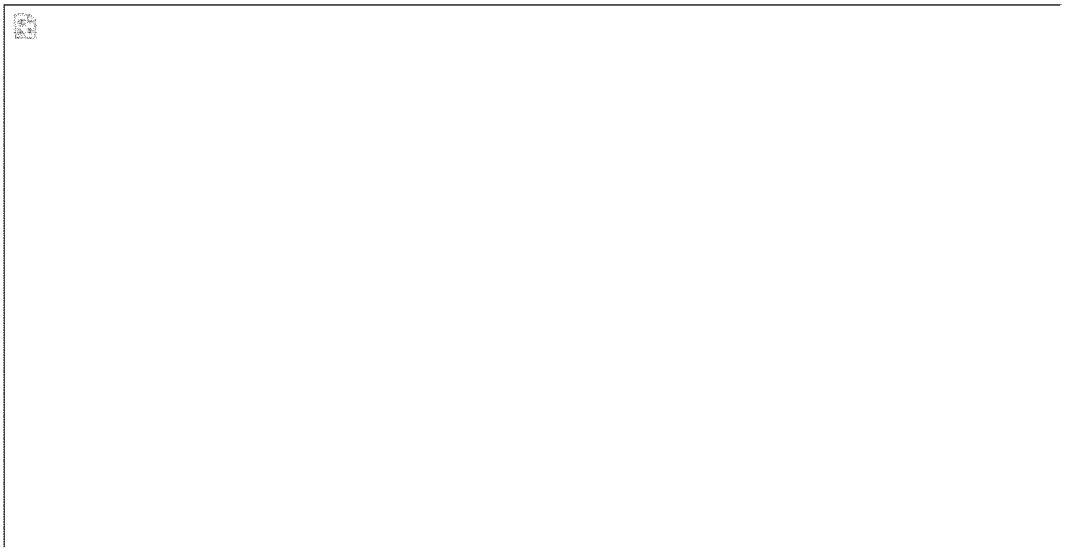
Dear Partners,

On behalf of the PREDICT Consortium, I am pleased to share a special edition of our newsletter highlighting select stories of our work strengthening systems for pathogen detection and viral discovery. Also, on July 9th, I encourage you to attend a special congressional briefing at the Rayburn House Office Building entitled "Emerging Pandemic Threats: Are We Ready for the Next Outbreak?" (details below).

All the best,

Dr. Jonna Mazet
Global Director
USAID/PREDICT Project
One Health Institute
University of California, Davis

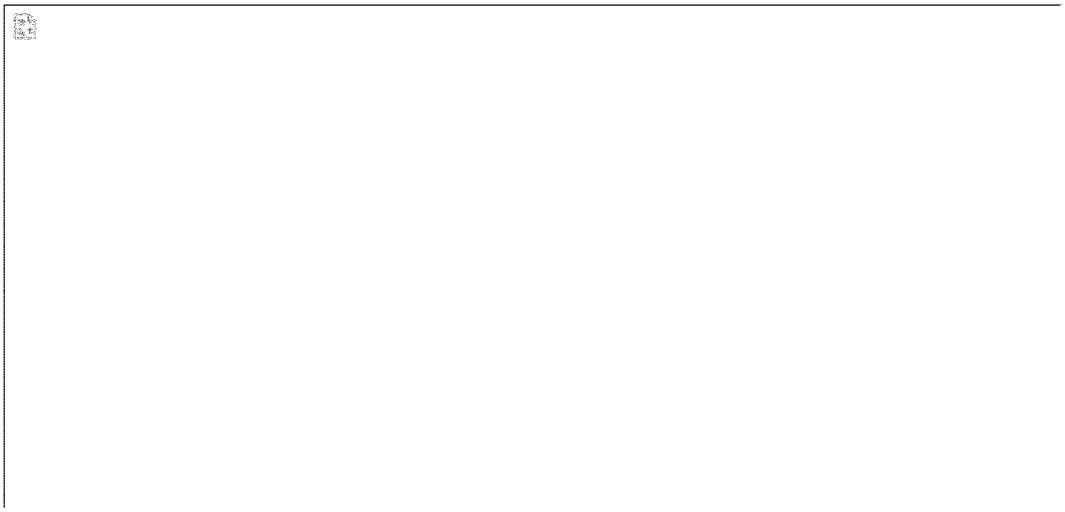
PREDICT Project Briefing: Emerging Pandemic Threats—Are We Ready for the Next Outbreak? *The Role of the United States in Securing Global Health*



Join PREDICT for a special congressional briefing at the Rayburn House Office Building, Room 2060 on Tuesday, July 9 at noon.

To RSVP, contact Brooke Genovese at

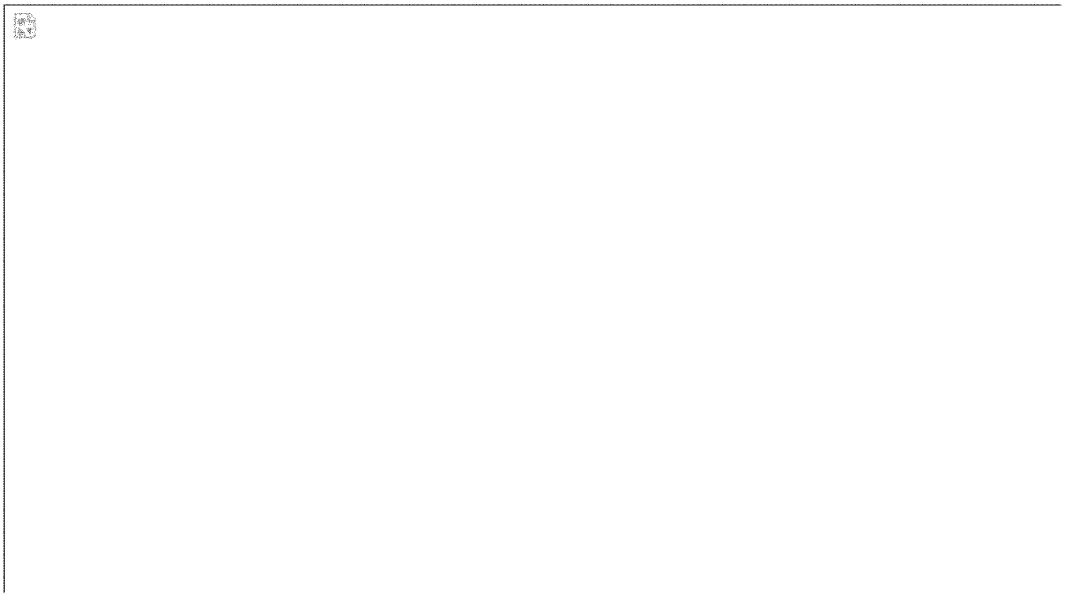
Pathogen Detection & Viral Discovery



Viral discovery efforts have an important role to play in controlling future epidemics. They are contributing to a global health paradigm shift by incorporating a more proactive approach to surveillance and pandemic preparedness. Developing vaccines, improving public health infrastructure, and funding basic research are all critically important. But by also finding viruses in wildlife before they emerge in humans, we stand to learn more about the ecology and evolution of viral diversity and transmission risk of potentially pandemic strains.

Read more .

VIDEO: Strengthening Laboratory Capacity (interview)

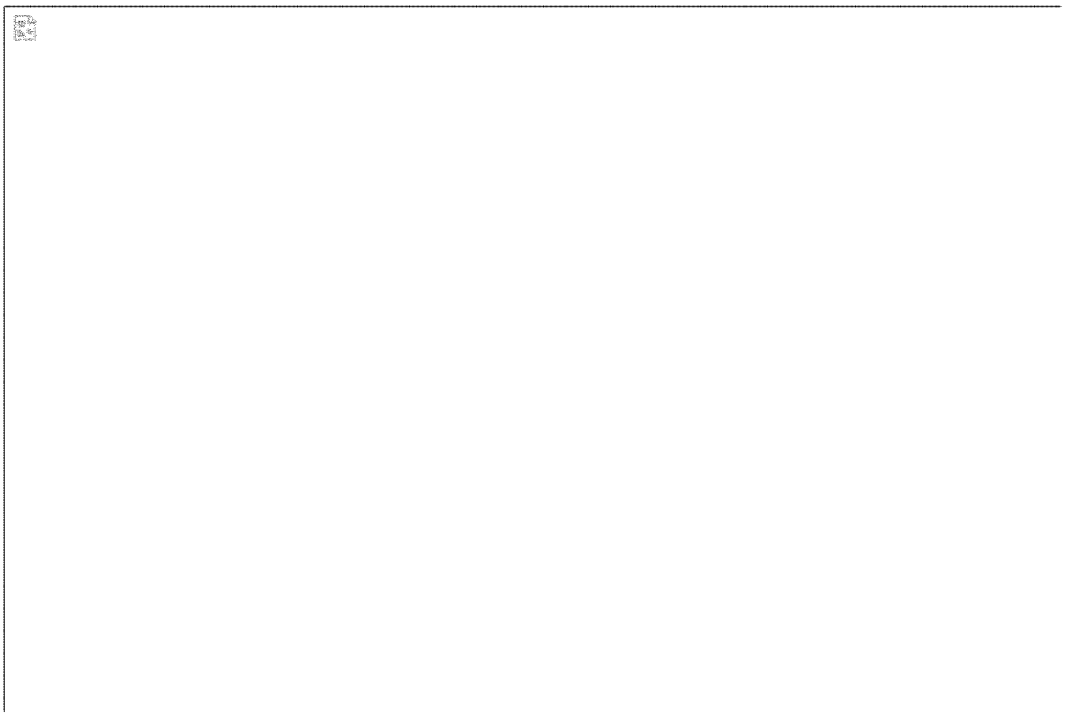


A chat with Brett Smith (Lab Manager, UC Davis One Health Institute) and Walter Simon (Lab Technologist, Sokoine University of Agriculture—Tanzania) on their work together on the PREDICT Project.

For more information:

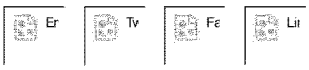
(VIDEO)

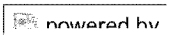
Antimicrobial Resistance from a One Health Perspective in Nepal



The discovery and subsequent availability of antimicrobial drugs has revolutionized modern healthcare in humans and animals, but growing resistance to antimicrobials by bacterial pathogens threatens to undermine these important advances, particularly as the discovery of new antimicrobials has slowed while antibiotic use and subsequent resistance (AMR) is rising globally.

Read more .


Er
Tv
Fe
Lit


powered by

Sent: Tue, 27 Aug 2019 07:07:41 -0700
Subject: Re: Outstanding Bangladesh costs
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Evelyn Luciano <luciano@ecohealthalliance.org>
Cc: Elizabeth Leasure <ealeasure@ucdavis.edu>, Molly Turner <turner@ecohealthalliance.org>, predict Sympa List <predict@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Jon Epstein <epstein@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>

Thanks, Evfelyn, this will work,
Jonna

On Tue, Aug 27, 2019 at 6:06 AM Evelyn Luciano <luciano@ecohealthalliance.org> wrote:

> Hi Liz,
> Apologies for the delay. Outstanding amounts are as follows: $54,116 (icddr,b), $105,484 (IEDCR) and $28,028 (Arif Islam).

Let me know if you need anything further.

Stay well,

Evelyn

> On Aug 26, 2019, at 2:47 PM, Elizabeth Leasure <ealeasure@UCDAVIS.EDU> wrote:
>
> Hi Molly and Evelyn. We have a call with Andrew early tomorrow morning about Bangladesh, and I need to know as soon as possible how much is outstanding in country billings for Bangladesh, including Arif's contract. Basically, what amount of funds is needed to cover in-country costs through the end of the project?
>
> Thanks!
> Liz
>
> *Elizabeth Leasure*
> *Financial Operations Manager*
> *One Health Institute*
> REDACTED *(cell)*
> *530-754-9034 (office)*
> *Skype: ealeasure*

From:	David J Wolking <djwolking@ucdavis.edu>
To:	Kevin Olival <Olival@ecohealthalliance.org>;Hongying Li <li@ecohealthalliance.org>
CC:	Peter Daszak <daszak@ecohealthalliance.org>;predict@ucdavis.edu <predict@ucdavis.edu>
Sent:	8/28/2019 2:22:16 PM
Subject:	[predict] ACTION REQUIRED: Congratulations! You've been nominated to lead a session at the PREDICT All-Country Meeting:

Hi Kevin and Hongying,

On behalf of the All-Country Meeting Coordinating Committee, we are really excited to see you in a few weeks in Bali! Due to your expertise and long-time working with PREDICT, we would like to nominate you both to co-moderate the panel session "**Results to Risk: From Risk investigations to intervention recommendations**". It's a 90 minute session on Day 2.

The structure is for two moderators to lead a discussion based on the theme of the session with a panel of participants from various PREDICT host countries. Below you will see details on your panel along with suggested participants. The countries and panelists listed in black are those best suited for the session. Countries/panelists in red are either featured heavily in other sessions or did not provide a strong proposed theme in the Google Form. We tried to pick participants keeping in mind a host of factors including Consortium partner representation, global geography, proposed theme and participation on other panels for overall balance in the program. Ideally, each session will have between 4-6 panelists depending on length and the structure and goals for the session, which are largely your decision as moderators.

First, please let us know if you are willing to lead the session. If so, we'd like you to review the theme and participants and get back to us with any questions or thoughts by this Friday, August 30th. On Monday (September 2nd) we plan to send out another email connecting you with your list of panelists to confirm their participation so you can begin preparations. After that, the rest is in your hands.

Please don't hesitate to reach out with any questions, happy to help

David

Results to Risk - From risk investigations to intervention recommendations - Kevin Olival and Hongying Li (China)

Day 2; 1.5 hours

Countries/Panelists:

- China - covered by moderator (SADS and livestock models?)
- Cambodia*(Veasna or Vibol?) - bat guano trade and behavioral risks
- Myanmar (Aung) - implications of risk and viral findings in Linno Cave

Suggestions:

- Indonesia (Imung to decide team member?) - IDEEL? Others?
- Uganda (Benard) - Deep forest so may be a good fit
- Ghana (Richard trained by EHA modeling team)

From: Amalhin Shek <ashek@usaid.gov>
Sent: Mon, 18 Nov 2019 16:46:02 -0500
Subject: Re: Request: Final Obligation-Country Breakdown
To: Elizabeth Leasure <ealeasure@ucdavis.edu>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Cara Chrisman <cchrisman@usaid.gov>, Andrew <aclements@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>

Fantastic--thank you!

Amalhin Shek | Budget & Communications Analyst
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Division
Phone: 202-916-2069(o) 571-236-0989(c) | UA 4.6.2H

USAID **Contractor**
GHSI-III - Social Solutions International, Inc.

On Mon, Nov 18, 2019 at 4:45 PM Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:

Sorry about that. I misunderstood. See attached.

Country	Ebola	Core
Cameroon		40,000
Cote d'Ivoire		30,000
DR Congo		-
Ethiopia		25,000
Ghana		40,000
Guinea		60,000
Kenya		50,000
Liberia	150,000	60,000
Rep. of Congo		-
Rwanda		100,000
Senegal		30,000
Sierra Leone		60,000
Tanzania		25,000
Uganda		30,000
Egypt		-
Jordan		50,000
Bangladesh		300,000
Cambodia		100,000
China		-
India		100,000
Indonesia		100,000
Laos		-
Malaysia		100,000
Mongolia		50,000
Myanmar		-
Nepal		100,000
Thailand		100,000
Vietnam		100,000
	150,000	1,650,000

Elizabeth Leasure

Financial Operations Manager

One Health Institute

REDACTED *(cell)*

530-754-9034 (office)

Skype: ealeasure

From: Amalhin Shek <ashek@usaid.gov>
Sent: Monday, November 18, 2019 1:38 PM
To: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>; David John Wolking <djwolking@ucdavis.edu>; Cara Chrisman <cchrisman@usaid.gov>; Andrew <aclements@usaid.gov>; Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>
Subject: Re: Request: Final Obligation-Country Breakdown

Hi Liz,

Thanks for sending over-- just a clarification, the total obligated will be $1.8M, so the $150K for Liberia, and the remaining $1.65M spread across the rest of the countries.

Thanks in advance,

Amalhin Shek | Budget & Communications Analyst
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Division
Phone: 202-916-2069(o) 571-236-0989(c) I UA 4.6.2H

USAID **Contractor**
GHSI-III - Social Solutions International, Inc.

On Mon, Nov 18, 2019 at 4:23 PM Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:

> Hi Amalhin. Is the attached sufficient (sent separately to Andrew) or do you need me to revise the spreadsheet you sent? Sorry for the delayed response. I'm still getting caught up after my trip to Bangkok last week.
>
> Thanks,
>
> Liz
>
> *Elizabeth Leasure*
>
> *Financial Operations Manager*

One Health Institute

REDACTED *cell)*

530-754-9034 (office)

Skype: ealeasure

From: Amalhin Shek <ashek@usaid.gov>
Sent: Friday, November 15, 2019 2:37 PM
To: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>; David John Wolking <djwolking@ucdavis.edu>; Cara Chrisman <cchrisman@usaid.gov>; Andrew <aclements@usaid.gov>; Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>
Subject: Request: Final Obligation-Country Breakdown

Hi Liz,

Per last MT call, we are working with our program office to process an obligation of $150,000 (that can only be used in Africa) while we receive the remaining FY19 funds. Given the change in the extension period, could you help me complete the attached to make sure we have all the necessary documentation regarding the obligations by country? These levels must align with the exact country amounts to be disbursed between their obligation and the end of the award.

Thanks in advance!

Amalhin Shek | Budget & Communications Analyst
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Division
Phone: 202-916-2069(o) 571-236-0989(c) I UA 4.6.2H

USAID **Contractor**
GHSI-III - Social Solutions International, Inc.

From: Peter Daszak <daszak@ecohealthalliance.org>
To: "peter@gisaid.org" <peter@gisaid.org>, [redacted], "cbrechot@gvn.org" <cbrechot@gvn.org>, [redacted], "Jonna Mazet (jkmazet@ucdavis.edu)" <jkmazet@ucdavis.edu>, 'Eddy Rubin' <erubin@metabiota.com>, "MurrayS@si.edu" <MurrayS@si.edu>, 'Oyewale Tomori' [redacted], 'Cara Chrisman' <cchrisman@usaid.gov>
Cc: "cheryl@gisaid.org" <cheryl@gisaid.org>, "graca@usf.edu" <graca@usf.edu>, "nmercer@gvn.org" <nmercer@gvn.org>, Alison Andre <andre@ecohealthalliance.org>, Samtha Maher <maher@ecohealthalliance.org>
Subject: Agenda for the GVP Board meeting, Washington DC, February 13th 2020
Sent: Sat, 18 Jan 2020 00:45:21 +0000
Agenda for GVP Board meeting Feb 13th 2020.docx

Please find attached the agenda for our upcoming GVP Board meeting at the National Academy of Sciences Keck Center, 500 5th Street NW, Washington DC.

As you can see, the meeting proper begins at 10am on Thursday Feb 13th.

We have arranged a group dinner at the Blue Duck Tavern, 1201 24th St NW, Washington, DC 20037 at 7pm the night before (Feb 12th), so please arrange to arrive in time for a pleasant social event with your new Board members!

We're looking forward to the meeting and will send pre-read documents to you all during the next few days.

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: Peter Daszak
Sent: Tuesday, January 7, 2020 1:50 PM
To: peter@gisaid.org; [redacted] 'cbrechot@gvn.org'; '[redacted]; Jonna Mazet (jkmazet@ucdavis.edu); 'Eddy Rubin'; MurrayS@si.edu; 'Oyewale Tomori'; 'Cara Chrisman'
Cc: 'cheryl@gisaid.org'; 'graca@usf.edu'; 'nmercer@gvn.org'; Alison Andre; Samantha Maher (maher@ecohealthalliance.org)
Subject: Getting ready for the Inaugural GVP Board meeting, Washington DC, February 13th 2020
Importance: High

Dear All,

Happy New Year to all of the GVP Board and your assistants. I'm just sending out a friendly reminder that we're getting closer to the meeting date - February 13th, 2020 in Washington DC, starting at 10am. We will send details of the venue shortly, once confirmed.

Over the next few days, the GVP steering committee is finalizing our detailed agenda and pre-read materials which we'll send to you all early next week. These will include the Global Virome Project's Resolutions and Bylaws, which we will review as a group and sign, if we are in agreement, on Feb 13th. Following the meeting, there will be a group dinner and opportunity to continue

discussing the Global Virome Project's future over some delicious food and drinks.

As always, please do not hesitate to reach out with any questions or concerns.

Looking forward to a productive and exciting meeting,

Yours Sincerely,

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.

Global Virome Project
Initial Board of Directors Meeting
13 February, 2020, 10:00 am – 5 pm
Keck Center, 500 5th St NW, Washington, DC

Summary
The Global Virome Project (GVP) was conceived in response to repeated and unpredictable emergence and re-emergence of high impact viral epidemics and pandemics, compromising global health security, food security and welfare. The GVP has an ambitious objective: to characterize the majority of viruses within the 25 viral families that pose a threat to global public health (Carroll *et al*. 2018). This first Board of Directors meeting of the newly incorporated Global Virome Project (GVP) marks the exciting inception of the GVP Project as a stand-alone not-for-profit organization with the ability to raise funds and function as an independent entity.

Agenda
Note: <u>There will be a GVP Dinner on Feb 12th beginning 7pm</u>: Please plan to arrive in DC on the 12th. There will be an optional dinner on 13th for those staying in DC.

Time	Topic	Lead
9:30	**Arrive at Keck Center**	All
10:00 - 10:30	**Introductions, order of business, meeting goals**	All
10:30 - 11:30	**The GVP vision** ○ What the GVP is, and what it's not ○ The next two years of the GVP ○ The long-term vision	Dennis Carroll
11:30 - 12:30	**GVP work to date** ○ History, partners (PD) ○ Brief reports from working groups: • Science & Tech, GVP Targeting (PD) • Economic justification, Governance options, Legal & Ethical Philosophies (JM) • Data Management (ER) ○ Governance models (JM)	Peter Daszak Jonna Mazet Eddy Rubin
12:30 - 1:30	**Lunch & Discussion (on site)**	All
1:30 - 3:00	**Review & signing of the bylaws and resolutions**	Peter Daszak
3:00 - 4:00	**Fundraising Strategy Discussion**	Dennis Carroll
4:00 - 5:00	**Wrap-up and next steps** ● Closing reflections from each participant ● Plans for further engagement & next steps ● Meeting times/locations in 2020	All

7:00 - 9:30	**Optional Dinner for those staying in DC**	

Board Members
Peter Bogner, GISAID Initiative
Christian Brechot, Global Virus Network & University of South Florida
Dennis Carroll, Sr. Fellow at the Scowcroft Institute
Peter Daszak, EcoHealth Alliance
Jennifer Gardy, Bill & Melinda Gates Foundation
Jonna Mazet, University of California, Davis
Suzan Murray, Smithsonian Institution
Eddy Rubin, Metabiota
Oyewale Tomori, Redeemer's University, Nigeria

Observers
Cara Chrisman, U.S. Agency for International Development
Samantha Maher, EcoHealth Alliance

Background materials for distribution prior to meeting:

- Unsigned Resolutions Adopted by the Incorporator of the Global Virome Project, Inc.
- Unsigned Resolutions to be adopted by the Initial Board of Directors of the Global Virome Project, Inc.
- Resolution to open a bank account for the Global Virome Project, Inc.
- Bylaws of the Global Virome Project, Inc.
- GVP Certificate of Incorporation
- Benefit-cost analysis of the Global Virome Project
- Two legal and ethical briefs
- Carroll D, Daszak P, Wolfe ND, Gao GF, Morel CM, Morzaria S, Pablos-Méndez A, Tomori O, Mazet JAK (2018) The Global Virome Project. *Science* 359:872-874
- Global Costs of Emerging Infectious Diseases: an Economic Case for the Global Virome Project. *Emerging Disease Insights* report from Ecohealth Alliance/UC Davis/PREDICT.

From:	Jonna Mazet <jkmazet@ucdavis.edu>
To:	Katherine Leasure <kaleasure@ucdavis.edu>
CC:	Predict inbox <predict@ucdavis.edu>;Kirsten Gilardi <kvgilardi@ucdavis.edu>;Marcy Uhart <muhart@ucdavis.edu>
Sent:	1/31/2020 2:47:03 PM
Subject:	Re: ATF PREDICT International Travel Request - M. Uhart (USA)

Woohoo -- great job, Katie!
J

On Wed, Jan 29, 2020 at 1:44 PM Andrew Clements <aclements@usaid.gov> wrote:
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 Jan 29, 2020, at 8:32 PM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. Marcy Uhart is currently in the US to work with the PREDICT team on the final report. Unfortunately a request for ITA approval was not submitted prior to her departure, which is why we are requesting approval after-the-fact at this point in time. Trip details are below. My apologies for the oversight; please let me know if you have any questions.

1. Uhart (USA): $2250 airfare/$198 (Davis) max daily per diem

Travel Request –

1. UC Davis would like to request travel approval for Dr. Marcela Uhart to travel from Trelew, Argentina to Davis, California, USA from January 15 to February 5, 2020 to work with the PREDICT team on the PREDICT-2 final report.

Trip purpose: Dr. Uhart will meet daily and as needed with the PREDICT team to streamline content for the PREDICT-2 final report, including data analytics, narrative sections, graphs and visual aids, and overall content. She will also work with country teams, leadership, and data analysts to prepare, review and edit country reports.

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

From:	Andrew Clements <aclements@usaid.gov>
To:	Christine Kreuder Johnson <ckjohnson@ucdavis.edu>
CC:	PREDICTMGT <predictmgt@usaid.gov>;Padmaja Shetty <pshetty@usaid.gov>;Alisa Pereira <apereira@usaid.gov>;Amalhin Shek <ashek@usaid.gov>;Jonna Mazet <jkmazet@ucdavis.edu>;Tracey Goldstein <tgoldstein@ucdavis.edu>;David John Wolking <djwolking@ucdavis.edu>;William Karesh <karesh@ecohealthalliance.org>;Peter Daszak <daszak@ecohealthalliance.org>;Simon Anthony <anthony@ecohealthalliance.org>;predict Sympa List <predict@ucdavis.edu>;Matthew Blake <mblake@ucdavis.edu>
Sent:	2/1/2020 4:29:06 AM
Subject:	Re: PREDICT-related support for the novel coronavirus outbreak

Thank you Chris and team!

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 Feb 1, 2020, at 2:38 AM, Christine Kreuder Johnson <ckjohnson@ucdavis.edu> wrote:

Dear Andrew and PREDICT Senior Management,
Quick update from us on activities over the past 3 weeks related to the novel coronavirus (nCoV-2019). PREDICT has been actively supporting partners in the US and around the world in requests for expertise and information on the novel coronavirus (nCoV-2019) from China. PREDICT lead scientists have received requests to provide technical assistance and testing support as suspect cases emerged in patients and travelers from China. PREDICT's consensus-based PCR assay for coronaviruses (the Corona Quan assay) has been successfully used to detect the virus in Thailand and Nepal, with additional confirmation of the PCR positive result by our pathogen detection team (example letter from Nepal govt attached). The PREDICT protocols were incredibly useful in the very early days of the outbreak when a specific assay targeting nCoV was not yet available. Now that there is a specific assay developed for the virus we have passed that information along to our global PREDICT network (also attached). PREDICT scientists have also been asked to assist coronavirus detection and support the government in evaluating potential cases in Indonesia, Cambodia, Sierra Leone, Tanzania and Pakistan.
Senior PREDICT personnel are currently leading the 2019 nCoV Research Prioritization process for social behavior aspects, animal host-pathogen interactions, and animal epidemiology for intergovernmental organizations and the donor community conference planned for Mid-February. Senior PREDICT personnel are also participating and advising in weekly calls with NIH/NIAID and WHO Research and Development Blueprint working group for 2019 nCoV prioritiy setting. Senior PREDICT personnel are also leading the OIE ad hoc expert group on 2019 nCoV.
Also please see updates previously provided by Dr. Simon Anthony on early and rapid phylogenetic analyses of the nCoV-2019 genome and Dr. Peter Daszak on engagement of scientists working directly on the discovery and characterization of nCoV-2019 outbreak in China.
Looking forward to catching up more next week.
Chris

Christine Kreuder Johnson, VMD, PhD
Professor of Epidemiology and Wildlife Health
Director, EpiCenter for Disease Dynamics
Associate Director, One Health Institute
VM: Medicine and Epidemiology
School of Veterinary Medicine
University of California
Rm 1040, VM3B 1089 Veterinary Medicine Drive
Davis, California 95616
+1.530.752.1238

Sent: Sat, 15 Feb 2020 16:19:31 +0000
Subject: Updated invitation with note: OHW-Benchmarking and Planning Group Meet (BPG) @ Tue Feb 18, 2020 1pm - 5pm (PST) (jkmazet@ucdavis.edu)
From: f.castillo@berkeley.edu
To: jkmazet@ucdavis.edu, Matthew Blake <mblake@ucdavis.edu>, karesh@ecohealthalliance.org, kaleasure@ucdavis.edu, sfh9@georgetown.edu, wasmith@ucdavis.edu, oromero@haas.berkeley.edu, Peter Daszak <daszak@ecohealthalliance.org>, alexandrazuber@atahealthstrategies.com, Elizabeth Leasure <ealeasure@ucdavis.edu>, jonna.mazet@gmail.com
invite.ics

This event has been changed with this note:
"Updated meeting room, list of documents to review and remote access information was added to invite. Looking forward to the meeting! F. "

OHW-Benchmarking and Planning Group Meet (BPG)

When Tue Feb 18, 2020 1pm – 5pm Pacific Time - Los Angeles

Where **Changed:** Veterinary School of Medicine VM3B, Room 1001 (map)

Calendar jkmazet@ucdavis.edu

Who
- f.castillo@berkeley.edu - organizer
- Matthew Blake
- karesh@ecohealthalliance.org
- kaleasure@ucdavis.edu
- sfh9@georgetown.edu
- wasmith@ucdavis.edu
- oromero@haas.berkeley.edu
- Peter Daszak
- jkmazet@ucdavis.edu
- alexandrazuber@atahealthstrategies.com
- Elizabeth Leasure
- j REDACTED

more details »
Changed: All,
Please use the following link for remote access:

Zoom Meeting: REDACTED
Or dial by your location:
+ REDACTED (San Jose)
+ (New York)
Meeting ID: REDACTED

On Feb. 3 and 14 Alexandra shared with the group a link to the final Obj. 3 document and a Gantt chart, a meeting agenda, current strategic plans for both networks, business retreat planning session, and others. . Please review the documents prior to the meeting.
Going (jkmazet@ucdavis.edu)? **Yes** - **Maybe** - **No** more options »

Invitation from Google Calendar

From:	Jonna Mazet <jkmazet@ucdavis.edu>
To:	Christine Kreuder Johnson <ckjohnson@ucdavis.edu>
CC:	Andrew Clements <aclements@usaid.gov>;David John Wolking <djwolking@ucdavis.edu>;PREDICTMGT <predictmgt@usaid.gov>
Sent:	2/24/2020 1:49:26 PM
Subject:	Re: confirming emails for data meeting

Great! I have it too, but since I didn't receive as a member or with permission to use it for our purposes, I thought we should have permission from at least one member to use it for distribution.
Happy Monday,
Jonna

On Mon, Feb 24, 2020 at 1:18 PM Christine Kreuder Johnson <ckjohnson@ucdavis.edu> wrote:

We've got the PPFST list and are inviting them for the briefing at the museum on the 17th.

We'll share that list with you shortly.

/ckj

From: Andrew Clements <aclements@usaid.gov>
Date: Monday, February 24, 2020 at 12:30 PM
To: Jonna Mazet <jkmazet@ucdavis.edu>
Cc: Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>, David John Wolking <djwolking@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>
Subject: Re: confirming emails for data meeting

i haven't been participating in the PPFST meetings.

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 Mon, Feb 24, 2020 at 8:43 PM Jonna Mazet <jkmazet@ucdavis.edu> wrote:

The email for Jean Richards is <jean.m.richards5.civ@mail.mil>".

In my records others are:

carl.i.newman.civ@mail.mil

jeffrey.j.morgan21.ctr@mail.mil

viboudc@mail.nih.gov

We should probably also add: "mary.j.lancaster5.civ@mail.mil" <mary.j.lancaster5.civ@mail.mil>. In fact, Andrew, you are on PPFST, correct, and have that whole email list. Probably good to invite all of them?

I also suggest:

Greenberg, Stephen (NIH/NLM) [E] greenbes@mail.nlm.nih.gov

Josh Rosenthal rosenthj@ficod.fic.nih.gov

Have . nice day,

Jonna

On Mon, Feb 24, 2020 at 10:32 AM Christine Kreuder Johnson <ckjohnson@ucdavis.edu> wrote:

Hi Andrew,

Sorry for delay, and I can confirm correct email for 3 of those.

Updated email for this one - Jean-Paul.Chretien@ncmi.detrick.army.mil.

This one should be correct - martha.m.stokes.civ@mail.mil

As is Christine.Jessup@nih.gov.

Also we might add Jean Patterson at NIH/NIAID (jean.patterson@nih.gov).

We're finalizing the invite list for the March 17th briefing and happy to share that as well.

Thanks

Chris

From: Andrew Clements <aclements@usaid.gov>
Date: Monday, February 17, 2020 at 1:18 PM
To: Jonna Mazet <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>
Cc: David John Wolking <djwolking@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>
Subject: confirming emails for data meeting

Hi Chris and Jonna,

For the data meeting, can you confirm the emails below are correct?

christine.jessup@nih.gov

martha.m.stokes.civ@mail.mil

Jean.Richards@dtra.mil

carl.newman@dtra.mil

Jean-Paul_Chretien@ostp.eop.gov

Also, do you have emails for the following?

Jeffrey Morgan, DOD

Cecile Viboud, Fogarty

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

From: Elizabeth Leasure <ealeasure@ucdavis.edu>
To: Beth Edison <bedison@metabiota.com>
Cc: predict Sympa List <predict@ucdavis.edu>
Sent: Tue, 25 Feb 2020 18:39:47 +0000
Subject: [predict] RE: Due Feb 24th: PREDICT Y6Q2 Accruals: Please send Feb and Mar figures

Thanks, Beth!

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: Beth Edison <bedison@metabiota.com>
Sent: Monday, February 24, 2020 2:05 PM
To: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
Cc: predict Sympa List <predict@ucdavis.edu>
Subject: Re: Due Feb 24th: PREDICT Y6Q2 Accruals: Please send Feb and Mar figures

Hi Liz,

Attached are Metabiota's estimated accruals for February and March. I'm using up the Core budget first as that is older money. Not sure if that's how you want it done. I'm happy to make edits if you like, just let me know.

Thanks,
Beth

On Mon, Feb 10, 2020 at 12:51 PM Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:
Hi everyone. Please **send me your projected February and March figures by COB PST on Monday, February 24th.** Please also remember to send me your projected figures broken out by Core/Ebola for Global & Admin Management and by country. 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)

--
Beth Edison
Senior Program Manager | Metabiota
(250)739-8987

From:	David J Wolking <djwolking@ucdavis.edu>
To:	Clements, Andrew (GH/HIDN) <AClements@usaid.gov>;Amalhin Shek <ashek@usaid.gov>;Alisa Pereira Emerging Threats Division <apereira@usaid.gov>
CC:	Christine Kreuder Johnson <ckjohnson@ucdavis.edu>;Elizabeth Leasure <ealeasure@ucdavis.edu>;predict@ucdavis.edu <predict@ucdavis.edu>
Sent:	4/2/2020 3:26:42 PM
Subject:	[predict] P2 Extension workplan and quick checkin?

Hi Andrew and Amalhin,

We have the workplan and associated budget pretty well set at this point (attached technical plan here) but wanted to check-in briefly if you have time tomorrow on the budget piece and country allocations. There are a few questions we still have on flexibility of funds between countries and objectives given the emergency situation and before we set this in stone just wanted to make sure we are all on the same page for management once this is executed.

Chris and I will follow-up by text to try and find a time ASAP.

Thanks in advance for all your help to get us this far,

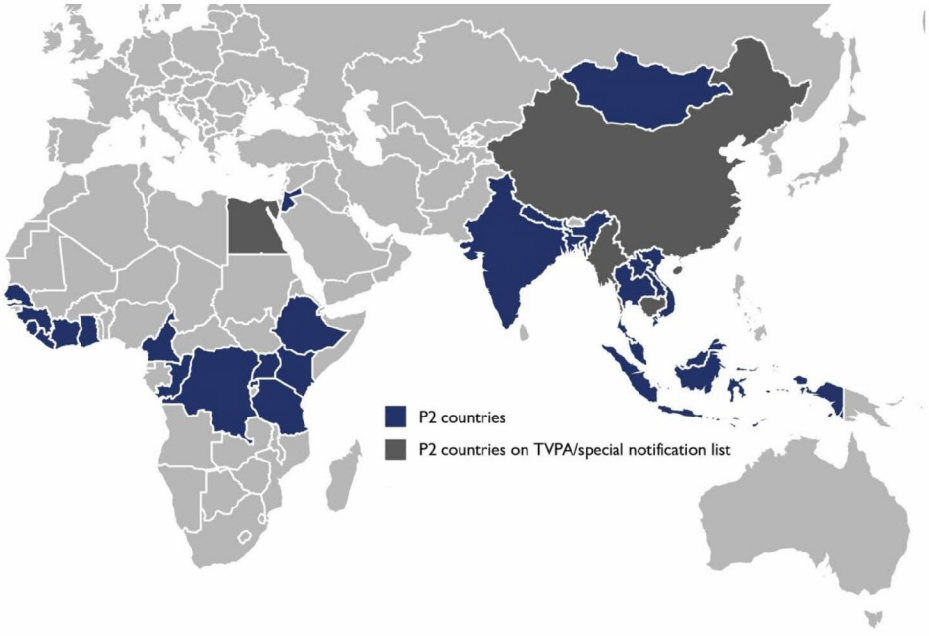
David

PREDICT-2 COVID-19 Workplan
Emergency Support for the SARS CoV-2 Pandemic

As a USAID-funded development project, over the past 10 years, PREDICT has aimed to strengthen the capacity of host country partners in the health security sector, especially for infectious disease prevention and surveillance, as well as outbreak preparedness. Our approach to capacity strengthening has worked to establish the essential infrastructure and provide hands-on experiences for the One Health workforce in surveillance and pathogen detection. PREDICT has dedicated the most recent portion of this second phase (2014-2019) to ensuring that host country partners are well positioned to lead One Health surveillance through the transfer of knowledge, skills, capabilities, and technologies.

On December 31, 2019, China reported a cluster of atypical pneumonia of unknown cause. Since that time, a novel coronavirus has been characterized with likely zoonotic origins and potential involvement of a live animal market in the initial outbreak in China. This new virus, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS CoV-2) has been confirmed as the agent causing Coronavirus Disease 2019 (COVID-19) in people, and the World Health Organization (WHO) officially declared a COVID-19 pandemic on March 11, 2020. The primary concern is an informed and effective global response to the COVID-19 pandemic, and there is also a need for investigation into likely animal source(s) of this pandemic to better prepare for future SARS CoV-2 or SARS-related outbreaks.

PREDICT's Global Network



During this six-month extension period (April 1, 2020 – September 30, 2020), PREDICT will use its technical expertise, data, and biological specimens to assist countries through the project's existing global network (see map above). Specifically, we will provide technical assistance with detection and characterization of human and animal SARS CoV-2 cases to inform pandemic response. As possible, we will also investigate the animal source(s) of this virus and other potential intermediate hosts.

Scope of Work

Note: the following represents the 6-month work plan of April 1, 2020. However, due to the dynamic pandemic environment (e.g. changes in virus spread, travel and shipping constraints, and expansion of efforts by other donors and development partners to assist affected countries), it is possible that country needs may shift over the next 6 months. As a result, changes may be necessary to the work plan. Any changes to activities or country budgets will be submitted to the AOR for approval.

Objective 1: Support initial detection of SARS CoV-2 to inform public health response

Activities (as feasible and appropriate during a pandemic):

- Based on emergency needs assessments at the start of the pandemic, work with PREDICT-2 global collaborating laboratories (up to 28 countries in Africa, Asia, and the Middle East that previously conducted work under PREDICT-2[1]) to evaluate technical, personnel, and resource demands for pandemic response.
- Provide technical and resource assistance to laboratories for initial detection[2] of SARS CoV-2 in collaborating laboratories; assistance could include external technical and commodity support such as specific SARS CoV-2 primers, probes, positive controls, updated protocols, and training; funding for personnel; knowledge and technology transfer; or other assistance as needs emerge.

Timeline: April – June 2020

Expected outcomes: Demand-driven assistance to countries supporting pandemic response and conduct of rapid and high-quality in-country testing for SARS CoV-2 to inform control measures.

Objective 2: Conduct investigations to characterize potential animal source(s) of SARS CoV-2 and previous spillover of SARS-related viruses

Activities (as feasible and appropriate during a pandemic):

- In participating countries, participate in technical discussions at the global, regional, and/or country level to plan and prioritize retrospective and prospective (if possible) research towards identifying SARS CoV-2 animal source(s) of and intermediate hosts(s).

[1] To conduct work in China, Cambodia, Egypt, and Myanmar, special notification and TVPA waivers are required.

[2] Limited to "jump starting" detection after the virus is introduced to countries. Not intended to support widespread testing as the virus spreads rapidly.

- Identify relevant data and samples collected by PREDICT-2 in South and Southeast Asia[3] that could provide insight into the possible animal host(s) of SARS CoV-2.
- Conduct in-depth analysis of PREDICT-2 coronavirus findings and conduct additional testing for SARS-related viruses using previously collected PREDICT-2 samples (animals and humans) in South and Southeast Asia[2] as needed to evaluate a) potential reservoir host(s) and intermediate host(s), and b) evidence for prior spillover events among humans in the region.
- Conduct additional analyses of existing project data from markets in mainland Southeast Asia with a focus on live animal markets, including but not limited to human behaviors, types of animals present, value chains and networks, and other risks for virus spillover and spread at high-risk hypothesized SARS CoV-2 interfaces.

Timeline: April – September 2020 (global analysis and planning); May – September 2020 (testing and analyses)

Outcomes: Prioritized list of data and samples for analysis; investigations aimed at identifying animal hosts for SARS CoV-2; insights shared that enable countries in the South and Southeast Asia region (and beyond) to design and target prevention strategies to reduce the risk of future spillovers of SARS CoV-2 and related viruses from animals to people.

Objective 3: Managing and Coordinating Operations

Activities:

- Implement the workplan and strategy.
- Effectively execute, monitor, and close-out the Cooperative Agreement and any sub-award agreements, sub-contracts, and service agreements while ensuring compliance.
- Respond to all requests for information.
- Submit financial and technical reports, including the Cooperative Agreement final report (which will include work conducted during this extension).
- Release data into USAID's Data Development Library for public access and use.
- Assure compliance with all federal regulations and host country laws and regulations.
- Hold separate biweekly coordination meetings with USAID Management Team and the project Executive Board.
- Assure professional and effective communications with USAID and all partners and stakeholders.
- Hold the end of project briefing for USAID (which was postponed in March 2020) to showcase achievements, findings, impact, and recommendations to inform future directions for pandemic prevention, surveillance, detection, and response.

Timeline: April – September 2020

[3] Currently planned for Indonesia, Laos, Malaysia, Nepal, Thailand, and Viet Nam as data and evidence dictate, as well as Cambodia and other countries in the region pending special notification.

Outcomes: Implementation of workplan; ensured compliance with USG policies and regulations and with host country policy and regulations; timely submission of all reports and response to data call requests; compilation and submission of final project report; successful out-briefing and project wrap-up meeting.

Total Budget: up to **$3.0 M**

Budget Breakout by Objectives and Countries:

From:	Keith Martin <kmartin@cugh.org>
To:	Peter Daszak <daszak@ecohealthalliance.org>;Vertefeuille, Jan <Jan.Vertefeuille@wwfus.org>
CC:	Martin Gilbert <m.gilbert@cornell.edu>;Christine Kreuder Johnson <ckjohnson@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>;Steven A. Osofsky <s.osofsky@cornell.edu>;Maggie Kinnaird <mkinnaird@wwf.panda.org>;Catherine Machalaba <machalaba@ecohealthalliance.org>;Hemley, Ginette <ginette.HEMLEY@wwfus.org>;O Criodain, Colman <cocriodain@wwfint.org>;Aileo Weinmann <WeinmannA@nwf.org>;SacconeM@nwf.org <SacconeM@nwf.org>;William B. Karesh <karesh@ecohealthalliance.org>;Nicolas, Alexander <Alexander.Nicolas@wwf.org>
Sent:	4/26/2020 4:26:15 PM
Subject:	Re: Sign-on letter website and launch plans

Thanks Jan.
Peter, Excellent interview this morning on CNN. Very clear. Thanks for defending bats.
Best
Keith
Keith Martin MD, PC
Executive Director
Consortium of Universities for Global Health
Washington, DC
www.cugh.org
@CUGHnews @CUGH_TAC
202-974-6363

Attend CUGH's 2021 Annual Conference, Houston, Texas
March 12-14, 2021, Satellite Sessions, March 11

On Sun, Apr 26, 2020 at 4:41 PM Peter Daszak <daszak@ecohealthalliance.org> wrote:

Cc'ing Billy and Catherine into the email chain.

Cheers,

Peter

Peter Daszak

President

EcoHealth Alliance

460 West 34th Street

New York, NY 10001

USA

Tel.: +1-212-380-4474

Website: www.ecohealthalliance.org

Twitter: @PeterDaszak

EcoHealth Alliance develops science-based solutions to prevent pandemics and promote conservation

From: Vertefeuille, Jan <Jan.Vertefeuille@WWFUS.ORG>
Sent: Sunday, April 26, 2020 2:10 PM
To: Martin Gilbert <m.gilbert@cornell.edu>; Keith Martin <kmartin@cugh.org>; Christine Kreuder Johnson <ckjohnson@ucdavis.edu>; Peter Daszak <daszak@ecohealthalliance.org>; Jonna Mazet <jkmazet@ucdavis.edu>; Steven A. Osofsky <s.osofsky@cornell.edu>; Maggie Kinnaird <mkinnaird@wwf.panda.org>; Catherine Machalaba <machalaba@ecohealthalliance.org>; Hemley, Ginette <ginette.HEMLEY@WWFUS.ORG>; O Criodain, Colman <cocriodain@wwfint.org>; Aileo Weinmann <WeinmannA@nwf.org>; SacconeM@nwf.org
Cc: Nicolas, Alexander <Alexander.Nicolas@wwf.org>
Subject: Sign-on letter website and launch plans

All,

I'm delighted to share that our letter now lives on its own website -- www.PreventPandemics.org -- in 6 languages, with a signup form for additional experts to add their names to the letter. We have more than 100 signers from 24 countries, including One Health leaders from Vietnam, Thailand, Bangladesh, Hong Kong, Malaysia, Indonesia, Zambia, Tanazania, Uganda and more. A big thank you to everyone who has shared this with colleagues to secure these signatures!

We are using the next few days to double check translations and functionality and will publicly announce the website during the CUGH webinar that Keith is organizing on Thursday morning Asia time. We are also working on a press release and plans for delivering this to decisionmakers, so please let us know if you are interested and available to do press interviews.

We encourage you to continue sharing the letter to potential signers and welcome additional experts to add their names via PreventPandemics.org even before we formally launch it on Thursday, but please do not post the letter or website publicly to social media or other public channels until Thursday. And please ask anyone you're sharing the link with to do the same.

I'm copying here Alexander Nicolas, who oversaw the site development – launching a site in 6 languages in two weeks' time is no small feat! And we have set up an email address, PreventPandemics@wwfus.org, for questions or issues with the site.

Thanks,

Jan

From: "Kristian G. Andersen" [redacted]
Sent: Wed, 29 Apr 2020 19:41:59 -0700
Subject: Re: Quick votes?
To: Peter Daszak <daszak@ecohealthalliance.org>
Cc: David A Relman <relman@stanford.edu>, Diane Griffin <dgriffi6@jhmi.edu>, "Shore, Carolyn" <CShore@nas.edu>, Jonna Mazet <jkmazet@ucdavis.edu>

I too agree with the current priorities, but in a slightly different order:
A3, A1, A2 - A1 may also be prioritized by other WGs.

K

On Wed, Apr 29, 2020 at 7:22 PM Peter Daszak <daszak@ecohealthalliance.org> wrote:

> OK – sorry to be late, as usual. I'm totally happy with the top 3 priorities the group's chosen here.
>
> If I were to vote, I would have gone with A1, A3, A5 (host range). I feel that A2 has a ton of attention anyway, and that the results of the genetic analyses are so widely and rapidly debated online, usually without too much controversy, that our opinion and consensus is not as useful. I also feel that, while many believe A5 (host range) is not a pressing issue, I think we're going to come across potentially intractable problems if this virus gets into livestock, or if it is circulating in the very extensive mixed wildlife-livestock farms of S. China.
>
> Again – very happy with the 3 choices as they stand.
>
> Cheers,
>
> Peter
>
> **Peter Daszak**
>
> *President*

EcoHealth Alliance

460 West 34th Street

New York, NY 10001

USA

Tel.: +1-212-380-4474

Website: www.ecohealthalliance.org

Twitter: @PeterDaszak

EcoHealth Alliance develops science-based solutions to prevent pandemics and promote conservation

---

From: David A Relman <relman@stanford.edu>
Sent: Wednesday, April 29, 2020 8:15 PM
To: Kristian G. Andersen REDACTED
Cc: Diane Griffin <dgriffi6@jhmi.edu>; Peter Daszak <daszak@ecohealthalliance.org>; Shore, Carolyn <CShore@nas.edu>; Jonna Mazet <jkmazet@ucdavis.edu>; David A Relman <relman@stanford.edu>
Subject: Re: Quick votes?

Hi Kristian-

Yes, but…we will incorporate all votes no matter when they are received! And besides, nothing is written in stone. All topics are available to the sponsors and to the full committee, so there will be opportunity to re-direct or re-define efforts.

David

From: "Kristian G. Andersen" REDACTED
Date: Wednesday, April 29, 2020 at 4:38 PM
To: David A Relman <relman@stanford.edu>
Cc: Diane Griffin <dgriffi6@jhmi.edu>, Peter Daszak <daszak@ecohealthalliance.org>, "Shore, Carolyn" <CShore@nas.edu>, Jonna Mazet <jkmazet@ucdavis.edu>
Subject: Re: Quick votes?

Hey David - are these the ones Lisa just emailed around? Looks like they already listed the 'priority' ones? Sorry, I'm confused by all the emails flying around... ;).

K

On Wed, Apr 29, 2020 at 3:46 PM David A Relman <relman@stanford.edu> wrote:

Hi Diane, Kristian, Peter—

We're about to finalize the viral WG selections of topics for consideration tomorrow morning. Do you want to (can you) send us your top 3 choices? No need to elaborate…

Best,

David

From: Keith Martin <kmartin@cugh.org>
To: Vertefeuille, Jan <Jan.Vertefeuille@wwfus.org>
CC: Martin Gilbert <m.gilbert@cornell.edu>;Christine Kreuder Johnson <ckjohnson@ucdavis.edu>;Peter Daszak <daszak@ecohealthalliance.org>;Jonna Mazet <jkmazet@ucdavis.edu>;Steven A. Osofsky <s.osofsky@cornell.edu>;Maggie Kinnaird <mkinnaird@wwf.panda.org>;Catherine Machalaba <machalaba@ecohealthalliance.org>;Hemley, Ginette <ginette.HEMLEY@wwfus.org>;Nicolas, Alexander <Alexander.Nicolas@wwf.org>
Sent: 5/14/2020 11:57:06 AM
Subject: Re: Prevent Pandemics update

Thanks Jan.

I will give an extra nudge to our colleagues in Latin America.

Best wishes,

Keith
Keith Martin MD, PC
Executive Director
Consortium of Universities for Global Health
Washington, DC
www.cugh.org
@CUGHnews @CUGH_TAC
202-974-6363

Attend CUGH's 2021 Annual Conference, Houston, Texas
March 12-14, 2021, Satellite Sessions, March 11

On Thu, May 14, 2020 at 11:12 AM Vertefeuille, Jan <Jan.Vertefeuille@wwfus.org> wrote:

All,

Since we launched the PreventPandemics.org website and sign-on letter, we now have 238 experts from **43 countries** onboard. A **Spanish-language version** of the letter just went live on the site and we are making another push for additional experts from Latin America to sign on.

We will soon share the letter with the WHO and key decisionmakers in Asian countries with high-risk markets, offering virtual briefings with government agencies to help them better understand the risks of high-risk wildlife trade and the solutions. We hope that some of you will be able to join such briefings if governments take us up on the offer.

Thanks again for your support and please do continue to share the letter with relevant experts in your networks.

Best,

Jan

From: Vertefeuille, Jan
Sent: Sunday, April 26, 2020 2:10 PM
To: Martin Gilbert <m.gilbert@cornell.edu>; Keith Martin <kmartin@cugh.org>; Christine Kreuder Johnson <ckjohnson@ucdavis.edu>; Peter Daszak <daszak@ecohealthalliance.org>; Jonna Mazet <jkmazet@ucdavis.edu>; Steven A. Osofsky <s.osofsky@cornell.edu>; Maggie Kinnaird <mkinnaird@wwf.panda.org>; Catherine Machalaba <machalaba@ecohealthalliance.org>; Hemley, Ginette <ginette.HEMLEY@WWFUS.ORG>; O Criodain, Colman <cocriodain@wwfint.org>; Aileo Weinmann <WeinmannA@nwf.org>; SacconeM@nwf.org
Cc: Nicolas, Alexander <Alexander.Nicolas@wwf.org>
Subject: Sign-on letter website and launch plans

All,

I'm delighted to share that our letter now lives on its own website -- www.PreventPandemics.org -- in 6 languages, with a signup form for additional experts to add their names to the letter. We have more than 100 signers from 24 countries, including One Health leaders from Vietnam, Thailand, Bangladesh, Hong Kong, Malaysia, Indonesia, Zambia, Tanazania, Uganda and more. A big thank you to everyone who has shared this with colleagues to secure these signatures!

We are using the next few days to double check translations and functionality and will publicly announce the website during the CUGH webinar that Keith is organizing on Thursday morning Asia time. We are also working on a press release and plans for delivering this to decisionmakers, so please let us know if you are interested and available to do press interviews.

We encourage you to continue sharing the letter to potential signers and welcome additional experts to add their names via PreventPandemics.org even before we formally launch it on Thursday, but please do not post the letter or website publicly to social media or other public channels until Thursday. And please ask anyone you're sharing the link with to do the same.

I'm copying here Alexander Nicolas, who oversaw the site development – launching a site in 6 languages in two weeks' time is no small feat! And we have set up an email address, PreventPandemics@wwfus.org, for questions or issues with the site.

Thanks,

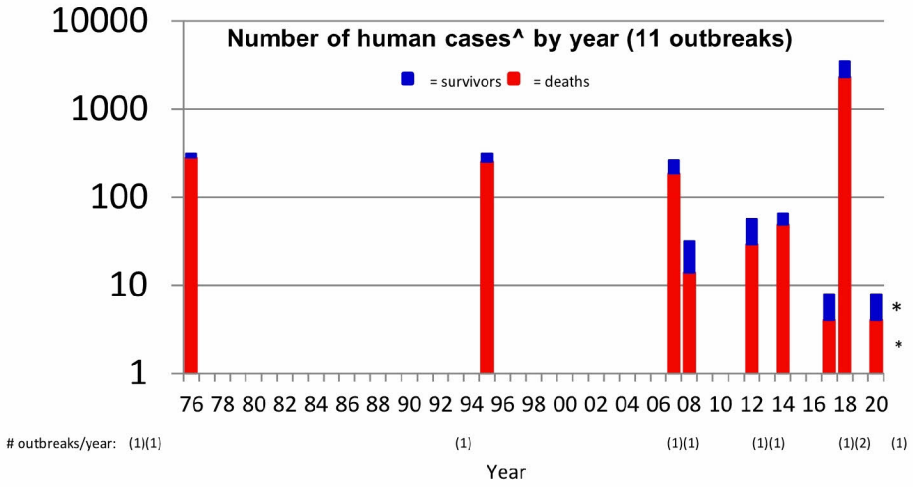
Jan

From: Andrew Clements <aclements@usaid.gov>
Sent: Thu, 4 Jun 2020 10:21:19 -0400
Subject: Summary of 11 Ebola outbreaks in DR Congo
To: Jonna Mazet <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, William Karesh <Karesh@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>, REDACTED djwolking@ucdavis.edu, bhbird@ucdavis.edu
Attachment
Ebola Human Outbreaks in DR Congo, 1976-2020.pptx

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

Ebola Human Outbreaks in DR Congo, 1976-2020



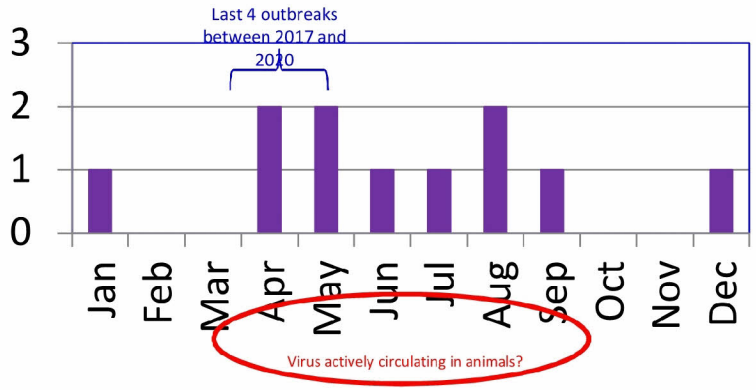
8 of 11 outbreaks concentrated in last 13 years, including 4 in the last 3 years suggesting increasing spillover and/or improved detection over time.

Sources = CDC, WHO reports through 6/3/20. ^Includes confirmed, probable, and suspected cases.
* Initial number of cases and deaths.

USAID
FROM THE AMERICAN PEOPLE
Global Health/Emerging Threats Division

Month of Apparent Start of 11 Human Ebola Outbreaks in DRC

Number of outbreaks



Sources: CDC and WHO. Total of 11 outbreaks between 1976 and 2020.

USAID
FROM THE AMERICAN PEOPLE
Global Health/Emerging Threats Division

From: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
To: Andrew Clements <aclements@usaid.gov>
CC: predictmgt@usaid.gov <predictmgt@usaid.gov>;David John Wolking <djwolking@ucdavis.edu>;Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 6/9/2020 8:29:11 AM
Subject: Re: approval of country levels for PREDICT-2 extension

Thanks, Andrew!

Elizabeth Leasure
Financial Operations Manager
One Health Institute
University of California, Davis
Cell: 530-304-1403

From: Andrew Clements
Sent: Tuesday, June 9, 2020 8:21:39 AM
To: Elizabeth Leasure
Cc: predictmgt@usaid.gov ; David John Wolking ; Christine Kreuder Johnson ; Jonna Mazet
Subject: approval of country levels for PREDICT-2 extension

Hi Liz,

See attached for a memo to the file to document AOR approval of revised country funding levels for the PREDICT-2 extension.

Please let me know if you have any questions.

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

From: Corina Grigorescu Monagin <cgmonagin@UCDAVIS.EDU>
To: Woutrina A Smith <wasmith@ucdavis.edu>, Oladele Ogunseitan <oladele.ogunseitan@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." <csmcnei@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>, Alison Andre <andre@ecohealthalliance.org>, Catherine Machalaba <machalaba@ecohealthalliance.org>, Jon Epstein <epstein@ecohealthalliance.org>, Kevin Olival <Olival@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>
Cc: onehealthnextgen Sympa List <onehealthnextgen@ucdavis.edu>
Subject: Reminder: OHW-NG Executive Board Call July 1st, 11am PST/2pm EST
Sent: Tue, 30 Jun 2020 20:01:30 +0000
OHW-NG EB Call Agenda 7.1.20.docx
OHWNG-logo bar_June2020.png

Hello everyone,

Please see attached and below for this week's OHW-NG EB call agenda. I've also attached the updated banner that includes the snazzy new AFROHUN logo!

Stay safe,
Corina

OHW-NG EB Zoom Meeting
July 1st, 2020 11-12 AM US/Pacific

Join Zoom Meeting

REDACTED

1. Administrative items

- UCD updates from USAID
- UCD Admin updates
- Supplemental funding opportunities

2. COVID-19 updates

3. Objective Team/Network Updates - focus on Year 2 planning

- Year 2 Work Planning - timeline, coordination of global, regional, country planning processes
- One Health Workforce Academy
- September virtual showcase

4. Conference/Calendar updates

- Year 1 virtual showcase with soft launch of One Health Academy (tentative dates September 22-24, 2020)
- AFROHUN Board meeting & Leadership Summit meeting in July 2020 - details pending.
- Canceled: World One Health Congress in Edinburgh, Scotland

5. AOB

Join Zoom Meeting

REDACTED

Meeting ID: REDACTED

Or dial by your location

REDACTED US (San Jose)

US (New York)

Meeting ID: REDACTED

Find your local number: REDACTED

OHW-NG EB Zoom Meeting
July 1st, 2020 11-12 AM US/Pacific

Join Zoom Meeting

REDACTED

1. Administrative items

- UCD updates from USAID
- UCD Admin updates
- Supplemental funding opportunities

2. COVID-19 updates

3. Objective Team/Network Updates - focus on Year 2 planning

- Year 2 Work Planning - timeline, coordination of global, regional, country planning processes
- One Health Workforce Academy
- September virtual showcase

4. Conference/Calendar updates

- Year 1 virtual showcase with soft launch of One Health Academy (tentative dates September 22-24, 2020)
- AFROHUN Board meeting & Leadership Summit meeting in July 2020 - details pending.
- Canceled: World One Health Congress in Edinburgh, Scotland

5. AOB

Join Zoom Meeting

REDACTED

Meeting ID: REDACTED

Or dial by your location

REDACTED (San Jose)

(New York)

Meeting ID: REDACTED

Find your local number: REDACTED

From: [redacted]
To: Dennis Carroll [redacted], Peter Daszak <daszak@ecohealthalliance.org>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, Samantha Maher <maher@ecohealthalliance.org>, Aleksei Chmura <chmura@ecohealthalliance.org>
Subject: Re: GVP letter of agreement for KAA initiative
Sent: Tue, 8 Sep 2020 15:31:27 +0000

Thanks Dennis.

Peter would be good to get your opinion also. Would you prefer to have a Zoom call next week so we can make a decision to move forward asap?

Cheers,

[redacted]

From: Dennis Carroll <[redacted]>
Date: Thursday, September 3, 2020 at 1:35 PM
To: [redacted]
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Samantha Maher <maher@ecohealthalliance.org>
Subject: Re: GVP letter of agreement for KAA initiative

[redacted] thanks for pushing these actions along. I don't believe a LOA requires legal input, but I will defer to Peter on that

d

On Wed, Sep 2, 2020 at 12:23 PM [redacted] wrote:

Hi Peter / Dennis,

Jonna and I just spoke the Earth Biogenome Project and they would very much like to have GVP be part of their initiative and we think this would be a worthwhile relationship to pursue. As such they would like

GVP to sign their MOU and letter of intent (see attached). This approach would be the same as the Trinity Challenge whereby GVP becomes a partner of another initiative. EBP are having a meeting with their partners and potential funders including the Wellcome

Trust in early October and would like to announce the partnership with GVP at the forum.

Given the Trinity Challenge launch will be on September 14th where we will announce GVP's partnership with them, it would be good to drive the momentum and reinvigorate interest in GVP by also announcing

partnership with EBP as well as the KAA mentioned in my previous email (I've reattached a draft LOA).

Do you know if we are able to sign an LOA / MOA with these groups? Do you need to ask the lawyers? We could discuss further in the next board meeting but it would be useful to move forward before then, given

the short timeline.

Many thanks,

REDACTED

From: REDACTED

Date: Tuesday, August 25, 2020 at 11:33 AM

To: Peter Daszak <daszak@ecohealthalliance.org>

Cc: Jonna Mazet <jkmazet@ucdavis.edu>, Dennis Carroll <REDACTED>, Samantha Maher <maher@ecohealthalliance.org>

Subject: GVP letter of agreement for KAA initiative

Hi Peter,

I hope you are well. I have attached a draft letter of agreement proposed between the Global Virome Project and the KAA initiative. Do you think the you or the lawyers would be able to look over

the LOA in terms of legalities for the 501c3?

We would like to pursue a similar letter of agreement with the Earth Biogenome Project/iBiol, so it would be a useful template for the future. As these are established groups (KAA and EBP), GVP

would be forming relationships in the same way as we are linking with the Trinity challenge.

Cheers,

REDACTED

--
Dr Dennis Carroll
President, Global Virome Project
Inline image

Senior Fellow, Scowcroft Institute of International Affairs at the Bush School of Government and Public Service, Texas A&M University
Counselor and Advisor to the Faculty of Tropical Medicine at Mahidol University, Bangkok, Thailand

mobile: 202-999-6144
email: REDACTED

From: Ehab Abu-Basha [redacted]
To: Maysa Al-Khateeb <malkhateeb@usaid.gov>, "Hijazeen, Zaidoun (FAOJO)" [redacted] Mohmmad Abdallat [redacted] Sultan Mabdalla [redacted]
Cc: Ava Sullivan <sullivan@ecohealthalliance.org>, "William B. Karesh" <karesh@ecohealthalliance.org>, Patrick Dawson <dawson@ecohealthalliance.org>, Andrew Clements <AClements@usaid.gov>, "PREDICT@ucdavis.edu" <PREDICT@ucdavis.edu>
Sent: Mon, 6 Feb 2017 13:10:26 +0000
Subject: [predict] Y3Q1
PREDICT-2 Jordan Partner Update Y3Q1.pdf

Dear Partners and Focal points,

Please find enclosed a copy of Y3Q1 Mission/Partner updates for Jordan, attached.

Best Regards,

Ehab Abu-Basha
Country Coordinator of Predict-2 Jordan

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

January 31, 2017

Dear Colleagues

The PREDICT project, part of USAID's Emerging Pandemic Threats program (EPT - https://www.usaid.gov/ept2), is developing a global early warning system to detect, track, and predict the emergence of new zoonotic pathogens from wildlife that could pose a threat to human health. For more information on the PREDICT project, please visit our website (http://predict.global) or download our information sheet (http://flyer.predict.global).

In Jordan, PREDICT is implemented by EcoHealth Alliance and the Faculty of Veterinary Medicine, Jordan University of Science and Technology

Below is a summary of PREDICT achievements and progress from September-December, 2016 in Jordan, along with a brief update on upcoming plans for the period of December-February, 2016.

Please direct all correspondence to the PREDICT Jordan Country Coordinator and Global Point of Contact:

Dr. Ehab Abu-Basha
PREDICT Jordan Country Coordinator
Faculty of Veterinary Medicine, Jordan University of Science and Technology
Email: abubasha@just.edu.jo
Address: P.O. Box 3030, Irbid 22110, Jordan
Phone: +962 7 9939 9128

Dr. William Karesh
PREDICT Jordan Global Point of Contact
Executive Vice President, EcoHealth Alliance
Email: Karesh@ecohealthalliance.org
Address: 460 West 34th St, 1701, NY, NY 10001, USA
Phone: +1 212-380-4463

PREDICT Jordan Summary of Activities & Progress October 2016 through December 2016

- The PREDICT-2 Jordan Country Coordinator continuously updated the project's liaison at USAID/Jordan Mission, Maysa Al-Khateeb, regarding PREDICT-2 activities and events. In addition, efforts from both sides are ongoing to engage all partners from Ministry of Agriculture (MOA), Ministry of Health (MOH), and Ministry of Environment (MOE). USAID/Jordan sent a letter to initiate collaboration between MOH, MOE, and PREDICT-2. MOH appointed two contact officers for PREDICT-2 Jordan. PREDICT-2 and USAID/Jordan conducted several meetings with MOH officers to introduce the PREDICT-2 project and possible collaboration for the planned human surveillance study.

Pictures from a field trip to a Jordanian camel farm. Raw camel milk is requested as is.

- Dr. William B. Karesh, *the Executive Vice President for Health and Policy*, and Mr. Patrick Dawson, *Research Scientist and PREDICT Country Liaison*, both of EcoHealth Alliance, visited PREDICT-2 Jordan (25-28 October, 2016). Planning for PREDICT-2 Year 3 activities were discussed in detail. A refresher training on the PREDICT-2 data program, EIDITH, was provided. Dr. Karesh, Mr. Dawson, and the PREDICT-2 Jordan team visited the USAID Mission at the US Embassy in Jordan on October 26th, 2016 to discuss upcoming plans and activities.

PREDICT-2 Jordan in collaboration with USDA office in Amman, MOA, MOH, MOE, and FAO toward one health concept

- PREDICT-2 Jordan completed a list of government contacts for outbreaks.

Surveillance, Field, and Laboratory Diagnostic Activities

- PREDICT-2 Jordan continued identifying sites of bat populations for capture and sampling. Between October and December, 69 bats were captured, sampled, and released. Specimens were tested by conventional PCR via the PREDICT protocol.

PREDICT-2 Jordan Plans: January-March, 2017

- Samples from camels will be tested for coronaviruses, influenza viruses, paramyxoviruses, and filoviruses by conventional PCR using PREDICT protocol.
- IRB protocol will be submitted to get approval before starting human surveillance.
- PREDICT Jordan team will continue sample collection from different surveillance sites in Jordan.
- An EPT-2 coordination workshop including representatives from PREDICT-2, USAID, MOH, FAO, MOA, MOE, and WHO is planned on the 4th week of February, 2016 in Amman, Jordan. In this workshop, results of PREDICT-1 and 2 will be discussed and plans for PREDICT-2 in Jordan (field, laboratory, reporting, and data sharing) will be presented. USAID will present a talk to explain the significance of the EPT-2 program and how it fits within the Global Health Security Agenda (GHSA). A representative from the Food and Agriculture Organization of the United Nations (FAO) will address EPT-2 work and plans for Jordan (field, laboratory, reporting, and data sharing). All other representatives will give a short talk about how they will contribute to PREDICT-2 work.

From: Andrew Clements <aclements@usaid.gov>
Sent: Mon, 13 Feb 2017 20:16:11 +0100
Subject: Fwd: PREDICT Management Team call
To: Jonna Mazet <jkmazet@ucdavis.edu>, William Karesh <Karesh@ecohealthalliance.org>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, djwolking@ucdavis.edu, Elizabeth Leasure <ealeasure@ucdavis.edu>, Alisa Pereira REDACTED sgillette@usaid.gov

Sorry, the microphone on my phone seems to have broken halfway through the call so I will add a couple more things:

1. A heads up that we are hoping to do an update on the data meetings for the Mainz meeting. To include a summary of the August 2016 discussion and hopefully a preview of the 2017 discussion. If there are any proposed dates and location for the latter, we'd be interested in hearing those.

2. I heard from Subhash today that there will be a new MERS focal point at WHO Geneva who is formerly with Institut Pasteur. Subhash is hoping to host a technical MERS meeting sometime in the Apr-Jun 2017 timeframe.

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

Begin forwarded message:

From: David J Wolking REDACTED
To: "aclements@usaid.gov" <aclements@usaid.gov>, "ashek@usaid.gov" <ashek@usaid.gov>, "erubin@metabiota.com" <erubin@metabiota.com>, "karesh@ecohealthalliance.org" <karesh@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>, "apereira@usaid.gov" <apereira@usaid.gov>, "francisco@ecohealthalliance.org" <francisco@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, "andre@ecohealthalliance.org" <andre@ecohealthalliance.org>, "jkmazet@ucdavis.edu" <jkmazet@ucdavis.edu>, "ksaylors@metabiota.com" <ksaylors@metabiota.com>, "sgillette@usaid.gov" <sgillette@usaid.gov>, "fuchs@ecohealthalliance.org" <fuchs@ecohealthalliance.org>, PREDICTMGT <predictmgt@usaid.gov>, "clouisduthil@usaid.gov" <clouisduthil@usaid.gov>, "lparish@usaid.gov" <lparish@usaid.gov>, "telnicki@metabiota.com" <telnicki@metabiota.com>, "luciano@ecohealthalliance.org" <luciano@ecohealthalliance.org>, "cchrisman@usaid.gov" <cchrisman@usaid.gov>, "ckjohnson@ucdavis.edu" <ckjohnson@ucdavis.edu>, "turner@ecohealthalliance.org" <turner@ecohealthalliance.org>
Subject: PREDICT Management Team call

You have been invited to the following event.

Title: PREDICT Management Team call
PREDICT Management Team Agenda
Monday, February 13, 2017
10:00 PST/1:00pm EST
REDACTED
International Dial-in number: REDACTED (toll charges apply)

Standing items
USAID Updates

1. Administrative items

a. Senior behavioral surveillance coordinator welcome and next steps
b. EMMR question follow up – new sector specific guidance, any implications to our plan?
c. March meeting in DC regarding PREDICT and GHSA
d. Mainz regional meeting
e. Success stories
f. Preparing for zoonotic disease prioritization workshops in Uganda and Tanzania

2. Mission communications round-up
a. RoC
b. Liberia
c. Viet Nam
d. Kenya - attachment
e. Cameroon
f. Senegal

3. GHSA M&E Workshop outcomes and path forward

4. Outbreak reporting coordination and Avian influenza response updates (Mongolia, Uganda, Rwanda, Bangladesh, Cambodia…)

5. FAO collaboration/coordination updates (Billy)
a. FAO in Myanmar, Cambodia, Ghana

When: Mon Feb 13, 2017 7pm Zurich
Video call: Join video call
[redacted]
Calendar: aclements@usaid.gov
Who:
* David J Wolking - organizer
* ashek@usaid.gov
* erubin@metabiota.com
* karesh@ecohealthalliance.org
* Peter Daszak
* apereira@usaid.gov
* francisco@ecohealthalliance.org
* Ava Sullivan
* andre@ecohealthalliance.org
* jkmazet@ucdavis.edu
* ksaylors@metabiota.com
* sgillette@usaid.gov
* fuchs@ecohealthalliance.org
* PREDICTMGT
* clouisduthil@usaid.gov
* lparish@usaid.gov
* telnicki@metabiota.com
* luciano@ecohealthalliance.org
* aclements@usaid.gov
* cchrisman@usaid.gov
* ckjohnson@ucdavis.edu
* turner@ecohealthalliance.org

Event details:
https://www.google.com/calendar/event?action=VIEW&eid=ZHNtZWkyZmRuM2lrYzA4MWxjMjg3dnFncjAgYWN

sZW1lbnRzQHVzYWlkLmdvdg&tok=MTYjZGp3b2xrQGdtYWlsLmNvbWI3MTgyNDc5OWQwNWMzYTcwZDc3NTM5YWI4ZGNlZWIzYTdkNzFjMTE&ctz=Europe/Zurich&hl=en

Invitation from Google Calendar: https://www.google.com/calendar/

You are receiving this email at the account aclements@usaid.gov because you are subscribed for invitations on calendar aclements@usaid.gov.

To stop receiving these emails, please log in to https://www.google.com/calendar/ and change your notification settings for this calendar.

Forwarding this invitation could allow any recipient to modify your RSVP response. Learn more at https://support.google.com/calendar/answer/37135#forwarding

From: Elizabeth Leasure <ealeasure@ucdavis.edu>
To: Ryland Marbray <rmarbray@usaid.gov>
Cc: Andrew <aclements@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, "Jonna Mazet" <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Shana Gillette <sgillette@usaid.gov>
Subject: RE: New PREDICT-2 subaward request for Patan Academy of Health Sciences (Nepal, POP start 12/15/16)
Sent: Fri, 24 Feb 2017 17:36:54 +0000

Thank you!!

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

From: Ryland Marbray [mailto:rmarbray@usaid.gov]
Sent: Friday, February 24, 2017 7:16 AM
To: Elizabeth Leasure
Cc: Andrew; Alisa Pereira; Jonna Mazet; David John Wolking; Shana Gillette
Subject: Re: New PREDICT-2 subaward request for Patan Academy of Health Sciences (Nepal, POP start 12/15/16)

Good Morning Elizabeth,

Please find attached your approval letter to Patan Academy of Health Science.

Best Regards,

Ryland Marbray
Contracting Officer

On Wed, Feb 22, 2017 at 11:51 AM, Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:
Hi Ryland. Thanks very much. I look forward to hearing from you later this week.

Cheers,
Liz

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

From: Ryland Marbray [mailto:rmarbray@usaid.gov]
Sent: Wednesday, February 22, 2017 6:29 AM
To: Elizabeth Leasure
Cc: Andrew; Alisa Pereira; Jonna Mazet; David John Wolking; Shana Gillette
Subject: Re: New PREDICT-2 subaward request for Patan Academy of Health Sciences (Nepal, POP start 12/15/16)

Good Morning Elizabeth,

I will be working on your request this week and will provide a response by Thursday.

Best,

Ryland

On Tue, Feb 21, 2017 at 12:54 PM, Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:
Hi Ryland. I hope you enjoyed the long weekend. I just wanted to follow up regarding the status of this request. Any updates you can provide would be most appreciated.

Thank you!
Liz

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

From: Ryland Marbray [mailto:rmarbray@usaid.gov]
Sent: Monday, February 13, 2017 9:51 AM
To: Elizabeth Leasure
Cc: Andrew; Alisa Pereira; Jonna Mazet; David John Wolking; Shana Gillette
Subject: Re: New PREDICT-2 subaward request for Patan Academy of Health Sciences (Nepal, POP start 12/15/16)

Hi Elizabeth,

This action is on the top of my list and I hope to provide a response this week.

Best,

Ryland

On Mon, Feb 13, 2017 at 12:44 PM, Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:
Hi everyone. Just wanted to follow up on the status of this request.

Thanks,
Liz

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

From: Elizabeth Leasure
Sent: Tuesday, January 31, 2017 10:03 AM
To: Andrew; 'Ryland Marbray'
Cc: 'Alisa Pereira'; Jonna Mazet; David John Wolking; 'Shana Gillette'
Subject: RE: New PREDICT-2 subaward request for Patan Academy of Health Sciences (Nepal, POP start 12/15/16)

Hi everyone. I just wanted to follow up on the status of this request. Any information you can provide would be most appreciated.

Thanks,
Liz

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

From: Elizabeth Leasure
Sent: Wednesday, November 23, 2016 10:18 AM
To: 'August Pabst'; 'Deborah Adeola'
Cc: 'Alisa Pereira'; Jonna Mazet; David John Wolking; 'aclements@usaid.gov'
Subject: RE: New PREDICT-2 subaward request for Patan Academy of Health Sciences (Nepal, POP start 12/15/16)

Hi Deborah. Just following up on this request, as well. This one was only submitted on 11/10 (so I'm not trying to rush you), but with the holiday and your upcoming vacation usage in December, I want to make sure this is on your radar and on course for the requested 12/15 start date.

Thanks!
Liz

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

From: Elizabeth Leasure
Sent: Thursday, November 10, 2016 10:49 AM
To: August Pabst; Deborah Adeola
Cc: 'Alisa Pereira'; Jonna Mazet; David John Wolking; 'aclements@usaid.gov'
Subject: New PREDICT-2 subaward request for Patan Academy of Health Sciences (Nepal, POP start 12/15/16)

Hi August and Deborah. Please find attached a request for a new subaward from the Center for Molecular Dynamics Nepal to Patan Academy of Health Sciences (PAHS) to facilitate PREDICT-2 activities in Nepal, which includes a subaward request letter, sole source memo, Excel budget, AOR checklist, and draft subaward document. **The requested POP start date is December 15, 2016**. PAHS is a foreign government parastatal.

Subaward ceiling: The ceiling of the initial subaward attached currently reflects the allocation of year 1 funding only ($11,286) and not the full 3-year estimated/requested ceiling ($41,972) for a number of reasons. Our current projected budget figures for future fiscal years (FY18, FY19) are estimates calculated using a 5% escalation factor as noted in the budget justification included in the subaward request letter. While these amounts are solid estimates based on the best information we have to date, the actual amounts to be allocated for PAHS each year are subject to AOR approval of annual project budgets and could potentially change based on the needs and shifting priorities of USAID. For this reason, we will allocate one year of funding at a time (meaning we will raise the subaward ceiling annually) once the annual project budget for that fiscal year is approved. Establishing the initial subaward with the full projected ceiling amount sets the expectation that the full amount will be funded, which could potentially sour relationships in-country and negatively impact implementation of activities if that full amount is not actually allocated. Furthermore, UC Davis generally does not establish subawards for more than one year at a time based on our internal policies and procedures. As such, the performance period for the Center for Molecular Dynamics Nepal's subaward currently only extends through 9/30/17. Because of this, they cannot issue a subaward to PAHS with an end date beyond 9/30/17.

Please let me know if you have any questions or need anything else.

Thanks!
Liz

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

--

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

Phone: (202) 567-5328|rmarbray@usaid.gov

--

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

Phone: (202) 567-5328|rmarbray@usaid.gov

--

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

Phone: (202) 567-5328|rmarbray@usaid.gov

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: William B. Karesh <karesh@ecohealthalliance.org>
CC: Eddy Rubin <erubin@metabiota.com>;Peter Daszak <daszak@ecohealthalliance.org>
Sent: 3/28/2017 2:18:36 PM
Subject: Re: Proposed budget cuts for this year

Thanks for all of this info -- I have an appointment with our lobbyist in 10 mins.
J

On Tue, Mar 28, 2017 at 12:52 PM, William B. Karesh <karesh@ecohealthalliance.org> wrote:
A particular issue that the proposed budget cuts raised, above the possibility of reductions, is to pay with the Ebola funding sitting within the USAID. These funds come with all sorts of strings, including folding the work under GHSA, which would make Predict particularly vulnerable since GHSA folk are not big fans of Predict's innovative approach to global health. USAID EPT (PIOET) need regularly appropriated funds, not Ebola funds.

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Kendra Chittenden <kchittenden@usaid.gov>
CC: Andrew Clements <aclements@usaid.gov>;predict@ucdavis.edu <predict@ucdavis.edu>;PREDICTMGT <predictmgt@usaid.gov>;Brian Bird <bhbird@ucdavis.edu>;Tracey Goldstein <tgoldstein@ucdavis.edu>;Karen Saylors <ksaylors@metabiota.com>;Frantz Jean Louis <fjeanlouis@metabiota.com>
Sent: 3/31/2017 8:31:57 AM
Subject: Re: [predict] Re: Follow up on questions about PREDICT's Ebola study on animals in Guinea

Great -- Brian and Tracey will be best for that last part, anyway, as I might have to drop-off.
Thanks,
Jonna

On Fri, Mar 31, 2017 at 8:24 AM, Kendra Chittenden <kchittenden@usaid.gov> wrote:
Tamar talked to Kitty the CDC Deputy Director to see if anyone from CDC could join and they basically said it's Lise that needs to be on the call.

Since this is a month away, I think Christina and Tamar wanted to have the opportunity to discuss in case someone in country asks for info.

Also, Christina said she'd like to discuss if/how the Ebola inactivation protocols which CDC is finalizing with the GoG for the human samples. DoD and CDC are leading the safe destruction/inactivation of human Ebola samples and finalizing a protocol which that the GoG says they will mandate that everyone uses. Christina wants to discuss with you to make sure you are aware and discuss if this protocol could/would impact your work. I think it would be important to review to make sure the language and protocols are clearly specific for human samples. if these protocols could applied to animal samples then it's crucial that you can review them.

On Fri, Mar 31, 2017 at 10:56 AM, Jonna Mazet <jkmazet@ucdavis.edu> wrote:
Sorry -- I see this one now. Might be overkill, but I guess we can do a quick first call in advance of the real one. I have another meeting at 8:30, which I would cancel if we were having the potentially longer call with CDC. Can we keep this one to 30 mins, since they will have the written comments , which we've already spent a great amount of time to prepare?
Thanks,
Jonna

PS -- just a reminder off today until Tuesday, so likely won't answer any more emails until then.

On Fri, Mar 31, 2017 at 6:40 AM, Kendra Chittenden <kchittenden@usaid.gov> wrote:
Christina, Jennifer and Tamar are available on April 5th (Wednesday) at 11 AM (DC), 3 PM Guinea, and 8 AM in CA. Lise Martel - CDC Director is on leave til the end of April. The Mission would like have the call with PREDICT and us on Wed then an extended call with CDC when Lise is back in country.

I will send a calendar invite now.

On Fri, Mar 31, 2017 at 7:01 AM, Kendra Chittenden <kchittenden@usaid.gov> wrote:
Will do.

On Fri, Mar 31, 2017 at 6:27 AM, Andrew Clements <aclements@usaid.gov> wrote:
Hi Kendra,

Can you share with the Guinea Mission this final version of PREDICT's responses to the CDC suggestions? We can discuss in more detail on the phone call next week.

Thanks!

1-571-345-4253
aclements@usaid.gov

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

mobile (703-209-5424) |KChittenden@usaid.gov

mobile (703-209-5424) |KChittenden@usaid.gov

--

Kendra Chittenden, Ph.D. | Senior Infectious Disease Advisor| USAID | mobile (703-209-5424) |KChittenden@usaid.gov

From: Andrew Clements <aclements@usaid.gov>
Sent: Mon, 3 Apr 2017 13:35:44 +0200
Subject: Fwd: NYTimes: Chickens Can Help Save Wildlife
To: Jonna Mazet <jkmazet@ucdavis.edu>, William Karesh <Karesh@ecohealthalliance.org>, "Subhash (FAORAP) Morzaria" <[redacted]>, "Juan (AGAH) ([redacted]) Lubroth" [redacted]

FYI

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

Begin forwarded message:

From: Andrew Clements <aclements@usaid.gov>
Date: April 3, 2017 at 1:34:13 PM GMT+2
To: ghsdglobal@usaid.gov
Subject: NYTimes: Chickens Can Help Save Wildlife

FYI. Interesting article. Not the first time this has been proposed.

A note on India and Africa since they are mentioned as places where there is investment in small-holder poultry production:

Newcastle disease is not the only highly-lethal infectious disease threat to poultry. Between 2006 and 2017, India reported 154 bird outbreaks of H5N1 (5 distinct variants) and H5N8 highly-pathogenic avian influenza. Most of these outbreaks were in poultry in village settings. A total of 4.8 million birds were affected in 21 states all over the country. There is no single vaccine available for all types and variants of avian influenza. In addition, India's stated policy is to prohibit vaccination of poultry. Which leaves good farm and market biosecurity to prevent pathogens from entering or leaving poultry production and marketing operations, which is very challenging developing countries especially with small, backyard flocks.

A similar story has unfolded in 13 countries in Africa (including Egypt) where 3,912 bird outbreaks due to H5N1 and H5N8 have affected at least 6.3 million birds between 2006 and 2017. While Nigeria officially prohibits poultry vaccination, Egypt has tried to use poultry vaccination, but there is no evidence to show any overall impact on H5N1 spread within poultry.

Besides the loss of birds, another cautionary tale about not preventing the introduction and maintenance of H5N1 avian influenza in backyard flocks: most of the H5N1 human infections (average global fatality rate of 52%) have been the result of contact with sick and dead birds in backyard flocks. Egypt alone has reported 358 H5N1 human cases (including 120 deaths). Djibouti and Nigeria each reported 1 human infection with H5N1.

So while improving access to high-quality protein is great for

improving nutrition and household incomes and decreasing reliance on bush meat, it needs to be done in a way that does not increase the evolution, amplification, and spread of infectious diseases within animal populations and spillover to humans.

https://www.nytimes.com/2017/03/18/opinion/sunday/how-chickens-can-help-save-wildlife.html?smid=nytcore-ipad-share&smprod=nytcore-ipad

In some countries, endangered species are what's for dinner. Here's an alternative.

From:	William B. Karesh <karesh@ecohealthalliance.org>
To:	Andrew Clements <AClements@usaid.gov>
CC:	Alisa Pereira <apereira@usaid.gov>;predict@ucdavis.edu" <predict@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>;Amanda Andre <amanda.andre@ecohealthalliance.org>
Sent:	4/10/2017 7:59:44 AM
Subject:	Annual data meeting

Hi Andrew, do you have time for a short phone call to discuss the annual data meeting? Quite a few people are wondering about the need for such a large meeting given the current scope of partner engagement.

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

From: Jonna Mazet <jkmazet@ucdavis.edu>
To: William B. Karesh <karesh@ecohealthalliance.org>
CC: predict@ucdavis.edu <predict@ucdavis.edu>;Catherine Machalaba <machalaba@ecohealthalliance.org>
Sent: 4/19/2017 5:05:53 PM
Subject: Re: Moktar Diop

That's fantastic -- thanks to you both,
J

On Wed, Apr 19, 2017 at 11:45 AM, William B. Karesh <karesh@ecohealthalliance.org> wrote:
Hi there,

I don't remember meeting him and Catherine doesn't know him directly (the 14 Global topical Practices seem to operate separately from the regional structures), though I am sure he knows about the REDISSE project so it will be wonderful to reinforce how PREDICT-2 and REDISSE partners are linked on the ground (right now the second phase of REDISSE is going forward, and a third is planning, to ultimately cover 15 countries in West Africa). We are working with the Bank's Agriculture Global Practice, in coordination with partners from the Health, Nutrition and Population Global Practice and Environment and Natural Resources Global Practice, to advance One Health initiatives to contribute to the global public good of pandemic and epidemic prevention. Our key projects include:

Feedback from Catherine - she's down at the Bank today.

1) One Health Operational Framework: We have been providing technical support in developing a One Health Operational Framework that will be finalized by June 30th. This showcases relevance of One Health to the Bank's twin goals of eliminating poverty and ensuring equitable prosperity through reduced disease burden and economic impact and the provision of health security. The Framework is intended for project leads and World Bank client countries to assist with operationalizing One Health and reinforces initiatives by partner organizations (OIE, WHO, etc.) The Framework will include initial guidance on pandemic preparedness planning (25 International Development Assistance- eligible countries -i.e. the lowest-income- will receive funds for pandemic preparedness planning starting in July so this is intended to assist them). We are emphasizing prevention opportunities learned through PREDICT.

2) Environmental Health Capacity Assessment: Through PREDICT, we plan to help pilot a country environmental health capacity assessment tool from the Bank (likely in 2-3 countries in West Africa and Southeast Asia). This tool complements existing tools from WHO and OIE to reflect environmental dimensions of infectious diseases, especially wildlife pathogen, sentinel surveillance, and risk assessment and management opportunities learned from PREDICT. Like the OIE Performance of Veterinary Services and WHO Joint External Evaluation for the International Health Regulations, this intends to identify where there are gaps and can be a resource for donors to target resources, but it also has value in bringing stakeholders together to identify existing coordination opportunities that can be optimized by a country.

3) One Health Economics: The Bank is looking at better ways to prepare and mobilize resources for pandemics (e.g. contingency financing). The Bank has conducted global analyses on pandemic prevention through One Health, finding high return on investment from building up veterinary and public health services even if a only a portion of pandemics are prevented (findings reported in the 2012 'People, Pathogens and Our Planet' report which we assisted with during PREDICT, including a survey of wildlife service departments, which found that in general country spending on wildlife disease surveillance is extremely limited). We are now working with the Bank on country-level analyses and convened an expert workshop in early February at the Bank to develop a methodology that assesses multi-sectoral costs of epidemics as well as benefits of prevention across sectors, including the private sector from avoided damages. We are hopeful these findings will be useful to Finance Ministers when designing their country-wide budgets, engaging private sector partners in risk mitigation, and seeing the value of prevention.

4) Awareness: informally, we are generally raising awareness on One Health in the Bank and among its

partners, developing events, posts, and papers together. If Mr. Diop or someone on his team might be interested, we would be honored if they wold like to be engaged.

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.

From: "Katherine Leasure" <kaleasure@ucdavis.edu>
To: "'Andrew Clements'" <aclements@usaid.gov>
Cc: "'PREDICTMGT'" <predictmgt@usaid.gov>, <predict@ucdavis.edu>, "'Jonna Mazet'" <jkmazet@ucdavis.edu>
Sent: Fri, 23 Jun 2017 10:05:23 -0700
Subject: [predict] RE: PREDICT International Travel Requests

Hi Andrew. I just wanted to follow-up on #4 below for Billy Karesh travel to France. Does that location now require mission concurrence as well, or AOR approval only? If the former, I will follow-up with Cassandra as I haven't yet seen a request for concurrence. Thanks!

From: Andrew Clements [mailto:aclements@usaid.gov]
Sent: Tuesday, June 13, 2017 11:03 PM
To: Katherine Leasure
Cc: PREDICTMGT; predict@ucdavis.edu; Jonna Mazet
Subject: Re: PREDICT International Travel Requests

Travel to New York, South Korea, and Germany approved.

All other travel approved subject to mission concurrence.

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 13, 2017, at 11:57 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. Thanks!!

1. Suu-Ire (USA): $1,500 airfare/$341 (New York City) max daily per diem
2. Daszak (RoC, CIV, South Korea): $19,120 airfare [redacted]/$305 (Brazzaville), $330 (Abidjan), $373 (Seoul) max daily per diems
3. Karesh, Gutierrez Jimenez, Francisco (RoC, CIV): $10,000 airfare **business class required for Dr. Karesh due to medical need*; $3,000 airfare each for economy class/$305 (Brazzaville), $330 (Abidjan) max daily per diems
4. Karesh (France): $10,000 airfare [redacted]/$464 (Paris) max daily per diem
5. Latinne (Indonesia): $900 airfare/$146 (Sulawesi) max daily per diem
6. Goldstein (Germany): $1,600 airfare/$278 (Marburg) max daily per diem

Travel Requests:

1. EcoHealth Alliance would like to request travel approval for Dr. Richard Suu-Ire to travel from Accra, Ghana to New York, NY USA from July 5 to August 5, 2017 for a PREDICT Modeling & Analytics Fellowship.

Trip purpose: This fellowship is part of PREDICT's efforts to provide capacity development for country partners in modeling and analytical skills. Dr. Suu-Ire, the field team lead for PREDICT Ghana Coordinator, will gain valuable modeling skills and experience in habitat suitability, ecological niche modeling, and creating zoonotic disease risk maps.

2. EcoHealth Alliance would like to request travel approval for Dr. Peter Daszak to travel from Newark, NJ, USA to Brazzaville, Republic of Congo from July 7-10, 2017 and then on to Abidjan, Cote d'Ivoire from July 11-14, 2017 to meet with partners and assist with the transition of work PREDICT work to EcoHealth Alliance. From Abidjan, Cote d'Ivoire, Dr. Karesh will travel to Seoul, South Korea from July 15-20, 2017 to present GVP work at the US-South Korea Workshop on International Wildlife Diseases, and to meet with South Korean organizations.

Trip purpose: RoC – Dr. Daszak will be meeting with the RoC Mission and local partners to ensure a smooth transition

from Metabiota to EcoHealth Alliance. Cote d'Ivoire – Dr. Daszak will meet with the USAID Mission and visit field sites in Abidjan. South Korea – Dr. Daszak will be presenting "The Global Virome Project (GVP): Making the 21st century safe from the threat of emerging viral threats," and participating in a Q&A session at the Workshop on International Wildlife Disease in South. Dr. Daszak will also be meeting with directors from the Ministry of Health and Ministry of Agriculture to discuss funding the project as well as other science organizations.

3. EcoHealth Alliance would like to request travel approval for Drs. William Karesh, Leticia Gutiérrez Jiménez, and Leilani Francisco to travel from New York, NY, USA to Brazzaville, Republic of Congo from July 7-10, 2017 and then on to Abidjan, Cote d'Ivoire from July 11-15, 2017 to set up and strengthen local partnerships to begin and/or transition PREDICT work with EcoHealth Alliance.

Trip purpose: RoC – Drs. Karesh, Gutiérrez Jiménez, and Francisco will be travelling with fellow EcoHealth Alliance colleagues to Brazzaville on a scoping visit to meet with potential partners to begin setting up PREDICT operations within the country. The exact itinerary is still being developed. Cote d'Ivoire – Drs. Karesh, Gutiérrez Jiménez, and Francisco will then travel to Abidjan to continue the scoping trip, visiting with existing PREDICT partners to transition to working with EcoHealth Alliance including visits with the Mission, Institut Pasteur, LANADA, a possible site visit, and a community engagement event on July 13.

4. EcoHealth Alliance would like to request travel approval for Dr. William Karesh to travel from New York, NY, USA to Paris, France from July 16-20, 2017 to participate in the World Organisation for Animal Health's (OIE) ad hoc group on the transport of biological materials.

Trip purpose: Dr. Karesh will participate in the World Organisation for Animal Health's (OIE) ad hoc group on the transport of biological materials. Dr. Karesh will present on relevant challenges in wildlife disease surveillance, including the transport of emergency diagnostic specimens from endangered species and the current work with the CITES Secretariat and member states to find an acceptable solution to facilitate rapid diagnosis of wildlife morbidity and mortality events of potential public health importance.

5. EcoHealth Alliance would like to request travel approval for Dr. Alice Latinne to travel from Bangkok, Thailand to Southeast and West Sulawesi, Indonesia from July 20 to August 4, 2017 for field work with in-country partners.

Trip purpose: In Southeast and West Sulawesi, Dr. Latinne will assist the PREDICT Indonesia team in field sampling (rodents and bats).

6. UC Davis would like to request travel approval for Dr. Tracey Goldstein to travel from Sacramento, CA, USA to Marburg, Germany from September 12-17, 2017 to present at the 9th International Filovirus Symposium.

Trip purpose: Dr. Goldstein will attend and present PREDICT data at the 9th International Filovirus Symposium. The presentation title is not available at this time, as the data to be presented is currently pending approval for release. Although we anticipate approval will be in place prior to the conference, should Dr. Goldstein be unable to present PREDICT data, her travel costs would be supported on non-PREDICT funds.

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

--

https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/02b501d2e48f%24f2fb56e0%24d8f204a0%24%40ucdavis.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:	7/7/2017 9:50:01 AM
Subject:	Re: Change to Approved ITA - J. Ayukekbong travel to Cameroon postponed

Thanks.

Cassandra: please let the Mission know of the change. Thanks.

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 7, 2017, at 6:35 PM, Katherine Leasure <kaleasure@ucdavis.edu> wrote:

Hi Andrew. James Ayukekbong's travel to Cameroon (previously approved ITA below for reference) has been postponed to August. A new ITA will be submitted once dates have been selected. Karen Saylors' travel to Cameroon will proceed as planned. Please let me know if you have any questions. Thanks!
Metabiota would like to request travel approval for Dr. James Ayukekbong, Central African Coordinator, to travel from Nanaimo, British Columbia, Canada to Yaoundé, Cameroon from July 9-28, 2017 to train the Cameroon team on the new Metabiota Sample and Data Quality Control and Corrective Action plan, and train the teams in the 2 hospital sites to conduct human syndromic surveillance activities.
Trip purpose: Dr. Ayukekbong will work with Mat LeBreton, Global Surveillance Strategy lead, and Dr. Moctar Mouiche, Cameroon Country Coordinator, to train the Cameroon team on the new Metabiota Sample and Data Quality Control and Corrective Action plan during the week of July 10-14. Dr. Karen Saylors, Director of Scientific Operations, will join Dr. Ayukekbong from July 15-28 to train the teams in the 2 hospital sites to conduct human syndromic surveillance activities. Drs. Saylors and Ayukekbong will organize training sessions for the hospital staff, provide initial supervision, inclusion/exclusion troubleshooting, and rollout in the two hospital sites of Meyomesala and Sangmelima/Djoum.

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:	Jonna Mazet <jkmazet@ucdavis.edu>;Elizabeth Leasure <ealeasure@ucdavis.edu>;David J Wolking <djwolking@ucdavis.edu>
CC:	Alisa Pereira <apereira@usaid.gov>;Cara Chrisman <cchrisman@usaid.gov>;Amalhin Shek <ashek@usaid.gov>;Shana Gillette <sgillette@usaid.gov>
Sent:	8/25/2017 5:45:56 AM
Subject:	Update on ceiling increase

We had our internal ETD discussion Wednesday and came up with a proposal that we need to have blessed by OAA. We're currently trying to set up this discussion. Will let you know when this happens.

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:	Brian Bird <bhbird@ucdavis.edu>
CC:	PREDICTMGT <predictmgt@usaid.gov>;PREDICT-outbreak <predict-outbreak@ucdavis.edu>
Sent:	9/28/2017 6:14:50 AM
Subject:	[predict] [predict-outbreak] Re: UPDATE - PREDICT Cameroon gorilla die-off

Thanks, Brian.

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 28, 2017, at 2:58 PM, Brian Bird <bhbird@ucdavis.edu> wrote:

Hi all,

Just a quick update on this animal health event in Cameroon. PREDICT testing of the specimens from the single dead gorilla are negative for coronavirus, filovirus, flavivirus, Influenza (Liang assay), and paramyxovirus. Testing for other virus families is pending.

-Brian

From: Andrew Clements <aclements@usaid.gov>
To: Sudarat Damrongwatanapokin (RDMA/OPH) <sDamrongwatanapokin@usaid.gov>
CC: Daniel Schar (RDMA/OPH) <dSchar@usaid.gov>;Dennis Carroll <dcarroll@usaid.gov>;Jonna Mazet <jkmazet@ucdavis.edu>
Sent: 11/28/2017 11:08:16 AM
Subject: GVP launch at PMAC?

Hi Sudarat,

Do you know if the GVP side meeting was approved?

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

From: Peter Daszak <daszak@ecohealthalliance.org>
To: "Dr VAN KERKHOVE, Maria" <[redacted]>, Robert Kessler <kessler@ecohealthalliance.org>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, "dcarroll@usaid.gov" <dcarroll@usaid.gov>, "erubin@metabiota.com" <erubin@metabiota.com>, "Keiji Fukuda" <[redacted]>, "peter@gisaid.org" <peter@gisaid.org>, "Carlos M. Morel" <[redacted]>, Carlos Morel <[redacted]>, Renata Curi <[redacted]>, Anthony Ramos <ramos@ecohealthalliance.org>, Kirsten Gilardi <kvgilardi@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Jon Epstein <epstein@ecohealthalliance.org>, Leilani Francisco <francisco@ecohealthalliance.org>, "Carlos Zambrana-Torrelio" <zambrana@ecohealthalliance.org>, "Kevin Olival, PhD" <olival@ecohealthalliance.org>, Brooke Watson <watson@ecohealthalliance.org>, Hongying Li <li@ecohealthalliance.org>, [redacted], "sfh9@georgetown.edu" <sfh9@georgetown.edu>, "Cohn, Emily" <Emily.Cohn@childrens.harvard.edu>, [redacted], Danielle Anderson' <[redacted]>, 魏强' <[redacted]>, Wu Lin Huan' <[redacted]>, "emily.penrose@fondation-merieuxusa.org" <emily.penrose@fondation-merieuxusa.org>, Tracey Goldstein <tgoldstein@ucdavis.edu>, "Sacchetti.Ben@bcg.com" <Sacchetti.Ben@bcg.com>, "Stroman.Trish@bcg.com" <Stroman.Trish@bcg.com>, "jfluder@usaid.gov" <jfluder@usaid.gov>, "gabrielle.fitzgerald@panoramaglobal.org" <gabrielle.fitzgerald@panoramaglobal.org>, [redacted], Yasha Feferholtz <feferholtz@ecohealthalliance.org>, [redacted], David McIver <dmciver@metabiota.com>, "Ashley Marcus'" <amarcus@usaid.gov>, [redacted], Supaporn Wacharapluesadee <[redacted]>, "guy.vernet@fondation-merieuxusa.org" <guy.vernet@fondation-merieuxusa.org>, "sja2127@columbia.edu" <sja2127@columbia.edu>, "cchrisman@usaid.gov" <cchrisman@usaid.gov>, "mkurilla@niaid.nih.gov" <mkurilla@niaid.nih.gov>, "linfa.wang@duke-nus.edu.sg" <linfa.wang@duke-nus.edu.sg>, "wil2001@cumc.columbia.edu" <wil2001@cumc.columbia.edu>, [redacted], "nwolfe@metabiota.com" <nwolfe@metabiota.com>, "William B. Karesh" <karesh@ecohealthalliance.org>, "Richard.Feachem@ucsf.edu" <Richard.Feachem@ucsf.edu>, [redacted], "icapua@ufl.edu" <icapua@ufl.edu>, "John.Brownstein@childrens.harvard.edu" <John.Brownstein@childrens.harvard.edu>, David John Wolking <djwolking@ucdavis.edu>, "manish.kakkar@phfi.org" <manish.kakkar@phfi.org>, [redacted], "richard.hatchett@cepi.net" <richard.hatchett@cepi.net>, [redacted], "amy_espeseth@merck.com" <amy_espeseth@merck.com>, "SOLOMON, Steven Alan" <[redacted]>, [redacted], "Harris, Samuel" <Harris.Samuel@bcg.com>
Subject: RE: Global Virome Project Press
Sent: Wed, 7 Mar 2018 17:30:48 +0000

Thanks Maria – Robert – please farm this out to co-authors from the paper where it makes the best sense, and then to GVP Core Group/Steering Committee members to expand our footprint.

Maria – that does, of course, include you – and it would be great for journalists to get your voice on this issue as well..

Cheers,

Peter

Peter Daszak
President

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

Tel. +1 212-380-4474
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: Dr VAN KERKHOVE, Maria [mailto:[redacted]
Sent: Wednesday, March 7, 2018 12:11 PM
To: Robert Kessler
Cc: Peter Daszak; Jonna Mazet; dcarroll@usaid.gov; erubin@metabiota.com; Keiji Fukuda; peter@gisaid.org; Carlos M. Morel; Carlos Morel; Renata Curi; Anthony Ramos; Kirsten Gilardi; Christine Kreuder Johnson; Jon Epstein; Leilani Francisco; Carlos Zambrana-Torrelio; Kevin Olival, PhD; Brooke Watson; Hongying Li; [redacted] sfh9@georgetown.edu; Cohn, Emily; [redacted] Danielle Anderson'; [redacted] 魏强'; Wu Lin Huan'; emily.penrose@fondation-merieuxusa.org; Tracey Goldstein; Sacchetti.Ben@bcg.com; Stroman.Trish@bcg.com; jfluder@usaid.gov; gabrielle.fitzgerald@panoramaglobal.org; [redacted] Yasha Feferholtz; [redacted] David McIver; Ashley Marcus'; [redacted] Supaporn Wacharapluesadee; guy.vernet@fondation-merieuxusa.org; sja2127@columbia.edu; cchrisman@usaid.gov; mkurilla@niaid.nih.gov; [redacted] wil2001@cumc.columbia.edu; [redacted] nwolfe@metabiota.com; William B. Karesh; Richard.Feachem@ucsf.edu; [redacted] icapua@ufl.edu; John.Brownstein@childrens.harvard.edu; David John Wolking; manish.kakkar@phfi.org; [redacted] richard.hatchett@cepi.net; [redacted] amy_espeseth@merck.com; SOLOMON, Steven Alan; [redacted] Harris, Samuel
Subject: Re: Global Virome Project Press

Dear Robert,

Can you please advise on how you're handling press about this? I've been contacted but I was not part of the paper. I'd like to direct them to the most appropriate person.

Thanks,
Maria
On 7 Mar 2018, at 18:00, Robert Kessler <kessler@ecohealthalliance.org> wrote:

> Hello all,
>
> Here is the updated list of press generated by the Global Virome Project Science paper.
>
> On Tue, Feb 27, 2018 at 12:24 PM, Robert Kessler <kessler@ecohealthalliance.org> wrote:
> Hi all, here is a list of the press generated by the GVP paper in *Science* thus far.
> --

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 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.

--

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 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.

<Global Virome Project Press.xlsx>

From: Elizabeth Leasure <ealeasure@UCDAVIS.EDU>
To: Andrew Clements <aclements@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Predict inbox <predict@ucdavis.edu>
Cc: PREDICTMGT <predictmgt@usaid.gov>
Subject: RE: New subaward request: Georgetown University (POP start 3/15/18)
Sent: Wed, 14 Mar 2018 17:27:21 +0000

Thanks for the quick turnaround, Andrew!

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: Andrew Clements [mailto:aclements@usaid.gov]
Sent: Wednesday, March 14, 2018 10:23 AM
To: Jonna Mazet; David John Wolking; Predict inbox; Elizabeth Leasure
Cc: PREDICTMGT
Subject: Fwd: New subaward request: Georgetown University (POP start 3/15/18)

Hi Liz,

The GU sub-award is approved. I've attached the signed checklist.

Andrew

---------- Forwarded message ----------
From: **Elizabeth Leasure** <ealeasure@ucdavis.edu>
Date: Tue, Mar 13, 2018 at 11:28 PM
Subject: New subaward request: Georgetown University (POP start 3/15/18)
To: Andrew Clements <aclements@usaid.gov>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, Predict inbox <predict@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>

Hi Andrew. Please find attached a request for approval to establish a new subaward with the O'Neill Institute for National and Global Health Law at Georgetown University for the Global Virome Project, which includes a requested start date of 3/15/18. Georgetown University is a US-based private university. As such, only AOR approval is required. If you have any questions or need anything else to approve, please let me know.

Thanks,
Liz

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

--

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

From: Andrew Clements <aclements@usaid.gov>
Sent: Fri, 13 Apr 2018 09:17:43 -0700
Subject: Fwd: Did deforestation cause the Ebola outbreak?
To: Jonna Mazet <jkmazet@ucdavis.edu>, djwolking@ucdavis.edu, William Karesh <Karesh@ecohealthalliance.org>, daszak@ecohealthalliance.org, Jon Epstein <epstein@ecohealthalliance.org>, Kevin Olival PhD <olival@ecohealthalliance.org>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>

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: April 13, 2018 at 4:01:38 PM GMT+2
To: ghsdunitmaillistusaid@usaid.gov
Subject: Did deforestation cause the Ebola outbreak?

https://newint.org/features/web-exclusive/2018/04/10/deforestation-ebola-outbreak

– –

Ricardo Echalar, MPH
Senior Public Health Advisor
Office of Infectious Diseases, Emerging Threats Division
Bureau for Global Health
U.S. Agency for International Development (USAID)
2100 Crystal Drive, 8th Floor - 8088B
Arlington, VA 22202
(m) REDACTED | **New number** (w) +1.571.551.7456 | E-mail: rechalar@usaid.gov

USAID Contractor
GHSI-III - CAMRIS International, Inc.

From: Elizabeth Leasure <ealeasure@ucdavis.edu>
To: Cara Chrisman <cchrisman@usaid.gov>, Predict inbox <predict@ucdavis.edu>
Cc: Andrew Clements <aclements@usaid.gov>, Ashna Kibria <akibria@usaid.gov>, PREDICTMGT <predictmgt@usaid.gov>
Sent: Fri, 20 Apr 2018 01:14:23 +0000
Subject: RE: [predict] PREDICT-2 OAA Actions - Updated List

Hi Cara. Thanks for following up on these pending items! See my updates below in **blue**. My vacation starts tomorrow. ☺

- Obligation of balance of FY2018 core funds + associated actions - Status: Still pending, REQM completed and moved to OAA.
- VATs:
  - China - Status: Complete
  - Vietnam - Status: Complete
  - Cameroon - Status: Complete
  - Egypt - Status: **Still pending. There has been no follow up from Ryland on this item.**
- Further clarification on Myanmar (Burma) provision interpretation and application. Status: Perhaps no longer needed with updated provisions forthcoming?
  - **No longer needed if updated provisions are forthcoming. We have also come to an agreeable solution to funding testing activities in-country that does not involve a subaward or subcontract to a Government of Myanmar entity, so this is no longer an issue.**
- Kenya – Response on Suspension of Activities questions. Status: Still needed or not per recent emails? **This item is still pending and needs a response.**
- Motor Vehicle Request in SL Y4 #2. Status: Completed
- Additional items?
  - **ATF approval request for WCS payments to National Laboratories. This was submitted to Ryland 3/29/18. No communication from Ryland on this one yet.**
  - **Obligation of additional $550K in core funds for additional testing and serology. This one may not be with Ryland yet. Andrew or Amalhin should know if this action has gone to OAA yet.**

Elizabeth Leasure
Financial Operations Manager
One Health Institute
REDACTED *(cell)*
530-754-9034 (office)
Skype: ealeasure

From: predict-request@ucdavis.edu [mailto:predict-request@ucdavis.edu] **On Behalf Of** Cara Chrisman
Sent: Thursday, April 19, 2018 5:48 AM
To: Elizabeth Leasure; Predict inbox
Cc: Andrew Clements; Ashna Kibria; PREDICTMGT
Subject: [predict] PREDICT-2 OAA Actions - Updated List

Hi Liz,

I hope all is well (I think you might be on vacation, if so, hope it's going well!). Ashna will be meeting with OAA next Wednesday and so we wanted to check in to ensure that we have the most up to date list of pending P-2 actions for her to reference during the meeting.

I've slightly modified the most recent list that I have from you to reflect what I'm aware of having evolved, however, I realize that a number of these may be able to now be removed from the list based on recent events, but wanted to confirm with you before altering.

If possible before the Wed 4/25 3pm (EDT) meeting, could you provide us with an updated list with any edits/updates or additions?

Thanks,
Cara

PREDICT

- Obligation of balance of FY2018 core funds + associated actions - Status: Still pending, REQM completed and moved to OAA.
- VATs:
    - China - Status: Complete
    - Vietnam - Status: Complete
    - Cameroon - Status: Complete
    - Egypt - Status: ?
- Further clarification on Myanmar (Burma) provision interpretation and application. Status: Perhaps no longer needed with updated provisions forthcoming?
- Kenya – Response on Suspension of Activities questions. Status: Still needed or not per recent emails?
- Motor Vehicle Request in SL Y4 #2. Status: Completed
- Additional items?

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: (571) 551-7413
Cell: (REDACTED
E-mail: cchrisman@usaid.gov

Sent: Wed, 25 Apr 2018 21:24:17 -0700
Subject: Re: Bangladesh plan
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Peter Daszak <daszak@ecohealthalliance.org>

Thanks,
J

On Wed, Apr 25, 2018 at 12:04 PM, Peter Daszak <daszak@ecohealthalliance.org> wrote:

Hi Jonna,

I spoke with Jon and Molly about this today (I've been in DC and just got back). Jon was already working on paring down work in Bangladesh exactly as you were talking about in your email. However, it's been a negotiation because the MoH have specific interests in carrying on both hospitals. He finally got agreement with them to cut back to one hospital, three concurrent community sites where we'll have seasonal data. The email from Molly was from before he'd gotten the agreement from MoH to scale back. This is now well within our budget and will keep us on track for year 4 with 200 people/year/concurrent site.

Cheers,

Peter

Peter Daszak

President

EcoHealth Alliance

460 West 34th Street – 17th Floor

New York, NY 10001

Tel. +1 212-380-4474

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: Peter Daszak
Sent: Tuesday, April 24, 2018 12:57 AM
To: Jonna Mazet
Subject: RE: FW: Please proceed with new subawards/subcontracts

I suspect all this means is that they're working out the budget details with the Bangladesh contractors, but I'll check when I'm in the office on Wednesday and let you know.

Cheers,

Peter

Peter Daszak

President

EcoHealth Alliance

460 West 34th Street – 17th Floor

New York, NY 10001

Tel. +1 212-380-4474

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: [redacted] [mailto:[redacted]] **On Behalf Of** Jonna Mazet
Sent: Monday, April 23, 2018 3:27 PM
To: Peter Daszak
Subject: Fwd: FW: Please proceed with new subawards/subcontracts

Hi Peter,

See the note below. I send it as an example of what I was trying to convey as my concern about mixed messaging regarding availability and access to funds and the "budgetary constraints" that come up from your teams in the field and financial HQ. Bangladesh is, of course, a phase 1 GHSA country; it's a spot where we've "oversampled" animals and undersampled people; it's also where we're always talking about the extra testing we're doing. Thus, I get concerned when we hear that we have budgetary issues if those mean that we're not delivering on our core objectives and sampling of people and animals at the high-risk interface(s) -- at least 200 people per year/concurrent site. Perhaps these hospitals are not needed for that, but if we aren't getting the human sampling done by now, we should not start at all because we can't hit our two season (or 200 longitudinal) target/year by the deadline. It may be that this is all in-hand, but we're certainly behind on the human sampling numbers. If what we have so far is from a concurrent site and that will continue (great!) or if we just have outbreak samples from humans and haven't started with the concurrent sampling, we should probably just cut our losses at this point for these new ones.

Wanted you to see what I see,

Jonna

---------- Forwarded message ----------
From: **Elizabeth Leasure** <ealeasure@ucdavis.edu>
Date: Fri, Apr 13, 2018 at 4:41 PM
Subject: FW: Please proceed with new subawards/subcontracts
To: Jonna Mazet <jkmazet@ucdavis.edu>
Cc: "predict@ucdavis.edu" <predict@ucdavis.edu>

FYI-

From: Molly Turner [mailto:turner@ecohealthalliance.org]
Sent: Friday, April 13, 2018 1:07 PM
To: Elizabeth Leasure
Cc: Evelyn Luciano
Subject: Re: Please proceed with new subawards/subcontracts

Hi Liz,

We've moved ahead with our contracts with IPCI ($119,092) and LANADA ($66,357). Eijkman ($257,000) should be fully

executed by the end of the month at the latest.

We're moving more slowly on Faridpur and Dhaka hospitals due to budgetary constraints, and LNSP and Sanjay Gandhi due to political and contractual issues.

Thanks,

Molly

On Tue, Feb 20, 2018 at 6:56 PM, Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:

Hi everyone. As a follow up to my email below, please note that while new subcontracts included in the final ceiling increase budget are considered approved as stated in my previous email below, we are asking that a Determinations and Findings (template attached) be completed and kept on file for any new subcontracts with foreign governmental entities and parastatals as a record of your due diligence to ensure that the selected service provider will be a responsible subcontractor.

Now that we have our core funds from USAID in hand, the balance of your Y4 core budgets will be added to your subawards in the next few weeks (if you have any concerns about this timeline, please let me know). Please proceed with establishing/amending your partner subawards/subcontracts as needed for Y4 activities.

Please also remember to let me know via email when you intend to move forward with new subawards/subcontracts and how much each will be. I don't think I've received any emails from you with that information so far, so if you've already sent me something, please resend.

Thanks,

Liz

Elizabeth Leasure

Financial Operations Manager

One Health Institute

REDACTED *(cell)*

530-754-9034 (office)

Skype: ealeasure

From: Elizabeth Leasure

Sent: Wednesday, January 10, 2018 2:54 AM
To: Beth Edison; Churchill, Carolina; 'Vodzak, Megan E.'; Zimmerman, Dawn; Molly Turner; Evelyn Luciano
Cc: predict@ucdavis.edu; David M Zachgo; Jonna Mazet; David John Wolking
Subject: Please proceed with new subawards/subcontracts

Hi everyone. We now have approval through the ceiling increase process for you to **move forward with the new subawards/subcontracts** that were included in that budget. Prior to your actually executing those subs, however, please let me know which ones you are proceeding with and for what amount.

Given the current funding situation, please be cautious when moving forward with these subs and do not commit funding that you do not yet have in hand. If you have any questions or concerns, please let me know.

Thanks,

Liz

Elizabeth Leasure

Financial Operations Manager

One Health Institute

REDACTED *(cell)*

530-754-9034 (office)

Skype: ealeasure

--

Molly Turner

Federal Grants Coordinator

EcoHealth Alliance Operations

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

1.212.380.4461 (direct)

REDACTED (cell)
www.ecohealthalliance.org

EcoHealth Alliance leads cutting-edge scientific research into the critical connections between human and wildlife health and delicate ecosystems. With this

Sent: Wed, 25 Apr 2018 21:24:39 -0700
Subject: Fwd: Bangladesh plan
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, Predict inbox <predict@ucdavis.edu>

FYI
---------- Forwarded message ----------
From: **Peter Daszak** <daszak@ecohealthalliance.org>
Date: Wed, Apr 25, 2018 at 12:04 PM
Subject: Bangladesh plan
To: Jonna Mazet <jkmazet@ucdavis.edu>

Hi Jonna,

I spoke with Jon and Molly about this today (I've been in DC and just got back). Jon was already working on paring down work in Bangladesh exactly as you were talking about in your email. However, it's been a negotiation because the MoH have specific interests in carrying on both hospitals. He finally got agreement with them to cut back to one hospital, three concurrent community sites where we'll have seasonal data. The email from Molly was from before he'd gotten the agreement from MoH to scale back. This is now well within our budget and will keep us on track for year 4 with 200 people/year/concurrent site.

Cheers,

Peter

Peter Daszak

President

EcoHealth Alliance

460 West 34th Street – 17th Floor

New York, NY 10001

Tel. +1 212-380-4474

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: Peter Daszak
Sent: Tuesday, April 24, 2018 12:57 AM
To: Jonna Mazet
Subject: RE: FW: Please proceed with new subawards/subcontracts

I suspect all this means is that they're working out the budget details with the Bangladesh contractors, but I'll check when I'm in the office on Wednesday and let you know.

Cheers,

Peter

Peter Daszak

President

EcoHealth Alliance

460 West 34th Street – 17th Floor

New York, NY 10001

Tel. +1 212-380-4474

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: [REDACTED] [mailto [REDACTED] **On Behalf Of** Jonna Mazet
Sent: Monday, April 23, 2018 3:27 PM
To: Peter Daszak
Subject: Fwd: FW: Please proceed with new subawards/subcontracts

Hi Peter,

See the note below. I send it as an example of what I was trying to convey as my concern about mixed messaging regarding availability and access to funds and the "budgetary constraints" that come up from your teams in the field and financial HQ. Bangladesh is, of course, a phase 1 GHSA country; it's a spot where we've "oversampled" animals and undersampled people; it's also where we're always talking about the extra testing we're doing. Thus, I get concerned when we hear that we have budgetary issues if those mean that we're not delivering on our core objectives and sampling of people and animals at the high-risk interface(s) -- at least 200 people per year/concurrent site. Perhaps these hospitals are not needed for that, but if we aren't getting the human sampling done by now, we should not start at all because we can't hit our two season (or 200 longitudinal) target/year by the deadline. It may be that this is all in-hand, but we're certainly behind on the human sampling numbers. If what we have so far is from a concurrent site and that will continue (great!) or if we just have outbreak samples from humans and haven't started with the concurrent sampling, we should probably just cut our losses at this point for these new ones.

Wanted you to see what I see,

Jonna

---------- Forwarded message ----------
From: **Elizabeth Leasure** <ealeasure@ucdavis.edu>
Date: Fri, Apr 13, 2018 at 4:41 PM
Subject: FW: Please proceed with new subawards/subcontracts
To: Jonna Mazet <jkmazet@ucdavis.edu>
Cc: "predict@ucdavis.edu" <predict@ucdavis.edu>

FYI-

From: Molly Turner [mailto:turner@ecohealthalliance.org]
Sent: Friday, April 13, 2018 1:07 PM
To: Elizabeth Leasure
Cc: Evelyn Luciano
Subject: Re: Please proceed with new subawards/subcontracts

Hi Liz,

We've moved ahead with our contracts with IPCI ($119,092) and LANADA ($66,357). Eijkman ($257,000) should be fully executed by the end of the month at the latest.

We're moving more slowly on Faridpur and Dhaka hospitals due to budgetary constraints, and LNSP and Sanjay Gandhi due to political and contractual issues.

Thanks,

Molly

On Tue, Feb 20, 2018 at 6:56 PM, Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:

Hi everyone. As a follow up to my email below, please note that while new subcontracts included in the final ceiling increase budget are considered approved as stated in my previous email below, we are asking that a Determinations and Findings (template attached) be completed and kept on file for any new subcontracts with foreign governmental entities and parastatals as a record of your due diligence to ensure that the selected service provider will be a responsible subcontractor.

Now that we have our core funds from USAID in hand, the balance of your Y4 core budgets will be added to your subawards in the next few weeks (if you have any concerns about this timeline, please let me know). Please proceed with establishing/amending your partner subawards/subcontracts as needed for Y4 activities.

Please also remember to let me know via email when you intend to move forward with new subawards/subcontracts and how much each will be. I don't think I've received any emails from you with that information so far, so if you've already sent me something, please resend.

Thanks,

Liz

Elizabeth Leasure

Financial Operations Manager

One Health Institute

REDACTED *(cell)*

530-754-9034 (office)

Skype: ealeasure

From: Elizabeth Leasure
Sent: Wednesday, January 10, 2018 2:54 AM
To: Beth Edison; Churchill, Carolina; 'Vodzak, Megan E.'; Zimmerman, Dawn; Molly Turner; Evelyn Luciano
Cc: predict@ucdavis.edu; David M Zachgo; Jonna Mazet; David John Wolking
Subject: Please proceed with new subawards/subcontracts

Hi everyone. We now have approval through the ceiling increase process for you to **move forward with the new subawards/subcontracts** that were included in that budget. Prior to your actually executing those subs, however, please let me know which ones you are proceeding with and for what amount.

Given the current funding situation, please be cautious when moving forward with these subs and do not commit funding that you do not yet have in hand. If you have any questions or concerns, please let me know.

Thanks,

Liz

Elizabeth Leasure

Financial Operations Manager

One Health Institute

REDACTED *(cell)*

530-754-9034 (office)

Skype: ealeasure

--

Molly Turner

Federal Grants Coordinator

EcoHealth Alliance Operations

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

1.212.380.4461 (direct)

REDACTED (cell)
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: Jonna Mazet <jkmazet@ucdavis.edu>
To: Andrew Clements <aclements@usaid.gov>
Sent: 6/13/2018 8:51:49 AM
Subject: Re: EN / Suspected Ebola breaks out in Kiryandongo

Thanks,
Jonna

On Wed, Jun 13, 2018 at 3:05 AM, Andrew Clements <aclements@usaid.gov> wrote:
See below for some talk about Predict possibly being asked to test for other pathogens.

If Predict is asked by GOU/UVRI and you have budget, you have my pre-approval to proceed.

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: Lisa Kramer <lkramer@usaid.gov>
Date: June 13, 2018 at 11:46:46 AM GMT+2
To: Wilberforce Owembabazi <wowembabazi@usaid.gov>
Cc: Gregory Adams <gadams@usaid.gov>, Andrea Long-Wagar <alongwagar@usaid.gov>, Mark Meassick <mmeassick@usaid.gov>, Jo Lesser-Oltheten <jlesser@usaid.gov>, Laura Gonzales <lgonzales@usaid.gov>, Michelle Lang-Alli <mlang-alli@usaid.gov>, Kassahun Belay <kbelay@usaid.gov>, Sarah Paige <spaige@usaid.gov>, "ETD Unit Mail List (USAID)" <ghsdunitmaillistusaid@usaid.gov>, outbreak@usaid.gov, Andrew Clements <aclements@usaid.gov>
Subject: Re: EN / Suspected Ebola breaks out in Kiryandongo

Thank you Owe and thank you for keeping the broader group informed of the status.

For the specific request to PREDICT, please copy Andrew Clements, Mandy, Sarah and me. This should help to expedite PREDICT's contractual approval process for supporting the lab response. Andrew is the PREDICT AOR.

Best,
Lisa

Lisa Kramer
Regional Emerging Pandemic Threats Advisor
USAID/Kenya and East Africa
+254-20-862-2107 (Office)
+254-727532046 (Mobile)

On Wed, Jun 13, 2018 at 9:58 AM, Wilberforce Owembabazi <wowembabazi@usaid.gov> wrote:
Hi Lisa,

Thank you for the quick turn round with alternative solution to identifying cause of Ebola-like symptoms with negative VHF laboratory results. We will get in touch with USAID PREDICT to run more tests and additional investigations to determine the cause of deaths. This complicates the GOU reluctance to declare outbreaks where communities suspect that labs are influenced by GOU to falsify results. In the past we have had situations where communities have protested results from central labs especially where people are dying and laboratory tests

are negative for usual suspect infections.
We will follow this up and update you accordingly.
Thank you.

WILBERFORCE OWEMBABAZI, MD, MPH
PMS- Global Health Security Agenda, Office of Health and HIV
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
U.S. Mission Compound
Plot 1577, Ggaba Road, Nsambya
Kampala, Uganda
Telephone: Office: (256) 414-306-002 ext. 6637|Mobile: (256) (0) 772 138 541
USAID.gov | wowembabazi@usaid.gov | @USAID

On Wed, Jun 13, 2018 at 9:20 AM, Lisa Kramer <lkramer@usaid.gov> wrote:
Thank you Owe. Is UVRI continuing with other tests to try to determine the cause?

The USAID PREDICT project supported lab is also located at UVRI and they may be able to run the samples through the PREDICT protocols to determine if the pathogen to help narrow the diagnosis.

Lisa

Lisa Kramer
Regional Emerging Pandemic Threats Advisor
USAID/Kenya and East Africa
+254-20-862-2107 (Office)
+254-727532046 (Mobile)

On Wed, Jun 13, 2018 at 9:09 AM, Wilberforce Owembabazi <wowembabazi@usaid.gov> wrote:
Hi All,

This is to update you that UVRI results for the Ebola suspect in Kiryandogo are negative for all Viral Hemorrhagic Fevers (VHF).
Thanks,

WILBERFORCE OWEMBABAZI, MD, MPH
PMS- Global Health Security Agenda, Office of Health and HIV
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
U.S. Mission Compound
Plot 1577, Ggaba Road, Nsambya
Kampala, Uganda
Telephone: Office: (256) 414-306-002 ext. 6637|Mobile: (256) (0) 772 138 541
USAID.gov | wowembabazi@usaid.gov | @USAID

On Tue, Jun 12, 2018 at 2:56 PM, Gregory Adams <gadams@usaid.gov> wrote:
Dear Andrea,

I have reached out to our contact at WHO Kampala for updates. Nothing more to report yet. We'll get the UVRI test results as soon as they are available. No Government mobilization at this point in time. No NTF meeting called.

We will keep you posted.

Gregory J. Adams
Global Health Security Agenda (GHSA) Advisor
USAID Mission Kampala
Cellphone: +256 0772138625
Office Phone: +256 0414 306001 ext. 6599
Email: gadams@usaid.gov

On Tue, Jun 12, 2018 at 1:43 PM, Andrea Long-Wagar <alongwagar@usaid.gov> wrote:
Dear Greg,

Thank you for this information. Please keep us posted on the results from uvri. Is there anymore information about the suspected case? Has the government mobilized an investigation team to trace potential contacts?

Thank you
Andrea

Andrea Long-Wagar, ScM, MPH, CPH
Senior Infectious Disease Advisor
USAID Africa Bureau
Phone: 202-712-4514
Cell phone: 202-207-6661
E-mail: alongwagar@usaid.gov

Sent from my iPhone

On Jun 12, 2018, at 1:00 AM, Gregory Adams <gadams@usaid.gov> wrote:

FYI Urgent - Suspected case of Ebola/Marburg in Kiryandongo District in the Western Region of Uganda. Sample from deceased victim has been sent to UVRI for testing. We will track this with the Emergency Operations Center.

Regards,

Gregory J. Adams
Global Health Security Agenda (GHSA) Advisor
USAID Mission Kampala
Cellphone: +256 0772138625
Office Phone: +256 0414 306001 ext. 6599
Email: gadams@usaid.gov

---------- Forwarded message ----------
From: **Ricardo Echalar** <rechalar@usaid.gov>
Date: Mon, Jun 11, 2018 at 5:59 PM
Subject: Fwd: EN / Suspected Ebola breaks out in Kiryandongo
To: ghsdunitmaillistusaid@usaid.gov, Wilberforce Owembabazi <wowembabazi@usaid.gov>, Gregory Adams <gadams@usaid.gov>

FYI - sample sent to UVRI for confirmation

Ricardo Echalar, MPH
Senior Public Health Advisor
Office of Infectious Diseases, Emerging Threats Division
Bureau for Global Health
U.S. Agency for International Development (USAID)
2100 Crystal Drive, 8th Floor - 8088B
Arlington, VA 22202
(m) +1.571.215.6324 | **New number** (w) +1.571.551.7456 | E-mail: rechalar@usaid.gov

USAID Contractor
GHSI-III - CAMRIS International, Inc.

---------- Forwarded message ----------
From: **GPHIN Alert - Alerte RMISP** <gphin-rmisp@phac-aspc.gc.ca>

Date: Mon, Jun 11, 2018 at 10:53 AM
Subject: EN / Suspected Ebola breaks out in Kiryandongo
To: rechalar@usaid.gov

This is an automated alert from the GPHIN System; please do not reply to this e-mail. The following article is brought to your attention and may require action on your part.

Publication language: EN

Article ID: 1003418616

Received: 2018-06-11 14:02 UTC

Published: 2018-06-11 14:01 UTC

Location:

- Uganda
  - Central Region
    - Kayunga District
    - Bweyale
  - Western Region
    - Kiryandongo

News provider: MANUAL

Publication name: pmldaily.com

Suspected Ebola breaks out in Kiryandongo

Posted on June 11, 2018

KIRYANDONGO – A disease, suspected to be Ebola or Marburg haemorrhagic fever, has broken out in Kiryandongo district.

On Sunday morning, a woman patient identified as Cungi Odoki, a resident of Bweyale town council, was admitted with signs of the two ailments but died shortly after arrival.

According to the district Secretary for Health Rashid Okecha, health officials tried all they could to give her treatment but in vain.

"The woman was admitted at around 8am on Sunday with a severe fever and blood was flowing out of her body passing through every opening,"Okecha said.

He, however said a blood sample has been taken to the Uganda Virus Research Institute.

"After testing, we shall be able to ascertain what the patient was suffering from. The deceased will however be buried today Monday to avoid any chances of contact being made,"Okecha said.

According to Okecha, burial will be carried out by the medical control team.

Efforts to get additional information from the hospital's medical superintendent were futile as our calls went unanswered.

Okecha said the community is going to be sensitised to take preventive measures against the virus.

The original article is available at http://www.pmldaily.com/news/2018/06/0935723-49723.html.

From: Andrew Clements <aclements@usaid.gov>
Sent: Sat, 7 Jul 2018 10:25:42 -0700
Subject: WHO | Ebola virus disease – Democratic Republic of the Congo
To: Jonna Mazet <jkmazet@ucdavis.edu>, ksaylors@metabiota.com, bhbird@ucdavis.edu, djwolking@ucdavis.edu, William Karesh <Karesh@ecohealthalliance.org>

FYI. Still looking good for an end of outbreak declaration on/about 7/24/2018.

http://www.who.int/csr/don/06-july-2018-ebola-drc/en/

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: Wed, 18 Jul 2018 09:55:06 -0700
Subject: Re: Is there a time when you might be free to chat?
From: Jonna Mazet <jkmazet@ucdavis.edu>
To: Dennis Carroll <dcarroll@usaid.gov>

Yes, please call my mobile REDACTED
J

On Wed, Jul 18, 2018 at 9:54 AM, Dennis Carroll <dcarroll@usaid.gov> wrote:

> Thanks Jonna. Would 1:00 your time work? I can call you.
> d

Sent from my iPhone

On Jul 18, 2018, at 12:35 PM, Jonna Mazet <jkmazet@ucdavis.edu> wrote:

> Hi Dennis,
> I don't think issues between us are causing disruption, but there are a lot of issues that have all come about or to a high pitch at the same time that I do find disruptive.
> Always happy to chat. I am in meetings until noon my time, 3 pm your time. Are you available between 3 & 5 pm your time?
> Looking forward to speaking with you,
> Jonna

On Wed, Jul 18, 2018 at 8:47 AM, Dennis Carroll <dcarroll@usaid.gov> wrote:

> Jonna, as I am sure you would agree there are a number of issues swirling around us that we need to discuss. Given how much I value your leadership and person I am concerned that these issues are being unnecessarily disruptive

Please let me know if and when you might be available.

thanks

d

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

Office: 571-551-7109
Mobile: REDACTED

From: David J Wolking <djwolking@ucdavis.edu>
Sent: Tue, 4 Sep 2018 10:51:08 -0700
To: Wolking David <djwolking@ucdavis.edu>
Cc: Jon Epstein <epstein@ecohealthalliance.org>, Debapriyo Chakraborty <chakraborty@ecohealthalliance.org>, Dawn Zimmerman <Zimmermand@si.edu>, Corina Grigorescu Monagin <cgmonagin@ucdavis.edu>, Karen Saylors <ksaylors@metabiota.com>, Brian Bird <bhbird@ucdavis.edu>, Jaber Belkhiria <jabelkhiria@ucdavis.edu>, Kirsten Gilardi <kvgilardi@ucdavis.edu>, Matthew LeBreton <mlebreton@mosaic.cm>, "Prof. Woutrina Smith" <wasmith@ucdavis.edu>, Amanda Fine <[redacted], Jennifer Lane <jklane@ucdavis.edu>, Kevin Olival <Olival@ecohealthalliance.org>, William Karesh <karesh@ecohealthalliance.org>, Anne Laudisoit <laudisoit@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>, Emma Lane <lane@ecohealthalliance.org>, Emily Hagan <hagan@ecohealthalliance.org>, Alice Latinne <latinne@ecohealthalliance.org>, "Churchill, Carolina" [redacted], Molly Turner <turner@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, Sarah Olson [redacted]>, Brooke Genovese <bgenovese@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>
Subject: [predict] Re: Action required: P2 GHSA Annual Report - due to UCD Sept 10, 2018
P2_FY18Q2 GHSA Phase 1 Report (FINAL).docx

Hi there,

Ava just brought to my attention that I accidentally shared the March 2017 GHSA report instead of our most recent 2018 annual report to build on as our starting template. Please find the correct 2018 GHSA semi-annual report attached here and use this for updating with the past 6 months progress, achievements, successes, challenges, and outbreak support.

Best,

David

On Thu, Aug 30, 2018 at 9:58 PM David J Wolking <djwolking@ucdavis.edu> wrote:

Lucky PREDICT GHSA Phase 1 country leads (lottery winners each of us!),
If I missed anyone in the evolving landscape of GHSA and P2 country leadership please pass this message along and let me know so I can update my list....

Workplans are over and now we're back to reporting season. For this 2018 GHSA annual reporting session, we are responsible for the same template we completed back in March. **These are due to HQ September 10th. The earlier the better if possible** since I have to turn them around to USAID a few days later, polished and perfect. We were caught off guard here with the workplan and report overlap so my apologies for the short timeline. I screwed up and will make sure it doesn't happen again. Hopefully your ongoing partner updates, realish-time EIDITH data, and amazing documentation of #predictlife makes this an easy lift.

This time around, the same guidance from USAID applies.

1. Complete the *"Summary of Health Security Capacities and Changes in Capacity"* table by highlighting any progress or achievements that support capacity gains in our target Action Packages
2. Provide some in-depth stories about our successes, challenges, and work in support of outbreak preparedness or response.

To recap from March, the table (#1) is essential GHSA business - the M&E report. The in-depth stuff in #2 (success stories, etc.) is really where USAID sees value from our reports and they are frequently used and shared by USAID in Washington, their missions around the world, and the interagency GHSA teams. For some examples of what USAID likes (stories about people for example :-), check out this page (illuminating!).

Our amazing **template is attached, it includes your April submission to build on.** I'm also attaching a completed model from the Senegal team thanks to Corina and Jaber who literally couldn't wait to join this party. I love their enthusiasm and am grateful as always for the team spirit.

Additional guidance for each component is provided below.

2018 GHSA annual report guidance
Period of performance: October 1 - August 31, 2018 (really Sept 30 2018 but hey, #GHSAlife)...

1. Summary of Health Security Capacities and Changes in Capacity: Do your best to describe how PREDICT is making an impact and improving capacities towards advancing countries from JEE Levels across each relevant Action Package and Indicator. Country JEE reports are available online here. We all realize that no one project is going to push a country to a new level in a 12 month period of performance. Our goal is to document how our work is helping make an impact toward that bigger goal.

Note: We will be accompanying content captured in this table with surveillance, behavioral risk, and viral testing data extracted from EIDITH. Please

use your USAID EIDITH report extracts when citing numbers from trainings, sampling, testing, or surveys/interviews. Again, please make sure your data in EIDITH is up to date.

2. Success stories, Challenges, and Outbreaks: Here is where we "shine". **On "Success Stories",** please do your best to share successes in particular. We should be able to capture at least one noteworthy success story from each country since all countries are pushing hard on data collection and testing. A few pointers: it's OK to highlight meetings as a success if PREDICT played a key role in the organization of the event and if the meeting had a tangible outcome (e.g., disease ranking, OH strategic plan development, etc.). Training successes are in demand but Mandy and team requested more clarity and details on who was trained (in particular ministry or gov staff from national to subnational levels) and what they were trained in (since many of our trainings are so vast, we need to do a better job describing what actual skills or techniques were taught or improved). Also great to capture any requests for support (training, testing, procurement or supplies like PPE, outbreaks, etc.) from ministry partners, this shows value added from USAID backed projects.

For "Challenges" lets try to keep these to critical challenges, not operational ones.

"**Outbreaks"** is pretty self explanatory. Any and all details we can feature here are really appreciated and almost inevitably shared beyond these reports by USAID. Perhaps a summary of events and impact from the last version of any relevant"outbreak forms" is the best approach.

3. Photos: Striking images of field work, lab teams etc. are all in demand (please make sure teams are in appropriate PPE). No need to share pics from meetings. For photos, please embed the image directly in the Word template and provide a caption and credit just like in the template. I'll likely follow-up to get the original image files for the best as we've been sharing photos with USAID in a Team Drive.

Please let me know if you have any questions and I'm happy to help however I can.

David
PREDICT Rapportuer @ The Consortium
predict@ucdavis.edu
#predictlife #ghsalife

PREDICT FY18Q2 GHSA
Phase I Semi-Annual Report

All Phase I countries will submit progress reports on GHSA implementation on a semi-annual basis. At this time Phase II countries will report annually, using a separate template. The US Embassy in each country is responsible for preparing and submitting the required progress reports to the interagency. To aid USAID Missions in completing their report utilizing implementing partner activities and progress, USAID asks implementing partners to submit semi-annual reports for Phase I countries. Partners will be requested report on specific progress toward raising a country's capacity levels. As previously mentioned, the focus of USAID's GHSA work is to make progress on the AP capacity levels measured by WHO's JEE tool.

The timeline for FY18 is below. Due to ad hoc reporting and effective project monitoring, USAID may need to adjust the reporting schedule, but will do its best to give advance notice. Reports are due to the USAID GHSA Washington team and the project AOR.

Report	Due Date
FY18Q2 Mid-year Progress Report	April 16, 2018
FY18Q4 End of the Year Progress Report	September 14, 2018

Notes:
-The FY18 Q2 reporting timeline is from October 1, 2017-March 31, 2018
-The FY18 Q4 reporting timeline is from April 1, 2018-September 30, 2018
-For more information on action packages, capacity levels and indicators, please use the JEE Tool:
http://apps.who.int/iris/bitstream/10665/204368/1/9789241510172_eng.pdf
-Please see the attached document titled "Additional Information on the Joint External Evaluation Level of Capacity Score Descriptions," which provides supplementary information on many of the capacity levels.
-Send relevant pictures with captions/photo credit to enhance reporting
-Please fill all sections of the template for relevant countries, including Sections 2-4 after the chart.

Africa

Country
1. Burkina Faso
2. Cameroon
3. Cote d'Ivoire
4. Ethiopia
5. Guinea
6. Kenya
7. Liberia
8. Mali
9. Senegal
10. Sierra Leone
11. Tanzania
12. Uganda

Asia

Country
1. Bangladesh
2. India
3. Indonesia
4. Vietnam

Burkina Faso

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1	2	3	4
USAID's GHSA Technical Focus Areas	**GHSA Indicator**	**Specific progress made toward capacity level**	**Comments**
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens		
	P.4.2: Veterinary or Animal Health Workforce		
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis		
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		

	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)		
	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements		
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		

	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc)		
	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

Cameroon

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1	2	3	4
USAID's GHSA Technical Focus Areas	**GHSA Indicator**	**Specific progress made toward capacity level**	**Comments**

Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	PREDICT worked with ministry partners from livestock, health, wildlife, and environmental sectors (MINEPIA, MINSANTE, MINFOF, and MINEPDED) to strengthen multi-sectoral collaboration and to put One Health in action for surveillance of priority zoonotic diseases in the South Region of Cameroon. Working to bolster capacity for surveillance in wildlife (an area in need of improvement in Cameroon's JEE), PREDICT sampled 590 animals (bats and rodents in and around people's houses, and primates and rodents in bushmeat markets) in two trade-hub towns attracting buyers from larger urban centers and neighboring countries since October 2017. In addition, PREDICT's ongoing syndromic surveillance of febrile patients at Meyomessala and Sangmelima District hospitals and community surveillance of high-risk individuals in these communities has resulted in biological samples and behavioral/demographic data from 246 patients. Samples are safely stored at the Ministry of Defense Military Health Research Centre (CRESAR), a national lab, for testing for priority zoonoses and other emerging threats. To identify zoonotic disease transmission risks and potential intervention strategies, PREDICT's behavioral risk team conducted interviews and focus groups with 74	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data for both priority zoonoses (filo-, influenza viruses) and emerging and re-emerging pathogens in vulnerable and high-risk areas. Shared animal and human surveillance data and findings help catalyze formal information sharing between animal and human surveillance systems. In addition, surveillance activities engage local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. To date, the PREDICT/Cameroon team has conducted over 430 behavioral risk interviews, sampled over 3,400 wildlife and 246 people, and completed zoonotic disease testing for 2,656 animals and 165 humans.

		individuals this period with community members at zoonotic disease surveillance sites. Data from these interviews is undergoing analysis. PREDICT participated in multi-sectoral meetings to develop strategic surveillance plans for priority zoonoses (rabies and avian influenza), and to develop the evaluation process for epidemiological surveillance networks for animal diseases in Cameroon using the FAO Surveillance Evaluation Tool (SET).	
	P.4.2: Veterinary or Animal Health Workforce	PREDICT continued to strengthen Cameroon's animal health workforce by providing training opportunities that address challenges to current and future animal health professionals (a target area identified in the JEE). PREDICT provided hands-on training opportunities for government staff from the central, regional, divisional, and sub-divisional levels to advance skills in biosafety; animal handling and sampling; safe sample transport and storage; and viral detection. Training was also provided to surveillance staff from the ministries of livestock, wildlife & forestry and environment (from the national, regional and district levels) to support the national surveillance system, to strengthen local capacity for zoonotic disease surveillance, and to strengthen mechanisms for responding to zoonotic disease threats. In addition, the PREDICT lab team at CRESAR trained eight interns (Cameroon's future health workforce) in molecular biology techniques, laboratory safety, biosafety and PPE, and biosecurity. These trainings are enhancing their capabilities for safely detecting priority zoonoses and emerging viral threats.	PREDICT Cameroon's primary animal health workforce collaborators are the Ministry of Forestry and Wildlife, the Central Veterinary Laboratory, the National Program for the Control and Fight Against Emerging and Remerging Zoonoses (National Program for Zoonoses), and researchers from the University of Douala and the University of Maroua. PREDICT provides opportunities for student training through field and lab internships on all aspects of zoonotic disease surveillance: detection, prevention, response, and control. In collaboration with the National Veterinary Laboratory and the National Program for Zoonoses, PREDICT supports investigations for outbreak and animal-die off events, through testing of field samples at the PREDICT lab at CRESAR.
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	PREDICT continued to work with EPT-2 partners (P&R, FAO, OHCEA) in the operationalization of the One Health Strategic	

		Plan and support of multi-sectoral coordination mechanisms for zoonotic disease surveillance, prevention and response. PREDICT contributed to the development of strategic surveillance plans for priority zoonoses (rabies and avian influenza) and the evaluation process for the epidemiological surveillance networks for animal diseases in Cameroon using FAO's Surveillance Evaluation Tool (SET). On 20-21 February 2018, PREDICT conducted two meetings in Sangmelima and Ebolowa to share PREDICT results with 10 government officials and 47 (all female) bushmeat sellers. These meetings help improve multi-sectoral information sharing from the national to subnational level, while also addressing zoonotic disease risk communication at the community level, as bushmeat sellers were sensitized on zoonotic disease infection risks, and provided opportunities to discuss potential risk mitigation strategies.	
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	PREDICT's partner lab at the Military Health Research Center (CRESAR) in Yaoundé completed testing of samples from 331 individuals (211 wildlife and 120 humans) this period. Since the start of the project CRESAR has tested 5,462 samples from 2,821	PREDICT's partner lab at CRESAR, a national lab, is equipped to perform the full range of activities required for safe detection of priority zoonotic diseases and emerging viral threats to global health security. PREDICT is actively testing animal and human samples at CRESAR, which also serves as a

		individuals (2,656 animals; 165 humans). All samples were tested for priority zoonotic diseases using PREDICT protocols for filoviruses (including Ebola and Marburg), influenza viruses (including HPAI), coronaviruses, and paramyxoviruses. All confirmed results are shared with ministry partners for approval prior to release, which provides opportunities for data sharing and coordination across human and animal health laboratory partners (an area targeted in Cameroon's JEE).	key training center for students and professionals, including government staff from other nodes in the national lab system (LANAVET, LNSP). PREDICT supports CRESAR in strengthening detection and surveillance capabilities across both the human and animal sectors, in providing referral services to the national lab system, and by contributing integral data for surveillance reporting.
	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE	Findings from One Health surveillance for priority zoonotic diseases were routinely shared with all government partners to improve multisectoral communication and data flows. PREDICT shared results from CRESAR laboratory testing of animal surveillance samples collected between July 2015 – December 2017 with government partners (ministries responsible for health, livestock, research, defense, wildlife and environment and the National Zoonoses Program).	When test results and project findings are approved for public release by the Cameroon Government, they may be viewed in an interactive map at www.data.predict.global

	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements	This period, PREDICT trained 44 individuals, including project staff, government staff, and eight students, in core skills required for safe and effective zoonotic disease surveillance and disease detection. During collaborative One Health surveillance with government partners, PREDICT continued to provide hands-on training opportunities for government staff from the central, regional, divisional, and sub divisional levels to engage in biosafety, handling, and sampling; safe sample transport and storage; and viral detection. These trainings connected government staff from various ministries with field-based activities using the One Health approach and enhanced their skills for improved implementation of zoonotic disease surveillance and outbreak response. PREDICT lab internships were also provided to two postgraduate students for training and mentorship in laboratory safety and disease detection, providing them the opportunity to gain invaluable in-service experience in a premier national laboratory.	PREDICT provides ongoing opportunities to current and future animal and human health professionals (students, interns) using the One Health approach. In addition, field activities engage and involve animal health professionals providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain and safe sample transport, and viral detection at collaborating labs. National One Health focal points and local government staff are involved in field surveillance activities, and PREDICT engages with them to ensure operationalization of the One Health approach.
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public		

	health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		
	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

From One Health strategic plans to One Health in action: Zoonotic disease surveillance in the South Region, Cameroon. Southern Cameroon is a region where people have a long history of bushmeat hunting for subsistence, and is now known as a major bushmeat trade hub, attracting buyers from urban centers and neighboring countries. Increased bushmeat trade, combined with intensified animal production and landscape changes due to a hydroelectric dam and industrial rubber plantations, makes Southern Cameroon a hotspot for high-risk interfaces between animals and humans. Through effective partnerships across animal and human sectors, and successful stakeholder engagement, PREDICT is showcasing the One Health approach for zoonotic disease surveillance and working with national and subnational partners from human and animal health sectors to operationalize One Health in this critical region for zoonotic disease transmission and spread. By integrating human biological surveillance and behavioral risk investigations with wildlife surveillance that is focused in sites of increasing animal-human contact and high risk interfaces for zoonotic disease transmission, PREDICT is helping Cameroon to build capacity for zoonotic disease detection, prevention, and response. Hospital surveillance of patients presenting with syndromes of interest, and community surveillance of people with high-risk exposure to wildlife, is being implemented in collaboration with staff at Sangmélima and Meyomessala district hospitals who have been trained in PREDICT protocols for sample collection and processing, waste management, biosafety, PPE use, and the ethics of human subject research. Hospital personnel, with ongoing support from PREDICT staff, collect, maintain cold chain, and pack specimens for safe transport to the PREDICT lab at the Military Health Research Center (CRESAR), a core part of Cameroon's national laboratory system, where they are tested for priority zoonotic diseases such as Ebola and influenza, as well as for emerging viral threats that may cause the next health disaster in the Central Africa region. In addition to increasing the capacity of hospital staff for disease surveillance, PREDICT/Cameroon significantly improved hospital waste management through

the repair of the Sangmélima District Hospital incinerator, decreasing local risk to humans and the environment, a critical step towards improved biosafety and security for this important health facility.

> *From the beginning of the world, humans have been the nearest partners with animals; humans were always eating bushmeat but I don't know if there were so many diseases. Now it is important to work with the different sectors to protect animal and human health, we are all called to work together with a new One Health approach to assure the future of our children.*
> - The Delegate of the Ministry of Forests and Wildlife (MINFOF), Mvila Department, South Province (translated from French)

PREDICT's integrated One Health surveillance in the South Region supports Cameroon's national surveillance system by enabling health professionals from the animal and human health sectors to work together in the field and to strengthen their core skills and capacity for zoonotic disease surveillance. Perhaps more than any other investments to date, this work is directly impacting capacity gains in areas highlighted as challenges in the country's JEE, most critically across all indicators in the Zoonotic Disease action package.

PREDICT/Cameroon and Sangmélima District Hospital staff visit the incinerator that was restored by PREDICT. This improvement allows for safe hospital waste management, decreasing biohazard contamination risks to humans and the environment. Photo: PREDICT/Cameroon

From detection to prevention: Community-based risk communication in Sangmelima and Ebolowa, Cameroon.

On 20-21 February 2018, in Sangmélima and Ebolowa, PREDICT/Cameroon conducted meetings with 10 officials from a Divisional Delegation of Wildlife and Livestock and community bushmeat sellers, a group in frequent contact with wild animals and therefore at higher risk for zoonotic disease. These two meetings allowed PREDICT to share government-approved surveillance results with communities, and resulted in the sensitization of 47 female bushmeat sellers on zoonotic disease infection risks, including valuable discussions about potential risk mitigation strategies. Many women in this region of Cameroon have been involved with selling bushmeat since childhood, and for some, this has been their livelihood for decades. Understandably, most would not be able to leave the trade and their only source of income. One of the bushmeat sellers at this meeting summarized this with her own words (translated):

> *"If we are told to stop, we will still always come back to this activity because this is how we feed our families."*

PREDICT encouraged those present to adopt simple mitigation techniques to reduce the risk of zoonotic disease transmission, advising the women to avoid handling or butchering fresh meat if their hands are cut or scratched, to always have soap and water nearby to wash immediately in case they are cut during butchering, to avoid contact with wildlife bodily fluids (using impermeable plastic to wrap meat during transport), to avoid contact with dead animals found in the forest, and to keep wildlife carcasses or bushmeat out of reach of children. PREDICT's surveillance test results and risk reduction strategies were well received by community members, and the government representatives present at the meetings took the opportunity to recognize the value of in-service training opportunities provided by PREDICT to local staff in wildlife disease surveillance.

> *"We really thank the PREDICT team for coming to talk to us about the risks we are facing and different sickness that we can catch from animals. We have been selling bushmeat for many years, it is our source of income so we cannot abandon it and we will make sure advice from this meeting becomes practical. We are very happy."*
>
> - *A bushmeat seller at the meeting.*

The Divisional Delegate of Wildlife (Mvilla) with Ebolowa bushmeat sellers, express their appreciation after a PREDICT sensitization meeting for the prevention of zoonotic disease transmission. Photo: PREDICT/Cameroon

Section 3: Challenges and potential solutions (if applicable)
NA

Section 4: Outbreak response (if applicable)
NA

Cote D'Ivoire

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1	2	3	4
USAID's GHSA	**GHSA**	**Specific progress made toward capacity**	**Comments**

Technical Focus Areas	Indicator	level	
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	This period, PREDICT continued to put One Health in action, integrating animal and human health sectors in field-based activities (an area highlighted for strengthening in CIV's JEE) through syndromic surveillance of febrile patients at Bonon Hospital and in the Sergent Konankro community, and wildlife sampling in surrounding villages and forests. Samples were collected from nine patients and 58 animals (1-2nd October 2017) and safely transported to the PREDICT partner laboratories Institut Pasteur du Côte d'Ivoire (IPCI) and Laboratoire National d'Appui au Developpement Agricole (LANADA), where they are stored in -80°C freezers in preparation for zoonotic disease testing. In January 2018, the team continued to work with local animal and human health partners and community members to identify and map high-risk human/animal interfaces for zoonotic disease transmission, notably after finding multi-specific bat colonies in hollow tree trunks. These sites are now included in zoonotic disease surveillance plans. PREDICT also worked to identify potential zoonotic disease risk reduction and intervention strategies targeting high-risk practices and behaviors.	The PREDICT/CIV team consists of physicians, veterinarians, biologists, sociologists and nurses working with physicians of the Bonon Hospital in the western central region of the country, extending Côte d'Ivoire's surveillance system to high-risk areas for zoonotic disease transmission. To date, the PREDICT/CIV team has conducted over 50 behavioral risk interviews, sampled over 400 wildlife and 11 people, and completed zoonotic disease testing for 335 animals.

		The team conducted interviews and focus groups, and worked with the One Health team to characterize sites for sampling. These interactions also serve to create linkages with chiefs of the villages and with representatives of many associations of workers in risk areas, critical inroads for building trust and garnering support for zoonotic disease monitoring in these at-risk areas for viral spillover and spread. Also this period, PREDICT worked with the Robert Koch Institute (RKI) to strengthen coordination for zoonotic disease testing at LANADA, which is working with RKI to conduct surveillance in remote trans-border sites (Taï forest, Comoé) in CIV. An agreement was prepared and is now being signed to include samples collected by RKI in PREDICT's testing for priority zoonotic diseases and other emerging threats, while RKI screens these samples and samples collected by PREDICT for Lassa, Hanta and Orthopoxvirus due to circulation of these agents along the Ivorian border. This collaboration is effectively building core capacity for zoonotic disease detection in LANADA and extending the national surveillance system's reach to new areas and to monitor multiple disease threats. Additionally, on December 6, 2017 PREDICT CIV staff attended the USAID GHSA Implementation Partner Meeting in Côte d'Ivoire and other GHSA/ FETP workshops. PREDICT improved One Health information sharing by delivering project reports to the Technical Secretariat of GHSA, the USAID mission, and others critical coordinating groups working on animal and human health such as the Wildlife and Game / Hunting Resources Directorate (OIPR), and the	

		Direction of Veterinary Services.	
	P.4.2: Veterinary or Animal Health Workforce	PREDICT and other partners have been working with the Wildlife and Game / Hunting Resources Directorate (OIPR) during One Health surveillance activities along the edges and inside the Marahoué National Park area. OIPR rangers accompany the PREDICT team on field visits, are received training in biosafety and PPE use, safe animal handling and sampling, and carcass disposal protocols. Through this work, OIPR rangers are provided opportunities to enhance disease surveillance skills and as a result are now considering establishing a wildlife monitoring system in the park. This period, PREDICT trained three new veterinarians in wildlife surveillance directly contributing to improvements in the animal health workforce, an area targeted for strengthening in the country's JEE. All three received trained in biosafety and PPE, laboratory safety, and cold chain management; and training is ongoing. One of the trainees, the head of the avian influenza viral laboratory, will supervise the LANADA team's testing of project samples for priority zoonoses and emerging threats, putting skills learned from the trainings in action and sharing knowledge with others in the national lab system. One young veterinarian has joined the PREDICT field team, while the third trainee will continue to work in the laboratory on disease detection.	
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	PREDICT contributed expertise in One Health surveillance, viral detection, and multisectoral information sharing at workshops for the development of the national health security plan in CIV. At the invitation of the Coordinating Unit, PREDICT provided expertise in and a vision of the One Health approach to surveillance for priority zoonoses	

		and emerging threats. From December 18 to 22 2017, PREDICT CIV took part in the development of the National Health Safety Plan initiated by the INHP (National Institute of Public Health) held by ministry of Health and other partners in Yamoussoukro. On November 21st, 2017, PREDICT CIV contributed its expertise to the National Pathogen Classification Validation Workshop in Côte d'Ivoire. PREDICT CIV team also contributed to review of the pathogen classification system and evaluated the prioritization of microorganisms during a workshop at IPCI on the 17th December 2017.	
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	PREDICT is actively working with partner laboratories LANADA and IPCI to improve capacity and data and information sharing between animal and human health sectors. To date, samples have been tested from 335 animals. Results from zoonotic disease testing are planned for sharing (once approved for release by authorities) with the laboratory network, including several LANADA labs across the country (Abidjan-central, Yamoussoukro, Bouaké, Korhogo), ensuring that findings and information penetrate from the national to district levels. Both PREDICT partner labs were also directly strengthened this period through provision of laboratory equipment and training and mentorship in	

		zoonotic disease detection techniques.	
	P.1.2: Specimen referral and transport system (focused on animal health) D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems	PREDICT took part in the 2nd December 2017 workshop on monitoring animal biodiversity and integrated surveillance of zoonoses organized by the CDC Field Epidemiology Training Program (FETP) Frontline. The workshop aimed at developing an integrated surveillance system for zoonosis by the different structures in charge of this surveillance within the framework of One Health approach following the recommendations of the Joint External Evaluation and the prioritization of zoonotic diseases to be monitored in Côte d'Ivoire (anthrax, salmonellosis, rabies, highly pathogenic avian influenza, bovine / human tuberculosis, hemorrhagic fever, brucellosis, echinococcosis, cysticercosis and fever Rift Valley).	
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		

	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements	This period, PREDICT trained 16 individuals (4 females and 12 males) in core skills required for One Health surveillance. Trainings included members of CIV's national health system and were supported by hands-on opportunities to put skills in practice during wildlife capture and syndromic surveillance activities.	
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		
	R.5.2 Internal and partner communication and coordination		

	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

One Health surveillance for zoonotic disease threats in the Marahoué region. Bonon Urban Health Center is housed within the community of Bouaflé in the Marahoué Region of Cote d'Iviore. This clinic is located along the edge of the Marahoué National Park and serves as a catchment area for the villagers living in the areas identified as at-risk for zoonotic disease transmission and spread in northwestern Côte d'Ivoire (Sergent Konankro, Blaisekro, and Asproa). The Marahoué National Park borders an encroaching cocoa plantation, which creates opportunities for high-risk interfaces associated with land-use change. There are also frequent human-animal interfaces between villagers living on the edge of the park and animals within the protected natural landscape. The hunting of bushmeat is also a common practice within the region. The area is also sadly notorious for the prevalence of urban human African trypanosomiasis (HAT), unique ecotypes of Glossina palpalis palpalis and Buruli ulcer endemism (17 cases in 2017).

Though Bonon is a remote area with many logistical challenges (such as frequent power outages, strained relationships with park ranges/law enforcement, and safety in times of political and economic instability), PREDICT successfully built relationships and launched sampling in 2017 with partners at the Institute Pasteur of Côte d'Ivoire (IPCI). PREDICT is working in Marahoué to extend the country's surveillance for zoonotic disease threats to local clinics and surrounding areas and to strengthen subnational capacity of both the medical and animal health sectors for improved disease prevention, detection, and response. In Marahoué's Bonon Urban Health Center, the chief medical doctor, Dr. Tapé, leads a team now sampling febrile patients for priority zoonotic diseases such as Ebola and influenza (along with other emerging disease threats) in tandem with PREDICT's country coordinator, Dr. Kalpy Coulibaly.

> *"...such projects as PREDICT bring hope to improve local work, diagnostic conditions and vaccine conservation and quality"*
> *-Dr. Tapé, Chief Medical Doctor at the Bonon Urban Health Center, Marahoué, Cote d'Ivoire*

Both are working together to raise awareness of emerging zoonotic diseases risks, as PREDICT engages with local villages and the Ivorian Office of Parks and Reserves (OIPR) to extend surveillance of wildlife and put One Health in action in areas where people and wildlife have frequent interactions, especially around national park borders. There are frequent clashes between park rangers and people settled within the park, as members of local community hunt within in the park boundaries and illegally harvest from cocoa plantations despite bans. Through PREDICT's work, our team has been bringing park rangers into the village helping create a dialogue and bridging the gap between rangers and the larger population, efforts that also allow community members to share conservation and health concerns about zoonotic disease risks associated with wildlife hunting, butchering, and consumption. Park rangers interested in PREDICT work have also been working with our team to strengthen their technical skills and improve their safety. To date, trainings have covered biosafety and PPE use and safe and ethical animal sampling techniques.

Mrs. Djeneba Bamba and Dr. Eugène Koffi work together to characterize the zoonotic disease transmission risk at a planned surveillance site in Asproa in January 2018. Photo: PREDICT/CIV.

Working with national wildlife partners to establish zoonotic disease monitoring systems. PREDICT met with relevant local government agencies including the Ivorian Office of Parks and Reserves (OIPR), the Zoo of Abidjan, and the Direction de la faune et des ressources cynégétiques (Directorate of Wildlife and Hunting Resources), meetings that included the heads of each institution in charge of wildlife in Côte d'Ivoire. The goal of the meeting was to bring together the diversity of stakeholders working with wildlife in-country and to discuss CIV's wildlife landscape. A critical challenge that was addressed in discussions was the need for an improved wildlife monitoring system, a challenge that PREDICT's engagement can directly support contributing to needs identified in the national JEE report. Plans for the monitoring system would be informed by PREDICT policies and zoonotic disease surveillance protocols yet implemented independently by local institutions, effectively transferring PREDICT capability to the national wildlife sector in Cote d'Ivoire. Finally, the head of the Direction de la faune et des ressources cynégétiques also requested PREDICT training for forestry officers and zoo veterinarians to strengthen their surveillance, biosafety, and animal capture, handling and sampling skills.

Section 3: Challenges and potential solutions (if applicable)

Maintaining cold chain remains a challenge as surveillance sites are in remote areas with frequent power outages. PREDICT has addressed this challenge by developing a cold chain relay with freezers and refills of liquid nitrogen dewars for safe sample storage and transport and is also exploring solar as an option to address power outages.

Section 4: Outbreak response (if applicable)
NA

Ethiopia

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1 USAID's GHSA Technical Focus Areas	2 GHSA Indicator	3 Specific progress made toward capacity level	4 Comments
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	This period, PREDICT through partners Addis Ababa University (AAU) collected samples from 35 wildlife and safely transported the material to the PREDICT project lab at AAU where they will undergo testing for priority zoonotic diseases other emerging threats. In addition, PREDICT worked to improve linkages between animal and human health sectors, an area highlighted for strengthening in the country's JEE, making progress with the Ethiopia Public Health Institute (EPHI) on plans to initiate surveillance in at-risk human	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens such as Ebola and MERS-COV in vulnerable and high-risk areas. Shared animal and human surveillance data and findings to catalyze formal information sharing between animal and human surveillance systems is well underway. In addition, the surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved

		populations in the Awash and Bati regions. Ethical permissions were finalized and visits conducted to partner health centres in target surveillance areas to prepare for training and patient enrollment (currently planned for May). Finally, PREDICT's One Health team featuring veterinarians from AAU and medical professionals from EPHI received training and worked together to improve understanding of zoonotic disease risks at target surveillance sites during PREDICT's All Country Meeting in Brussels. These opportunities are forging a coordinated and connected cadre of One Health professionals in country, which will help improve data and information flows across sectors.	recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. To date, the PREDICT/Ethiopia team has sampled over 500 wildlife and completed zoonotic disease testing for 93 animals. Surveillance activities will continue to be implemented in the Awash Region and Bati Regions by the Aklilu Lemma Institute of Pathobiology (ALIPB – University) at Addis Ababa University in close coordination with district level veterinary and public health professionals including local health center staff. Animal sampling activities are conducted throughout the year at all sites. Furthermore, syndromic surveillance activities at target health centers such as at the Awash Health Center will take place throughout the calendar year. Frequent political unrest has impacted sample collection opportunities at project sites over the last six months.
	P.4.2: Veterinary or Animal Health Workforce	PREDICT provided critical in-service training opportunities through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current health workforce. Our trainings, which by design bring together individuals from animal and human health sectors at the subnational level through field-based training opportunities, an area identified as a need in Ethiopia's JEE, were provided to animal health professionals (e.g. government vets, extension officers, lab technicians in animal health labs, researchers, and local community members), directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control. Trainings targeting subnational public health professionals were planned this period and will be conducted in May 2018.	PREDICT/Ethiopia primary animal health workforce implementing partner is the Aklilu Lemma Institute of Pathobiology (ALIPB – University) at Addis Ababa University. There is ongoing engagement with the National Animal Health Diagnostics and Investigation Center (NAHDIC) in the training of their staff in PREDICT lab procedure and protocols. Additionally, ALIPB participates in the training of staff. Critical step as the ALIPB lab is a training center for the animal health sector and provides reference support to the national surveillance system. Through ALIPB, PREDICT provides multiple opportunities for critical training of public health professionals across the educational and government sectors on all aspects of zoonotic disease surveillance, detection, prevention, response, and control.
	P.4.3: Mechanisms for	PREDICT/Ethiopia team members participated	PREDICT is by design One Health in action, and we

	responding to infectious zoonosis and potential zoonosis	in regular activities organized by the National One Health Steering Committee, as well as have contributed to efforts in developing a National One Health Communication Network (OHCN), in Ethiopia in collaboration with the Government Communication Affairs Office. PREDICT has established data sharing agreements with all implementing partners (ALIPB, NAHDIC, EPHI) and our One Health network in Ethiopia engages various ministries and agencies such as the Ministry of Health, Ministry of Environment, FAO, and Center for Disease Control in Ethiopia. Procedures for sharing data (including project information and findings) are also in place with all ministry partners and other government and non-governmental organizations across both animal and human health sectors.	share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors.
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	This period, PREDICT provided staff from the national system (EPHI, NAHDIC) in-service training opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats. Also this period, PREDICT's partner lab at the ALIPB completed testing of 93 wildlife samples for priority zoonotic diseases and emerging threats; results will be shared with ministry partners for approval in advance of public release and dissemination to One Health Communication Network partners.	PREDICT strengthens the national laboratory systems by enabling disease detection through a One Health laboratory network based at partner labs the Aklilu Lemma Institute of Pathobiology (ALIPB – University) at Addis Ababa University and the National Animal Health Diagnostics and Investigation Center (NAHDIC) along with the public health lab at the Ethiopia Public Health Institute. All three labs maintain strong ties to the national system and protocols and information are being shared openly with animal and human health labs working to actively improve interlinkages.

	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements	PREDICT continued to provide in-service training opportunities this period, training seven individuals (5 males and 2 females), including PREDICT project staff in core skills required for safe and effective zoonotic disease surveillance and disease detection. These trainings along with zoonotic disease surveillance activities provide subnational animal and human health professionals with opportunities to put skills in action and work together as integrated One Health teams combatting emerging zoonotic disease threats.	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce and the newly recruited wildlife personnel especially the animal health sector with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. Our partners (Aklilu Lemma Institute of Pathobiology at Addis Ababa University, the primary training ground for animal health professionals in-country) are training institutions that actively promote and engage students and career professionals in continuing education; we will continue to provide training opportunities across the full spectrum of surveillance, detection, and response and will explore opportunities with partners to incorporate our training program and materials in short courses for national and subnational

			managers.
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		
	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

Persistence towards One Health surveillance despite challenges. Over the past 6 months, the PREDICT/Ethiopia team has persevered despite difficult working conditions. Significant political turmoil and instability in the country, with pockets of civil unrest have made travel and accessing project sites difficult for the team, yet they have managed to continue to sample wildlife. The core PREDICT wildlife team is a nimble and lean team of five people; all are cross trained in lab and field sampling and testing protocols. Our wildlife team worked to sample non-human primates (NHP) and bats in and around the targeted villages and households of Awash and particularly noted the cohabitation of baboon, children and their families as a significant risk for transmission of zoonotic diseases. This period, a total of 35 samples from primates and 52 samples from bats were collected and lab analysis is underway at Addis Ababa University.

Also this period, PREDICT obtained ethical permissions to begin human syndromic surveillance of febrile patients for priority zoonoses and other potentially undiagnosed and emerging threats. PREDICT has partnered with the Ethiopian Public Health Institute (EPHI), a key node in the country's national health system, to conduct syndromic surveillance in health centers geographically aligned with zoonotic disease surveillance sites in both Awash and Bati. Four human health professionals from EPHI, led by Mrs. Berhane Beyene and Mr. Mesfin Mengesha, were recruited and trained on project protocols and are prepared to begin working with patients collecting samples and administering behavioral risk interviews. Permission letters were obtained from the Health Bureaus of Amhara National Regional State and Afar National Regional State, and most recently from the Awash Health clinic itself, where key personnel were also identified to help launch activities. Trainings to begin sample collection are planned for the upcoming months, and will be supported by a member of the PREDICT/Tanzania team, an expert in establishing syndromic surveillance and putting One Health in action for zoonotic disease threats, who will support the design and roll-out of One Health and human surveillance core competency trainings.

Baboons explore a home and interact with a family at a residence located near to Awash National Park. PREDICT is working in Awash to explore zoonotic disease transmission risks between wildlife (such as these baboons) and people and to identify potential risk mitigation options to prevent zoonotic disease transmission and spread. Photo: PREDICT/Ethiopia

Section 3: Challenges and potential solutions (if applicable)
Widespread security concerns and political turmoil created challenging and unsafe environments for travel. Earlier in 2018, political instability resulted in the declaration of a country-wide state of emergency. Our team continued to access regional towns by airplane to get permission letters for human syndromic surveillance. Currently, the security and political situation is improving with the progress in elections, and One Health surveillance targeting both human and wildlife is anticipated to resume shortly.

Section 4: Outbreak response (if applicable)
NA

Guinea

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1 USAID's GHSA Technical Focus Areas	2 GHSA Indicator	3 Specific progress made toward capacity level	4 Comments
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	This period, PREDICT together with local partners from the Ministry of Livestock and Animal Resources; the Ministry of Environment, Water, and Forestry, and the Ministry of Health, continued surveillance of high-risk wildlife species for Ebolaviruses as part of the Ebola Host Project in the Forest Region (N'Zérékoré, Kissidougou, Guéckédou, and Macenta). Over 1,400 animals were safely sampled between January and March 31, 2018, and samples were transported	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens, specifically Ebola, in vulnerable and high-risk areas. Shared animal surveillance data and findings help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and

		to the Viral Hemorrhagic Fever Laboratory (VHF) for storage and preparation for testing. PREDICT's field activities also included refresher trainings and community sensitization and outreach on zoonotic disease transmission risk. While in the Forest Region our team conducted community sensitization meetings and engaged in regular communications with district and community leaders down to the household level.	fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. To date, the PREDICT/Guinea team has sampled over 2,100 wildlife as part of the Ebola Host Project.
	P.4.2: Veterinary or Animal Health Workforce	PREDICT/Guinea engaged with partners from the Ministry of Livestock and Ministry of Environment, several of whom were continuously provided in-service training opportunities to hone technical skills in the field, including safe sampling techniques, PPE, and biosafety and biosecurity. PREDICT also worked in close coordination with National, Prefecture, and District-level veterinary and environment professionals (Prefecture/District Veterinary Officers, and Prefecture/District Environmental Officers), integrating staff from both sectors at the subnational level helping forge a One Health workforce for zoonotic disease surveillance in areas most at-risk for emerging health security threats.	PREDICT provides critical in-service training opportunities, identified as a challenge in the JEE, through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. These trainings directly strengthen the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	PREDICT's team Viral Hemorrhagic Fever Lab of Guinea (VHF Lab-Guinea) continued to work in close collaboration with local stakeholders through participation in the National One Health Platform and to improve response strategies for potential new emerging threats, an identified area for reinforcement in the country's JEE. In addition, as a member of the technical group of the Guinea National One Health Platform, PREDICT participated in the workshop "One Health approach to cost-effective rabies control in Guinea". The workshop was organized by FAO (ECTAD) with participants from the Ministry of Environment, Livestock, and Public Health, as well as representatives from USAID, UNICEF,	PREDICT/Guinea is based at the Viral Hemorrhagic Fever Lab of Guinea (VHF Lab-Guinea), and our animal health workforce team is supported by the Ministry of Environment, Ministry of Livestock, Ministry of Health, and Ministry of Higher Education and Research. Through the VHF-Guinea and Government partners, PREDICT provides opportunities to strengthen multisectoral communications, and fosters cross-training activities with all partners where feasible to encourage and promote the One Health approach.

		World Health Organization, Institute Pasteur, OIE, and CDC. Finally, PREDICT continued to provide expertise to strengthen zoonotic disease response capacity through participation in weekly meetings of the GHSA One Health Committee.	
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)	PREDICT conducted a refresher field training for project staff from the VHF Lab and staff from the Ministry of Livestock and Ministry of Environment focused on aspects of safe sampling, PPE, data entry, and biosecurity/biosafety. In addition, PREDICT held a 12-day laboratory training at VHF that included aspects of biosecurity and biosafety. This training included individuals from the Viral Hemorrhagic Fever Laboratory, the Central Veterinary Diagnostic Laboratory, and the National Institute of Public Health Laboratory.	
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		

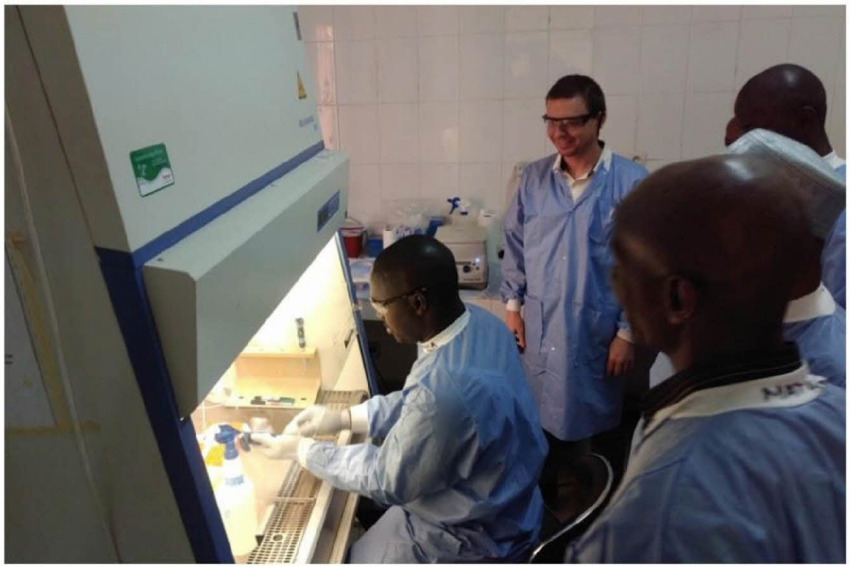
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	In February 2018, PREDICT/Guinea worked with partners at the Viral Hemorrhagic Fever Lab-Guinea and completed a 12-day training on zoonotic disease detection protocols to help strengthen the animal health sector's capacity to detect priority zoonotic diseases such as Ebola. The training covered the full range of activities required for safely detecting Ebola and other filoviruses, including biosafety and biosecurity, cold chain, safe sample storage, data management, safe sample transport and shipping, and molecular viral detection techniques. Twelve individuals from the Viral Hemorrhagic Fever Laboratory, the Central Veterinary Diagnostic Laboratory, and the National Institute of Public Health Laboratory attended the training. Also this period, PREDICT together with implementing partner Viral Hemorrhagic Fever Laboratory worked to optimize laboratory activities including sample management, cold chain, storage and shipping. PREDICT safely transferred 5000 specimens to the project reference laboratory in the US for analysis as capacity is continually strengthened at the VHF facility.	PREDICT strengthens national laboratory systems by enabling disease detection through a One Health laboratory network based at partner lab VHF Lab - Guinea. VHF Lab-Guinea is within the national system, and protocols and information will be shared openly with other animal and human health labs working to actively improve interlinkages. Through in-service training opportunities, PREDICT provides staff from the national system opportunities to enhance skills in biosafety, lab safety and methods for detecting emerging threats.
	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		

	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements	The PREDICT team, all based at local government or university institutions, continued trainings to advance national zoonotic disease workforce capabilities. All staff, government workers, and students, have been trained in core skills required for safe and effective zoonotic disease surveillance and disease detection. This period, the PREDICT team at the VHF Lab continued to train young health professional from veterinary, biology, and ecology backgrounds on PREDICT safe sampling procedures including biosafety and biosecurity topics, helping strengthen links between animal and human health sectors at the national and subnational level, a key area of emphasis in the country's JEE.	PREDICT/Guinea partners with the Ministry of Livestock, the Ministry of Environment, Ministry of Health, and the Ministry of Higher Education and Research at the National, Prefecture, and District level. PREDICT is embedded within the VHF-Lab Guinea, and the project provides ongoing opportunities for students, interns, and staff to engage in project activities. In addition, field activities engage and involve animal health professionals, providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain, safe sample transport, and viral detection at collaborating labs.
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		

Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		
	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

Preparing for the next pandemic: Strengthening capacity to detect today and tomorrow's disease threats. In February 2018, PREDICT/Guinea worked with partners at the Viral Hemorrhagic Fever Lab-Guinea and organized a 12-day training on zoonotic disease detection protocols to help strengthen the animal health sector's capacity to detect priority zoonotic diseases such as Ebola, a key area of emphasis for the country's JEE. The training, led by Dr. Alexandre Tremeau-Bravard from PREDICT's global laboratory implementation team at the University of California, Davis, covered the full range of activities required for safely detecting Ebola and other filoviruses, including biosafety and biosecurity, cold chain, safe sample storage, data management, safe sample transport and shipping, and molecular viral detection techniques. Twelve individuals from the Viral Hemorrhagic Fever Laboratory, the Central Veterinary Diagnostic Laboratory, and the National Institute of Public Health Laboratory attended the training. Along with the technical instruction, the training provided an opportunity to strengthen ties in the national laboratory system through multi-sectoral collaboration, another focus of the JEE. Following the training, the PREDICT/Guinea lab team, in collaboration with the personnel from the Viral Hemorrhagic Fever laboratory (VHF), performed 200 conventional PCR tests for filoviruses on samples collected from domestic animals, putting new skills and techniques in action and demonstrating newly acquired competency. With the training complete and the lab actively testing samples and confidently strengthening their skills, the VHF Lab-Guinea is essentially prepared for Ebolavirus testing and with continued PREDICT mentorship and support, is also ready to begin serving as a training center for students and professionals, including government staff from other nodes in the national lab system.



Members of the VHF lab in Guinea engage in a practical training session on conventional PCR for detection of zoonotic diseases and emerging threats in February 2018. Photo: PREDICT/Guinea

Section 3: Challenges and potential solutions (if applicable)
NA

Section 4: Outbreak response (if applicable)
NA

Kenya

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1 USAID's GHSA Technical Focus Areas	2 GHSA Indicator	3 Specific progress made toward capacity level	4 Comments
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	PREDICT continued integrating animal and human health professionals in field-based zoonotic disease surveillance activities targeting wildlife (bats, rodents, non-human primates) and humans (with behavioral risk assessment) in Mpala and Lekiji communities of Laikipia County. These communities are representative of a high-risk interface for disease spillover due to the high density of wildlife and particularly recent land use change due to prolonged drought periods. In collaboration with governmental staff and	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build capacity to test for both priority zoonoses and emerging and re-emerging pathogens, such as rabies, brucellosis, anthrax and Rift Valley Fever Virus (RVF) in vulnerable and high-risk areas. Shared animal and human surveillance data and findings help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and

		students trained on project's safe zoonotic disease surveillance protocols, a total of 1,777 samples from 300 individual wildlife animals and 1,346 samples from over 150 individual humans were collected. Testing is ongoing for priority zoonotic diseases such as viral hemorrhagic fevers and other emerging threats. During the testing process, staff also trained multiple students in zoonotic disease detection protocols at the PREDICT labs: the Institute of Primate Research (IPR) for animal samples and the Kenya Medical Research Institute (KEMRI) for human samples.	fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. To date, the PREDICT/Kenya team has conducted over 156 behavioral risk interviews, sampled over 700 wildlife, 500 camels, and 150 people, and completed zoonotic disease testing for 208 animals.
	P.4.2: Veterinary or Animal Health Workforce	This period, PREDICT trained students from local universities and continued to mentor graduate student projects leveraging project goals and protocols. At IPR, two students from the University of Nairobi are working with PREDICT focused on influenza testing. In addition, two new interns have joined our team (backgrounds in microbiology and biochemistry) to obtain field and lab experience related to zoonotic disease surveillance. All have received training on zoonotic disease surveillance and detection protocols, gaining skills in safe animal handling, biological sampling, biosafety, laboratory methodology, ethics for research with human subjects, informed consent, and administering the behavioral risk questionnaires. Upon graduation, these students and interns are expected to fill critical public health positions, now armed with knowledge of a One Health approach to disease surveillance and outbreak response. Also this period, in-service training on PREDICT protocols was provided to 33 veterinary and animal health officers, who were trained in zoonotic disease surveillance and detection protocols such as safe animal handling and sampling methods, PPE/biosafety	PREDICT provides critical in-service training opportunities identified as a challenge in the JEE through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We continue to offer trainings to animal health professionals (county veterinary officers, wildlife service, lab technicians in animal health labs, and local community members), directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.

		demonstrations, and laboratory methodology and biosecurity.	
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	To address training for rapid response of zoonotic diseases at the subnational level, a challenge identified in the JEE, PREDICT, jointly with OHW/OHCEA, FAO and P&R conducted a One Health training event at PREDICT's high-risk interface sampling site in Laikipia County, to observe first-hand the different drivers and human behavioral risk factors that contribute to the emergence and/or spread of pathogens. Training on zoonotic disease surveillance included a pandemic simulation to learn how to approach and rapidly respond to an outbreak investigation using safe sampling and biosafety protocols. A total of 37 pre- and in- service participants included University of Nairobi and Moi University postgraduate students and faculty mentors, veterinarians at both the national and county (Laikipia) level, Kenya Wildlife Service officers (para-veterinarians), Laikipia County Health officers and members of the local community. PREDICT contributed expertise in zoonotic disease surveillance at a FAO-organized training workshop focused on HPAI simulation, as well through lectures at the University of Nairobi (housing veterinary, medical and public health schools) presenting on the One Health approach to disease surveillance.	PREDICT works with government and local partners to strengthen national capacity for zoonotic disease surveillance using a broadly applicable, rapidly deployable, and easily adaptable system that emphasizes core skills needed for biological sampling for surveillance for a broad range of zoonotic disease threats. This system is easily transferrable to priority diseases in Kenya, as well as for other unknown and potentially emerging viral threats. Through our implementing partners, IPR and KEMRI, the One Health network in Kenya engages Ministry of Agriculture and Livestock as well as universities, such as University of Nairobi School of Veterinary Medicine and School of Public Health and other universities in the region. PREDICT/Kenya actively participates in the One Health Coordinating Unit under the umbrella of Zoonotic Disease Unit (ZDU) and contributed to the development of the One Health Strategic Plan. We also maintain active linkages with other partners working on One Health, such as International Livestock Research Institute (ILRI), Mpala Research Centre, and OHCEA at the University of Nairobi.
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		

	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	PREDICT, in partnership with FAO, jointly conducted disease surveillance training in biosafety, biosecurity, safe animal handling, biological sampling, and laboratory molecular diagnostics. A total of 36 participants were trained, representative of the governmental sectors of Kenya: public health (ZDU), DVS, KWS, regional laboratories, and universities. Between October 2017 and March 2018, PREDICT labs tested samples for priority zoonotic diseases and emerging threats. Results are undergoing a quality control check before interpretation and subsequent sharing with the Kenyan ministries. This testing capability, now present in both project labs (IPR and KEMRI) is a valuable resource for secondary confirmation, an area highlighted in the JEE as an opportunity for improving detection and IHR reporting for public health emergencies of international concern. In-service training on PREDICT protocols was provided to 11 Kenyan government officers from the Central Veterinary Laboratory (CVL) and Foot and Mouth Disease (FMD) Laboratory – the two laboratories that handle the majority of veterinary diagnostics throughout the country. In addition, two university staff (Kenyatta, Nairobi), 2 Kenya Wildlife Service (KWS) staff, two Nairobi County public health personnel, two Kenya Agricultural and Livestock Organization (KALRO) staff, and 18 staff members from Regional Veterinary Referral Laboratories across the country (from eight regions previously known as provinces) were trained in both field and laboratory surveillance	PREDICT continues working with local partners that are well-integrated with Kenya's national laboratory network and animal and public health sectors, and initiated viral testing at the Institute of Primate Research lab using techniques transferrable for detection of a broad range of disease threats, including priority zoonotic diseases.

		techniques for zoonotic disease detection.	
	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements	PREDICT continued to provide training in both field and laboratory protocols to 70 individuals. Trainings targeted staff at national universities and national government research organizations, and offered selected students and staff, research institutes and government organizations an opportunity to be trained in field and laboratory techniques related to zoonotic disease surveillance. In addition, field-and lab- based trainings were provided at the subnational level for county livestock and wildlife veterinarians, as well as governmental veterinary and medical laboratories helping strengthen training and capacity linkages between national and subnational levels, an area highlighted for strengthening in the JEE.	Through in-service trainings, PREDICT directly enhances skills of the existing health workforce, especially the animal health sector, with a niche focus on biosafety and safe capture and handling of small mammals, such as bats and rodents, which represent the highest risk for viral spillover and spread to people. Our partners at IPR and KEMRI are training institutions that actively promote and engage students and career professionals in continuing education; we provide these training opportunities across the full spectrum of surveillance, detection, and response and are exploring opportunities with partners to incorporate our training program and materials in short courses for national and subnational managers.

		The trainings covered biosafety and safe wildlife capture and sampling techniques, core skills required to prepare the animal and public health workforce for zoonotic disease surveillance. Also this period, PREDICT recruited two new students and two new interns all of whom received training in zoonotic disease surveillance protocols and who began to engage in activities.	
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		
	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		

Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

Strengthening zoonotic disease detection, prevention, and response at the subnational level. At PREDICT's initiation, a One Health training event at the Mpala Research Centre was conducted jointly with OHW/OHCEA, FAO and P&R. The training addressed rapid response of zoonotic diseases at the subnational level, a challenge identified in the JEE. A total of 37 participants representative of animal and public health sectors were in attendance, including University of Nairobi and Moi University postgraduate students and their faculty mentors, veterinarians at both the national and county (Laikipia) level, Kenya Wildlife Services, Laikipia County Health officers and members of the local community. Attendees observed first-hand the high-risk interface where PREDICT conducts zoonotic disease surveillance and learned about the different drivers and human behavioral risk factors that contribute to the emergence and/or spread of pathogens. Participants were trained in zoonotic disease surveillance protocols (biosafety, PPE safe capture, handling and sampling of wildlife, cold chain, and behavioral risk investigations), and were taken through a pandemic simulation to learn how to approach an unknown disease outbreak investigation in a rapid and coordinated manner. Community engagement and discussions were also part of the event, underscoring the need to build relationships with key stakeholders and community members and to inform and provide clear risk communication during an outbreak response. The trainers were successful in relaying that a multidisciplinary One Health approach is key for successful and rapid zoonotic disease surveillance, control, response, and risk mitigation.

PREDICT partnered with OHCEA to hold a One Health outreach event that included handing out bookmarks to the Laikipia community that informs on disease transmission from animals to humans. Photo: PREDICT/Kenya.

Strengthening national laboratory capacity for zoonotic disease detection. This period, PREDICT, in partnership with FAO, jointly conducted disease surveillance training in biosafety, biosecurity, safe animal handling, biological sampling, and laboratory molecular diagnostics. More than 30 participants were trained, representative of the governmental sectors of Kenya: public health (ZDU), DVS, KWS, regional laboratories, and universities. This training focused on equipping the regional veterinary laboratories that serve major parts of the country with the capacity to rapidly conduct disease surveillance, to detect and identify causative agents in case of an outbreak. In addition, PREDICT continued to build capacity at the national laboratories responsible for the testing of outbreak samples: CVL for a disease outbreak in animals and KEMRI for a disease outbreak in humans. Advanced training in viral detection was also provided to these labs, focusing on priority zoonotic diseases and other emerging threats. Further, in-service training on PREDICT detection protocols was provided to 11 Kenyan government officers from the Central Veterinary Laboratory (CVL) and Foot and Mouth Disease (FMD) Laboratory – the two laboratories that handle the majority of veterinary diagnostics throughout the country. In addition, two university staff (Kenyatta, Nairobi), two Kenya Wildlife Service (KWS) staff, two Nairobi County public health personnel, two Kenya Agricultural and Livestock Organization (KALRO) staff, and 18 staff members from Regional Veterinary Referral Laboratories across the country (from eight regions previously known as provinces) were trained in both field and laboratory surveillance techniques for zoonotic disease detection. As a result, these labs have improved capacity to rapidly detect known priority diseases, and have systems in place to identify new viruses as they emerge.

Government national lab staff from CVL and FMD labs (top) receive training in advanced molecular detection for zoonotic diseases at PREDICT's IPR lab. Government regional lab staff from RVL, CVL, universities, KWS and FMD labs receiving training in biosafety and PPE during a biosecurity training at PREDICT's IPR labs in February 2018 (bottom). Photos: PREDICT/Kenya.

Section 3: Challenges and potential solutions (if applicable)
PREDICT's targeted surveillance site, a high-risk interface located in Laikipia County, has experienced some insecurity due to friction between pastoralists and movement of livestock onto neighboring ranches. To avoid mistaken identity or intent, PREDICT staff from IPR have been careful to appropriately announce their presence and purpose in the region, as well as acknowledge and respect community structure/hierarchy. Understanding dynamics in the community has allowed PREDICT staff to engage community members and successfully implement the project.

Section 4: Outbreak response (if applicable)
NA

Liberia

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1 USAID's GHSA Technical Focus Areas	2 GHSA Indicator	3 Specific progress made toward capacity level	4 Comments
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	As part of efforts to identify priority zoonotic diseases of domestic animals and wildlife (an area highlighted as a priority action in the JEE), the PREDICT team in Liberia continued to target bats and rodents in its search for filoviruses under the Ebola Host Project. During this period the team combined disease surveillance in wildlife with additional scouting trips to identify sampling sites with	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens, such as Ebola in vulnerable and high-risk areas. Shared animal and human surveillance data and findings help catalyze formal information sharing between animal and human surveillance systems. In addition, our

		the goal of expanding the biodiversity of species sampled. Field trips were conducted across nine sites in Bong, Grand Cape Mount and Lofa counties. Over that period 738 bats and 99 rodents were sampled across the nine sites. In addition, the behavioral risk team received ethical permissions in February 2018 and began conducting surveys at two sites in Grand Cape Mount and Lofa counties working concurrently with the field team to better understand behaviors and practices associated with risk of zoonotic transmission. A total of 77 behavioral risk questionnaires have been conducted across the two sites classified as rural and within communities significantly affected by the Ebola outbreak of 2014-2015. These behavioral risk activities also serve to raise general awareness about zoonotic disease risks in these communities, another area highlighted as a priority action in the JEE.	surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. To date, the PREDICT/Liberia team has sampled more than 2,900 wildlife as part of the Ebola Host Project and completed testing for over 400 animals.
	P.4.2: Veterinary or Animal Health Workforce	PREDICT recently hired four additional research technicians who have been trained in the appropriate zoonotic disease surveillance protocols and are currently receiving hands-on training in the field specifically as it relates to PPE, biosafety, safe animal capture and sampling, and cold chain.	PREDICT has made significant progress in strengthening Liberia's animal health workforce towards JEE goals. See success stores for details.
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	PREDICT continued to build in-field veterinary capacity for disease surveillance, a challenge identified in the JEE, training four additional research technicians in addition to the core team working intensively on wildlife sampling and surveillance for potential reservoir hosts of Ebolaviruses, a priority zoonotic disease. In addition, PREDICT was invited by the National Public Health Institute of Liberia (NPHIL) to assist in developing a monkeypox surveillance plan in rodents as part of a larger national plan. The PREDICT team is frequently called on to provide technical	PREDICT works with established channels, (One Health Technical Working Group and others engaged in the operationalization of the One Health Strategic Plan) to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control, providing technical assistance and data and information (e.g., the means for more regular information exchanges between animal and human sectors).

		advice at the weekly National Emergency Preparedness and Response Committee meeting on all zoonotic disease events. PREDICT provided expertise and support to Preparedness and Response efforts to establish a One Health Platform which was accomplished in October 2017. Finally, as part of efforts to strengthen and institutionalize One Health in Liberia, PREDICT served on an expert panel at One Health Day at the University of Liberia, engaged NPHIL on implementing a One Health assessment tool provided by the World Bank (WB), worked closely with the One Health Coordinator at NPHIL to prioritize zoonoses and animal disease surveillance for the WB funded REDISSE project, and served as the lead on the rabies technical working group, which has organized several dog vaccination events in collaboration with NPHIL, MOA, FDA, FAO, and MOH.	
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	PREDICT conducted a training at NPHIL that included staff from both the national reference lab and the NPHIL's research department as well as personnel from MOA – five people in total. The two-week training strengthened skills and capacity in the lab for detection of priority diseases beyond Ebolavirus Disease, a challenge identified in the JEE, enabling the	In collaboration with GHSA partners, PREDICT/Liberia is working to build capacity at NPHIL by identifying equipment needs, assisting with necessary procurement, and training staff with experience from the Ebola outbreak on advanced disease detection techniques, which will include testing animal samples.

		detection of diseases from four additional viral families (flavi, corona, paramyxo, and influenza viruses). While the bulk of sample testing for the Ebola Host Project is still being performed at Columbia University to meet project timelines and deliverables, in-country lab staff are now focusing on testing rodent samples. Confirmed laboratory results will be presented to the Ministers of Health and Agriculture and the Managing Director of the Forestry Development Authority for approval and public release.	
	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements	Continuing to address Liberia's need for more highly trained veterinary and animal health professionals (a major challenge in the country's JEE), PREDICT trained six individuals (5 males and 1 female) in core	SCNL, the lead implementing partner for PREDICT, is the primary training ground for animal health professionals in-country. As the leading conservation organization in Liberia, SCNL has a very close working relationship with the FDA on several

		skills required for safe and effective zoonotic disease surveillance and disease detection this period. PREDICT also worked with the Forestry Development Authority to incorporate current PREDICT staff into FDA operations going forward. Field-based trainings covered biosafety and safe wildlife capture and sampling techniques, helping prepare the animal health workforce for wildlife disease investigations. Additionally, PREDICT trained 5 NPHIL lab personnel in laboratory safety and viral detection techniques. This training was conducted in conjunction with an FAO lab training run just prior to the PREDICT training.	important national level projects, including PREDICT. As a result, PREDICT provides opportunities for students, interns, FDA staff and early career professionals, students, and interns to engage in project activities. In addition, field activities engage and involve animal health professionals, providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain, safe sample transport, and viral detection at collaborating labs.
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		
	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		

	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

Building the animal health workforce for improved zoonotic disease surveillance. In the wake of the Ebola outbreak, Liberia identified a lack of well-trained and equipped animal health workforce as a key deficit in the country's health security. In the JEE report, key challenges towards strengthening the animal health workforce include more technical training for staff and establishing protocols for zoonotic disease surveillance. PREDICT has been instrumental in addressing this need, as our project in Liberia has successfully trained 20 Liberians in wildlife and domestic animal disease surveillance, as well as two social scientists that accompany the field surveillance team that are actively addressing human behavioral risk for zoonotic transmission due to wildlife interaction in some of the country's most at-risk communities. This animal disease surveillance team is the first of its kind in Liberia and is very proficient and professional, having sampled over 3,000 animals, primarily bats, over the past year and a half. Liberia now has a team that can contribute to disease outbreak detection and response, as well as detect new and known threats before they emerge, providing a critical but previously absent epidemiological component to Liberia's public health surveillance activities. Through these surveillance activities, the PREDICT team is working to identify the wildlife reservoir for Ebola virus and understand the transmission pathways of Ebola and other viruses. As part of their training, team members learned proper biosafety and PPE use, safe animal capture, handling and biological sampling, basic laboratory safety, assisting in outbreak response, emergency preparedness, maintaining proper cold chain and packaging and shipping biological samples. Furthermore, among those trained were two Forestry Development Authority (FDA) personnel to facilitate knowledge transfer and capacity building within the primary government partner institution. In addition, PREDICT continues to promote the One Health approach within the public health sector by continuing to strengthen collaborations with the Ministry of Agriculture, FAO, National Public Health Institute of Liberia (NPHIL) and the Ministry of Health. As a result, PREDICT is now viewed as an important contributor to health security in Liberia actively bolstering systems and strengthening expertise in One Health and zoonotic disease surveillance.

The field team processing samples in a tent at night (left). A PREDICT/Liberia team takes biometric measurements of a bat during wildlife sampling efforts as part of the Ebola Host Project (right). PREDICT is working to build animal health capacity in Liberia, a critical need for improving the country's health security. Photos: PREDICT/Liberia.

Section 3: Challenges and potential solutions (if applicable)

Presently, there is only one functional laboratory in the country that has the equipment, personnel, and infrastructure capable of attempting to test project samples. This facility is operated by the National Public Health Institute of Liberia, which itself is a new institution and as a result, the organizational structure and administration are currently under development. It has been a challenge to identify the appropriate staff to train and more importantly establish a formal relationship with institution to ensure proper implementation and administration of the laboratory aspect of PREDICT's zoonotic viral detection strategy. Over the remaining 1.5 years of the project, we aim to formally establish a relationship with NPHIL and build the necessary laboratory capacity to allow for sustained sample analysis in-country.

Section 4: Outbreak response (if applicable)
PREDICT and partner the Society for Conservation of Nature Liberia provided technical support and was consulted on a recent Lassa fever outbreak and monkeypox cases. In addition, PREDICT provided logistical support to NPHIL on a diarrheal disease outbreak in Margibi County. When first contacted, the outbreak was reportedly non-zoonotic. However, NPHIL was addressing a meningitis outbreak and lacked vehicles to respond to the diarrheal disease event. NPHIL and the USAID/Liberia Mission requested that PREDICT provide logistical support (a vehicle and driver) to transport supplies and personnel to the site and address the outbreak. The outbreak was later identified as shigellosis.

Mali

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1 USAID's GHSA Technical Focus Areas	2 GHSA Indicator	3 Specific progress made toward capacity level	4 Comments
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens		
	P.4.2: Veterinary or Animal Health Workforce		
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis		

Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)		
	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		

Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements		
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		
	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements
Section 3: Challenges and potential solutions (if applicable)
Section 4: Outbreak response (if applicable)

Senegal

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1 USAID's GHSA Technical Focus Areas	2 GHSA Indicator	3 Specific progress made toward capacity level	4 Comments
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	PREDICT/Senegal continued expanding surveillance for priority zoonotic diseases and other emerging threats and worked to strengthen multisectoral linkages between animal and human health sectors from field surveillance to laboratory detection, an area identified as a challenge in the JEE. PREDICT teams from EISVM, ISRA, and UCAD put One Health in action in Sindia, which has a high potential for zoonotic disease transmission from wildlife to domestic animals and people. PREDICT also engaged partners from the Ministry of Health, Agriculture and the Environment in surveillance activities providing field-based opportunities to increase technical skills and capacity. In addition, PREDICT worked to educate Sindia community members about zoonotic diseases and planned surveillance activities through	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses (such as zoonotic influenza and viral hemorrhagic fevers) and emerging and re-emerging pathogens, such as MERS-CoV in vulnerable and high-risk areas. PREDICT engages local Ministry partners to build capacity in One Health surveillance strategies. Shared animal and human surveillance data and findings help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. To date, PREDICT/Senegal has conducted 284 behavioral risk interviews and sampled 226 wildlife

		numerous community engagement visits.	and 283 people. All samples are safely stored at partner laboratories prior to testing (which has begun).
	P.4.2: Veterinary or Animal Health Workforce	PREDICT/Senegal partner, the Ecole Inter-États des Sciences et Médecine Vétérinaires (EISMV) continued to collaborate with the Direction des Parks Nationaux (DPN) to build capacity of DPN staff on One Health surveillance skills. DPN staff were engaged in field trainings that include biosafety and biosecurity, PPE and safe wildlife sampling techniques increasing capacity of the national animal health workforce. In addition, PREDICT/Senegal engaged EISMV students through participation in the One Health Club as well as including masters-level students in field surveillance activities. These activities serve to not only train veterinary students in PREDICT protocols related to One Health, but also raise awareness of One Health concepts and the importance of surveillance at the human-animal interface, both areas targeted for strengthening in the JEE.	PREDICT provides critical in-service training opportunities identified as a challenge in the JEE through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We offer trainings to animal health professionals (district-level veterinary officers, lab technicians in animal health labs, and local community members), directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control. In addition, PREDICT/Senegal has begun working with the veterinary school's targeting wildlife masters students for training in safe sampling techniques and other One Health surveillance skills.
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	PREDICT actively worked to support the National One Health Platform in Senegal and contribute to the development of the One Health Strategic Plan, areas identified as a challenge in the JEE. PREDICT team members participated in ongoing meetings with One Health Taskforce Partners: (the Prime Minister's Office, the Health Emergency Operations Center (COUS), FAO, and WHO), as well as the Ministry of Health, Agriculture and the Environment. These meetings provided opportunities to present ongoing activities in Senegal, encouraged coordination between various One Health groups (human and animal), and offered our team the opportunity to provide guidance on increasing the capacity for	Through our implementing partners EISMV, ISRA, and UCAD, our One Health network in Senegal engages all ministries and government partners, such as the Ministry of Agriculture, Ministry of Livestock, Ministry of Environment, Ministry of Health, and the Department of National Parks. Our team actively participates in the National GHSA Task Force, the National One Health Platform, as well as the COUS, and serves as a resource for the development and operationalization of Senegal's One Health Strategic Plan. We also maintain active linkages to One Health Workforce.

		surveillance and response for priority zoonoses and emerging threats.	
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)	PREDICT worked with regional partners in neighboring Sierra Leone to organize a field refresher training in with the PREDICT/Sierra Leone team (September-October 2017). This refresher training, which included members of the PREDICT teams in Sierra Leone, Senegal, and Guinea, focused on aspects of safe sampling, PPE, data entry, and biosecurity/biosafety and helped strengthen animal health networks in the West Africa region.	
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	PREDICT/Senegal engaged with partner labs at UCAD and ISRA to strengthen capacity for detection and discovery of zoonotic viruses with epidemic and pandemic potential. Both labs performed testing for zoonoses across four viral families (filovirus, influenza, paramyxovirus and coronavirus), which constitute a threat for Senegal and other West African countries. The advanced detection capability in the ISRA lab (part of the national lab system) and at UCAD (a major training center) are addressing concerns highlighted in the JEE. Testing of human and animal samples is ongoing and findings will help strengthening biosecurity and national surveillance and laboratory systems, while improving the stability of these systems through One Health workforce development.	PREDICT partner labs at ISRA and UCAD have been trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain, safe sample storage, data management, safe sample transport and shipping, and molecular viral detection techniques. Both labs have capacity to safely detect priority zoonotic diseases (Rift Valley Fever, zoonotic influenza viruses, and viral hemorrhagic fevers such as Ebola) and other emerging viral threats. Both labs plan to also serve as key training centers for students and professionals, including government staff from the national lab system.
	P.1.2: Specimen referral and transport system (focused on		

	animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements	PREDICT/Senegal team, all based at local government or university institutions, continued to conduct trainings to advance national zoonotic disease workforce capabilities. All project staff as well as local partners in the Ministry of Health, Agriculture and Environment and students, were trained in core skills required for safe and effective zoonotic disease surveillance and disease detection. Trained individuals have also undergone refresher trainings for those courses requiring annual certification. The animal sampling team recruited a new veterinarian graduate from EISMV, who received both theoretical and practical trainings on One Health surveillance approach and zoonotic disease surveillance and sampling protocols.	The lead implementing partner for PREDICT wildlife sampling in Senegal is EISMV, the primary training ground for animal health professionals in-country. PREDICT is embedded within EISMV, ISRA, and UCAD, and the project provides ongoing opportunities for students, interns, and staff to engage in project activities. In addition, field activities engage and involve animal and human health professionals, providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain, safe sample transport, and viral detection at collaborating labs.

Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		
	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

Building One Health Platforms at the subnational level in Senegal. In the Sindia region of Senegal, villages surrounding the nearby Bandia Reserve offer numerous opportunities for interaction between wildlife and people and their domestic animals either through occupational exposure, tourism or through daily household activities. Because of the high potential for viral spillover at the animal-human interface, PREDICT is focusing on the Sindia region for zoonotic disease surveillance,

as the region provides a unique setting for bringing together the animal and human health sectors to put the One Health approach in action, a GHSA priority and area targeted for strengthening in the country's JEE.

PREDICT is actively investing in the One Health approach in Senegal by engaging with animal and medical health sectors at multiple levels from ministries to Sindia communities. Through a subnational-focused One Health platform, PREDICT has been working to strengthen the health workforce and improve capabilities for zoonotic disease surveillance, detection, and prevention. Our project has engaged Government of Senegal staff across ministries as well as university partners to work on a single team and investigate the behaviors, practices, and ecological and biological factors driving zoonotic disease emergence. Through trainings and field-based activities, PREDICT is also providing opportunities for multi-sectoral collaboration and contributing to capacity gains in biosafety and biosecurity, national laboratory systems, and reporting efficacy in line with the GHSA objectives.

One health approach is a reality in Senegal. Through USAID-PREDICT doctors, veterinarians and environmentalists are joining forces to monitor, detect and respond to endemic threats on the interface of human-animal-wildlife."

- *Dr. Mame Cheikh Seck, University Cheik Ante Diop*

"In Senegal, PREDICT is the program most involved in One Heath. Until now we are the most active team regarding the surveillance of priorities zoonosis."
-Dr. Mustafa Loh, Institut Senegal Recherches Agriculture

This period, PREDICT/Senegal's One Health team completed their second community-based concurrent human and animal surveillance event in Sindia, as wildlife professionals sampled bats, rodents, and non-human primates around the area and medical professionals collected samples from community members and conducted behavioral risk interviews. Complementing these efforts, our team continued to support the Sindia Health Post, where nurses and clinicians sample febrile patients and collect samples to learn more about the diseases circulating in the Sindia population. This work is also adding value by encouraging multi-sectoral communication, not just between ministry partners in Dakar, but among the wildlife, veterinary, and medical professionals practicing on the front lines of disease emergence and with the communities that they serve. Through this work, PREDICT is strengthening the Senegal's One Health network, extending the reach of national health systems and working together with local communities to reduce risk and identify strategies for improved health and livelihoods.

PREDICT/Senegal's One Health team leads a community meeting to discuss zoonotic diseases and the team's One Health approach (top). Two members of the animal sampling team take morphometric measurements from a bat sampled as part of zoonotic disease surveillance activities in Sindia (bottom left). A member of the team processes samples collected from community members in Sindia (bottom right). Photos: PREDICT/Senegal.

Section 3: Challenges and potential solutions (if applicable)
NA

Section 4: Outbreak response (if applicable)
NA

Sierra Leone

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1 USAID's GHSA Technical Focus Areas	2 GHSA Indicator	3 Specific progress made toward capacity level	4 Comments
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	In direct response to a major challenge identified in the JEE, PREDICT participated as advisors in the workshop held to prioritize zoonotic diseases. The workshop was held in Freetown by USAID Preparedness and Response Project from November 15-17, 2017. As a result, six Zoonotic Diseases were prioritized for multi-sector collaboration in the country; Viral Hemorrhagic Fevers (Ebola/Lassa), Rabies, Zoonotic Influenza (Avian, Swine), Salmonella, Anthrax and Plague. PREDICT contributed to USG efforts to improve upon gaps in surveillance systems in Sierra Leone as identified in the 2016 Joint External Evaluation (JEE). Most critically, "Surveillance systems in place for priority zoonotic diseases/pathogens" was judged to be	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens, such as Ebola, in vulnerable and high-risk areas. Shared animal surveillance data and findings help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. In Sierra Leone, we have been intensifying our community engagement and working to identify methods to formally measure local awareness of zoonotic disease threats, especially as it relates to Ebola Virus Disease and filovirus emergence and spillover.

		a "1", recognizing the deep challenges in SL to build and enhance surveillance activities. PREDICT trainings, staff operations, and inclusion of district level veterinary and wildlife officers in our programmatic activities provide needed core-skills training and more advanced animal capture and biological sampling techniques for our government partners to overtime improve upon this JEE score indicator. Building on capacity gained through these trainings, PREDICT's One Health team based at the University of Makeni worked with GoSL district veterinary and wildlife officers to strengthen surveillance for filoviruses (including the viral hemorrhagic fevers Ebola and Marburg – newly prioritized national zoonotic diseases) and other high-consequence novel virus infections at high-risk areas for zoonotic disease transmission. During the reporting period, the team successfully and safely sampled over 1,900 bats and rodents in 4 districts (Bombali, Koinadugu, Kambia, Kono). PREDICT also conducted a scoping visit in the Pujehun district with ministry partners (MAFFS, MOHS) for an initial assessment of potentially expansion PREDICT activities to the southern area of Sierra Leone from September 12th–14th, 2017. The aim of these meetings was to introduce the PREDICT program to the district authorities and stakeholders and discuss potential plans to extend implementation of animal sampling and related activities in the district. From the National level, the Deputy Chief Medical Officer II (MOHS) and the Director of Livestock (MAFFS) accompanied the PREDICT team to the district. During this visit, locations were identified for further surveillance activities in the coming year.	To date, PREDICT/Sierra Leone has sampled over 3,500 wildlife and completed testing for 290 animals as part of the Ebola Host Project.

	P.4.2: Veterinary or Animal Health Workforce	Working towards the JEE goal of developing a skilled and trained animal health workforce, PREDICT successfully conducted a 10-day continuing education and refresher training on biosafety and biosecurity (personal protection during field and laboratory work), field data collection and quality control, and animal sampling (bats and rodents) for 14 PREDICT Sierra Leone staff, eight PREDICT Guinea staff and three PREDICT Senegal staff at the University of Makeni Sierra Leone.	Critically, the area of "Veterinary or Animal Health Workforce" was judged to be a "1", recognizing the deep challenges in SL to build and enhance surveillance activities in the 2016 Joint External Evaluation (JEE). PREDICT contributes to USG efforts to improve upon gaps in the One Health workforce in Sierra Leone through trainings, staff operations, and inclusion of district level veterinary and wildlife officers in our programmatic activities provide needed core-skills training and more advanced skills. PREDICT teams directly employ 16 individuals capable of safe, robust, and technically proficient animal capture, handling and sampling. Accompanying this team on every sampling trip are typically two cross-trained district level Ministry of Agriculture, Forestry, and Food Safety (MAFFS) officers. The overall impact of PREDICT on this JEE indicator will lead to marked improvements in potential national level capacity overtime via an enhanced technical workforce.
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	PREDICT regularly attends meetings of the Ministry of Health Emergency Operations Center (EOC) weekly Epidemic Preparedness and Rapid Response Group (EPRRG). During this period PREDICT presented details on what program activities in the country in terms of program objectives, work accomplished, and PREDICT's capacities and potential scope to help support health event investigations when requested. PREDICT/Sierra Leone stands ready to assist the GoSL, if requested and with USAID-Washington concurrence, in potential outbreak responses to unknown or other potentially pandemic zoonotic disease threats in the areas of supplies/logistics to field ecological investigations of animals. PREDICT contributes to filling gaps in zoonotic disease response systems in Sierra Leone by trainings, staff operations, and inclusion of district level veterinary and wildlife officers in our programmatic	PREDICT has facilitated initial district level One-Health platform meetings in Bombali, Koinadugu, Kono, and Western Areas and is working to facilitate initial meetings of district One-Health platforms to promote mechanisms for responding to zoonotic health threats (in coordination with other EPT partners) in Kambia and Pujehun districts. PREDICT/Sierra Leone team members also continue to provide technical assistance to the recently created National One Health platform as needed and requested by the government partners.

		activities, providing needed core skills training and more advanced animal capture and biological sampling techniques for our government partners. This effort is critical to improving upon this JEE score indicator over time, which was identified in the 2016 Joint External Evaluation (JEE) to be at a "1" level, recognizing the deep challenges in SL for emergency responses to animal and other zoonotic disease threats and outbreak events.	
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	PREDICT and our lead in-country partner, the University of Makeni (UNIMAK), successfully completed a two-week capacity building training for 12 laboratory technicians at the UNIMAK Infectious Disease Research Laboratory in October of 2017. This training included four PREDICT staff, two individuals from the Ministry of Health and Sanitation (MOHS) and two from the Ministry of Food, Forestry, and Food Safety (MAFFS) laboratory staff for laboratory skills/testing utilizing the PREDICT program approach and testing protocols. Participants from government partners were nominated by their respective ministry to participate in this training, thus enhancing Sierra Leone's capacity in zoonotic disease detection. A key outcome from this training was the establishment of in-country capability to test livestock specimens collected during	PREDICT lab trainings contribute to USG efforts to improve upon gaps in the animal and human health laboratory diagnostic capacity in Sierra Leone as identified in the Joint External Evaluation (JEE). Most critically, during the 2016 JEE, animal health laboratory capacity was judged to be a "1", recognizing the challenges in SL for rapid and robust animal disease detection. PREDICT trainings and staff capacity building provide needed core-skills training and more advanced molecular diagnostic experience for our government partners to overtime improve upon these JEE score indicators.

		PREDICT project activities in Sierra Leone.	
	P.1.2: Specimen referral and transport system (focused on animal health)	During a two-week capacity building training for 12 laboratory technicians at the UNIMAK Infectious Disease Research Laboratory in October of 2017, all 12 participants were trained on the proper transport and cold-chain requirements for biological diagnostic specimens from the site of field-collection to the laboratory following international best-practices appropriate for Sierra Leone.	
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements	This reporting period, PREDICT enhanced the skills and knowledge of 27 individuals involved in One Health workforce activities (field ecology and laboratory diagnostics). All individuals targeted for training are part of Sierra Leone's developing animal health workforce, and PREDICT investments in their technical capacity to conduct zoonotic disease surveillance and detection, especially with wildlife, are a major contribution towards	During the 2016 Joint External Evaluation, the overall SL workforce for IHR core responsibilities is gauged to be a "2". PREDICT trainings, staff operations, and inclusion of district level veterinary and wildlife staff into our programmatic activities provide needed core-skills training and work experience to enhance our government partners base to over time improve upon this JEE score indicator.

		improving the national workforce for implementation of the One Health approach.	
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		
	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

Training One Health Professionals to Confront Pandemic Threats in West Africa. 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; 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 2016 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 and community engagement 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, which animal populations are now involved as hosts, and how closely these populations are monitored by a professionally trained wildlife health workforce.

In efforts to foster even greater international collaboration and success towards GHSA milestones and aims, the PREDICT/Sierra Leone team successfully conducted a 10-day multi-national continuing education and refresher update training on biosafety and biosecurity (personal protection during field and laboratory work), field data collection and quality control, and animal sampling (bats and rodents) for 14 PREDICT/Sierra Leone staff from the University of Makeni, eight PREDICT/Guinea staff from the Viral Hemorrhagic Fever laboratory, and three PREDICT/Senegal staff from the Interregional School of Veterinary Medicine (EISMV).

This training, held at the University of Makeni Sierra Leone (October 1st–10th , 2017), brought together a diverse group of participants with backgrounds in ecology, animal health, laboratory skills, veterinarians, epidemiologists, and experts in high-hazard virus and animal sampling technique for a rigorous, exciting, and scenario based training to enhance three countries capacity to safely capture, sample, and transport under proper cold-chain conditions biological specimens from remote locations in the field to diagnostic laboratory centers. Especially relevant to West Africa, meticulous detail and training was devoted to personal protective equipment (PPE) usage and proper donning/doffing procedures to ensure worker safety and reduce the risk of occupational exposures to zoonotic pathogens.

> *"PREDICT has turned my dreams to reality. Since my early school days, I have been yearning to contribute to solving our country's and the world's problems through medical research. PREDICT has strengthened my capacity on wildlife sampling (bat, rodent and non-human primate) and it is a very big boost to our country's One-Health capacity."*
>
> *- Dickson Kargbo, University of Makeni (PREDICT wildlife team)*

Preparing for emerging disease threats, like Ebola, requires investments in infrastructure, institutions, and most importantly human resources across a broad array of health and social systems to operationalize One Health approaches and platforms. In collaboration with country governments, GHSA and EPT partners, PREDICT works to develop the core skills and capabilities required by tomorrow's One Health workforce. As evidenced by this workshop, local teams and partnerships have been established and trained in biosafety, field surveillance, basic laboratory safety, the social sciences, and behavioral risk investigations. In Sierra Leone, PREDICT training and field experience has empowered staff at the University of Makeni and established a professional cadre of zoonotic disease surveillance professionals ready to confront pandemic threats.

Multinational trainees pause for a moment of good cheer before beginning a long day of animal sampling near Makeni, Sierra Leone (top). Photo: Dr. Aiah Gbakima. Sierra Leone Biosafety Trainees gather for a proud group photo after successfully completing a training course (bottom) . Photo: Brian Bird, UC Davis.

Section 3: Challenges and potential solutions (if applicable)
From January to March 2018, PREDICT activities in Sierra Leone were impeded by general country-wide national and district level elections. This is the first national level election for President and all seats in Parliament since 2012. Due to safety concerns, team activities were curtailed from mid-February to April, resulting in reduced field activities (animal sampling and associated capacity strengthening activities). It is expected that activities will return to normal during mid-to-late April 2018.

Section 4: Outbreak response (if applicable)
NA

Tanzania

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1 USAID's GHSA Technical Focus Areas	2 GHSA Indicator	3 Specific progress made toward capacity level	4 Comments
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	Working towards improved linkage of animal and human health sectors in zoonotic disease surveillance, a challenge identified in the JEE, PREDICT's One Health team worked with district veterinary and medical officers to extend Tanzania's surveillance system to high-risk areas for zoonotic disease transmission. This period, PREDICT conducted syndromic surveillance of febrile patients at two health centres in the Lake Zone (Ujiji Health Centre in Kigoma Municipal and the Murongo Health	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging diseases, such as viral hemorrhagic fevers (a challenge identified in the JEE) in vulnerable and high-risk areas. Shared animal and human surveillance data and findings help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk

		Centre near the border with Uganda) while continuing to sample wildlife in surrounding villages and forests. Samples were collected from over 80 patients and hundreds of animals and safely transported to the PREDICT labs where they will undergo testing for priority zoonotic diseases such as viral hemorrhagic fevers and other emerging threats. In addition, PREDICT's behavioral risk team conducted interviews and focus group discussions and liaised with village executive officers and other community members at One Health surveillance sites. Data from these interviews is undergoing analysis to identify zoonotic disease transmission risks and potential intervention strategies Additionally, PREDICT improved One Health information across sectors, another JEE challenge, sharing delivering project reports, updates, and information to Tanzania's One Health Coordination Desk in the Office of the Prime Minister and participating in briefings and meetings at the invitation of the OHCD.	areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. To date, the PREDICT/Tanzania team has conducted over 650 behavioral risk interviews, sampled over 1,700 wildlife and 350 people, and completed zoonotic disease testing for over 400 animals and 48 humans.
	P.4.2: Veterinary or Animal Health Workforce	Working to strengthen subnational animal health sector capacity in the Lake Zone, PREDICT provided in-service training to district veterinary officers, National Parks veterinarians, and livestock extension officers this period in biosafety and PPE use, safe animal handling and sampling, cold chain, and safe sample transport. Through PREDICT's longitudinal sampling design, these individuals gain multiple opportunities to put technical skills in practice using the One Health approach (another JEE target) establishing competency in the technical field investigation skills required for animal surveillance in emergency and non-outbreak scenarios. In addition, PREDICT's lab at the Sokoine University of Agriculture welcomed five	PREDICT provides critical in-service training opportunities, identified as a challenge in the JEE, through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We offer trainings to animal health professionals (District Veterinary Officers, Veterinary Investigation Centres, Livestock Extension Officers, lab technicians in animal health labs, and local community members), directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.

		student interns for pre-service training in the detection of priority zoonotic diseases and emerging viral threats. The interns received training in the One Health approach, biosafety and PPE, laboratory safety, cold chain management, supply procurement, and methods for molecular detection of zoonotic viruses. All five interns gained core disease detection skills working alongside PREDICT technicians and upon graduation are expected to fill critical roles in Tanzania's animal health surveillance system.	
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	PREDICT contributed expertise in One Health surveillance, viral detection, and multisectoral information sharing at multiple meetings and workshops held by ministry partners in the build-up to launch of Tanzania's National One Health Platform on February 13, 2018. At the launch event, PREDICT at the invitation of the One Health Coordinating Unit, provided briefings and presentations on the One Health approach to surveillance for priority zoonoses and emerging threats and addressed critical issues towards the advancement and success of the NOHP.	Through our implementing partners, SUA and the Ifakara Health Institute, PREDICT/Tanzania's One Health network engages all ministries and universities, such as Muhimbili University of Health and Allied Sciences and Nelson Mandela. Our team actively supports the National One Health Platform and contributed to the development of the One Health Strategic Plan. We also maintain active linkages to the South African Centre for Infectious Disease Surveillance, Afrique One, and OHCEA.
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	PREDICT continued to extend the capabilities of Tanzania's zoonotic disease detection system as both human and animal health labs now have active capability to test for known priority viruses and potentially unknown and	PREDICT partner labs at Sokoine University of Agriculture and Ifakara Health Institute are trained and equipped in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain, safe sample

		emerging threats such as the recently listed "Disease X" in WHO's blueprint for research on priority diseases. This period PREDICT's labs performed tests across five viral families (corona, flavi, filo, influenza, and paramyxo viruses) bringing the total number of animals and humans tested to date to 467; test results are undergoing interpretation and will be shared with focal points from Tanzania's One Health Coordination Desk providing opportunities for multi-sectoral dialogue and collaboration (another challenge in the JEE under the Zoonotic Disease Action Package).	storage, data management, safe sample transport and shipping, and molecular viral detection techniques. As a result, both labs have capacity to safely detect priority zoonotic diseases (Ebola and Marburg, Rift Valley Fever, and zoonotic influenza viruses) and emerging viral threats. Both labs are actively testing animal and human samples and serve as key training centers for students and professionals, including government staff from the national lab system. In addition, both SUA and IHI labs are considered referral nodes that strengthen detection and surveillance capabilities across both sectors, and SUA provides referral services to the national lab system and contributes data for surveillance reporting.
	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		

Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements	This period, PREDICT trained 35 individuals (19 males and 16 females), including 13 government staff, seven NGO or research institute staff, and 15 university staff and students in core skills required for safe and effective zoonotic disease surveillance and disease detection. Field-based trainings for district vets and livestock extension officers covered biosafety and safe wildlife capture and sampling techniques, effective short courses in zoonotic disease surveillance helping prepare the animal health workforce for wildlife disease investigations. Additionally, PREDICT welcomed a new veterinary student from SUA to the team, who is receiving daily training in PREDICT's One Health surveillance approach and who has been trained and certified in all protocols for safe and effective wildlife sampling. Finally, our lab at SUA began pre-service training with a cohort of five interns, students from SUA's molecular biology program, in laboratory safety and zoonotic disease detection techniques.	The lead implementing partner for PREDICT in Tanzania is the Sokoine University of Agriculture's College of Veterinary Medicine, the primary training ground for animal health professionals in-country. PREDICT is embedded within SUA, and the project provides ongoing opportunities for students, interns, and staff to engage in project activities. In addition, field activities engage and involve animal health professionals, providing opportunities to strengthen skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain, safe sample transport, and viral detection at collaborating labs.
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		

	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

Developing Tanzania's current and future One Health workforce. The relationships PREDICT and the GHSA are fostering between animal and human health sectors are helping build the foundation for a unified future workforce in Tanzania and are providing critical opportunities for institutionalization of emerging One Health networks. PREDICT is actively working together with government health professionals at the subnational level to train and strengthen the capacity of Tanzania's health professionals in areas at-risk for zoonotic disease emergence and spread. This period, PREDICT worked closely with a District Veterinary Officer, Livestock Field Officers, clinicians and nurses at sites in the Lake Zone where PREDICT conducting zoonotic disease surveillance. Our aim is to build a One Health team at the district level where different departments and sectors learn and work together, share data and information, and actively participate in field-based surveillance activities to better conduct surveillance for zoonotic disease threats and prepare for potential outbreaks. In depth trainings this period involved a Livestock Field Officer from Ujiji municipal and covered biosafety and PPE use, safe animal capture and sampling, emergency preparedness, and safe sample storage and shipment. PREDICT also trained two nurses and 13 government health care staff in Kigoma municipal and Kyerwa Districts at the Ujiji and Murongo Health Centres. These clinic-based trainings included the clinicians, lab technicians, and nurses and covered research ethics, biosafety and human syndromic surveillance, safe sample collection procedures, processing and storage. As a result, trained government and PREDICT staff are working together now in the field and at both clinics where febrile patients are being actively enrolled, administered behavioral risk interviews, and samples collected for zoonotic disease testing.

In addition, PREDICT continued to work with students and future health professionals through our implementing partner the Sokoine University of Agriculture (SUA). This period, our project lab based at SUA welcomed a new cadre of five interns from the molecular biology program, all of whom received training in biosafety, laboratory safety, safe sample storage and transport, environmental risk mitigation and safe biohazardous waste removal, and advanced detection of priority zoonoses and other emerging viral threats. The interns are now actively engaged in PREDICT sample testing at the SUA lab, assisting with RNA extraction, synthesis of cDNA, zoonotic disease testing, and data management, and are actively joining mentoring session with PREDICT's global lab team in the US. Additionally, PREDICT trained and began mentoring two students and one recent graduate from the Sokoine University of Agriculture's School of Veterinary Medicine. All three were trained in field and lab techniques for zoonotic diseases surveillance and are now actively engaged as interns in field activities. These trainings along with ongoing mentorship are

critical in-service opportunities that encourage rapid development of the core skills required for One Health surveillance and bolster the technical capabilities of Tanzania's animal health workforce.

PREDICT/Tanzania's wildlife team trains a Livestock Field Officer from Ujiji Municipal, Mr. Ibrahim Mgeta, on Biosafety and PPE use (left) as he prepares to join the team in wildlife capture and sampling activities. Members of the PREDICT wildlife team work with the acting District Veterinary Officer for Ujiji District to prepare mist nets for capturing and sampling bats later that evening (middle). Clinicians and nurses from Murongo Health Centre in Kyerwa District near the Uganda border measure liquid nitrogen in a dewar during a cold chain training provided in preparation for launch of human surveillance at the clinic (right). Photos: PREDICT/Tanzania.

Section 3: Challenges and potential solutions (if applicable)

In the Lake Zone where PREDICT's zoonotic disease surveillance activities are based, the team has confronted challenges due to the accessibility of surveillance sites during the rainy season and due to security concerns in remote areas in Kigoma region. Kigoma has been affected by a constant influx of refugees (some of them armed) from DR Congo and Burundi, and is an area affected by smuggling. To achieve objectives, our team is engaging with security officers and local leaders to ensure safety of personnel during community meetings and sampling events.

PREDICT is collaborating with the Tanzania National Parks (TANAPA) at Gombe National Park on Lake Tanganyika to sample non-human primates and learn more about the role of non-human primates in viral spillover and transmission to people, including tourists and local community members in villages surrounding the park. Logistics to work with non-human primate populations in Gombe are challenging as access to target sampling locations requires travel by boat. As PREDICT's sampling strategy is designed to be concurrent (e.g., sampling of humans and wildlife in the same place and time), recent trips to Gombe to sample non-human primates have been disrupted by weather and strong winds that make water transport to the park impossible. In March, the PREDICT team was forced to abandon a scheduled sampling trip as weather caused the water taxi to make an emergency stop and continuing storms led to cancellations of all scheduled transport. PREDICT is now working closely with TANAPA to reschedule and closely integrate future sampling trips with part veterinarians, including in-service training opportunities in biosafety and PPE and PREDICT's techniques for wildlife capture and sampling, which will also help to bolster the capacity of park staff to conduct safe field investigations in the event of animal die-offs.

The PREDICT/Tanzania team from Sokoine University of Agriculture enjoys a lull in one of the storms on Lake Tanganyika while en route to a surveillance site near Gombe National Park. Weather and road conditions have made accessing surveillance sites challenging requiring the team to flexibly adapt sampling plans and creatively forge partnerships to reach surveillance targets. Photo: PREDICT/Tanzania.

Section 4: Outbreak response (if applicable)
NA

Uganda

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1	2	3	4
USAID's GHSA Technical Focus	**GHSA Indicator**	**Specific progress made toward capacity level**	**Comments**

Areas			
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	PREDICT continued to build capacity for and conduct One Health surveillance to elucidate ecological and behavioral contributors to wildlife zoonotic pathogen spillover in a high-risk region of southwestern Uganda, the Bwindi-Mgahinga Conservation Area, a region where emerging infectious diseases such as Ebola and Marburg viruses have infected people. Communities in the Bwindi area experience frequent direct and indirect contact with wildlife in the forest, on their farms, and in their homes. During this reporting period, PREDICT administered questionnaires and collected samples from 92 acutely febrile patients presenting to Bwindi Community Hospital in Buhoma, which serves as the Bwindi area's busiest health facility serving Bwindi communities. Concurrently, PREDICT obtained samples from 90 rodents trapped in and around human dwellings and farms. To date, PREDICT has sampled more than 360 patients and approximately 1,000 wildlife (600 bats, 250 rodents, and more than 130 primates) in the Bwindi area. All human and wildlife samples were transported to PREDICT's partner laboratory, UVRI in Entebbe, where they are undergoing testing for priority zoonotic diseases and emerging threats.	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging pathogens, such as Ebola and MERS-CoV in wildlife in vulnerable and high-risk areas. Shared animal and human surveillance data and findings help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. To date, the PREDICT/Uganda team has conducted over 360 behavioral risk interviews, sampled over 1,000 wildlife and 360 people, and completed zoonotic disease testing for 68 animals and 130 humans, though testing is accelerating at an advanced pace now through new laboratory partner Uganda Virus Research Institute (UVRI).

	P.4.2: Veterinary or Animal Health Workforce	This period, PREDICT trained four veterinary students attending Makerere University's College of Veterinary Medicine, Animal Resources and Biosecurity (COVAB) in the classroom on project modules and protocols for zoonotic disease, biosecurity, and animal handling and sampling. These students then obtained *in situ* experience in the One Health approach and with wildlife field surveillance activities, where they gained hands-on skills in safely and humanely capturing and sampling bats and rodents in and around people's farms and dwellings.	PREDICT provides critical in-service training opportunities through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We offer trainings to animal health professionals (government veterinarians, extension officers, lab technicians in animal health labs, and local community members), directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease.
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	PREDICT was requested to attend the 4th High-Level GHSA Ministerial meeting in Kampala on October 25-27, joining Uganda EPT partners in updating USAID GHSA leadership. PREDICT contributed expertise in wildlife zoonotic disease surveillance, prevention and response in a governmental workshop to draft Uganda's National Surveillance Plans for Brucellosis and Anthrax, held in Mukono, Kampala November 27 - December 1, organized by EPT2/FAO and attended by Uganda Ministry of Agriculture staff and Uganda EPT2/GHSA partners. As well, PREDICT participated in several workshops that advanced Uganda's preparedness for outbreak response and surveillance: the Uganda One Health stakeholders titled *Mapping and After Action Review of Avian Influenza Outbreak*, on December 12-14 in Kampala; a workshop for developing the Uganda National Surveillance Plan for Rabies and Highly Pathogenic Avian Influenza in Jinja January 29 - February 2, facilitated by FAO; a workshop to draft the Communication Strategy for the National One Health Platform and the launch of the National One Health Strategic Plan on February 14-15 in Kampala; and a workshop on Strengthening	Systematizing the exchange of zoonotic data between the human and animal health sectors was identified as a weakness in the JEE. PREDICT has established data sharing agreements with all implementing partners, and procedures for sharing data (including project information and findings) with all ministry partners and other government and non-governmental organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors. In addition, PREDICT provides technical assistance and works with established channels (National Task Force on Epidemic Preparedness and Response and the National One Health Platform One Health Technical Working Group) to communicate findings and recommendations for improved zoonotic disease prevention, detection, and control; we provide regular information on wildlife health threats to animal and human sectors.

		the National Epidemiosurveillance Networks and Outbreak Response to Priority Zoonotic Diseases, held February 26 - March 2 in Masaka, facilitated by FAO.	
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	In partnership with the Uganda Virus Research Institute, a national referral laboratory, testing was performed on 1,500 human and wildlife samples collected by PREDICT for priority zoonotic diseases such as influenza and the viral hemorrhagic fevers Ebola, Marburg, and RVF, along with other emerging threats from viral families considered high-risk for zoonotic disease transmission, including coronaviruses like MERS and SARS, as well as paramyxoviruses such as Nipah and Hendra virus. Viral testing for filoviruses, flaviviruses, bunyaviruses, rhabdoviruses, and arenaviruses was performed on 367 human samples, with further testing for additional viruses on these and all other submitted samples underway. Confirmed results will be shared with government partners prior to release and will provide opportunities for multi-sectoral information and data sharing.	PREDICT strengthens Uganda's national laboratory systems by enabling viral disease detection at our partner laboratory, Uganda Virus Research Institute (UVRI), one of the three primary national reference laboratories in Uganda. This lab maintains strong ties to the national system and plans to provide protocols and information and in-service training opportunities with animal and human health labs working to actively improve interlinkages and expand capabilities for detecting zoonotic disease threats.
	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		

Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements		
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		

	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

One Health surveillance in at-risk areas for zoonotic disease transmission and spread. PREDICT achieved its sampling targets for human surveillance, collecting samples and information from febrile patients presenting at Bwindi Community Hospital, while concurrently sampling rodents and primates in and outside Bwindi Impenetrable National Park (BINP) in southwestern Uganda. PREDICT is conducting concurrent surveillance in this area because it is known to encompass multiple high-risk human-wildlife contact scenarios. The park was recently annexed, with former forest-dwelling people who depended on bushmeat hunting for their livelihoods now subsisting in communities adjacent to the park and utilizing local health clinics. A road transects the park to connect towns on either side of the forest, allowing people to legally traverse the forest by foot, presenting the potential for direct and indirect contact between people and wildlife. As well, tourists come from around the world to visit BINP to see human-habituated mountain gorillas, bringing park staff and people from around the world into close proximity of non-human primates. Furthermore, BINP sits at the confluence of the Uganda, Rwanda and Democratic Republic of Congo borders, with large fluxes of people (including refugees) transiting this region. Finally, known human disease outbreaks caused by such zoonotic pathogens as Ebola and Marburg virus have infected people in southwestern Uganda.

> *"Bwindi is one of those places where the potential for viral pathogens to emerge from forest wildlife and spillover into both local and transiting populations is very high. Surveillance to date has shown this to be true, and with our current surveillance work, we hope to better understand how that spillover occurs."*
> *- Dr. Benard Ssebide, PREDICT's Uganda Country Coordinator.*

A key component of our One Health surveillance is disease detection and corresponding analysis to help identify potential strategies for risk mitigation to improve health and livelihoods in the Bwindi area. To that end, PREDICT's laboratory partner, the Uganda Virus Research Institute (UVRI) located in Entebbe, initiated full viral family testing of 1,500 human and wildlife samples collected in Bwindi, performing testing for five viral families (filo-, flavi-, bunya-, rhabdo- and arenaviruses) on 367 human samples. Results were entered into PREDICT's centralized database and a test results report to the Government of Uganda is being prepared. Once approved for release our team will continue to work with community members and stakeholders throughout Uganda's health system to share these findings along with their practical implications.

PREDICT field staff baits a trap in preparation for rodent surveillance at this home in a community adjacent to Bwindi Impenetrable National Park in southwestern Uganda, a region known for human infections with emerging infectious diseases such as Ebola and Marburg virus (top). Field staff carefully disentangle a live bat from a net, to collect samples for viral testing. He wears full Personal Protective Equipment (PPE) to protect against potential exposure to the known and novel pathogens that are the target of PREDICT surveillance efforts (bottom). Photos: PREDICT/Uganda.

Contributing to Uganda's Health Security and Strategic Plans. PREDICT contributed expertise in wildlife zoonotic disease surveillance, prevention and mitigation through participation in high-profile One Health meetings and workshops held at the government ministry level, including the 4th High-Level GHSA Ministerial meeting held in October, and the government's after-action review of its response to an H5N8 avian influenza outbreak that occurred in January 2017. As well, PREDICT advocated for One Health approaches to preventing and mitigating zoonotic diseases of human health significance, and shared PREDICT's approach, protocols, and collaborations with in-country and Africa regional partners at several meetings and workshops: for developing Uganda National Surveillance Plans for priority zoonotic diseases such as brucellosis and anthrax (Mukono, Kampala November 27-December 1,) and rabies and Highly Pathogenic Avian Influenza (Jinja, January 29 - February 2, 2018); drafting the communication strategy for the National One Health Platform and the launch of the National One Health Strategic Plan (Kampala, February 14-15, 2018); and *Strengthening National Epidemiosurveillance Networks and Outbreak Response to Priority Zoonotic Diseases* (Masaka, February 26 - March 2, 2018).

Section 3: Challenges and potential solutions (if applicable)
NA

Section 4: Outbreak response (if applicable)
NA

Bangladesh

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1 USAID's GHSA Technical Focus Areas	2 GHSA Indicator	3 Specific progress made toward capacity level	4 Comments
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection	The PREDICT team in collaboration with Chittagong Veterinary and animal sciences University (CVASU) and Bangladesh Livestock Research Institute (BLRI) conducted research on understanding the ecology of antimicrobial resistance (AMR) bacteria in wildlife. This AMR research has detected multiple drug resistant strains of E coli, Salmonella spp., and Staphylococcus spp. from bat, rodent, and rhesus macaques at high risk wildlife -livestock and human interface, findings of relevance for informing and refining the National Action Plan in accordance with JEE goals.	

	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	PREDICT strengthened One Health surveillance capacity in Bangladesh through collaborations and partnerships with local institutions and departments. Our work has extended and bolstered the surveillance systems in areas identified as potentially high-risk for zoonotic disease spillover. PREDICT has implemented syndromic surveillance in hospitals on patients with fevers of unknown origin at Faridpur Medical College Hospital. PREDICT also conducted community surveillance in three locations with humans that have frequent contact with high-risk wildlife species. During each PREDICT community sampling effort, our team held discussions with village members and community leaders to engage the community and increase zoonotic disease awareness and sensitization to the One Health approach and the project. Data from behavioral risk investigations are currently undergoing analysis to identify zoonotic disease transmission risks and potential intervention strategies. This period, PREDICT conducted intensive sampling of priority wildlife and at-risk people to better understand the viral landscape and transmission risks. Samples were collected from 330 humans and 934 animals and safely transported to the PREDICT lab at icddr,b or IEDCR where they will undergo testing for	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel to collect data and build the evidence base for both priority zoonoses and emerging and re-emerging diseases, such as viral encephalitis in vulnerable and high-risk areas. Shared animal and human surveillance data and findings help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. To date, the PREDICT/Bangladesh team has conducted over 430 behavioral risk interviews, sampled over 10,000 wildlife and 148 people, and completed zoonotic disease testing for 2,244 animals and 50 humans.

		priority zoonotic diseases and emerging threats.	
	P.4.2: Veterinary or Animal Health Workforce	PREDICT team members and representatives from the Department of Livestock Services (DLS) joined the PREDICT team during a recent outbreak investigation, providing opportunities for field-based training to subnational animal health staff (a challenge identified in the JEE). This was the first time that PREDICT and DLS joined to perform a coordinated outbreak response and the experience improved DLS technical field investigation skills for One Health surveillance, essential skills required for future independent animal surveillance in outbreak scenarios.	PREDICT provides in-service training opportunities, through a deliberately designed One Health zoonotic disease surveillance program that encourages hands-on development of core skills lacking in the current animal health workforce. We offer trainings to animal health professionals and Forestry Department members that helps to directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job on the frontlines of zoonotic disease control.
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	PREDICT actively supports the current One Health Secretariat and has contributed to the further development of the One Health platform and viral priority setting. This period, PREDICT was invited to share expertise and present and lead panel discussions on One Health surveillance at three meetings and workshops with government partners and universities over this last year. In addition, PREDICT briefed the ministry partners and university students on the details of the One Health approach to surveillance for priority viral zoonoses and emerging threats and addressed critical issues towards increased One Health capacity. PREDICT also worked with the One Health secretariat to share information across sectors via project reports and updates within the government. PREDICT has also helped coordinate and implement a One Health economic analysis of the cost efficiency of One Health approaches to disease surveillance and outbreak response. On March 25th, 2018 PREDICT co-organized a Symposium on Priority Zoonotic Diseases and their Economic Impacts.	

Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	PREDICT worked to strengthen laboratory capacity for both animal and human sectors in Bangladesh and improve linkages and multisectoral information sharing. Through training and using PREDICT protocols, our human partner laboratory at IEDCR now has the active capability to test for priority zoonotic diseases and emerging threats at the viral family level. In addition, the animal health lab at icddr,b continued to expand their testing expertise and ability to test for known emerging threats. To date, PREDICT's labs have performed over 27,000 tests across five viral families (corona, flavi, filo, influenza, and paramyxo viruses); test results are undergoing interpretation and will be shared with the One Health Secretariat and local government ministries continuing multi-sectoral One Health dialogue and collaboration in Bangladesh.	IEDCR and icddr,b., PREDICT partner laboratories, are trained and equipped in the full range of activities required for safely detecting zoonotic viruses. This includes regular training on biosafety and biosecurity, cold chain, safe sample storage, data management, safe sample transport and shipping, and molecular viral detection techniques. PREDICT partner, icddr,b is a premier laboratory and is a key training centers for students and professionals, including government staff from the national lab system.
	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		

	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements	This period, PREDICT trained FAO and DLS personnel in skills required for safe and effective disease surveillance and detection in livestock. PREDICT also assisted FAO and DLS in the sampling cattle, goats, and buffalo from Rajshahi markets in the Indian border region. These field-based trainings help prepare the animal health workforce for wildlife disease investigations and encourage training and sensitization in the One Health approach at the subnational level, an important element of the country's JEE.	PREDICT through implementing partners such as IEDCR, provides trainings focused on a hands-on approach to teaching field surveillance techniques and laboratory testing standard operating procedures. PREDICT/Bangladesh is also supporting a One Health Policy Fellow, who is conducting an economic analysis of the benefits of the One Health approach to disease response in Bangladesh.
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public		

	health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		
	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

Rapid response to animal and human outbreaks. PREDICT's professional One Health surveillance team supported Government of Bangladesh partners in multiple outbreak response efforts this period. Details are provided in Section 4 below.

Creation of a One Health Economics Fellow. Dr. Jinnat Ferdous now serves as the inaugural One Health Economics Fellow with the PREDICT-2 project in Bangladesh. Dr. Ferdous trained as a Doctor of Veterinary Medicine and received Masters in Veterinary Epidemiology at Chittagong Veterinary and Animal Sciences University, where she learned economic analysis methods. Prior to joining the PREDICT project she conducted an internship with FAO on food safety. Her unique expertise allows her technical understanding of zoonotic disease systems, epidemiological study design, and economic analysis and interpretation for policy making. Based at the Institute of Epidemiology, Disease Control and Research (IEDCR) in Dhaka, a PREDICT implementing partner, her work assesses the economic impact of zoonotic diseases to the public and private sectors as well as individual households, and has informed understanding of the economic implications of disease avoidance behaviors. As resource allocation for sustainable zoonotic disease surveillance, detection, prevention, and response is a major focus of Bangladesh's JEE, Dr. Ferdous' work will assist country partners in developing disease prevention and control strategies that optimize resource allocation to promote 'whole-of-society' benefits.

One Health surveillance with FAO partners. PREDICT completed the first round of concurrent One Health surveillance for zoonotic disease threats, sampling wildlife, livestock and people in partnership with FAO in Dinajpur District at a large livestock market. This activity was carefully planned and demonstrated a successfully coordinated concurrent sampling effort at a high-risk interface along an animal value chain. The livestock market and associated villages are near the border, creating areas of transboundary cattle movement between India and Bangladesh. PREDICT sampled bats and rodents around the market, and collected data via questionnaires

from humans working and patronizing the market. FAO collected samples from cattle and goats and will test them using PREDICT protocols for priority zoonoses and emerging threats. For PREDICT/Bangladesh, this represents implementation of the first fully triangulated (wildlife, livestock, and people) and concurrent (human and animal in the same season and catchment area) surveillance event to date. Additional sampling trips are planned over the next six months.

On Health Day. On November 5, 2017, the PREDICT team celebrated One Health Day 2017 in collaboration with One Health Bangladesh at the Sher-E Bangla Agricultural University and Jhenidah Government Veterinary College. As part of the event, PREDICT in collaboration with P&R and One Health Bangladesh organized a collaborative essay competition for students and future One Health practitioners.

The PREDICT team celebrated One Health Day 2017 together with One Health Bangladesh at the Sher-E Bangla Agricultural University and Jhenidah Government Veterinary College. Photo: PREDICT/Bangladesh.

Section 3: Challenges and potential solutions (if applicable)

PREDICT was requested by the Government of Bangladesh to participate in an outbreak event that was located outside of targeted surveillance areas. Coordinating with the government and Department of Livestock PREDICT team traveled to the site to begin evening collection of bat roost samples at roosts surrounding the location of the human encephalitis cases. While the team was traveling to the field, the court system convicted a political leader, which lead to local violence and civil protests causing road closures. As a result of these demonstrations and violence, the local police did not permit the PREDICT team to work overnight collecting bat roost urine. While the PREDICT team could not work at night they were permitted to work during daylight hours. The team collected ecological data at the site, including: counting the bat roost population, identifying the species of trees in which the bats are roosting, measuring the distance of the roosts from the road and residences of the cases, measuring the number and density of date palm trees, assessing the availability of other fruit trees near the outbreak sites, assessing the date palm sap harvesting and consumption practices of the local community, and identifying fruits that were half eaten by bats. The PREDICT team then worked with the local police and monitored

the situation and when permission was granted, the team was able to perform data collection at night and completed sampling. Our team values collaborations with local community leaders and law enforcement and appreciates the protections in place for data collection.

Section 4: Outbreak response (if applicable)
In November through early December, the PREDICT team assisted Government of Bangladesh partners with sample collection during a crow mortality event. Samples were collected from crows and poultry offal and environmental samples from neighboring live bird markets to investigate and identify the cause of mortality, source of infection, extent of the outbreak, and whether there were any associated human illnesses. The event took place at Mohakhali wireless and Ramna Park, Dhaka Bangladesh. Samples were confirmed to be positive H5N1 avian influenza. PREDICT encouraged notification of OIE and the Department of Livestock Services officially notified OIE on December 26, 2017.

This was the third time since 2015 that PREDICT was requested by the Government of Bangladesh to assist in an outbreak of crow mortality that was later diagnosed as avian influenza. Through the One Health Secretariat, PREDICT collaborated with a team from the Department of Livestock Services (DLS) during sample collection for this recent outbreak to increase the capacity of DLS to respond to crow mortality events. PREDICT and DLS were both involved in Government of Bangladesh meetings to discuss the One Health response to the mortality event and regularly updated the One Health Secretariat. This is the first joint outbreak response for DLS and the PREDICT team through the One Health Secretariat, which reflects the institutionalization of One Health and workforce capacity development in Government of Bangladesh partners.

The Government of Bangladesh requested PREDICT's assistance in an outbreak event after two people became ill, and later died, after presenting with encephalitis symptoms. Both individuals had a history of drinking raw date palm sap which is known to be associated with Nipah virus transmission. The PREDICT team assisted their Government of Bangladesh partners with collecting samples during suspected Nipah outbreak. During this period, PREDICT identified local active bat roosts and conducted behavioral questionnaires among raw date palm collectors (Gacchi) and date palm consumers living within the 10km of case house. The team collected pooled environmental bat roost urine and feces samples from three bat roost in that area. They also collected swab samples from partially eaten Indian Plum fruit samples near the house of the human cases. The samples were tested by PREDICT laboratory partner, the International Center for Diarrhoeal Disease Research, Bangladesh (icddr,b). PREDICT has communicated lab results to ministry partners.

The PREDICT team collects bat roost samples near an outbreak area in Bagura. Crows feed on offal and dead poultry at the nearby live bird markets (bottom left). PREDICT outbreak investigation team members collect biological sample from a dead crow (bottom right). Photos: PREDICT/Bangladesh.

India

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1 USAID's GHSA Technical Focus Areas	2 GHSA Indicator	3 Specific progress made toward capacity level	4 Comments
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		

Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	PREDICT worked closely with local and ministry partners and prioritized sites and locations in Uttar Pradesh considered high-risk for priority zoonotic disease transmission for surveillance activities and for human surveillance activities. PREDICT conducted human syndromic surveillance at Partawal Community Health Centre (CHC), Maharajganj district, Uttar Pradesh. Biological samples and questionnaires were collected during two sampling efforts, once in October 2017 and once in December 2017. The team also enrolled and sampled patients that met enrolment criteria, including patients experiencing symptoms of fever of unknown origin, severe acute respiratory diseases, acute encephalitis or haemorrhagic fever. Over these two sampling efforts at CHC Clinic, 65 human clinical samples were collected. In December 2017, PREDICT initiated wildlife sampling at Bhabnauli, a village approximately 10 km away from CHC Partawal where high-risk interfaces for viral spillover have been identified by site characterization work. The village is also home to three priority groups of wildlife reservoirs known to be a particularly important source of human pathogens. In December 2017, PREDICT's One Health surveillance team collected wildlife samples from rodents, shrews, primates and bats as part of a training exercise. Samples were sent to Sanjay Gandhi Post-Graduate Institute of Medical Sciences (SGPGI), Lucknow, for viral screening.	PREDICT works with government and local partners to strengthen national capacity for zoonotic disease surveillance using a broadly applicable, rapidly deployable, and easily adaptable system that emphasizes core skills needed for biological sampling for surveillance for a broad range of zoonotic disease threats. This system is easily transferrable to priority diseases in India, as well as for other unknown and potentially emerging viral threats. To date, the PREDICT/India team has collected samples from and conducted behavioral risk interviews with 65 people, and sampled 14 wildlife as part of training for launch of wildlife surveillance.
	P.4.2: Veterinary or Animal Health Workforce	PREDICT continued to work with local partners on field-based training designed to establish One Health best practices in zoonotic disease surveillance activities that enhance core One Health professional skills required	PREDICT provides training opportunities through its One Health zoonotic disease surveillance program that encourages hands-on development of wildlife capture and sampling skills lacking in the current animal health workforce. We offer trainings to

		for conducting field investigations (community sensitization and outreach on zoonotic disease risks, biosafety and PPE, safe sample collection from wildlife, livestock, and people, cold chain, safe sample storage and transport, behavioral risk investigations, and data management). Also this period, PREDICT trained members of laboratory partner SGPGIMS in detection protocols, outbreak response, biosafety and PPE, cold chain management, laboratory safety and ethical research practices, all skills related to the detection of priority zoonotic diseases and threats.	veterinary and wildlife professionals in Uttar Pradesh, directly strengthening the capability of the current workforce to successfully and safely conduct core functions of their job in context of disease surveillance, diagnosis, and control of zoonotic diseases.
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	To encourage multi-sectoral information sharing across animal and human health sectors, PREDICT distributed reports on laboratory, capacity and surveillance progress to the USAID mission, GHSA cell (including US CDC) in New Delhi, local institutions including the forestry department, government partners and university collaborators. In addition, in an effort to coordinate across local institutions, PREDICT shared information and reported to NFP, the Indian Council of Medical Research, National Centre for Disease Control and UP state Health Department. On 17 January, 2018, PREDICT's Field Coordinator attended the Annual Review Meeting of GHSA in India, held in New Delhi and provided an update on the project. The review panel included Secretaries and Director Generals (DGs) of Ministry of Health and Family Welfare, Government of India, H&FW, Department of Health Research, DG for the Indian Council of Medical Research; and newly appointed DG for Health Services, among others. Also in attendance were the USAID Deputy Chief of Mission and Mission Director, and the Country Director from the	PREDICT establishes data sharing agreements with all implementing partners and procedures for sharing data (including project information and findings) with all ministry partners and other government organizations across both animal and human health sectors. As the project is by design One Health in action, we share data, information, and reports to catalyze regularly scheduled meetings between sectors and encourage active discussion and communication among sectors.

		US Centers for Disease Control and Prevention.	
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	The PREDICT partner lab at SGPGIMS was fully trained this period in safely detecting zoonotic viruses. Training areas covered biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques (nucleic acid extraction, cDNA synthesis, conventional polymerase chain reaction, and result interpretation). As a result, the lab now has adequate capacity to safely detect known and novel viral threats and to test for viral families that include priority zoonotic diseases (influenza viruses).	PREDICT strengthens national laboratory systems by enabling disease detection through a One Health laboratory network based at partner labs mainly at the Sanjay Gandhi Institute of Postgraduate Medicine, Lucknow and a Veterinary College at Mathura in Uttar Pradesh. Both labs maintain strong ties to the national system, and protocols and information will be shared openly with animal and human health labs working to actively improve interlinkages. Through in-service trainings, PREDICT provides staff from the national system opportunities to enhance skills in virology, quality system, biosafety, lab safety, and methods for detecting zoonotic diseases and emerging threats.
	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		

	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements	In December 2017, PREDICT provided multiple in-person trainings on topics such as maintaining cold-chain storage and achieving informed consent during human syndromic surveillance. These trainings were received by physicians, phlebotomists, interviewers, and laboratory staff based at Sanjay Gandhi Postgraduate Institute of Medical Sciences in preparation for fieldwork and zoonotic disease surveillance activities.	The lead implementing partner for PREDICT in India is SGPIMS, Lucknow, a tertiary care hospital and a premier research Institute in medical sciences in India. PREDICT is embedded within SGPIMS, and the project provides ongoing opportunities for students, interns, and staff to engage in project activities and upgrade their skills. In addition, field activities engage and involve animal health professionals from another premier veterinary research university in the region, DUVASU, Mathura, and the Uttar Pradesh state wildlife department, providing opportunities for their staff to strengthen their skills in zoonotic disease surveillance and detection with hands-on learning for safe capture and sampling of wildlife, cold chain, safe sample transport, and viral detection.
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		

	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.) R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

Launching One Health surveillance in Uttar Pradesh. PREDICT successfully launched One Health surveillance in Uttar Pradesh, targeting humans and animals in at-risk communities and completing trainings for the team's now active One Health workforce. In December, 2107, PREDICT conducted human syndromic surveillance at Partawal Community Health Centre (CHC), Maharajganj district. A team of health care professionals from SGPGIMS, including medical doctors and phlebotomists, as well as interviewers, were trained on PREDICT protocols including ethical research on human subjects, PPE and biosafety, and sample packing and transport. At the clinic, the team enrolled and sampled patients that met enrolment criteria, including patients experiencing symptoms of unknown origin, severe acute respiratory diseases, acute encephalitis or haemorrhagic fever. Patients and/or their designates were also interviewed to learn about behavioural risks that may be associated with infection or disease transmission. Biological samples were collected and interviews conducted from a total of 65 humans, and staff planned to continue surveillance through the remainder of the year at this clinic site. During this sample collection effort, PREDICT also met with the Chief Medical Officer at Partawal CHC to discuss the project's role in the community and with community leaders of Bhabnauli, an adjacent zoonotic disease surveillance site in the catchment area of the CHC clinic, and a site identified by our team as a potentially high-risk area for zoonotic spillover. The community meeting helped our team work with community leaders to orient them on the project and to sensitize the community to planned community-based sampling in the near future. Finally, our field team conducted reconnaissance in and around the community for wildlife considered high-risk for viral spillover, while conducting field-based trainings that included collecting samples from bats, rodents and primates.

PREDICT's One Health team collects a blood sample from a patient as part of newly launched syndromic surveillance for zoonotic diseases and emerging threats at Partawal Clinic. Photo: PREDICT/India

Section 3: Challenges and potential solutions (if applicable)
NA

Section 4: Outbreak response (if applicable)
NA

Indonesia

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1 USAID's GHSA Technical Focus Areas	2 GHSA Indicator	3 Specific progress made toward capacity level	4 Comments
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		

	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	PREDICT's One Health surveillance is actively addressing a major challenge in Indonesia's JEE: surveillance for wildlife diseases. This period, PREDICT continued identifying and characterizing high-risk interfaces for wildlife zoonoses along with epidemiological risk factors, ecological conditions, and epizones for zoonotic disease transmission risk from wildlife to domestic animals and people. PREDICT collected 4,007 specimens from 546 wild animals (317 bats and 229 rodents) from Gorontalo, North Sulawesi, Southeast Sulawesi, and West Sulawesi provinces. Our team also enrolled and collected samples from 75 patients from Noongan Hospital and Kawangkoan Puskesmas (North Sulawesi) and 103 human participants in surrounding communities identified as at-risk for viral spillover from wildlife. All specimens are will be tested for priority zoonotic diseases such as highly pathogenic avian influenza as well as other emerging threats across 5 viral families (paramyxoviruses, coronaviruses, filoviuses, flaviviruses, and influenza viruses).	Strengthening disease surveillance capacity in Indonesia, especially within the wildlife market value chain in Sulawesi has been a major focus of activities and PREDICT data is helping identify potential disease prevention, control, and response plans for more effective and efficient zoonotic disease surveillance systems. PREDICT data and analyses inform and refine management of zoonotic diseases and emerging pandemic threats, allowing decision makers to efficiently allocate resources to the most at-risk areas. To date, the PREDICT/Indonesia team has conducted over 450 behavioral risk interviews, sampled over 1,900 wildlife and 180 people, and completed zoonotic disease testing for 857 animals and 61 humans.
	P.4.2: Veterinary or Animal Health Workforce	PREDICT is directly contributing to a well-trained and professional animal health workforce, especially for detection of zoonoses from wildlife at the subnational level, an area targeted as a challenge in the JEE. This period, PREDICT provided in-service trainings for local and government	PREDICT-Indonesia's implementing partners are the Primate Research Center at Bogor Agricultural University (PRC-IPB) in Bogor, West Java, for surveillance of viruses in wildlife, and the Eijkman Institute of Molecular Biology (EIMB) for surveillance in humans. Through PRC-IPB and EIMB, PREDICT provides multiple opportunities for

		animal health staff to conduct sampling for zoonotic disease surveillance, enhancing core One Health professional skills for conducting field investigation. These skills include: community sensitization and outreach on zoonotic disease risks, biosafety and PPE, safe sample collection from wildlife and domestic animals, cold chain, safe sample storage and transport, behavioral risk investigations, and data management.	student and personnel training, in-depth projects in the field and lab, and internships on all aspects of zoonotic disease surveillance, detection, prevention, response, and control. In addition, PREDICT regularly invites employees of the Ministry of Agriculture, especially animal health staff, to join the team on field sampling trips as an opportunity to strengthen their professional skills working with wildlife animals. Finally, PREDICT provides training and technology transfer to Animal Disease Investigation Centers (DICs).
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	PREDICT-Indonesia engages ministry partners and fosters multisectoral dialogue on zoonotic disease surveillance and outbreak preparedness and response from the ministry to local levels. This period, PREDICT's One Health team worked with local partners from the Ministry of Agriculture (local animal health offices at the provincial and district levels) to build a better understanding of potential virus spillover from wildlife to livestock, and to strengthen capability and professional skills for detection of priority zoonotic diseases and other viruses. Our team also continued to support One Health workforce training through in-service skill development and enhancement opportunities at targeted at-risk interfaces for zoonotic disease transmission and spread.	PREDICT strengthens national capacity for zoonotic disease surveillance by engaging government and local partners in a broadly applicable, rapidly deployable, and easily adaptable system for surveillance for zoonotic viruses, emphasizing core biological sampling skills while screening for priority viral families (corona-, influenza, filo-, flavi-, and paramyxoviruses) as well as unknown and potentially emerging zoonotic disease threats
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		

Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	PREDICT continued to work with national laboratory partners across the animal and public health sectors to strengthen capability and professional skills for detection of priority zoonotic diseases and other viruses. PREDICT lab teams at PRC-IPB and EIMB conducted continual testing of samples collected from wildlife and humans for priority viral families to detect priority zoonotic diseases. To date, PREDICT labs have performed over 14,000 tests while also completing the sequencing of PCR products from 438 wildlife samples (319 bats and 119 rodents) and over 60 human samples. All findings will be shared with government partners across animal and human health sectors to encourage multi-sectoral communication and to obtain approval for public release.	PREDICT partner labs at PRC-IPB and EIMB are well trained and equipped to perform activities required for safely testing for and detecting zoonotic viruses, having acquired or expanded their proficiencies in biosafety and biosecurity, cold chain and safe sample storage, data management, safe sample transport and shipping and molecular viral detection techniques (nucleic acid extraction, cDNA synthesis, conventional polymerase chain reaction, and result interpretation) in the course of conducting PREDICT lab testing. As a result, these labs have the capacity to safely detect known and novel viral viruses including priority zoonotic diseases (Nipah virus, influenza viruses, and SARS and MERS CoVs).
	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)		
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data		
	D.2.4 Syndromic surveillance systems		
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE		

	D.3.2 Reporting network and protocols in country		
Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements		
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		
	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

Training the future One Health workforce. In collaboration with the South East Asia One Health University Network (SEAOHUN), PREDICT/Indonesia hosted a fellow from the University of Malaya, Kuala Lumpur, an instance of cross-boundary workforce development efforts. SEAOHUN awarded an internship to Ms. Tengku Idzan Nadzirah, who worked with PREDICT/Indonesia's two laboratory partners PRC-IPB in Bogor and EIMB in Jakarta for three months, an opportunity for both professional mentorship and skill development. Based on the success of this mentorship SEAOHUN is planning to allocate two additional candidates for their fellowship program in 2018 to work with PREDICT/Indonesia's laboratory partners.

Section 3: Challenges and potential solutions (if applicable)
NA

Section 4: Outbreak response (if applicable)
NA

Vietnam

SECTION 1: SUMMARY OF HEALTH SECURITY CAPACITIES AND CHANGES IN CAPACITY

1 USAID's GHSA Technical Focus Areas	2 GHSA Indicator	3 Specific progress made toward capacity level	4 Comments
Antimicrobial Resistance (AMR)	P.3.1 Antimicrobial resistance detection		
	P.3.2 Surveillance of infections caused by AMR pathogens		
	P.3.3 Healthcare associate infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
Zoonotic Disease	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	PREDICT's One Health team worked with national, provincial, and district-level veterinary and medical officers to strengthen multi-sectoral information sharing (a challenge	PREDICT's zoonotic disease surveillance is strategically designed to train, equip, and enable surveillance personnel from the animal and human health sectors to collect data and build the evidence

		identified in the JEE) and to extend Viet Nam's surveillance system to high-risk areas for zoonotic disease transmission including sites with high rates of wildlife trade and intensive farming of wildlife. PREDICT's concurrent surveillance at high-risk sites contributes to Viet Nam's syndromic surveillance of febrile patients at district and provincial hospitals, screening of people in the community with occupational risk to zoonotic diseases through wildlife trade and wildlife farming, wildlife disease surveillance, and surveillance for pathogens of pandemic potential in livestock in collaboration with FAO and the Department of Animal Health. This period samples were collected from individuals in the following populations at high-risk sites to advance zoonotic disease surveillance in Viet Nam. Human: • 22 febrile patients at the Thact That District Hospital of Hanoi • 22 individuals with wildlife farm occupational risk in Dong Nai Province Samples were safely transported to the PREDICT laboratory at the National Institute of Hygiene and Epidemiology where they have undergone testing for priority zoonotic diseases such as viral hemorrhagic fevers and other emerging threats. Wildlife on wildlife farms: • 49 non-human primates • 189 rodents • 101 civet cats from wildlife farms in Dong Nai Province Wildlife in the trade: • 99 rodents from live animal markets and restaurants.	base for both priority zoonoses and emerging and re-emerging diseases such as viral hemorrhagic fevers in vulnerable and high-risk areas. Shared animal and human surveillance data and findings help catalyze formal information sharing between animal and human surveillance systems. In addition, our surveillance engages local communities in high-risk areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options. To date, the PREDICT/Viet Nam team has conducted over 432 behavioral risk interviews, sampled over 2,000 wildlife and 399 people, and completed zoonotic disease testing for 572 animals and 50 humans.

		Finally, 105 bat samples were collected from bat guano harvesting sites. All wildlife samples were safely transported to the PREDICT laboratory at the Department of Animal Health's Regional Animal Health Office No. 6 in Ho Chi Minh City where they have undergone testing for priority zoonotic diseases. Surveillance and sample collection was also conducted with 46 pangolins confiscated from the illegal wildlife trade contributing to the first surveys for potential zoonotic disease in this heavily traded species. Samples from the pangolins were safely transported to the PREDICT laboratory at the Viet Nam National University of Agriculture in Hanoi where they are undergoing testing for priority zoonotic diseases. In addition, PREDICT's behavioral risk team conducted 26 ethnographic interviews and two focus group discussions (one group of 12, and one group of eight) and liaised with local officials and community members at One Health surveillance sites. Data from these interviews is undergoing analysis to identify zoonotic disease transmission risks and potential intervention strategies. Finally, PREDICT improved One Health information sharing delivering project reports, updates, and information to Viet Nam's One Health Partnership for Zoonosis co-chaired by the Department of Animal Health of the Ministry of Agriculture and Rural Development and the General Department of Preventive Medicine of the Ministry of Health.	
	P.4.2: Veterinary or Animal	PREDICT provided on-the-job training for	

	Health Workforce	conducting zoonotic disease surveillance, general bio-safety training, molecular diagnostic techniques, and training in conducting qualitative research to understand behaviors that put people at risk of zoonotic disease exposure and identify effective interventions. A total of 27 individuals were trained (16 male and 11 female) this period. The majority of the individuals trained were government staff (18) with additional individuals representing practitioners from non-governmental organizations, students, and researchers. Animal health officers and environmental sector rangers also received on-the-job training in zoonotic disease surveillance through PREDICT surveillance activities on wildlife farms and in live animal markets. Staff from national laboratories received advanced and refresher training on molecular diagnostic techniques for viral pathogens. In addition, PREDICT provided on-going training to improve the quality of information on zoonotic disease transmission in Viet Nam by frequently updating partners on any changes to sample collection protocols and sharing techniques for improving data collection through administration of questionnaires to collect data on human risk behavior.	
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	A key challenge in the JEE is working to increase involvement of the wildlife sector in coordination mechanism. PREDICT is playing a critical role in this regard, as data and information on wildlife and human surveillance activities was routinely shared across animal and human health sectors from national to subnational levels. PREDICT also contributed to strengthening mechanisms for responding to infectious zoonosis and One Health approaches to zoonotic disease	As a member of the One Health Partnership for Zoonosis in Viet Nam, PREDICT contributed to the development of the Viet Nam One Health Strategic Plan for the period 2016 to 2020, led by the Ministry of Agriculture and Rural Development together with the Ministry of Health. PREDICT contributions included providing guidance on research, surveillance and laboratory approaches designed to detect potential emerging zoonotic threats.

		surveillance and viral detection by sharing information and lessons learned with other members of the One Health Partnership for Zoonosis in Viet Nam during two technical workshops (Dec 12 and 20, 2017) and the quarterly One Health Communication Network meeting on Feb 6, 2018. This period PREDICT briefed the One Health Partnership on the successful initiation of concurrent surveillance at two sites in Viet Nam outlining the mechanisms used to coordinate the timing of surveillance activities in humans, wildlife, and livestock populations.	
Biosafety and Biosecurity	P.6.2: BSS training and practices (focused on animal health)		
Immunization	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
Laboratory Systems Strengthening	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	PREDICT continued to extend the capabilities of Viet Nam's zoonotic disease detection system at the main national human and animal health laboratories in the country. The laboratories have active capability to test for known priority viruses and potentially unknown and emerging threats. This period PREDICT's labs performed 3,590 tests across five viral families (corona, flavi, filo, influenza, and paramyxo viruses); test results are undergoing interpretation and will be shared with the laboratories and national focal points in the Ministry of Agriculture and Rural Development and Ministry of Health providing opportunities for multi-sectoral dialogue and collaboration.	PREDICT partners with the national animal health (Department of Animal Health's Regional Animal Health Office No. 6) and public health diagnostic laboratories (National Institute of Hygiene and Epidemiology) in Viet Nam as well as the laboratory of the Veterinary Faculty at the Viet Nam National University of Agriculture. These laboratories in Viet Nam are the trained in the full range of activities required for safely detecting zoonotic viruses, including biosafety and biosecurity, cold chain, safe sample storage, data management, safe sample transport and shipping, and molecular viral detection techniques. As a result, the laboratories have capacity to safely detect priority zoonotic diseases and contribute to the national surveillance for emerging viral threats. The laboratories are both training and reference centers for the national animal and public

			health laboratory systems respectively and contribute to data for surveillance reporting.
	P.1.2: Specimen referral and transport system (focused on animal health)		
	D.1.4: Laboratory Quality System (focused on animal health)	PREDICT supported improvements in laboratory quality control systems by continually updating laboratory protocols for viral disease detection and controlling contamination.	
Real Time Surveillance	D.2.1 Indicator and event based surveillance systems		
	D.2.2 Interoperable, interconnected, electronic real-time reporting system		
	D.2.3 Analysis of surveillance data	PREDICT contributed to the joint analysis of surveillance data across the human and public health sector through participation in the LISN initiative with FAO, WHO, and Government of Viet Nam Ministry of Agriculture and Rural Development and Ministry of Health.	
	D.2.4 Syndromic surveillance systems	PREDICT contributed to syndromic surveillance systems in Viet Nam by increasing the diagnostic tests run on SARI patients in collaboration with WHO SARI sites and the LISN initiative with FAO, WHO, and Government of Viet Nam Ministry of Agriculture and Rural Development and Ministry of Health.	
Reporting	D.3.1 System for efficient reporting to WHO, FAO and OIE	PREDICT contributed to systems for efficient reporting through participation in the LISN initiative with FAO, WHO, and Government of Viet Nam Ministry of Agriculture and Rural Development and Ministry of Health.	
	D.3.2 Reporting network and protocols in country	PREDICT's procedures for reporting surveillance testing results to the national animal and public health agencies for review and public release was used as an example of transparent reporting network protocols in Viet Nam.	

Workforce Development	D.4.1: Human resources are available to implement IHR core capacity requirements		
Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented		
	R.1.2 Priority public health risks and resources are mapped and utilized		
Medical Countermeasures and Personnel Deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency		
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency		
Risk Communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)		
	R.5.2 Internal and partner communication and coordination		
	R.5.3 Public communication		
	R.5.4 Communication engagement with affected communities		
	R.5.5 Dynamic listening and rumor management		
Other relevant Action Package (fill in)	(fill in appropriate indicator)		

Section 2: Major success stories/notable achievements

One Health surveillance at wildlife farms. Responding to JEE calls to bolster Viet Nam's capability for zoonotic disease surveillance in wildlife, PREDICT in Viet Nam focused on the wildlife farm interface as part of the One Health approach to facilitate understanding the dynamics of zoonotic virus evolution, spillover from animals to people, and to inform prevention and control guidelines. The expansion of wildlife farming, alongside poor farming practices such as shared captive breeding of different species, poor hygiene condition and veterinary care, increased wildlife-human close contact, and potential of viral presence and spillover in the process of wildlife transport and trade, makes wildlife farms "hot spots" of high-risk disease transmission interfaces. The Viet Nam Ministry of Health and Ministry of Agriculture and Rural Development expressed interest in examining this complex interface and collaborated with PREDICT/Viet Nam to conduct concurrent surveillance in Dong Nai, a province with many wildlife farms. Through the end of March 2018, the wildlife team collected over 1,800 samples from 850 individuals across rodent, carnivore, and non-human primate taxa. PREDICT concurrently (at the same location and within the same quarter) studied human health by collecting samples and questionnaires from 122 people directly engaged in the wildlife farm activities. In addition to the questionnaire, to further characterize and understand behaviors that facilitate pathogen transmission and identify risk mitigation measures, additional behavioral risk investigations were launched and 19 ethnographic interviews conducted. All collected biological samples were safely transported to project partner laboratories for zoonotic disease testing and viral discovery using PREDICT protocols. Lastly, through close partnership with the human health partners, including the National Institute of Hygiene and Epidemiology, Dong Nai Preventive Medicine and provincial hospitals, PREDICT launched syndromic surveillance in hospitals serving the wildlife farming community.

National and subnational capacity strengthening for Viet Nam's laboratory system. PREDICT has helped strengthen the national laboratory system and institutionalize the One Health approach by building parallel capacity in both veterinary and public health national laboratories. Animal sample processing and testing has been performed at the Regional Animal Health Office No. 6 (RAHO6). This partner laboratory began working with PREDICT in 2011 and has grown capacity through a mix of training and learning from experiences associated with testing many PREDICT samples. RAHO6 provided lab-to-lab training on molecular techniques for viral disease detection to two additional regional laboratories. For PREDICT-2 which began in 2014 and incorporated human surveillance, the project developed a lab partnership with the National Institute of Hygiene and Epidemiology who also received the training for testing samples using PREDICT protocols. Both animal and human samples will be tested with the same viral family level protocols to detect viral pathogens of pandemic potential and lab staff will continue to share information helping cultivate improved multi-sectoral collaboration.

A porcupine farm in Dong Nai Province where PREDICT is conducting zoonotic disease surveillance and behavioral risk investigations.
Photo: PREDICT/Viet Nam.

Section 3: Challenges and potential solutions (if applicable)
PREDICT is cooperating with animal and human health sectors to implement concurrent disease surveillances on wildlife, livestock and human in priority provinces. However, organizing sample collection activities between various sectors in the same period is challenging as each partner has their own schedules and limited human resources. In addition, wildlife samples are lower priority when compared to livestock ones in national laboratories, including PREDICT partner labs. As a result, the PREDICT testing plans are sometimes are delayed for testing diseases such as Influenza, Dengue and other national priorities. To adapt with these challenges, PREDICT is now working closely with FAO, Provincial Department of Animal Health and National Institute of Hygiene and Epidemiology to share and closely integrate upcoming sampling trips at concurrent disease surveillance provinces. Also, through test result reports, PREDICT raises awareness associated with zoonotic disease transmission to public health and animal health management agencies to step-by-step improve the role of wildlife disease in national disease surveillance plans, a critical area for improvement highlighted in the country's JEE.

Section 4: Outbreak response (if applicable)
NA

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:	2/7/2019 2:50:00 AM
Subject:	Re: PREDICT International Travel Requests

All travel approved subject to Mission concurrences.

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, Feb 7, 2019 at 2:50 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. Thanks!

1. Leasure (Sierra Leone): $3000 airfare/$319 (Freetown), $221 (Makeni) max daily per diems
2. Lane (Tanzania): $2500 airfare/$309 (Dar es Salaam) max daily per diem
3. Valitutto (Myanmar): $2000 airfare/$287 (Yangon), $216 (Naypyidaw) max daily per diems

Travel Requests -

1. UC Davis would like to request travel approval for Elizabeth Leasure to travel from Sacramento, CA, USA to Freetown and Makeni, Sierra Leone from March 4-12, 2019 for meetings with in-country partners and to conduct an on-site subrecipient review.

Trip purpose: Ms. Leasure will meet with in-country partner staff at University of Makeni (UNIMAK) and conduct a review of financial and administrative procedures and records related to the implementation of Ebola Host Project activities in Sierra Leone. On-site reviews are a critical component of UC Davis's subrecipient monitoring plan, which was developed to ensure adequate oversight and compliance with all applicable regulations. While in Sierra Leone, she will also be conducting meetings and reviews relating to UC Davis's DARPA-funded PREEMPT project. As such, costs for this travel will be split between the two projects as appropriate.

2. UC Davis would like to request approval for Jennifer Lane to travel from Sacramento, CA, USA to Dar es Salaam, Tanzania from February 25 to March 8 , 2019 to work with the PREDICT Tanzania team on Year 5 activities including One health worker training planning and community engagement activities.

Trip Purpose: Dr. Lane, PREDICT East Africa Field Veterinarian, will provide programmatic support to the PREDICT Tanzania teams and country coordinators during her trip. Dr. Lane will work with PREDICT implementing partners, Ifakara Health Institute and Sokoine University of Agriculture.

3. Smithsonian Institution would like to request travel approval for Dr. Marc Valitutto, the Myanmar P2 Global Lead, to travel from Chengdu, China to Yangon and Naypyidaw, Myanmar from March 16-20, 2019 to conduct multiple PREDICT presentations and community engagement planning sessions with government partners.

Trip purpose: Dr. Valitutto will conduct a set of P2 presentations on findings to date and path forward to a joint meeting held by the Health and Livestock Ministries in Naypyidaw. The pop-up Smithsonian National Museum of Natural History Outbreak exhibit tailored for P2 Myanmar will also be presented at this meeting. Additionally, at the request of the Health Division for the Mission, we will offer similar presentations and the outbreak exhibit at the American Center for embassy workers and general visitors. Planning for community engagement will be finalized with government partners during this visit.

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

--

From: Andrew Clements <aclements@usaid.gov>
Sent: Mon, 4 Mar 2019 20:51:39 +0100
Subject: Re: PREDICT Ebola Financial Report for January 2019
To: Elizabeth Leasure <ealeasure@ucdavis.edu>
Cc: Amalhin Shek <ashek@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, predict Sympa List <predict@ucdavis.edu>, Hannah R Chale <hrchale@ucdavis.edu>, Lindsay Parish <lparish@usaid.gov>

thanks

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 Mon, Mar 4, 2019 at 5:58 PM Elizabeth Leasure <ealeasure@ucdavis.edu> wrote:

> Hi Andrew. Please find attached the PREDICT Ebola financial report for January 2019. Please let me know if you have any questions.
>
> 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: Thu, 7 Mar 2019 00:21:08 -0800
To: David J Wolking <djwolking@ucdavis.edu>
Cc: Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, PREDICTMGT <predictmgt@usaid.gov>, "predict@ucdavis.edu" <predict@ucdavis.edu>
Subject: [predict] Re: PREDICT2 closeout plan for Kenya

Thanks, David.

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, 2019, at 9:47 PM, David J Wolking <djwolking@ucdavis.edu> wrote:

> Hi Andrew,
> I am sharing the message received from USAID/Kenya with regard to close-out of PREDICT activities. We are learning that the end of the program is concerning to a few missions and will be sharing more news as we receive it from the field. Courtesy of our Smithsonian team, below is some helpful information on remaining plans in Kenya. As we discussed on our management team call yesterday, we are not closing down activities in Kenya, just the subaward with our implementing partner IPR. There are still several ongoing activities occurring in collaboration with our global technical teams that will come to a close at the end of September as planned.

Please let me know if you have any questions and thanks for your assistance clarifying this concern with the mission.

David

PREDICT/Kenya - remaining activities and timeline:

1. A community engagement is planned for the end of March with OHCEA partners
2. Viral testing is on pace for completion by the end of April, at which time the subaward with IPR will end (this is what triggered USAID/Kenya's concern - see Andrew's original message below)
3. In May/June, our team was requested to support a joint lab training with FAO to address priority capacity gaps (mainly biosecurity / waste management). At this same time, the team plans to hold the final stakeholder engagement event presenting available findings and achievements from PREDICT-Kenya's activities.
4. We have budgeted the Country coordinator to attend the PREDICT All-staff meeting in Indonesia in September
5. The team continues to work with in-country staff on data cleaning and analysis, publications, and potential opportunities for their involvement in national meetings, conferences, university lectures, policy advocacy and GHSA events, etc.
6. Risk analysis and communication, sample, data, and equipment disposition plans, and other ongoing activities will occur on schedule with PREDICT's overall period of performance (end date September 30, 2019)

From: Andrew Thaiyah <athaiyah@usaid.gov>
Sent: Wednesday, February 27, 2019 8:13:03 AM
To: Zimmerman, Dawn; Joseph Kamau
Cc: Lisa Kramer
Subject: PREDICT2 closeout plan for Kenya

Hi Dawn and Joseph,

I hope that you are keeping well. Following discussions with Joseph, he indicated plans to closeout P2 at the end of March 2019. I appreciate all the great work you have done and see this as an opportunity to share the successes.

For the closeout to be well organized, I am kindly requesting that you share your detailed closeout plan with timelines. This should include a plan on disposal of assets, sharing of research protocols and dissemination of results to the relevant stakeholders etc. This will greatly assist in documentation for USAID records locally and also ensure that future research can build onto this current work

Thank you

Andrew

--

Andrew G. Thaiyah, PhD
Global Health Security Advisor,
USAID/Kenya and East Africa | Health, Population and Nutrition (HPN) Office
REDACTED

From: Andrew Clements <aclements@usaid.gov>
Sent: Tue, 10 Dec 2019 08:02:00 -0800
To: David J Wolking <djwolking@ucdavis.edu>
Cc: predict@ucdavis.edu, predictmgt@usaid.gov
Subject: [predict] Re: PREDICT MT Call - Tuesday May 28, 2019 @ 8:30 AM PDT

Hi David,
Two questions we can discuss on the upcoming call:

1) any chance we could use a Smithsonian venue (castle or zoo) for the data meeting in March?

2) any interest in having an end-of-Predict briefing for a broad audience at the Smithsonian castle (either right before or after the data 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 May 24, 2019, at 6:15 PM, David J Wolking <djwolking@ucdavis.edu> wrote:

Hi there,

Below is the agenda and call in details for next week's Management Team meeting. Hope you enjoy the long weekend!

David

PREDICT Management Team Meeting
Tuesday, May 28, 2019
8:30-9:30AM PDT/11:30-12:30pm EST
Zoom link: [redacted]
Additional Zoom info below agenda

USAID Updates

1. Administrative items
- TVPA and Y5 obligation updates
- Semi-annual report - # of hard copies for delivery to USAID
- All Country meeting invitation and next steps
- Future events, meetings, opportunities

2. Mission communications & country roundup essentials
- Guinea update
- Indonesia outbreak investigation update
- DRC outbreak updates
- Others...

3. Cool stuff - other interesting items or updates

- First edition of new PREDICT products - Viral Discovery
- Final report ideas and plans
- Best practices for closeout of One Health surveillance
- One Health in Action case studies (volume 2)

4. Publication, media, and conference updates

- Global Health Security 2019, Sydney (June 18-20, 2019)
- ASM Microbe 2019, San Francisco (June 20-24, 2019)
- 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)

5. AOB

Zoom Call-in info
Zoom link: REDACTED
Or iPhone one-tap :
US: +[redacted]
Or Telephone:
Dial(for higher quality, dial a number based on your current location):
US: [redacted]
Meeting ID: REDACTED
International numbers available: REDACTED

From: Andrew Clements <aclements@usaid.gov>
Sent: Thu, 4 Jun 2020 12:58:57 -0400
Subject: Re: Summary of 11 Ebola outbreaks in DR Congo
To: Karen Saylors <[redacted]>
Cc: Jonna Mazet <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, William Karesh <Karesh@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>, David J Wolking <djwolking@ucdavis.edu>, Brian H Bird <bhbird@ucdavis.edu>

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 Jun 4, 2020, at 5:54 PM, Karen Saylors <[redacted]> wrote:

> Hello Andrew.
> Just to let you know, yesterday INRB sent a small team on mission to Mbankaka to evaluate the situation. I will get back to the team once we have more information on the situation.

Best wishes,
Karen

On Thu, Jun 4, 2020 at 7:21 AM Andrew Clements <aclements@usaid.gov> wrote:

> 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

--
Karen Saylors, PhD
CEO/Research Scientist
Labyrinth Global Health
Mobile: +1 415 539 8317
www.labyrinthgh.com