

**Sent:** Fri, 10 Mar 2017 05:52:51 -0800  
**Subject:** Re: CORRECTION: PREDICT Management Team Call (3.13.17) at 11AM PDT/2PM EDT  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Shana Gillette <sgillette@usaid.gov>  
**Cc:** Cassandra Louis Duthil <clouisduthil@usaid.gov>, Elizabeth Leasure <ealeasure@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>

Please also note that if there is a chance to push OAA for answers on ADS 302 in advance of our meeting, it would be incredibly helpful to us for moving forward on several fronts.

We leave to your discretion,  
Jonna

PS -- we may need to exercise restraint on this call if Eddy joins as planned. I don't want to let MB off the hook just because there may not be good written guidance in cooperative agreement language, as we have and will continue to stress best practices.

On Thu, Mar 9, 2017 at 12:33 PM, David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

Hi there,  
I'm attaching an updated version of the "PREDICT in Ebola-affected West Africa countries" document (noted under agenda item #5).

David

On Wed, Mar 8, 2017 at 8:07 PM, David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

Hi again,  
Just realized I didn't update the call-time on the agenda after our change in scheduling. **We are meeting from 11-11:30AM PDT/2-2:30PM EDT** as you'll note in the calendar invite. I've updated the message below and attachment accordingly.

Apologies for the inconvenience.

David

On Wed, Mar 8, 2017 at 7:59 PM, David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

Hello,

Attached and below for quick reference is the PREDICT management team agenda, call info and supporting docs for this Monday March 13, 2017 (11-11:30AM PDT/2-2:30PM EDT). Please note that this is a 30 minute call. I'll send calendar invites next.

Best,

David

## PREDICT Management Team Agenda

Monday, March 13, 2017

**11:00-11:30 PDT/2:00-2:30pm EDT**



**Standing items**

**USAID Updates**

**1. Administrative items**

- a. Pending subawards and subcontracts (attachment)
- b. Financial reporting requirements for Mission funding (Jordan, Indonesia)
- c. OAA guidance on ADS 302
- d. Semi-annual and GHSA report guidance
- e. Context for ad hoc information requests
- f. PMAC attendee guidance
- g. Mainz regional meeting plans, agenda, and attendees
- h. US Ambassador visit in Ghana

**2. GHSA meeting read-out**

**3. Mission communications round-up and data sharing with Missions discussion**

**4. Uganda zoonotic disease prioritization workshop readout**

**5. West Africa trip overview (Tracey - attachment)**

**6. Outbreak updates (AI preparedness/response round up and NiV in Bangladesh)**

**7. EPT partner collaboration/coordination updates and external panel report (Billy)**

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Mon, 5 Feb 2018 13:24:11 -0800  
**Subject:** Re: PREDICT Management Team Call - Tuesday February 6 2018 @ 10AM PST/1PM EST  
**To:** David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, ealeasure@ucdavis.edu  
**Cc:** Alisa Pereira <apereira@usaid.gov>

On a related note, what's the current projection on how long Ebola funds will last with the reassignment among countries? I want to give as much of a heads up as possible.

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](mailto:aclements@usaid.gov)*

On Feb 5, 2018, at 6:52 PM, David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

Hi there,  
Below and attached for quick reference is the agenda for tomorrow's PREDICT Management Team call.

Best,

David

**PREDICT Management Call Agenda**  
**Tuesday, February 6, 2017**  
**10:00-11:00AM PDT/1:00-2:00pm EDT**  
**#[800-444-2801](tel:800-444-2801), Access code 5151894**  
**International Dial-in number: [310-765-4820](tel:310-765-4820) (toll charges apply)**

**Standing items**  
**USAID Updates**

- 1. Administrative items**
  - a. Core (regular) funding update
  - b. Feedback on P2 additional testing request
- 2. PMAC and GVP update (Jonna et al)**
- 3. Mission communications roundup**
  - a. Myanmar and viral testing plans with LBVD
  - b. Guinea mission visit and updates
  - c. Liberia and data sharing inquiry
- 4. Outbreak updates (Liberia, Cameroon, others)**
- 6. EPT partner collaboration/coordination updates (Billy)**
- 7. Publication, media, and conference updates**
  - CUGH Global Health Conference, New York (March 15-18, 2018)
  - "Outbreak: Epidemics in a Connected World" exhibit at NMNH (May 2018)
  - One Health Congress Saskatoon (June 22-25, 2018)

- International Conference on Emerging Infectious Diseases (ICEID) in Atlanta (August 26–29, 2018)
- International Meeting on Emerging Diseases and Surveillance (IMED) 2018 in Vienna, Austria (November 9-12, 2018)
- Others?

On Fri, Feb 2, 2018 at 8:10 AM, David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

Hi there,

Just a reminder about next week's Management Team call on Tuesday February 6 2018 @ 10AM PST/1PM EST.

We will follow-up with an agenda early next week.

Enjoy the weekend,

David

<PREDICT MT Call (2.6.18).docx>



**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Wed, 6 Feb 2019 22:58:36 +0100  
**Subject:** Re: EHP Findings "to date" presentation -- Feb 7th  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Cc:** Alisa Pereira <apereira@usaid.gov>, Brian Bird <bhbird@ucdavis.edu>, Jon Epstein <epstein@ecohealthalliance.org>, Predict inbox <predict@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>, Amalhin Shek <ashek@usaid.gov>, Cassandra Louis Duthil <clouisduthil@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>

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](mailto:aclements@usaid.gov)

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

On Wed, Feb 6, 2019 at 5:33 PM Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

That would be perfect -- we've had that on our minds, too!  
Jonna

On Wed, Feb 6, 2019 at 3:42 AM Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

we talked yesterday about future brown bags with capacity building and behavioral risk next in the queue.

can i suggest we add another after the two above, possible in June? i think it would be good to present on P-2's non-EHP Ebola work (e.g. Uganda/Bwindi exposure study, DRC exposure study in east and west, DRC/ROC market study). Hopefully by June the data will be analyzed and available.

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](mailto:aclements@usaid.gov)

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

On Tue, Feb 5, 2019 at 5:52 AM Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Here you go!

**The PREDICT Ebola Host Project – Enhancing One Health based disease surveillance capacity while searching for the origins of Ebola**

PREDICT's Ebola Host Project (EHP) works with government partners in Sierra Leone, Guinea, and Liberia to build robust One Health based surveillance and disease detection networks in support of GHSA priorities and aims. Since 2016, EHP teams and our in-country partners have trained over 150 individuals at the national, district, and local levels to strengthen One Health capacities to conduct safe and robust virus surveillance with a goal to find the animal origins of the devastating 2013-2016 Ebola virus disease outbreak and other closely related filoviruses. This effort has led to recent major discoveries that have revolutionized our understanding of the ecology and potential health risks posed by Ebola and related deadly viruses in the West African region. In just the past 8 months, PREDICT has reported 1) the discovery of an entirely new species of ebolavirus (Bombali ebolavirus) in bats with as yet unknown potential human health risks, 2) the detection in bats of the highly lethal cousin of Ebola (Marburg virus) thought previously to be found only in East and Central Africa, and importantly 3) the first ever detection of Ebola virus (Zaire ebolavirus) in a bat in West Africa. The identification of these high-consequence health threats BEFORE they caused known sickness or further deaths in people is a striking example of how investments in national systems to promote active One Health approaches to health surveillance can save lives through scientific discovery and technical capacity strengthening.

On Mon, Feb 4, 2019 at 6:48 AM Alisa Pereira <[apereira@usaid.gov](mailto:apereira@usaid.gov)> wrote:

We have secured a conference room, and Dennis' time (for the intro) for the meeting on Feb 7th at 1pm for the presentation on EHP findings. Brian

UCDUSR0010379

and Jon, thank you so much for making yourselves available at such short notice.

We would greatly appreciate your help in preparing a very short intro blurb that we can circulate with the invitation.

I am copying Cassandra and Amalhin on this message too because they will be critical in the communication/logistical arrangements (including projecting the presentation, etc).

The presentation will be held in our Crystal City offices (2100 Crystal Drive, Arlington, Va 22202) at 1pm. You should plan to arrive earlier than that so get through security. When you arrive, please go to the 9th floor to the security office. Text me before you get in the elevator (202-997-9966), and I will meet you there to get you checked in.

Thank you again!!  
Alisa

**Alisa Pereira, Senior Public Health Advisor**

USAID, Contractor  
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Division  
2100 Crystal Drive, CP3-0001, Arlington, VA 22202  
Phone: 202-997-9966  
Email: [apereira@usaid.gov](mailto:apereira@usaid.gov)

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

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[https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CAO5tDrFmr%2BFhm2U-Q\\_YV69mkxL46%3Dd5\\_BA%2Bq9Fu3vhg%2BjLP8vg%40mail.gmail.com](https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CAO5tDrFmr%2BFhm2U-Q_YV69mkxL46%3Dd5_BA%2Bq9Fu3vhg%2BjLP8vg%40mail.gmail.com).

**From:** "William B. Karesh" <karesh@ecohealthalliance.org>  
**To:** PREDICTMGT <predictmgt@usaid.gov>, predict Sympa List <predict@ucdavis.edu>  
**Sent:** Thu, 23 Jul 2020 20:25:54 +0000  
**Subject:** [predict] Fwd: One Health Case Study -PREDICT-2 Jordan  
[One Health case study.pdf](#)  
[ATT00001.htm](#)

FYI:

Begin forwarded message:

**From:** Ehab Abu-Basha <[abubasha@just.edu.jo](mailto:abubasha@just.edu.jo)>  
**Subject:** One Health Case Study -PREDICT-2 Jordan  
**Date:** July 23, 2020 at 11:29:55 AM EDT  
**To:** [REDACTED] Sultan Mabdalla  
[REDACTED], Nesreen Alhmoud <[nisreen.hmoud@rss.jo](mailto:nisreen.hmoud@rss.jo)>, [REDACTED], Mahmoud Hanatleh  
[REDACTED] <[khaled@badiafund.gov.jo](mailto:khaled@badiafund.gov.jo)> <[khaled@badiafund.gov.jo](mailto:khaled@badiafund.gov.jo)>, BELAL SHAQARIN [REDACTED], Moh"D Borhan Al-Zghoul <[alzghoul@just.edu.jo](mailto:alzghoul@just.edu.jo)>, "Mustafa Ababneh" <[ababnem@just.edu.jo](mailto:ababnem@just.edu.jo)>, Hani Talafha <[hanit@just.edu.jo](mailto:hanit@just.edu.jo)>, "Bilal Al Omari" <[bilal@just.edu.jo](mailto:bilal@just.edu.jo)>, Zuhair Bani Ismail <[zuhair72@just.edu.jo](mailto:zuhair72@just.edu.jo)>, [REDACTED] [REDACTED] Ola Ababneh <[oaababneh0@just.edu.jo](mailto:oaababneh0@just.edu.jo)>, "Hijazeen, Zaidoun (FAOJO)" [REDACTED] Mohamad Al-Widyan <[widyan@just.edu.jo](mailto:widyan@just.edu.jo)>  
**Cc:** Maysa Al-Khateeb <[malkhateeb@usaid.gov](mailto:malkhateeb@usaid.gov)>, Daniel Sinclair <[dsinclair@usaid.gov](mailto:dsinclair@usaid.gov)>, "ahalverson@usaid.gov" <[ahalverson@usaid.gov](mailto:ahalverson@usaid.gov)>, "William B. Karesh" <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)>

Dear All,

Please find enclosed and in the below link a One Health case study: ESTABLISHING A ONE HEALTH PLATFORM FOR MULTI-SECTORAL INFORMATION SHARING & INVESTIGATION

[https://static1.squarespace.com/static/5c7d60a711f7845f734d4a73/t/5f175f1d75b25b0bbfa3c3a0/1595367197973/ONE+HEALTH+CASE+STUDY-Jordan\\_2020.pdf](https://static1.squarespace.com/static/5c7d60a711f7845f734d4a73/t/5f175f1d75b25b0bbfa3c3a0/1595367197973/ONE+HEALTH+CASE+STUDY-Jordan_2020.pdf)

Please feel free to distribute.

Yours,

Ehab





**USAID**  
FROM THE AMERICAN PEOPLE

**PREDICT**

## ONE HEALTH CASE STUDY

# ESTABLISHING A ONE HEALTH PLATFORM FOR MULTI-SECTORAL INFORMATION SHARING & INVESTIGATION

## JORDAN

A bright side of PREDICT Jordan is the establishment of focal point partners from the Ministry of Agriculture (MOA), Ministry of Health (MOH), Ministry of Environment (MOE), World Health Organization (WHO), Food and Agriculture Organization (FAO), World Organisation for Animal Health (OIE) and Royal Scientific Society of Jordan (RRS). This committee now serves as a platform for future implementation of the One Health approach in the country. It meets regularly to update all partners about the project's progress and findings for further assessment and possible national policymaking. This is the first national committee for One Health in Jordan and the entire region. The progress and future of the One Health platform initiated by PREDICT Jordan was discussed with all partners, with its value recognized in the decision to hand over the One Health committee to the Ministry of Health post-project to continue the efforts and promote the committee's long-term sustainment.

### WHAT ONE HEALTH ADDED

Enhanced surveillance and in-country detection capacity development through PREDICT and its partners have supported the country in becoming a leader in investigating emerging and reemerging viral infections of both human and animal origins. This capacity has reduced the running time to obtain valuable diagnostic results at a significantly lower cost since scientists and researchers from Jordan used to send such samples to international specialized laboratories for cloning and sequencing. For example, during May 2016, the team with FAO, Kansas State University, and the National Institute of Health (NIH)'s Rocky Mountain Laboratories to conduct a

nationwide study where blood samples from camels in Ramtha and Azrak were collected and tested against MERS-CoV. Out of 120 samples, 36 were positive. This was the first-ever reporting of this disease to OIE in camels in Jordan. To date, only a few countries have reported virus-positive MERS-CoV test results to the OIE so this is a significant and important step in improving both MERS-CoV detection and reporting in the Middle East. Furthermore, the MOH sampled humans from the two sites to screen for MERS-CoV. The results were published in Vector Borne Zoonotic Disease Journal (2017 Feb; 17(2):155-159) under the title "High Prevalence of Middle East Respiratory Coronavirus in Young Dromedary Camels in Jordan".

In addition to mobilizing multi-sectoral teams to investigate high-consequence zoonotic pathogens of concern for public health, the country's expanded viral detection expertise has been leveraged for the investigation of threats to environmental health and food security. For example, in November of 2018 millions of carp fish died along the length of the Euphrates and Shatt al-Arab Rivers in Iraq. While poisoning was initially suspected as the cause of the disastrous die-off, which affected a key food source in Iraq, the JUST laboratory was the first to detect Koi herpes virus for the first time in Iraq as the causative agent behind the death of the fish in this outbreak. Jordan's agility in supporting investigation across species reinforces the value of One Health coordination and capacity for strong and prepared human, animal, and environmental public health systems in the region.

**PARTNERS:** JUST; RSS; Ministries of Agriculture, Environment, and Health; FAO; OIE; WHO; NIH; Kansas State; EcoHealth Alliance; PREDICT-2

**GHSA:** PREVENT-2: Zoonotic Disease; PREVENT-3: Biosafety and Biosecurity; DETECT-1: National Laboratory Surveillance; DETECT-2&3: Real-Time Surveillance; DETECT-5: Workforce Development

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Tue, 17 Jan 2017 18:57:56 +0100  
**Subject:** Re: PREDICT International Travel Requests  
**To:** Elizabeth Leasure <ealeasure@ucdavis.edu>  
**Cc:** PREDICTMGT <predictmgt@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Katherine Leasure <kaleasure@ucdavis.edu>

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](mailto:aclements@usaid.gov)*

On Jan 17, 2017, at 6:46 PM, Elizabeth Leasure <[ealeasure@ucdavis.edu](mailto:ealeasure@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. **REDACTED** (Senegal): \$2,500 airfare/ \$268 (Dakar) max daily per diem
2. Zambrana-Torrel (Ethiopia): \$5,500 airfare/ \$400 (Addis Ababa) max daily per diem
3. Latinne (Indonesia): \$2,600 airfare/ \$146 (North Sulawesi, Gorontalo and Bogor) max daily per diem

Travel Requests:

1. UC Davis would like to request travel approval for **REDACTED** to travel from Davis, California, USA to Dakar, Senegal from February 6-17, 2017 to meet with in-country partners.

**Trip purpose:** To meet with the new Country Coordinator and implementing partners Principal Investigators to discuss to assess and progress project implementation.

2. EcoHealth Alliance would like to request travel approval for Carlos Zambrana-Torrel to travel from New York, NY, USA to Addis Ababa, Ethiopia from February 20-24, 2017 to participate in a regional meeting of the African Sustainable Livestock 2050 project.

**Trip purpose:** To represent the PREDICT Modeling and Analytics team at this regional meeting. The aim of the meeting is to liaise with National Governments to support the development and discuss potential implications of the project.

3. EcoHealth Alliance would like to request travel approval for Dr. Alice Latinne to travel from New York, USA to North Sulawesi, Gorontalo and Bogor, Indonesia from February 20-March 9, 2017 for fieldwork and meeting with in-country partners.

**Trip purpose:** To assist the PREDICT Indonesia team in PREDICT field sampling In North Sulawesi and Gorontalo (Feb 20-Mar 5) and to meet with PREDICT team at Bogor Agricultural University (Mar 6-9).

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<https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/BN1PR08MB123D7DA57D445D24E436089A27C0%40BN1PR08MB123.namprd08.prod.outlook.com>.





**From:** Kirsten Gilardi <[kvgilardi@ucdavis.edu](mailto:kvgilardi@ucdavis.edu)>  
**To:** Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, Christine Kreuder Johnson <[ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu)>, Tracey Goldstein <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)>, "predict@ucdavis.edu" <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>  
**Cc:** Benard Ssebide **REDACTED**, Mike Cranfield **REDACTED**  
**Subject:** Fwd: Notes from yeaterday EAC meeting on HPAI  
**Sent:** Tue, 24 Jan 2017 14:32:22 +0000  
[Meeting convened by EAC to discuss the Highly Pathogenic Avian Influenza.docx](#)

Hi colleagues:

The press release that was issued by the Govt of Uganda yesterday (that Lisa attached to her email below) contains what everyone believes to be more reasonable estimates of numbers of dead wild birds, (vs. the several thousand referenced in a SitRep that came out on Jan. 19 and that was referred to at the East Africa Commission meeting yesterday).

The National Task Force has still not officially released an approved response plan. Julius Lutwama at UVRI is doing the PCR today to determine the neuraminidase type and told the National One Health Platform Technical Working Group today in a meeting that he thought they would have that work done by the end of the day.

At this point, PREDICT hasn't been asked formally to join the NTF to assist with the outbreak. UWA and the Uganda Wildlife Education Centre are conducting wild bird surveys, and UVRI is conducting the lab testing. Mike is going to spend some time on a microscope at the Central Diagnostic Lab at Makerere University in the morning to look at histosections from some wild bird tissues collected in early January — this would be, to the best of our knowledge, the first time anyone's looking at tissues to see if there are lesions consistent with AI and/or other infectious agents.

If you feel that we should be asserting/inserting ourselves with the NTF, please let us know. Otherwise, Benard will continue to keep tabs on outbreak response, and of course if geographic spread becomes an issue for the NTF teams, and/or there is concern about involvement of other species in the outbreak, we can make our voices heard. Otherwise, we're super happy to stay focused on getting human surveillance well underway, continue with our two weeks/month field schedule, hopefully coordinate on sampling with FAO, etc.

-Kirsten, Mike and Benard

Begin forwarded message:

**From:** Lisa Kramer <[lkramer@usaid.gov](mailto:lkramer@usaid.gov)>  
**Subject:** Fwd: Notes from yeaterday EAC meeting on HPAI  
**Date:** January 24, 2017 at 4:37:29 PM GMT+3  
**To:** "msancho@usaid.gov" <[msancho@usaid.gov](mailto:msancho@usaid.gov)>, <[mlangalli@usaid.gov](mailto:mlangalli@usaid.gov)>, "Kassahun Belay" <[kbelay@usaid.gov](mailto:kbelay@usaid.gov)>, Yung-Ting Bonnenfant <[ybonnenfant@usaid.gov](mailto:ybonnenfant@usaid.gov)>, John Edgar <[jedgar@usaid.gov](mailto:jedgar@usaid.gov)>, Joshua Karnes <[jkarnes@usaid.gov](mailto:jkarnes@usaid.gov)>, "Ezra Mwijarubi" <[emwijarubi@usaid.gov](mailto:emwijarubi@usaid.gov)>, John Mckay <[jmckay@usaid.gov](mailto:jmckay@usaid.gov)>, "Richard Munyaneza" <[rmunyaneza@usaid.gov](mailto:rmunyaneza@usaid.gov)>, Janean Davis <[jdavis@usaid.gov](mailto:jdavis@usaid.gov)>, "Jean-Felly Numbi" <[jnumbi@usaid.gov](mailto:jnumbi@usaid.gov)>, Karen Koprince <[kkoprince@usaid.gov](mailto:kkoprince@usaid.gov)>, "Morzaria, Subhash (FAORAP)" <**REDACTED**>, "Makonnen, Yilma (FAORNE)" **REDACTED**, Gwenaelle Dauphin **REDACTED**, "Kivaria, Fredrick (FAOUG)" <**REDACTED**>, "Fasina, Folorunso (FAOKE)" <**REDACTED**>, "Tadesse, Zelalem (FAOTZ)" **REDACTED**, scott newman **REDACTED**, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, Christine Kreuder Johnson <[ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu)>, Brian Bird <[bhbird@ucdavis.edu](mailto:bhbird@ucdavis.edu)>, Tracey Goldstein <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)>, <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>, Kirsten Gilardi <[kvgilardi@ucdavis.edu](mailto:kvgilardi@ucdavis.edu)>, "Zimmerman, Dawn" <[zimmermand@si.edu](mailto:zimmermand@si.edu)>, Mike Cranfield **REDACTED**, Benard Ssebide <**REDACTED**>, Julius Nziza **REDACTED**, Rudovick Kazwala **REDACTED**, Joseph Kamau <[jkamau@primateresearch.org](mailto:jkamau@primateresearch.org)>, Nigatu kebede **REDACTED**, "Susan Scribner" **REDACTED**, Sambe Duale/PRP/Projects/DAI **REDACTED**, Andrew Kitua <**REDACTED**>, David Mutonga <[david.mutonga@thepalladiumgroup.com](mailto:david.mutonga@thepalladiumgroup.com)>, Samuel Muriuki **REDACTED**, Winyi Kaboyo **REDACTED**, Thomas Nyariki **REDACTED**, Jean Felix Kinani

**REDACTED**, John Kunda **REDACTED** "FALL, Ibrahima-Soce" **REDACTED** "ALI AHMED, Yahaya" **REDACTED**, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>, Alisa Pereira <[apereira@usaid.gov](mailto:apereira@usaid.gov)>, Ricardo Echalar <[rechalar@usaid.gov](mailto:rechalar@usaid.gov)>, Ashna Kibria <[akibria@usaid.gov](mailto:akibria@usaid.gov)>, Sarah Paige <[spaige@usaid.gov](mailto:spaige@usaid.gov)>, Andrea Long-Wagar <[alongwagar@usaid.gov](mailto:alongwagar@usaid.gov)>, Dennis Carroll <[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)>, Mary Onsongo <[monsongo@usaid.gov](mailto:monsongo@usaid.gov)>, Tracy McCracken <[tmccracken@usaid.gov](mailto:tmccracken@usaid.gov)>, Scott Cameron <[scameron@usaid.gov](mailto:scameron@usaid.gov)>

Colleagues,

Attached are notes from the EAC meeting regarding the HPAI outbreak in Uganda. Thank you to Andrew Kitua for preparing and distributing the notes.

**Lisa Kramer**

Regional Emerging Pandemic Threats Advisor

USAID/Kenya and East Africa

+254-20-862-2107 (O)

**REDACTED** (C)

Dear All, These are quick notes from the EAC meeting on HPAI held yesterday. Full report will be communicated to you when ready.  
Best regards.

Andrew Kitua

Director, East and Central Africa Region

USAID EPT2 - Preparedness & Response Project

**REDACTED**

Websites:

[www.dai.com/](http://www.dai.com/)

[www.preparednessandresponse.org](http://www.preparednessandresponse.org)

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## Meeting convened by EAC to discuss the Highly Pathogenic Avian Influenza (HPAI H5) Outbreak in Uganda.

Place: Tele conference Room, World Bank, Kampala      Time 11 am.

### Agenda:

1. Opening and Introductions
2. Brief from Uganda on status of the epidemic and Assistance needed from the region (if any)
3. Brief from Countries' status of preparedness for the HPAI outbreak
4. Discussions and way forward
5. Sharing of cross-border surveillance data; planned cross Border Meetings
6. Status of DHIS2 System and ability to submit data to the regional electronic disease surveillance system
7. AOB

### In attendance:

EAC Health Desk; East and Central African Health Community (ECSA); USAID P&R Project – Kampala; EAC Aviation – Represented by Uganda Civil Aviation Commissioner; Uganda Central Public Health Laboratories; EAC Public Health Laboratory Strengthening Project; National Rapid Response teams/ Rapid Response Task Force teams of Tanzania, Kenya, Rwanda, Burundi and Uganda.

### Deliberations:

#### 1. Opening and Introductions

The meeting was chaired by Kenya following EAC regulations. The meeting was opened at 11 am.

2. Brief from Uganda on status of the epidemic and Assistance needed from the region (if any)
  - 2.1. Informed that the Highly Pathogenic Avian Influenza (HPAI) outbreak is currently affecting 4 districts of Uganda namely Kampala, Masaka, Wakisa and Kaalangala. The number of estimated dead wild birds since the epidemic started is 6,000. The number of estimated dead domestic birds since the outbreak is 2000. Domestic birds involved are mainly Chicken and Ducks.
  - 2.2. The National Animal Disease Diagnostic and Epidemiology Centre (NADDEC) and Uganda Virus Research Institute (UVRI) have confirmed the cause of the outbreak as Highly Pathogenic Avian Influenza (H5), but the N subtype has yet to be confirmed.
  - 2.3. **Coordination:** A High Level National Multisectoral Team has been formed and provided with TOR.

The National Multisectoral team comprises of Ministry of Health (MOH), Ministry of Agriculture, Animal Industry and Fish (MAAIF), Ministry of Water and Environment (MOWE), Ministry of Internal Affairs (MOIA), Government Analytical Laboratory, Uganda Wildlife Authority, Makerere University Walter Reed Project and Uganda Wildlife Education Centre (UWEC).

A multisectoral National Task Force (NTF) comprising of Ministry of Health, MAAIF, UWA, Office of Prime Minister (OPM), UWEC, WHO, CDC, UNICEF, P&R, FAO, Uganda Red Cross, MUWRP has been established and daily National Task Force meetings are taking place co-chaired by Ministry



of Agriculture, Animal Industry and Fisheries (MAAIF) and Ministry of Health (MOH) to provide daily updates of the outbreak.

**2.4. Surveillance:** Uganda is on alert and official press release have been made. Fifteen of the high risk districts along Lake Victoria have been put on High Alert and surveillance teams are in operation. Case definition for both human and animal has been developed and a full time alert desk has been established at the Public Health Emergency Operations Centre. Alert lines have been established (Toll free: 0800203033 and Hotline: 0752662741.

UVRI and NADDEC are finalizing the identification H subtype.

**2.5. Prevention and containment:** MAAIF has instituted Quarantine in Masaka district for poultry and silverfish.

**2.6. Human Cases:** No human cases have been identified so far. All health services in affected area are on alert

**2.7. Challenges:**

- Resource mobilization. Financial constraints and delay in financing the technical teams in the field
- Laboratory identification of N subtype
- IEC materials are yet to be made available for community sensitization
- No Tamiflu stocks for human treatment.

**2.8. Planned actions:**

- Daily NTF meetings
- Response plan finalization and application
- Briefs to top management of line ministries on HPAI outbreak and status.
- Brief from Countries' status of preparedness for the HPAI outbreak
- UN FAO is providing assistance for laboratory reagents (subtyping N)

**3. Brief from countries' status of preparedness for the HPIA outbreak**

- Burundi indicated that it was in the process of establishing a coordination mechanism/ Task Force to coordinate country preparedness for any eventual outbreak.
- Tanzania, Uganda, Kenya and Rwanda have established National Multisectoral Task Forces for preparedness and response and these have been put in operation.
- All countries except Burundi have put alert their areas of high risk and have dispensed surveillance teams for field investigations.
- National OH Platforms are actively participating in coordinating multisectoral activities in each country (except Burundi)
- In Country Constrains and Challenges include Lack of stock piles of Personal Protective Equipment, Sample collection kits, Tamiflu, logistic support to surveillance teams. Other challenges include Cross border meetings and exchange of data.
- Uganda has good human isolation facilities at its regional hospitals and national facilities at Entebbe and Masaka (ready for managing human cases); Tanzania has only One national isolation center in Dar es Salaam and needs to establish one at the lake zone for any eventualities; Other countries have similar challenges.
- Uganda OH Platform is fully engaged in coordinating the HPAI outbreak activities

**4. Discussions and Way forward:**

- EAC to activate the regional contingency plan and find resources to support countries meet the urgent needs for PPEs, Field sample collection kits, Laboratory reagents, Tamiflu, and cross border surveillance activities.
- EAC offered countries the use of its boats in Lake Victoria (MV. Jumuiya and another with Kenya Fisheries and Marines (MV....))
- Countries to continue strengthening their Coordination mechanisms, alert and surveillance.

**5. Sharing of cross-border surveillance data; planned cross Border Meetings**

**5.1 East African Community:**

- Planning a Regional contingency team meeting in Entebbe towards February- March. To be confirmed
- Work with ECSA for cross border meetings

**5.2. ECSA**

- Planning for cross border meeting involving Kenya and Tanzania, Kenya and Uganda, Tanzania and Uganda and Tanzania and Rwanda (Place and time to be confirmed)
- To provide support through the East African Laboratory strengthening network

**6. Status of DHIS2 System and ability to submit data to the regional electronic disease surveillance system**

6.1. ECSA to have one on one discussion with countries

**7. AOB:**

Request the EAC and partners for urgent mobilization of resources to support countries acquire adequate supplies of PPEs, Laboratory reagents, Tamiflu, and other field and surveillance logistics.

-

**From:** "Fasina, Folorunso (FAOKE)" <Folorunso.Fasina@fao.org>  
**To:** Lisa Kramer <lkramer@usaid.gov>, "msancho@usaid.gov" <msancho@usaid.gov>, "mlangalli@usaid.gov" <mlangalli@usaid.gov>, Kassahun Belay <kbelay@usaid.gov>, Yung-Ting Bonnenfant <ybonnenfant@usaid.gov>, John Edgar <jedgar@usaid.gov>, Joshua Karnes <jkarnes@usaid.gov>, Ezra Mwijarubi <emwijarubi@usaid.gov>, John Mckay <jmckay@usaid.gov>, Richard Munyaneza <rmunyaneza@usaid.gov>, Janean Davis <jdavis@usaid.gov>, Jean-Felly Numbi <jnumbi@usaid.gov>, Karen Koprince <kkoprince@usaid.gov>, "Morzaria, Subhash (TCE)" <Subhash.Morzaria@fao.org>, "Makonnen, Yilma (FAOKE)" [REDACTED], "Dauphin, Gwenaelle (AGAH)" [REDACTED], "Kivaria, Fredrick (FAOUG)" [REDACTED], "Tadesse, Zelalem (FAOTZ)" [REDACTED], "Newman, Scott (FAOET)" [REDACTED], Jonna Mazet <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Brian Bird <bhbird@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Kirsten Gilardi <kvgilardi@ucdavis.edu>, "Zimmerman, Dawn" <zimmermand@si.edu>, Mike Cranfield [REDACTED], "Benard Ssebide" [REDACTED], Julius Nziza [REDACTED], Rudovick Kazwala [REDACTED], Joseph Kamau <jkamau@primateresearch.org>, Nigatu kebede [REDACTED], "Susan Scribner" [REDACTED], Sambe Duale/PRP/Projects/DAI [REDACTED], Andrew Kitua [REDACTED], "Serge Nzietchueng" [REDACTED], David Mutonga <david.mutonga@thepalladiumgroup.com>, Samuel Muriuki [REDACTED], Winyi Kaboyo [REDACTED], Thomas Nyariki [REDACTED], Jean Felix Kinani [REDACTED], John Kunda [REDACTED], [REDACTED], "FALL, Ibrahima-Soce" [REDACTED], "ALI AHMED, Yahaya" [REDACTED], Andrew Clements <aclements@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, Ricardo Echalar <rechalar@usaid.gov>, Ashna Kibria <akibria@usaid.gov>, Sarah Paige <spaige@usaid.gov>, Andrea Long-Wagar <alongwagar@usaid.gov>, Dennis Carroll <dcarroll@usaid.gov>, Mary Onsongo <monsongo@usaid.gov>, Tracy McCracken <tmccracken@usaid.gov>, Scott Cameron <scameron@usaid.gov>  
**Subject:** RE: Notes from yeaterday EAC meeting on HPAI  
**Sent:** Tue, 24 Jan 2017 14:37:31 +0000

Thanks Lisa,  
This update is apt.

Fasina

**From:** Lisa Kramer [mailto:lkramer@usaid.gov]  
**Sent:** Tuesday, January 24, 2017 4:37 PM  
**To:** msancho@usaid.gov; mlangalli@usaid.gov; Kassahun Belay <kbelay@usaid.gov>; Yung-Ting Bonnenfant <ybonnenfant@usaid.gov>; John Edgar <jedgar@usaid.gov>; Joshua Karnes <jkarnes@usaid.gov>; Ezra Mwijarubi <emwijarubi@usaid.gov>; John Mckay <jmckay@usaid.gov>; Richard Munyaneza <rmunyaneza@usaid.gov>; Janean Davis <jdavis@usaid.gov>; Jean-Felly Numbi <jnumbi@usaid.gov>; Karen Koprince <kkoprince@usaid.gov>; Morzaria, Subhash (TCE) [REDACTED]; Makonnen, Yilma (FAOKE) <[REDACTED]>; Dauphin, Gwenaelle (AGAH) [REDACTED]; Kivaria, Fredrick (FAOUG) [REDACTED]; Fasina, Folorunso (FAOKE) [REDACTED]; Tadesse, Zelalem (FAOTZ) [REDACTED]; Newman, Scott (FAOET) [REDACTED]; Jonna Mazet <jkmazet@ucdavis.edu>; Christine Kreuder Johnson <ckjohnson@ucdavis.edu>; Brian Bird <bhbird@ucdavis.edu>; Tracey Goldstein <tgoldstein@ucdavis.edu>; predict@ucdavis.edu; Kirsten Gilardi <kvgilardi@ucdavis.edu>; Zimmerman, Dawn <zimmermand@si.edu>; Mike Cranfield [REDACTED]; Benard Ssebide [REDACTED]; Julius Nziza [REDACTED]; Rudovick Kazwala [REDACTED]; Joseph Kamau <jkamau@primateresearch.org>; Nigatu kebede [REDACTED]; Susan Scribner [REDACTED]; Sambe Duale/PRP/Projects/DAI [REDACTED]; Andrew Kitua [REDACTED]; Serge\_Nzietchueng@dai.com; David Mutonga <david.mutonga@thepalladiumgroup.com>; Samuel Muriuki [REDACTED]; Winyi Kaboyo [REDACTED]; Thomas Nyariki [REDACTED]; Jean Felix Kinani [REDACTED]; John Kunda [REDACTED]; FALL, Ibrahima-Soce [REDACTED]; ALI AHMED, Yahaya [REDACTED]; Andrew Clements <aclements@usaid.gov>; Alisa Pereira <apereira@usaid.gov>; Ricardo Echalar <rechalar@usaid.gov>; Ashna Kibria <akibria@usaid.gov>; Sarah Paige <spaige@usaid.gov>; Andrea Long-Wagar <alongwagar@usaid.gov>; Dennis Carroll <dcarroll@usaid.gov>; Mary Onsongo <monsongo@usaid.gov>; Tracy McCracken <tmccracken@usaid.gov>; Scott Cameron <scameron@usaid.gov>  
**Subject:** Fwd: Notes from yeaterday EAC meeting on HPAI

Colleagues,

Attached are notes from the EAC meeting regarding the HPAI outbreak in Uganda. Thank you to Andrew Kitua for preparing and distributing the notes.

**Lisa Kramer**  
Regional Emerging Pandemic Threats Advisor



USAID/Kenya and East Africa  
+254-20-862-2107 (O)  
- REDACTED (C)

Dear All, These are quick notes from the EAC meeting on HPAI held yesterday. Full report will be communicated to you when ready. Best regards.

Andrew Kitua

Director, East and Central Africa Region  
USAID EPT2 - Preparedness & Response Project

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[www.preparednessandresponse.org](http://www.preparednessandresponse.org)

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**Sent:** Tue, 24 Jan 2017 07:50:11 -0800  
**Subject:** Fwd: Notes from yeaterday EAC meeting on HPAI  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** "AOTR/Grant Manager Andrew Clements" <AClements@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, "Kramer, Lisa" <lkramer@usaid.gov>  
**Cc:** David J Wolking <djwolking@ucdavis.edu>  
[Meeting convened by EAC to discuss the Highly Pathogenic Avian Influenza.docx](#)

FYI,  
Jonna

----- Forwarded message -----

**From:** Kirsten Gilardi <kvgilardi@ucdavis.edu>  
**Date:** Tue, Jan 24, 2017 at 6:32 AM  
**Subject:** Fwd: Notes from yeaterday EAC meeting on HPAI  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>  
**Cc:** Benard Ssebide <[REDACTED]>, Mike Cranfield <[REDACTED]>

Hi colleagues:

The press release that was issued by the Govt of Uganda yesterday (that Lisa attached to her email below) contains what everyone believes to be more reasonable estimates of numbers of dead wild birds, (vs. the several thousand referenced in a SitRep that came out on Jan. 19 and that was referred to at the East Africa Commission meeting yesterday).

The National Task Force has still not officially released an approved response plan. Julius Lutwama at UVRI is doing the PCR today to determine the neuraminidase type and told the National One Health Platform Technical Working Group today in a meeting that he thought they would have that work done by the end of the day.

At this point, PREDICT hasn't been asked formally to join the NTF to assist with the outbreak. UWA and the Uganda Wildlife Education Centre are conducting wild bird surveys, and UVRI is conducting the lab testing. Mike is going to spend some time on a microscope at the Central Diagnostic Lab at Makerere University in the morning to look at histosections from some wild bird tissues collected in early January — this would be, to the best of our knowledge, the first time anyone's looking at tissues to see if there are lesions consistent with AI and/or other infectious agents.

If you feel that we should be asserting/inserting ourselves with the NTF, please let us know. Otherwise, Benard will continue to keep tabs on outbreak response, and of course if geographic spread becomes an issue for the NTF teams, and/or there is concern about involvement of other species in the outbreak, we can make our voices heard. Otherwise, we're super happy to stay focused on getting human surveillance well underway, continue with our two weeks/month field schedule, hopefully coordinate on sampling with FAO, etc.

-Kirsten, Mike and Benard

Begin forwarded message:

**From:** Lisa Kramer <lkramer@usaid.gov>  
**Subject:** Fwd: Notes from yeaterday EAC meeting on HPAI  
**Date:** January 24, 2017 at 4:37:29 PM GMT+3  
**To:** "msancho@usaid.gov" <msancho@usaid.gov>, <mlangalli@usaid.gov>, "Kassahun Belay" <kbelay@usaid.gov>, Yung-Ting Bonnenfant <ybonnenfant@usaid.gov>, John Edgar <jedgar@usaid.gov>, Joshua Karnes <jkarnes@usaid.gov>, "Ezra Mwijarubi" <emwijarubi@usaid.gov>, John McKay <jmckay@usaid.gov>, "Richard Munyaneza" <rmunyaneza@usaid.gov>, Janean Davis <jdavis@usaid.gov>, "Jean-Felly Numbi" <jnumbi@usaid.gov>, Karen Koprince <kkoprince@usaid.gov>, "Morzaria, Subhash (FAORAP)" <s[REDACTED]>, "Makonnen, Yilma (FAORNE)" <[REDACTED]>, Gwenaelle Dauphin <[REDACTED]>, "Kivaria, Fredrick (FAOUG)"



<[REDACTED]>, "Fasina, Folorunso (FAOKE)" <[REDACTED]> "Tadesse, Zelalem (FAOTZ)" <[REDACTED]>, scott newman <[REDACTED]>, Jonna Mazet <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Brian Bird <bhbird@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, <predict@ucdavis.edu>, Kirsten Gilardi <kvgilardi@ucdavis.edu>, "Zimmerman, Dawn" <zimmermand@si.edu>, Mike Cranfield <[REDACTED]>, Benard Ssebide <[REDACTED]>, Julius Nziza <[REDACTED]>, Rudovick Kazwala <[REDACTED]>, Joseph Kamau <jkamau@primateresearch.org>, Nigatu kebede <[REDACTED]>, "Susan Scribner" <[REDACTED]>, Sambe Duale/PRP/Projects/DAI <[REDACTED]>, Andrew Kitua <[REDACTED]>, <[REDACTED]>, David Mutonga <david.mutonga@thepalladiumgroup.com>, Samuel Muriuki <[REDACTED]>, Winyi Kaboyo <[REDACTED]>, Thomas Nyariki <[REDACTED]>, Jean Felix Kinani <[REDACTED]>, John Kunda <[REDACTED]>, <[REDACTED]>, "FALL, Ibrahima-Soce" <[REDACTED]>, "ALI AHMED, Yahaya" <[REDACTED]>, Andrew Clements <aclements@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, Ricardo Echalar <rechalar@usaid.gov>, Ashna Kibria <akibria@usaid.gov>, Sarah Paige <spaige@usaid.gov>, Andrea Long-Wagar <alongwagar@usaid.gov>, Dennis Carroll <dcarroll@usaid.gov>, Mary Onsongo <monsongo@usaid.gov>, Tracy McCracken <tmccracken@usaid.gov>, Scott Cameron <scameron@usaid.gov>

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**Lisa Kramer**

Regional Emerging Pandemic Threats Advisor

USAID/Kenya and East Africa

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[REDACTED] (C)

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Best regards.

Andrew Kitua

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USAID EPT2 - Preparedness & Response Project

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Place: Tele conference Room, World Bank, Kampala      Time 11 am.

### Agenda:

1. Opening and Introductions
2. Brief from Uganda on status of the epidemic and Assistance needed from the region (if any)
3. Brief from Countries' status of preparedness for the HPAI outbreak
4. Discussions and way forward
5. Sharing of cross-border surveillance data; planned cross Border Meetings
6. Status of DHIS2 System and ability to submit data to the regional electronic disease surveillance system
7. AOB

### In attendance:

EAC Health Desk; East and Central African Health Community (ECSA); USAID P&R Project – Kampala; EAC Aviation – Represented by Uganda Civil Aviation Commissioner; Uganda Central Public Health Laboratories; EAC Public Health Laboratory Strengthening Project; National Rapid Response teams/ Rapid Response Task Force teams of Tanzania, Kenya, Rwanda, Burundi and Uganda.

### Deliberations:

#### 1. Opening and Introductions

The meeting was chaired by Kenya following EAC regulations. The meeting was opened at 11 am.

2. Brief from Uganda on status of the epidemic and Assistance needed from the region (if any)
  - 2.1. Informed that the Highly Pathogenic Avian Influenza (HPAI) outbreak is currently affecting 4 districts of Uganda namely Kampala, Masaka, Wakisa and Kaalangala. The number of estimated dead wild birds since the epidemic started is 6,000. The number of estimated dead domestic birds since the outbreak is 2000. Domestic birds involved are mainly Chicken and Ducks.
  - 2.2. The National Animal Disease Diagnostic and Epidemiology Centre (NADDEC) and Uganda Virus Research Institute (UVRI) have confirmed the cause of the outbreak as Highly Pathogenic Avian Influenza (H5), but the N subtype has yet to be confirmed.
  - 2.3. **Coordination:** A High Level National Multisectoral Team has been formed and provided with TOR.

The National Multisectoral team comprises of Ministry of Health (MOH), Ministry of Agriculture, Animal Industry and Fish (MAAIF), Ministry of Water and Environment (MOWE), Ministry of Internal Affairs (MOIA), Government Analytical Laboratory, Uganda Wildlife Authority, Makerere University Walter Reed Project and Uganda Wildlife Education Centre (UWEC).

A multisectoral National Task Force (NTF) comprising of Ministry of Health, MAAIF, UWA, Office of Prime Minister (OPM), UWEC, WHO, CDC, UNICEF, P&R, FAO, Uganda Red Cross, MUWRP has been established and daily National Task Force meetings are taking place co-chaired by Ministry

- of Agriculture, Animal Industry and Fisheries (MAAIF) and Ministry of Health (MOH) to provide daily updates of the outbreak.
- 2.4. Surveillance:** Uganda is on alert and official press release have been made. Fifteen of the high risk districts along Lake Victoria have been put on High Alert and surveillance teams are in operation. Case definition for both human and animal has been developed and a full time alert desk has been established at the Public Health Emergency Operations Centre. Alert lines have been established (Toll free: 0800203033 and Hotline: 0752662741. UVRI and NADDEC are finalizing the identification H subtype.
- 2.5. Prevention and containment:** MAAIF has instituted Quarantine in Masaka district for poultry and silverfish.
- 2.6. Human Cases:** No human cases have been identified so far. All health services in affected area are on alert
- 2.7. Challenges:**
- Resource mobilization. Financial constraints and delay in financing the technical teams in the field
  - Laboratory identification of N subtype
  - IEC materials are yet to be made available for community sensitization
  - No Tamiflu stocks for human treatment.
- 2.8. Planned actions:**
- Daily NTF meetings
  - Response plan finalization and application
  - Briefs to top management of line ministries on HPAI outbreak and status.
  - Brief from Countries' status of preparedness for the HPAI outbreak
  - UN FAO is providing assistance for laboratory reagents (subtyping N)
- 3. Brief from countries' status of preparedness for the HPIA outbreak**
- Burundi indicated that it was in the process of establishing a coordination mechanism/ Task Force to coordinate country preparedness for any eventual outbreak.
  - Tanzania, Uganda, Kenya and Rwanda have established National Multisectoral Task Forces for preparedness and response and these have been put in operation.
  - All countries except Burundi have put alert their areas of high risk and have dispensed surveillance teams for field investigations.
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  - In Country Constrains and Challenges include Lack of stock piles of Personal Protective Equipment, Sample collection kits, Tamiflu, logistic support to surveillance teams. Other challenges include Cross border meetings and exchange of data.
  - Uganda has good human isolation facilities at its regional hospitals and national facilities at Entebbe and Masaka (ready for managing human cases); Tanzania has only One national isolation center in Dar es Salaam and needs to establish one at the lake zone for any eventualities; Other countries have similar challenges.
  - Uganda OH Platform is fully engaged in coordinating the HPAI outbreak activities



**4. Discussions and Way forward:**

- EAC to activate the regional contingency plan and find resources to support countries meet the urgent needs for PPEs, Field sample collection kits, Laboratory reagents, Tamiflu, and cross border surveillance activities.
- EAC offered countries the use of its boats in Lake Victoria (MV. Jumuiya and another with Kenya Fisheries and Marines (MV....))
- Countries to continue strengthening their Coordination mechanisms, alert and surveillance.

**5. Sharing of cross-border surveillance data; planned cross Border Meetings**

**5.1 East African Community:**

- Planning a Regional contingency team meeting in Entebbe towards February- March. To be confirmed
- Work with ECSA for cross border meetings

**5.2. ECSA**

- Planning for cross border meeting involving Kenya and Tanzania, Kenya and Uganda, Tanzania and Uganda and Tanzania and Rwanda (Place and time to be confirmed)
- To provide support through the East African Laboratory strengthening network

**6. Status of DHIS2 System and ability to submit data to the regional electronic disease surveillance system**

6.1. ECSA to have one on one discussion with countries

**7. AOB:**

Request the EAC and partners for urgent mobilization of resources to support countries acquire adequate supplies of PPEs, Laboratory reagents, Tamiflu, and other field and surveillance logistics.

-

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Tue, 24 Jan 2017 16:58:22 +0100  
**Subject:** Re: Meeting with FAO Uganda team  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Cc:** Alisa Pereira <apereira@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Billy Karesh <karesh@ecohealthalliance.org>

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](mailto:aclements@usaid.gov)*

On Jan 24, 2017, at 4:47 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

FYI,  
J

----- Forwarded message -----

From: **Kirsten Gilardi** <[kvgilardi@ucdavis.edu](mailto:kvgilardi@ucdavis.edu)>  
Date: Mon, Jan 23, 2017 at 9:57 PM  
Subject: Meeting with FAO Uganda team  
To: Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, "William B. Karesh" <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)>, Christine Kreuder Johnson <[ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu)>, "[predict@ucdavis.edu](mailto:predict@ucdavis.edu)" <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>  
Cc: Benard Ssebide **REDACTED** Mike Cranfield **REDACTED**

Jonna, Billy, Chris and David:

Just a quick note to let you know that yesterday (Jan. 23) we met with FAO's point person in Uganda, Dr. Frederick Kivaria, and his associate Susan Ndayanabo, Fred's laboratory specialist.

FAO Uganda and PREDICT are coordinating well on concurrent sampling planning. FAO had intended to send a team to join Benard and Ricky this month, but the AI outbreak took over... Their intent is to join our team in the field for sampling in the Bwindi region in February. FAO's field teams will be comprised of FAO staff accompanying personnel from the government's National Animal Disease Detection and Epidemiology Center (NADDEC, based in Entebbe) and district veterinarians. They are planning to submit their Bwindi samples to whatever laboratory we are using for wildlife samples, and are also proposing to sponsor two NADDEC laboratory technician to train on PREDICT protocols at the lab. FAO Uganda is also conducting surveillance for known priority diseases (anthrax, brucellosis, rabies, RVF and VHFs) at other sites in Uganda. They have had no directive yet from Subash on using EIDITH.

Think that's it in a nutshell.

Off to a Uganda National One Health Platform Technical Working Group meeting this morning....

-Kirsten, Benard and Mike

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Tue, 24 Jan 2017 17:00:04 +0100  
**Subject:** Re: Notes from yeaterday EAC meeting on HPAI  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Cc:** Alisa Pereira <apereira@usaid.gov>, "Kramer, Lisa" <lkramer@usaid.gov>, David J Wolking <djwolking@ucdavis.edu>

Thanks, Jonna. Unless asked, stay on the same path as before in Uganda.

*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](mailto:aclements@usaid.gov)*

On Jan 24, 2017, at 4:50 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

FYI,  
Jonna

----- Forwarded message -----

**From:** Kirsten Gilardi <[kvgilardi@ucdavis.edu](mailto:kvgilardi@ucdavis.edu)>  
**Date:** Tue, Jan 24, 2017 at 6:32 AM  
**Subject:** Fwd: Notes from yeaterday EAC meeting on HPAI  
**To:** Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, Christine Kreuder Johnson <[ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu)>, Tracey Goldstein <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)>, "[predict@ucdavis.edu](mailto:predict@ucdavis.edu)" <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>  
**Cc:** Benard Ssebidde **REDACTED**, Mike Cranfield **REDACTED**

Hi colleagues:

The press release that was issued by the Govt of Uganda yesterday (that Lisa attached to her email below) contains what everyone believes to be more reasonable estimates of numbers of dead wild birds, (vs. the several thousand referenced in a SitRep that came out on Jan. 19 and that was referred to at the East Africa Commission meeting yesterday).

The National Task Force has still not officially released an approved response plan. Julius Lutwama at UVRI is doing the PCR today to determine the neuraminidase type and told the National One Health Platform Technical Working Group today in a meeting that he thought they would have that work done by the end of the day.

At this point, PREDICT hasn't been asked formally to join the NTF to assist with the outbreak. UWA and the Uganda Wildlife Education Centre are conducting wild bird surveys, and UVRI is conducting the lab testing. Mike is going to spend some time on a microscope at the Central Diagnostic Lab at Makerere University in the morning to look at histosections from some wild bird tissues collected in early January — this would be, to the best of our knowledge, the first time anyone's looking at tissues to see if there are lesions consistent with AI and/or other infectious agents.

If you feel that we should be asserting/inserting ourselves with the NTF, please let us know. Otherwise, Benard will continue to keep tabs on outbreak response, and of course if geographic spread becomes an issue for the NTF teams, and/or there is concern about involvement of other species in the outbreak, we can make our voices heard. Otherwise, we're super happy to stay focused on getting human surveillance well underway, continue with our two weeks/month field schedule, hopefully coordinate on sampling with FAO, etc.

-Kirsten, Mike and Benard



Begin forwarded message:

**From:** Lisa Kramer <[lkramer@usaid.gov](mailto:lkramer@usaid.gov)>

**Subject:** Fwd: Notes from yeaterday EAC meeting on HPAI

**Date:** January 24, 2017 at 4:37:29 PM GMT+3

**To:** "msancho@usaid.gov" <[msancho@usaid.gov](mailto:msancho@usaid.gov)>, <[mlangalli@usaid.gov](mailto:mlangalli@usaid.gov)>, "Kassahun Belay" <[kbelay@usaid.gov](mailto:kbelay@usaid.gov)>, Yung-Ting Bonnenfant <[ybonnenfant@usaid.gov](mailto:ybonnenfant@usaid.gov)>, John Edgar <[jedgar@usaid.gov](mailto:jedgar@usaid.gov)>, Joshua Karnes <[jkarnes@usaid.gov](mailto:jkarnes@usaid.gov)>, "Ezra Mwijarubi" <[emwijarubi@usaid.gov](mailto:emwijarubi@usaid.gov)>, John Mckay <[jmckay@usaid.gov](mailto:jmckay@usaid.gov)>, "Richard Munyaneza" <[rmunyaneza@usaid.gov](mailto:rmunyaneza@usaid.gov)>, Janean Davis <[jdavis@usaid.gov](mailto:jdavis@usaid.gov)>, "Jean-Felly Numbi" <[jnumbi@usaid.gov](mailto:jnumbi@usaid.gov)>, Karen Koprince <[kkoprince@usaid.gov](mailto:kkoprince@usaid.gov)>, "Morzaria, Subhash (FAORAP)" [REDACTED] Makonnen, Yilma (FAORNE)" [REDACTED] Gwenaelle Dauphin [REDACTED] "Kivaria, Fredrick (FAOUG)" [REDACTED] "Fasina, Folorunso (FAOKE)" [REDACTED] "Tadesse, Zelalem (FAOTZ)" [REDACTED] scott newman [REDACTED] Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, Christine Kreuder Johnson <[ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu)>, Brian Bird <[bhbird@ucdavis.edu](mailto:bhbird@ucdavis.edu)>, Tracey Goldstein <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)>, <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>, Kirsten Gilardi <[kvgilardi@ucdavis.edu](mailto:kvgilardi@ucdavis.edu)>, "Zimmerman, Dawn" <[zimmermand@si.edu](mailto:zimmermand@si.edu)>, Mike Cranfield [REDACTED] Benard Ssebide [REDACTED] Julius Nziza [REDACTED] Rudovick Kazwala [REDACTED] Joseph Kamau <[jkamau@primateresearch.org](mailto:jkamau@primateresearch.org)>, Nigatu kebede [REDACTED] "Susan Scribner" [REDACTED] Sambe Duale/PRP/Projects/DAI [REDACTED] Andrew Kitua [REDACTED] David Mutonga <[david.mutonga@thepalladiumgroup.com](mailto:david.mutonga@thepalladiumgroup.com)>, Samuel Muriul [REDACTED] Winyi Kaboyo [REDACTED] Thomas Nyariki [REDACTED] Jean Felix Kinani [REDACTED] John Kunda [REDACTED] "FALL, Ibrahima-Soce" [REDACTED] "ALI AHMED, Yahaya" [REDACTED] Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>, Alisa Pereira <[apereira@usaid.gov](mailto:apereira@usaid.gov)>, Ricardo Echalar <[rechalar@usaid.gov](mailto:rechalar@usaid.gov)>, Ashna Kibria <[akibria@usaid.gov](mailto:akibria@usaid.gov)>, Sarah Paige <[spaige@usaid.gov](mailto:spaige@usaid.gov)>, Andrea Long-Wagar <[alongwagar@usaid.gov](mailto:alongwagar@usaid.gov)>, Dennis Carroll <[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)>, Mary Onsongo <[monsongo@usaid.gov](mailto:monsongo@usaid.gov)>, Tracy McCracken <[tmccracken@usaid.gov](mailto:tmccracken@usaid.gov)>, Scott Cameron <[scameron@usaid.gov](mailto:scameron@usaid.gov)>

Colleagues,

Attached are notes from the EAC meeting regarding the HPAI outbreak in Uganda. Thank you to Andrew Kitua for preparing and distributing the notes.

**Lisa Kramer**

Regional Emerging Pandemic Threats Advisor

USAID/Kenya and East Africa

+254-20-862-2107 (O)

[REDACTED] (C)

Dear All, These are quick notes from the EAC meeting on HPAI held yesterday. Full report will be communicated to you when ready. Best regards.

Andrew Kitua

Director, East and Central Africa Region

USAID EPT2 - Preparedness & Response Project

[REDACTED]

UCDUSR0010399

Websites:

[www.dai.com/](http://www.dai.com/)

[www.preparednessandresponse.org](http://www.preparednessandresponse.org)

DAI Shaping a more livable world

<Meeting convened by EAC to discuss the Highly Pathogenic Avian Influenza.docx>

**From:** "William B. Karesh" <karesh@ecohealthalliance.org>  
**To:** Kirsten Gilardi <kvgilardi@ucdavis.edu>  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>, Chris Johnson <ckjohnson@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Benard Ssebide **REDACTED** Mike Cranfield **REDACTED**, Andrew Clements <AClements@usaid.gov>, Alisa Pereira <apereira@usaid.gov>  
**Subject:** Re: Meeting with FAO Uganda team  
**Sent:** Tue, 24 Jan 2017 16:01:34 +0000

Excellent !!

BK

On Jan 24, 2017, at 12:57 AM, Kirsten Gilardi <[kvgilardi@ucdavis.edu](mailto:kvgilardi@ucdavis.edu)> wrote:

Jonna, Billy, Chris and David:

Just a quick note to let you know that yesterday (Jan. 23) we met with FAO's point person in Uganda, Dr. Frederick Kivaria, and his associate Susan Ndayanabo, Fred's laboratory specialist.

FAO Uganda and PREDICT are coordinating well on concurrent sampling planning. FAO had intended to send a team to join Benard and Ricky this month, but the AI outbreak took over... Their intent is to join our team in the field for sampling in the Bwindi region in February. FAO's field teams will be comprised of FAO staff accompanying personnel from the government's National Animal Disease Detection and Epidemiology Center (NADDEC, based in Entebbe) and district veterinarians. They are planning to submit their Bwindi samples to whatever laboratory we are using for wildlife samples, and are also proposing to sponsor two NADDEC laboratory technician to train on PREDICT protocols at the lab. FAO Uganda is also conducting surveillance for known priority diseases (anthrax, brucellosis, rabies, RVF and VHF) at other sites in Uganda. They have had no directive yet from Subash on using EIDITH.

Think that's it in a nutshell.

Off to a Uganda National One Health Platform Technical Working Group meeting this morning....

-Kirsten, Benard and Mike



**From:** Carlos Morel <[REDACTED]>  
**Subject:** Re: GVP, Beijing  
**Sent:** Thu, 26 Jan 2017 16:58:53 -0200  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>, Katherine Leasure <kaleasure@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Renata Curi Hauegen <[REDACTED]>  
**To:** Dennis Carroll <dcarroll@usaid.gov>

Hi Dennis,  
It was good that Jonna sent me her last message. There must have happened something odd that made possible my travel to Italy and not to China. These travel policies are a strange kind of an animal, we also had similar problems in TDR, dealing with WHO.

The PMAC Secretariat informed me that they do not support travel costs, that each member of the IOC has to be paid by their own Organization. As Fiocruz would not be able to fund my travel, not even in economy, this was a “no-go” option. Therefore, no travel to Bangkok nor Beijing.

No problem, better days will follow and GVP will of course survive...

Best,

Carlos

Em 26 de jan de 2017, à(s) 15:33, Dennis Carroll <[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)> escreveu:

Carlos, it is unfortunate that you will not be able to join us. I hope you appreciate that Jonna and her team did the very best they could do given the restrictive terms of the USAID funding. That said, will you not be coming to Bangkok?

d

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

On Jan 26, 2017, at 6:57 AM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Enjoy your time, there, Carlos.  
Happy to discuss next week, as I value you immensely as a friend and colleague. If you'd still like to consider the trip, please see the final (I think best) option sent to you by email from Matthew Blake.  
If not, we understand.  
Have a good visit,  
Jonna

On Thu, Jan 26, 2017 at 6:37 AM, Carlos Morel <[REDACTED]> wrote:

Dear Jonna,

Many thanks fir this detailed email. I have no problem to apologize if my judgement was so wrong. I hope you - and your staff - understand that it is difficult to understand why a travel to Italy receives a different treatment as compared to a longer travel to China. I could travel business to Bellagio, but not to Beijing!

Again: if I was so wrong, my apologies to you and your staff, no hard feelings.

I am not in Rio, I am in São Paulo with my wife and grandson. Will be back in Rio this Sunday, when it would be ok for us to talk over the phone, if you would like.

Best regards,

Carlos

-/

Em qui, 26 de jan de 2017 às 12:23, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> escreveu:

Dear Carlos,

Unfortunately, your assumption is absolutely not correct. We have tried through every mechanism possible to provide you the business class ticket you merit. In fact offered you another more optimal itinerary after your last cancellation (email from Matt Blake yesterday). We deeply apologize for the ineffectual communications and the US travel rules that are completely outside of our control, but please know that I and my staff have spent more than the cost of a business class ticket in personnel hours just to try to make this work for you -- having meetings with the Chancellor's office, finding work arounds, etc. None of that is your fault, but to do all of this work and find that you think we weren't trying is incredibly demoralizing to me and my team. We still have a viable option -- more than one that we've offered, but understand if it is all just to much.

I would be happy, as offered, to discuss by phone, but some of this grey area is inappropriate for email communication to the extent that some employees who have been trying diligently to help you are concerned about their future at the university for trying to stretch the rules as far as we have.

Very sorry for this result, and especially your feelings about it. We value you and your expertise and guidance immensely and hope to continue to work together.

Best,  
Jonna

On Thu, Jan 26, 2017 at 2:02 AM, Carlos Morel <**REDACTED**> wrote:

Dear Dennis,

I am really sorry I will not attend the GVP Beijing meeting. I believe I owe you, Jonna, Peter and others an explanation in relation to my decision:

- I found incomprehensible that I could travel business to Italy, to attend the Bellagio meeting, and under exactly the same travel policy guidelines from UC Davis, the travel to Beijing was treated in a totally different way;
- I thank you for trying to find alternatives that would circumvent the 'problems' that surfaced in relation to the travel to China (which were not a problem when traveling to Bellagio): reimbursing as an 'honorarium', or profiting from the PMAC invitation; a pity these options did not work;
- After I agreed to arrive at the same day the Beijing meeting would start - a condition to receive a business ticket, according to the UC Davis travel policy - I was surprised to receive another demand: that I needed to show I had a business back in Brazil the same day I would arrive - otherwise I would have to fly back from China in economy! This was a bit too much to accept and therefore I concluded that the real issue was that there was already a decision from the managers at UC Davis that I would not get a business travel,

no matter how much I would ask for.

I imagine the real problem, this time, was not the travel policy, but a matter of economics and budget at the disposition of GVP. Otherwise, how to explain I could travel business to Italy - a much shorter flight - and could not receive a business travel to China, a 20plus hour travel, both ways.

This episode does not alter my conviction that GVP is an excellent initiative that merits all our efforts to make it come true. I hope this issue could be sorted out in the near future, either adopting the travel policy in good faith (if I could fly business to Italy, the same ought to be also true to China) or by raising new funds that would free GVP of such odd, US-government rules that should not be used internationally.

Renata Curi will represent not only myself in Beijing but also our institution, Fiocruz, which I believe will be a critical international partner to make the GVP come true.

Hoping the Beijing meeting will be a success,

Carlos

--

--

Carlos M. Morel MD DSc

Director

National Institute of Science and Technology for Innovation in Neglected Diseases  
(INCT-IDN)

Centre for Technological Development in Health (CDTS)

**REDACTED**

**REDACTED**  
Email [\[REDACTED\]](#) or [\[REDACTED\]](#)  
Twitter @cmmorel

<http://www.researcherid.com/rid/B-4079-2009>



**From:** Cassandra Louis Duthil <clouisduthil@usaid.gov>  
**Sent:** Wed, 5 Apr 2017 09:11:28 -0400  
**Subject:** Re: PREDICT International Travel Request - Matthias Sagno to Mali April 10-11  
**To:** Katherine Leasure <kaleasure@ucdavis.edu>  
**Cc:** PREDICTMGT <predictmgt@usaid.gov>, David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>

Andrew,

please approve.

Best,

Cassandra Louis Duthil  
Program Assistant  
Emerging Threats Division  
U.S. Agency for International Development (USAID)

**Telephone: 202-712-5583 Cell:** REDACTED [clouisduthil@usaid.gov](mailto:clouisduthil@usaid.gov)

On Tue, Apr 4, 2017 at 4:23 PM, Katherine Leasure <[kaleasure@ucdavis.edu](mailto:kaleasure@ucdavis.edu)> wrote:

Hi Andrew. Please find below an international travel request for your review and approval. Our apologies for the urgent nature of this request. At the moment, there is no liquid nitrogen available in Sierra Leone. Metabiota needs liquid nitrogen for their work in Sierra Leone and Guinea, and had been using the previous source to supply both countries. They can access liquid nitrogen in Bamako, Mali but this requires sending a driver over the border to pick it up; as the drive is long he will need to spend the night. They need him to go as soon as possible in order to continue work in Guinea. Please let me know if you have any questions. Thanks!

1. Sagno (Mali): \$150 ground transportation/\$215 (Bamako) max daily per diem

Travel Requests:

1. Metabiota would like to request travel approval for Matthias Sagno, Guinea Program Assistant to travel from Conakry, Guinea to Bamako, Mali from April 10 – 11, 2017 to pick up and purchase liquid nitrogen from Mali Gaz.

**Trip purpose:** To purchase and pick up liquid nitrogen from Mali Gaz. Due to the length of the drive, Mr. Sagno will spend one night in Bamako and return the next day. The liquid nitrogen is required to maintain cold chain for animal sampling in the field, and this is the nearest source available.

*Katherine Leasure*

HR/Payroll/Financial Assistant

One Health Institute

University of California, Davis

[530-752-7526](tel:530-752-7526)

[530-752-3318](tel:530-752-3318) FAX

[kaleasure@ucdavis.edu](mailto:kaleasure@ucdavis.edu)

--

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

To unsubscribe from this group and stop receiving emails from it, send an email to [predictmgt+unsubscribe@usaid.gov](mailto:predictmgt+unsubscribe@usaid.gov).

To post to this group, send email to [predictmgt@usaid.gov](mailto:predictmgt@usaid.gov).

To view this discussion on the web visit

<https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/027601d2ad81%2457ac1ed0%2407045c70%24%40ucdavis.edu>.

**From:** William B. Karesh <karesh@ecohealthalliance.org>  
**To:** Andrew Clements <AClements@usaid.gov>  
**CC:** Alisa Pereira <apereira@usaid.gov>; Jonna Mazet <jkmazet@ucdavis.edu>; predict@ucdavis.edu <predict@ucdavis.edu>; Amanda Andre <amanda.andre@ecohealthalliance.org>  
**Sent:** 4/11/2017 9:32:09 AM  
**Subject:** EPT-2 Annual Data Meeting 2017

Dear Dr. Clements,

The PREDICT-2 project recommends that the annual international meeting planned to discuss data sharing among EPT-2 partner projects and organizations not be held in 2017 as indicated in the PREDICT-2 work plan. Several key developments have led to this recommendation:

- 1) FAO activities in Africa have been redirected so that PREDICT-2 and FAO are no longer sampling and testing at the same locations or times, nor collecting comparable pathogen data.
- 2) Where FAO and PREDICT-2 are coordinating activities in Asia, the regional and country level teams are well integrated and are able to meet locally rather than needing to travel to an international meeting destination.
- 3) Coordinated activities with WHO are now focused in Vietnam and the country level teams are routinely meeting locally.
- 4) Coordination with CDC has been ongoing, but is limited to a very small number of countries and local or headquarter staff are routinely sharing information (e.g. Sierra Leone, Vietnam)
- 4) Data and information sharing between PREDICT-2, Preparedness and Response, and the One Health Workforce is now occurring on a monthly basis as well as ad-hoc when shared work items are identified.
- 5) Coordination of MERS-Coronavirus work with FAO is currently being handled at the country level in Jordan and Egypt. In addition, WHO in conjunction with FAO is currently planning a MERS-CoV coordination meeting with an expanded group of stakeholders that we will be able to participate in.

Please let us know at your earliest convenience if this proposed change is acceptable so that we can cancel arrangements for meeting logistics.

Thank you,

**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](http://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:** Brian Bird <bhbird@ucdavis.edu>  
**To:** David J Wolking <djwolking@ucdavis.edu>; Tracey Goldstein <tgoldstein@ucdavis.edu>; Prof. Jonna Mazet <jkmazet@ucdavis.edu>  
**Sent:** 4/25/2017 10:30:13 AM  
**Subject:** Re: (SBU) Request to Investigate Monkey Pox in Bo district

I think that if Tracey agrees, we can update the outbreak form to indicate that UCDavis can/will test them? And then put that in the email text that will accompany the form.

I had held off sending out the form late last night to the management team as I had so many questions back to Karen for clarification that I was afraid I'd have to essentially pull it back later today.

In the meantime, depending on Tracey's thoughts, we could just send an email back to Andrew indicating the strategy. Let's chat about it at 11?

-b

**From:** David J Wolking  
**Date:** Tuesday, April 25, 2017 at 8:46 AM  
**To:** Brian Bird , Tracey Goldstein , "Prof. Jonna Mazet"  
**Subject:** Fwd: (SBU) Request to Investigate Monkey Pox in Bo district

Brian,

Looping you in here since you've been coordinating so far with Karen. Sounds like we can test the samples at UCD per Tracey but not sure if that means we will or have permission to.

Want to craft a response or do we need more info from Karen and team?

D

----- Forwarded message -----

**From:** Andrew Clements <aclements@usaid.gov>  
**Date:** Tue, Apr 25, 2017 at 8:28 AM  
**Subject:** Fwd: (SBU) Request to Investigate Monkey Pox in Bo district  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Tracey Goldstein <tgoldstein@ucdavis.edu>  
**Cc:** "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>

Can you answer the questions below? Thanks!

----- Forwarded message -----

**From:** Dorothy Peprah <dpeprah@usaid.gov>  
**Date:** Tue, Apr 25, 2017 at 4:44 PM  
**Subject:** Re: (SBU) Request to Investigate Monkey Pox in Bo district  
**To:** Andrew Clements <aclements@usaid.gov>  
**Cc:** Kendra Chittenden <kchittenden@usaid.gov>, Khadijat Mojidi <kmojidi@usaid.gov>, Saad El-Din Hassan <shassan@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, Shana Gillette <sgillette@usaid.gov>

Andrew,

I met with PREDICT earlier today for an update. Can you clarify, what will happen to these exploratory samples?

Are they going to be shipped to CDC or UC Davis and, if so, when?

Dorothy

On Mon, Apr 24, 2017 at 1:24 PM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

PREDICT will conduct an exploratory trip for its staff support to MOHS for this diagnosed monkeypox case and evaluation of what would be needed for animal investigations. This minor expenditure from a global pot of regular budget (I.e. non-Ebola) outbreak funds will allow PREDICT to ensure that it remains in good, collaborative stead with MOHS and the GoSL, especially in this sensitive time.

Please note that there has been no approval for PREDICT to provide the \$1500 cash requested for MOHS field deployment or anything else at this point.

Please let me know if you have any questions.

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](mailto:aclements@usaid.gov)*



**From:** Andrew Clements <aclements@usaid.gov>  
**To:** Brian Bird <bhbird@ucdavis.edu>  
**CC:** David J Wolking <djwolking@ucdavis.edu>; Prof. Jonna Mazet <jkmazet@ucdavis.edu>; Tracey Goldstein <tgoldstein@ucdavis.edu>  
**Sent:** 4/25/2017 12:06:00 PM  
**Subject:** Re: (SBU) Request to Investigate Monkey Pox in Bo district

Thanks, Brian. I will let the Mission know.

Please let me know if anything changes.

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](mailto:aclements@usaid.gov)*

On Apr 25, 2017, at 9:02 PM, Brian Bird <[bhbird@ucdavis.edu](mailto:bhbird@ucdavis.edu)> wrote:

Hi Andrew,

Tracey and I discussed, and the UC Davis laboratory is happy to receive the animal specimens and test them following the PREDICT protocols for orthopoxviruses (that includes monkeypox virus). We will arrange for shipment of the specimens from Sierra Leone to the One Health Institute Laboratory in Davis as soon as possible.

Happy to answer any follow-up questions, or Tracey might be the best direct contact.

Hope you are having a great day!

-brian

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**To:** Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)>, Tracey Goldstein <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)>  
**Cc:** "Pereira, Alisa (GH/HIDN)" <[apereira@usaid.gov](mailto:apereira@usaid.gov)>

Can you answer the questions below? Thanks!

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**To:** Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>  
**Cc:** Kendra Chittenden <[kchittenden@usaid.gov](mailto:kchittenden@usaid.gov)>, Khadijat Mojidi <[kmojidi@usaid.gov](mailto:kmojidi@usaid.gov)>, Saad El-Din Hassan <[shassan@usaid.gov](mailto:shassan@usaid.gov)>, Alisa Pereira <[apereira@usaid.gov](mailto:apereira@usaid.gov)>, Shana Gillette <[sgillette@usaid.gov](mailto:sgillette@usaid.gov)>

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Please let me know if you have any questions.

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](mailto:aclements@usaid.gov)*

**From:** Peter Daszak <daszak@ecohealthalliance.org>  
**To:** "Jonna Mazet (jkmazet@ucdavis.edu)" <jkmazet@ucdavis.edu>, "Elizabeth S Chase (eschase@ucdavis.edu)" <eschase@ucdavis.edu>, Elizabeth Leasure <ealeasure@ucdavis.edu>  
**Subject:** FW: Invitation to PMAC 2018 Coordinators Meeting in Montreux, Switzerland - Dr. Daszak  
**Sent:** Thu, 27 Apr 2017 19:38:11 +0000  
[73. Invitation CM PMAC2018 - Dr. Daszak.pdf](#)  
[1. Agenda for Coordinators Meeting as of 28Feb2017.pdf](#)  
[Logistics Information PMAC 2018 CM Montreux.pdf](#)

Hi Jonna – this PMAC coordinators meeting is right when we're in Davis for the country-by-country review – May 16-17. I think you've probably also been invited. Will you be going to the PMAC meeting?

Cheers,

Peter

**Peter Daszak**  
*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

+1.212.380.4473 (direct)  
+1.212.380.4465 (fax)  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

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

---

**From:** Prince Mahidol Award Conference **REDACTED**  
**Sent:** Thursday, April 27, 2017 1:10 AM  
**To:** Peter Daszak  
**Cc:** 'Prince Mahidol Award Conference'; 'Dennis Carroll'  
**Subject:** Invitation to PMAC 2018 Coordinators Meeting in Montreux, Switzerland - Dr. Daszak

Dear Dr. Daszak,

The Prince Mahidol Award Conference, the World Health Organization, the World Bank, the United Nations Development Programme, the Joint United Nations Programme on HIV/AIDS, the International Organization for Migration, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the U.S. Agency for International Development, the National Institutes of Health, the Japan International Cooperation Agency, The Rockefeller Foundation, the China Medical Board, the Chatham House, and the Bill & Melinda Gates Foundation will co-host the Prince Mahidol Award Conference 2018 on the theme ***"Making the World Safe from the Threats of Emerging Infectious Diseases"***. The conference will be held in Bangkok, Thailand during 29 January - 3 February 2018.

In this connection, we are pleased to invite you to attend **the Coordinators Meeting on 16-17 May 2017 at Royal Plaza Montreux and Spa in Montreux, Switzerland**. The purpose of the Coordinators Meeting is to discuss details of each session, possible overlaps and gaps, and finalize the conference sessions and time slot. Please find the attached invitation letter and related documents.

We would be grateful if you could let us know your availability to join the Coordinators Meeting by **1 May 2017**. Should you have any inquiries, please do not hesitate to contact the PMAC Secretariat at **REDACTED**



Yours sincerely,

Prince Mahidol Award Conference Secretariat  
Institute for Population and Social Research  
Mahidol University

REDACTED

REDACTED

E-mail: REDACTED

REDACTED

**AGENDA**  
**Coordinators Meeting**  
16-17 May 2017  
**Salon Debussy Room**  
**Royal Plaza Montreux and Spa**  
**Montreux, Switzerland**

<b>Tuesday 16 May 2017</b>	
08.30 – 09.00	Registration
09.00 – 09.20	Welcome and Introduction of the Meeting
09.20 – 09.30	Subtheme 1 Overview Presentation (10 minutes)
09.30 – 09.40	Subtheme 2 Overview Presentation (10 minutes)
09.40 – 09.50	Subtheme 3 Overview Presentation (10 minutes)
09.50 – 10.00	Explain Guideline for Group work
10.00 – 10.30	Break
10.30 – 12.00	Plenary and Parallel Sessions : Group Discussion by Sub-theme
12.00 – 13.00	Lunch
13.00 – 15.00	Plenary and Parallel Sessions : Group Discussion by Sub-theme (cont.)
15.00 – 15.15	Break
15.15 – 17.00	Plenary and Parallel Sessions : Group Discussion by Sub-theme (cont.)

<b>Wednesday 17 May 2017</b>	
09.00 – 10.00	Presentation and Discussion of the results of Sub-theme 1 (Plenary and Parallel Sessions)
10.00 – 11.00	Presentation and Discussion of the results of Sub-theme 2 (Plenary and Parallel Sessions)
11.00 – 11.15	Break
11.15 – 12.15	Presentation and Discussion of the results of Sub-theme 3 (Plenary and Parallel Sessions)
12.15 – 13.30	Lunch
13.30 – 14.30	Discussion on overall picture of conference program and finalize sessions
14.30 – 14.45	Break
14.45 – 16.30	Finalize slots for all sessions
	Next steps and important deadlines
	Closure of the Coordinators Meeting

**Note:**

1. Coffee breaks and lunch are offered at meeting venue
2. Dinner at your own convenience



PRINCE MAHIDOL AWARD CONFERENCE

No. PMAC2018/CM/73

27 April 2017

Dr. Peter Daszak  
President  
EcoHealth Alliance  
USA

**Subject: Invitation to Coordinators Meeting, Prince Mahidol Award Conference 2018  
16-17 May 2017, Montreux, Switzerland**

Dear Dr. Daszak,

The Prince Mahidol Award Conference, the World Health Organization, the World Bank, the United Nations Development Programme, the Joint United Nations Programme on HIV/AIDS, the International Organization for Migration, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the U.S. Agency for International Development, the National Institutes of Health, the Japan International Cooperation Agency, The Rockefeller Foundation, the China Medical Board, the Chatham House, and the Bill & Melinda Gates Foundation will co-host the Prince Mahidol Award Conference 2018 on the theme ***"Making the World Safe from the Threats of Emerging Infectious Diseases"***. The conference will be held in Bangkok, Thailand during 29 January - 3 February 2018.

In this connection, we are pleased to invite you to attend **the Coordinators Meeting on 16-17 May 2017** at **Royal Plaza Montreux and Spa in Montreux, Switzerland**. The purpose of the Coordinators Meeting is to discuss details of each session, possible overlaps and gaps, and finalize the conference sessions and time slot.

We would be grateful if you could let us know your availability to join the Coordinators Meeting by **1 May 2017**. Should you have any inquiries, please do not hesitate to contact the PMAC Secretariat at [pmaconference@mahidol.ac.th](mailto:pmaconference@mahidol.ac.th).

Yours sincerely,

Dr. Vicharn Panich, M.D.  
Chairman  
International Organizing Committee

Enc.: 1. Meeting Agenda  
2. Logistic Guide



**LOGISTICS INFORMATION**  
**Coordinators Meeting**  
**16 – 17 May 2017**  
**Royal Plaza Montreux and Spa, Montreux, Switzerland**

**MEETING VENUE**

The Coordinators Meeting 16 – 17 May 2017 will be held at:

**Royal Plaza Montreux and Spa**

Av. Claude Nobs 7, 1820, Montreux, Switzerland

Website: <http://www.royalplaza.ch/Default.aspx>

Contact person: Claire Couriot

Tel: + 41 21 962 50 08 | Fax: + 41 21 962 51 51 | E-mail: [events@royalplaza.ch](mailto:events@royalplaza.ch)

**Access to the hotel from Geneva or Zurich Airport**

- Both Geneva and Zurich Airport have direct access to the railway station.

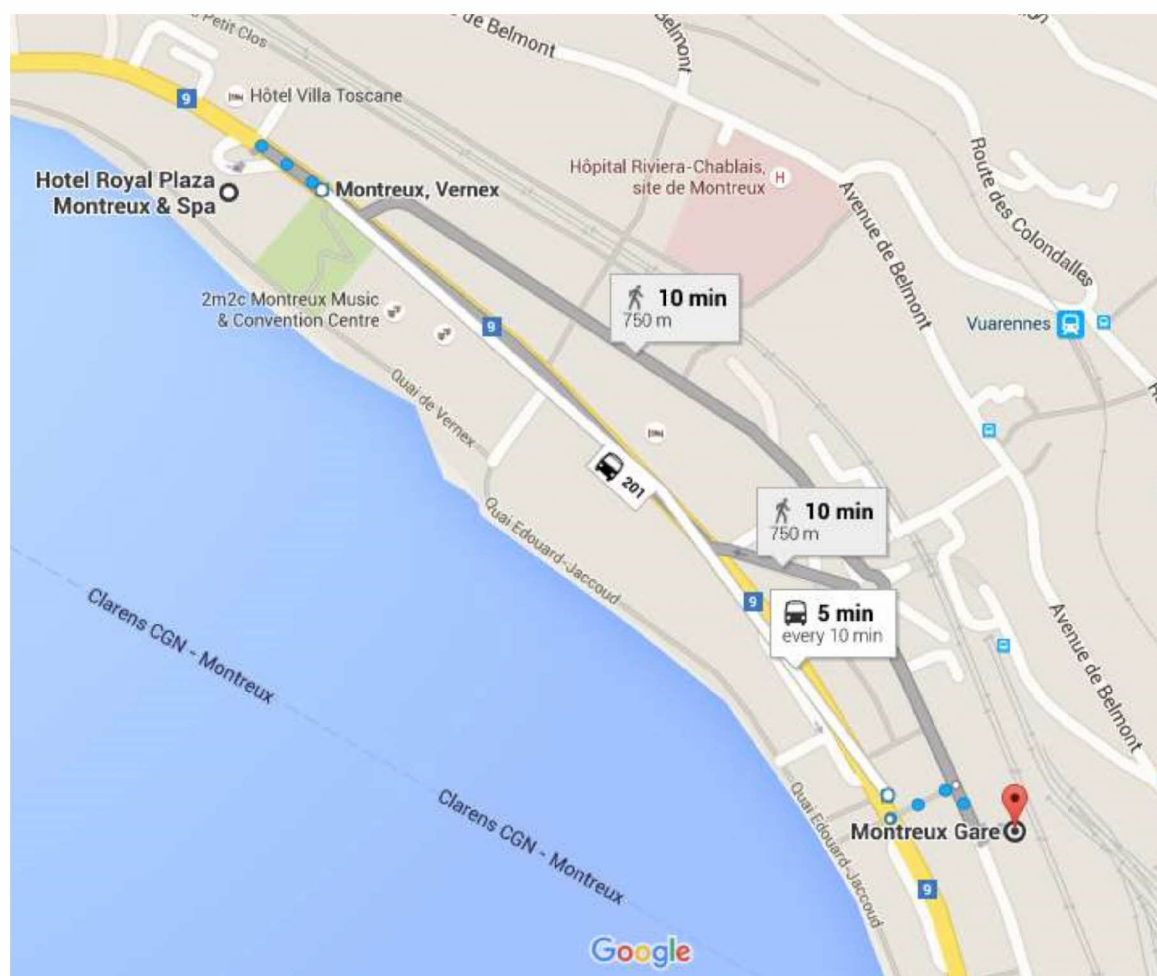
Direct train runs every 10-30 minutes to Montreux.

- Geneva Airport to Montreux : duration 1.30 hrs (xx:03, xx:21, xx:33, xx:51)
- Zurich Airport to Montreux : duration 2.56 hrs (xx:18, xx:40, xx:43)

- From Montreux train station, it will take 10 minutes on foot to reach the hotel.

Taxis are also available at the train station.

For more information on trains, please visit: [www.cff.ch](http://www.cff.ch)



## **HOTEL ACCOMMODATION**

The conference organizers have made a block booking of rooms at the meeting venue. Kindly make your reservation directly with Royal Plaza Montreux and Spa at [events@royalplaza.ch](mailto:events@royalplaza.ch) (attention Claire Couriot) and refer to **PMAC 2018 Meetings**. The block booking will be effective until **30 April 2017**. The special rates are below.

### **Special room rates**

Double room for single occupancy	: CHF 225.00 per room and per night (1 person)
Double room for double occupancy	: CHF 255.00 per room and per night (2 persons)
City tax	: CHF 5.00 per person and per day
Touristic tax	: CHF 1.50 per person and per day

The above rates include:

- Full American breakfast buffet
- Free Wireless Internet access
- Free use of the Spa (Indoor swimming pool, sauna, hammam, Jacuzzi & gym)
- The Riviera card which allow the participants free access on the local bus transportation and 50% discount on all major touristic attractions (museums, trains, boats, etc.)
- Service charge and VAT at 3.8%

Check-in time      3.00 p.m.

Check-out time    12.00 p.m.

## **MEALS**

The following meals will be arranged at Royal Plaza Montreux and Spa for participants during the meeting period (16 – 17 May): **Lunch | Coffee breaks: morning and afternoon**

**FOOD RESTRICTION:** Please let us know if you have any food restriction.

## **VISA**

It is the responsibility of the participants to obtain a visa to enter Switzerland if necessary. If you require a visa, the Secretariat can assist you by coordinating with the World Health Organization to issue a letter to support your visa application at the Switzerland Embassy or Consulate in your home country.

## **CONTACT**

For any additional information or queries, please contact the PMAC Secretariat at [pmaconference@mahidol.ac.th](mailto:pmaconference@mahidol.ac.th)

**From:** Peter Daszak <daszak@ecohealthalliance.org>  
**To:** "Black, Peter (FAORAP)" <[REDACTED]>, Jonna Mazet <jkmazet@ucdavis.edu>  
**Subject:** RE: Montreux meeting - 16-17 May - are you going?  
**Sent:** Fri, 5 May 2017 19:30:54 +0000

Sadly can't be there – we'll both be in Davis doing admin type stuff.....very upset by this but have a great meeting!

Cheers,

Peter

**Peter Daszak**

*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

+1.212.380.4473 (direct)  
+1.212.380.4465 (fax)  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

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

---

**From:** Black, Peter (FAORAP) [mailto:[REDACTED]]  
**Sent:** Friday, May 5, 2017 3:38 AM  
**To:** Jonna Mazet; Peter Daszak  
**Subject:** FW: Montreux meeting - 16-17 May - are you going?

Dear Jonna and Peter

Just checking if you are going to the PMAC 2018 meeting in Montreux 16-17 May (which I plan to attend)

Hope to see you there – be great to catch up.

Best  
Peter

**From:** Dennis Carroll [mailto:[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)]  
**Sent:** Thursday, April 27, 2017 4:53 AM  
**To:** Sudarat Damrongwatanapokin <[sdamrongwatanapokin@usaid.gov](mailto:sdamrongwatanapokin@usaid.gov)>  
**Cc:** Prince Mahidol Award Conference <[REDACTED]>; Oanh Kim Thuy <[okim@usaid.gov](mailto:okim@usaid.gov)>; Juan Lubroth <[REDACTED]>; Daniel Schar (RDMA/OPH) <[dSchar@usaid.gov](mailto:dSchar@usaid.gov)>  
**Subject:** Re: Finalizing Sub-Theme 3 PMAC2018

Dear friends, my apologies for the tardy reply. As Sudarat mentioned I am traveling along the China-Vietnam border with limited connectivity. Fortunately I am now in a hotel with internet connection.

Per your request, there are no changes to the concept note for sub-theme 3 - so please use the last version I emailed you. The names, affiliations and emails for the session lead coordinators are below. Please note, I am still working with Juan Lubroth (who I have copied on this email) to identify the lead coordinator for session 4. Juan, please provide directly to the Secretariat.

Session #:

1. Douglas Webb, UNDP: [Douglas.Webb@undp.org](mailto:Douglas.Webb@undp.org)
2. Jonna Mazet, University of California at Davis: [jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)
3. Peter Daszak, EcoHealth Alliance: [daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)
4. Still negotiating with FAO
5. Peter Black, FAO: **REDACTED**
6. Katherine Bond, USP: **REDACTED**
7. Daniel Schar, USAID: [dSchar@usaid.gov](mailto:dSchar@usaid.gov)

All my best

d

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

On Apr 26, 2017, at 11:02 AM, Sudarat Damrongwatanapokin <[sdamrongwatanapokin@usaid.gov](mailto:sdamrongwatanapokin@usaid.gov)> wrote:

Peter Black  
Deputy Regional Manager  
Emergency Center for Transboundary Animal Diseases (ECTAD)  
Regional Office for Asia and the Pacific  
Food and Agriculture Organization of the United Nations (FAO)

**REDACTED**  
**REDACTED**  
E-Mail : **REDACTED**  
Skype : peter.black48



**From:** Andrew Clements <aclements@usaid.gov>  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Sent:** 5/24/2017 2:53:57 AM  
**Subject:** Re: Another Predict contribution to DRC Ebola outbreak: Epicontacts package being used in Ebola outbreak

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](mailto:aclements@usaid.gov)*

On May 24, 2017, at 5:15 AM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Hi all,

Our Predict team (esp. Nistara Randhawa) has also provided epidemiology and programming support for tools currently being used in the DRC outbreak for contacts data. Please see below for links if you are interested:

The `epicontacts` package we made is up on CRAN [here](#), and its details are [here](#). Its descriptive title is:

### **Handling, Visualisation and Analysis of Epidemiological Contacts**

It's being used for the current ebola outbreak as Thibaut mentions on the [package repository on github](#). Thibaut made some changes to it wrt the icons, etc to make it more useful for the outbreak investigators.


Jonna

--

You received this message because you are subscribed to the Google Groups "PREDICTMGT" group. To unsubscribe from this group and stop receiving emails from it, send an email to [predictmgt+unsubscribe@usaid.gov](mailto:predictmgt+unsubscribe@usaid.gov).

To post to this group, send email to [predictmgt@usaid.gov](mailto:predictmgt@usaid.gov).

To view this discussion on the web visit <https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CAO5tDrFEXckDvOdimwOJg9GbNvhxKYb-4qm49jYwkJYkN%3D-cUg%40mail.gmail.com>.

**Sent:** Thu, 25 May 2017 10:30:58 -0700  
**Subject:** Fwd: Meeting slides, machine learning for species prediction  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Peter Daszak <daszak@ecohealthalliance.org>, "Kevin J. Olival" <olival@ecohealthalliance.org>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>,  Tracey Goldstein <tgoldstein@ucdavis.edu>, Pranav Pandit <pspandit@ucdavis.edu>

FYI -- see Barbara's ppt attached -- she said that we could share with colleagues (I assume limitedly, as she mentions some data aren't published yet).

Note that their team is certainly doing very similar work to ours. Their literature-based forecasting seems to encourage a rodent focus and de-emphasizing bats. Perhaps that's good and will help limit overlap.

Just thought you all should see Cary Institute's pitch in case you haven't seen it on the road somewhere.

Have a good ay,  
Jonna

----- Forwarded message -----

From: **Mark Smolinski** <[mark@skollglobalthreats.org](mailto:mark@skollglobalthreats.org)>  
Date: Thu, May 25, 2017 at 7:42 AM  
Subject: Fwd: Meeting slides, machine learning for species prediction  
To: Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, Barbara Han <[hanb@caryinstitute.org](mailto:hanb@caryinstitute.org)>  
Cc: Amy Oliver <[aoliver@skollglobalthreats.org](mailto:aoliver@skollglobalthreats.org)>, Oona Buckley <[obuckley@skollglobalthreats.org](mailto:obuckley@skollglobalthreats.org)>

----- Forwarded message -----

From: **Barbara Han** <[hanb@caryinstitute.org](mailto:hanb@caryinstitute.org)>  
Date: Wed, May 17, 2017 at 11:04 AM  
Subject: Meeting slides, machine learning for species prediction  
To: Mark Smolinski <[mark@skollglobalthreats.org](mailto:mark@skollglobalthreats.org)>, [jshao@skollglobalthreats.org](mailto:jshao@skollglobalthreats.org), [acrawley@skollglobalthreats.org](mailto:acrawley@skollglobalthreats.org)  
Cc: Alessandra Hartkopf <[ahartkopf@skollglobalthreats.org](mailto:ahartkopf@skollglobalthreats.org)>

Dear Mark, Jessica, and Adam,

Thanks again for a great meeting yesterday - it was such a pleasure to meet you all, and to learn about some forward-thinking programs and the direction SGTF is headed.

As promised, I'm sending a PDF of some slides we reviewed. This deck is from a talk I gave at the ASM Biothreats conference in DC in February, and contains the updated reference for the new filovirus and filovirus-positive bat species found in China.

The handful of slides at the end on predicting primate carriers of Zika virus are unpublished results, but please feel free to circulate the findings to any of your partners who you think may benefit from having this information ahead of time.

Really looking forward to continuing the dialogue!

With best wishes,

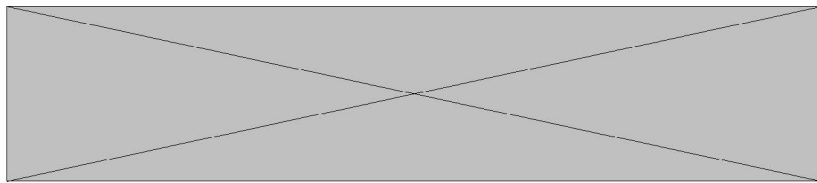
Barbara

PS - Could someone forward these to Amy and Oona?

--

Dr. Barbara A. Han  
Disease Ecologist  
Cary Institute of Ecosystem Studies  
Box AB Millbrook, NY. USA  
Tel:  [\(845\) 677-7600 ext. 135](tel:(845)677-7600)  
Fax:  [\(845\) 677-5976](tel:(845)677-5976)  
[www.hanlab.science](http://www.hanlab.science)  
Skype: han.barbara

--



Flu Near You, do you have it in you?  
join the movement today at [www.flunearyou.org](http://www.flunearyou.org)

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Wed, 9 Aug 2017 10:47:03 -0400  
**Subject:** Fwd: PRO/EDR> Ebola-like Illness - Uganda: (LW) RFI [EXTERNAL]  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>, David J Wolking <djwolking@ucdavis.edu>, Angela Wang <awang@usaid.gov>, Dennis Carroll <dcarroll@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, sgillette@usaid.gov, cchrisman@usaid.gov, Ashna Kibria <akibria@usaid.gov>

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](mailto:aclements@usaid.gov)*

Begin forwarded message:

**From:** Lisa Kramer <[lkramer@usaid.gov](mailto:lkramer@usaid.gov)>  
**Date:** August 9, 2017 at 1:00:51 AM EDT  
**To:** Gregory Adams <[gadams@usaid.gov](mailto:gadams@usaid.gov)>  
**Cc:** Ricardo Echalar <[rechalar@usaid.gov](mailto:rechalar@usaid.gov)>, Sarah Paige <[spaige@usaid.gov](mailto:spaige@usaid.gov)>, Stacy Lamon <[slamon@usaid.gov](mailto:slamon@usaid.gov)>, Kassahun Belay <[kbelay@usaid.gov](mailto:kbelay@usaid.gov)>, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>  
**Subject: Re: PRO/EDR> Ebola-like Illness - Uganda: (LW) RFI [EXTERNAL]**

Thanks Greg. Adding Andrew Clements to the message.

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

On Wed, Aug 9, 2017 at 7:56 AM, Gregory Adams <[gadams@usaid.gov](mailto:gadams@usaid.gov)> wrote:

Thank you Ricardo,  
A National Task Force Meeting has been called by the EOC for tomorrow morning to discuss.

Best regards,

Greg

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

On Wed, Aug 9, 2017 at 6:04 AM, Ricardo Echalar <[rechalar@usaid.gov](mailto:rechalar@usaid.gov)> wrote:

Fyi

Sent from my iPhone

UCDUSR0010424



Begin forwarded message:

**From:** [promed-edr@promedmail.org](mailto:promed-edr@promedmail.org)

**Date:** August 8, 2017 at 10:09:22 PM EDT

**To:** [promed-post@promedmail.org](mailto:promed-post@promedmail.org), [promed-edr-post@promedmail.org](mailto:promed-edr-post@promedmail.org)

**Subject:** PRO/EDR> Ebola-like Illness - Uganda: (LW) RFI [EXTERNAL]

**Reply-To:** [promedNOREPLY@promedmail.org](mailto:promedNOREPLY@promedmail.org)

EBOLA-LIKE ILLNESS - UGANDA: (LUWERO) REQUEST FOR INFORMATION

\*\*\*\*\*

A ProMED-mail post

<<http://www.promedmail.org>>

ProMED-mail is a program of the

International Society for Infectious Diseases

<<http://www.isid.org>>

Date: 7 Aug 2017

Source: NTV [edited]

<<http://ntv.co.ug/news/local/07/aug/2017/luweero-woman-dies-strange-illness-18452#sthash.pL1zstCi.dpbs>>

A 20-year old woman had died and three of her house mates admitted [to the] Hospital after they contracted a mysterious disease which presents [with] symptoms similar to Ebola.

Before she suddenly died, blood oozed out of the woman's nose and the mouth.

The Ministry of Health has sent a team to Luweero to establish the cause of the death.

--

Communicated by:

ProMED-mail

<[promed@promedmail.org](mailto:promed@promedmail.org)>

[ProMED-mail would appreciate any additional information on this case as well as the three house mates mentioned including any additional history, signalment, duration, diagnostic findings, etc. - Mod.JH]

A HealthMap/ProMED-mail map can be accessed at:

<<http://healthmap.org/promed/p/97>>.]

.....mpp/jh

\*#####\*  
\*\*\*\*\*

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For assistance from a human being, send mail to:

<[postmaster@promedmail.org](mailto:postmaster@promedmail.org)>.

#####

#####

List-Unsubscribe: <http://ww4.isid.org/promedmail/subscribe.php>

**From:** Sudarat Damrongwatanapokin <sdamrongwatanapokin@usaid.gov>  
**Sent:** Wed, 23 Aug 2017 15:28:33 +0700  
**Subject:** Fwd: PMAC 2018 Side Meeting  
**To:** Wantanee Kalpravidh **REDACTED**, "bende002@umn.edu" <bende002@umn.edu>, Vipat <vipat@seaothun.org>, Jonna Mazet <jkmazet@ucdavis.edu>, Susan Scribner <Susan\_Scribner@dai.com>, Pasakorn Akarasewi **REDACTED**  
**Cc:** Dennis Carroll <dcarroll@usaid.gov>, Daniel Schar <dSchar@usaid.gov>, Anchalee Jatapai <ajatapai@usaid.gov>, Marilyn Crane <mcrane@usaid.gov>, "Clements, Andrew(ANE/TS)" <AClements@usaid.gov>, "Pereira, Alisa (GH/HIDN)" <apereira@usaid.gov>  
[PMAC2018 Guidelines for Side Meetings.pdf](#)

Guidelines for PMAC 2018 side events, Jan 29-30, 2018.

Best regards,  
Sudarat Damrongwatanapokin, D.V.M., Ph.D.  
Regional Animal Health Advisor  
USAID Regional Development Mission Asia  
Bangkok, 10330  
E-mail: [sdamrongwatanapokin@usaid.gov](mailto:sdamrongwatanapokin@usaid.gov)  
Tel: +662-257-3243, Fax: +662 -2573099

----- Forwarded message -----  
From: **Prince Mahidol Award Conference** <**REDACTED**>  
Date: Wed, Aug 23, 2017 at 3:02 PM  
Subject: PMAC 2018 Side Meeting  
To: Sudarat Damrongwatanapokin <[sdamrongwatanapokin@usaid.gov](mailto:sdamrongwatanapokin@usaid.gov)>  
Cc: Dennis Carroll <[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)>, **REDACTED**

Dear Khun Sudarat,

Please find attached the Guidelines for PMAC 2018 side meetings for your information ka.

Thank you and best regards,  
  
PMAC Secretariat

## SIDE MEETINGS GUIDE

The Prince Mahidol Award Conference is pleased to host Side Meetings

on Monday 29 and Tuesday 30 January 2018 at 9.00-17.30 hrs.

The deadline for submission of the side meeting proposal is 15 October 2017.

Many groups wish to take advantage of the fact that participants attending PMAC 2018 come from diverse organizations around the world, to organize side meetings. Plus, side meetings allow alternative opportunities for workshop or informal dialogue for participants. The PMAC Secretariat is willing to accommodate side meetings prior to the main Conference with the following criteria and guideline.

### Eligibility Criteria and Submission Channel for Side Meeting Organizers

- The Side meeting opportunity is open to the conference partners (co-hosts, supporting institutes or contributors). The conference partners can submit their proposal directly through the PMAC website.
- Interested organizations that are not the conference partners are eligible to apply for a side meeting only if they are invited to attend the Conference and their meetings are co-organized with the conference partners and the meeting subject/content is relevant to the conference theme of that year. The proposal submission has to be completed by the conference partners through the PMAC website.

### Time Schedule for Side Meetings

#### 1. Dates/Times allotted for side meetings

##### Monday 29 January 2018

Morning session	9.00-12.30 hrs	(1 Time Slot)
Afternoon session	14.00-17.30 hrs	(1 Time Slot)
Full day session	9.00-17.30 hrs	(2 Time Slots)

##### Tuesday 30 January 2018

Morning session	9.00-12.30 hrs	(1 Time Slot)
Afternoon session	14.00-17.30 hrs	(1 Time Slot)
Full day session	9.00-17.30 hrs	(2 Time Slots)



2. Side meetings should not be organized on the field trip day (31 January 2018) and during the main conference (1-3 February 2018).

#### Procedure for Submitting Side meeting Request

1. The side meeting organizers who have been invited to the conference and have completed the PMAC registration will be able to access the side meeting system. The Organizer fills in the online side meeting request form via the PMAC registration system by **15 October 2017**.
2. For the accepted side meetings, the PMAC Secretariat sends a confirmation for the Organizer to access the conference participant database by **31 October 2017**.
3. The Organizer directly sends out invitations to the side meeting participants based on the list of invited conference participants in the database.

*Kindly note that the organizer may invite non-conference participants to their side meeting. However, the organizer is required to provide the list of non-conference participants who have confirmed to attend their side meeting through the side meeting system. Please download the template from the side meeting system.*

4. The Organizer updates details of the side meeting through the side meeting system by **20 December 2017**, if there are any changes from that previously provided.
5. The PMAC Secretariat assigns a room for the side meeting based on the provided expected number of participants attending the side meeting and the required room setup.\*\*
6. The PMAC Secretariat sends the room assigned to the side meeting organizers in **early January 2018**. However, due to space limitation, the PMAC Secretariat reserves the right to change the allotted slot to accommodate all requests as suitable as possible.
7. The Organizer meets with the PMAC Secretariat on **Sunday 28 January 2018** during 15.00 – 17.00 hrs. to check the meeting room.
8. Optional : Accepted side meetings may provide a URL (website, youtube, Facebook, dropbox) that allows access to additional documents related to the side meeting. This URL will be posted on the conference website under your side meeting.

#### Logistics Responsible by Organizers

- The Organizer brings their own laptop, meeting documents and registration sheet.
- The Organizer provides a copy of the registration sheet to the PMAC Secretariat after the meeting.

- The Organizer provides their own meeting equipment (flip charts, marker pens, teleconference, etc).
- The Organizer will be responsible for financial support for their speakers.
- The Organizer will be responsible for transport of their meeting equipment to “Organizer Storage” room and side meeting room at the meeting venue.
- The Organizer will accept responsibility for damage or loss of their equipment during the event.

#### Logistics Support by PMAC Secretariat

- Meeting room, LCD, 1 flip chart free of charge, pencil, paper  
(other requirements will be charged by the hotel)
- Central Lunch Buffet and Central Coffee Break will be provided during 29-30 January 2018
  - Central Lunch Buffet at 12.30-14.00 hrs (tentative time)
  - Central Coffee Break (morning) at 10.30-11.00 hrs (afternoon) at 15.00-15.30 hrs (tentative time)
- Updated list of invited participants (access from online database)
- A local staff to help with registration and to facilitate during the meeting  
(our local staff will meet the organizer at the meeting room 30 minutes before the meeting time).  
The registration desk will be set up in front of the meeting room.
- There will be a room for “Organizer Storage” for the Organizer to bring their materials for storage.  
The storage room will be available on Sunday 28 January 2017.  
The PMAC Secretariat will not be responsible for any damage or loss of materials.

Note\*\* Room setup: Classroom, Theater, Roundtable, Boardroom

#### List of Conference Co-hosts, Supporting Institutions and Contributors

Prince Mahidol Award Conference, World Health Organization, The World Bank, United Nation Development Programme, Joint United Nations Programme on HIV/AIDS, International Organization of Migration, The Global Fund to Fight AIDS, Tuberculosis and Malaria, United States Agency for International Development, National Institutes of Health, Japan International Cooperation Agency, China Medical Board, The Rockefeller Foundation, Chatham House, Bill & Melinda Gates Foundation, Food and Agriculture Organization of the United Nations, World Organisation for Animal Health, UNICEF, Smithsonian National Museum of Natural History, U.S. Pharmacopeia, The National Academies of Sciences, Engineering, and Medicine, International Society for Infectious Diseases, Chinese Center for Disease Control and Prevention, Skoll Global Threats Fund, Public Health Agency of Sweden, Asian Development Bank, British Medical Journal, People Health Movement

## Side Meeting Proposal Template

- Meeting title
- Organizer and contact details (Name & Email)
- Day : Monday 29 January 2018 / Tuesday 30 January 2018
- Duration:
  - Morning session 9.00-12.30 hrs (1 Time Slot)
  - Afternoon session 14.00-17.30 hrs (1 Time Slot)
  - Full day session 9.00-17.30 hrs (2 Time Slots)

*Please indicate number of time slots, eg. 1 Full day = 2 Time Slots, 2 Full days = 4 Time Slots*

- Background
- Objectives
- Expected output/outcome
- Expected number of participants (this will affect room allocation)
- Room set up
  - Classroom
  - Theater
  - Roundtable
  - Boardroom

additional requirements (if any, with charges from the hotel)
- Meeting agenda
- Closed meeting for invitees only / Open to all PMAC participants
- List of Speakers (for name tents )

For any inquiries, please contact the PMAC Secretariat at [pmaconference@mahidol.ac.th](mailto:pmaconference@mahidol.ac.th)

**From:** Cara Chrisman <cchrisman@usaid.gov>  
**Sent:** Wed, 27 Sep 2017 18:24:15 -0400  
**Subject:** Re: CR Meeting  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Cc:** **REDACTED** Dennis Carroll <dcarroll@usaid.gov>

Thanks so much, Jonna! (those emails are...interesting...)  
Dennis is in Geneva, but hopefully he has an update to share?

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

Desk: (202) 712-1161  
Cell: (202) 674-3231  
E-mail: [cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)

On Tue, Sep 26, 2017 at 7:49 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Just want to be available if you need technical back-up on bar-coding -- also fine to skip it. Dan is a handful & a bit exhausting. So if he's given the floor, I doubt there will be a need for anybody else to call-in, given the likely lack of availability of time being yielded to the rest of the group ;)

J

P.S. News from Dennis' brother & family? I hope they're all okay.

On Tue, Sep 26, 2017 at 3:22 PM, Cara Chrisman <[cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)> wrote:

Hi Jonna,  
Just to let you know, we're still waiting to hear back from the Embassy regarding logistics for the Oct. 4th meeting. They've apparently been having a lot of trouble with their servers over the past two weeks. I received another email from them today (in response to a fairly old email) and responded again with our questions regarding a call-in line, etc.

Will let you know what we hear back and can of course do something else like you mentioned - using a cell phone or whatever.

Best,  
Cara

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

Desk: [\(202\) 712-1161](tel:(202)712-1161)  
Cell: **REDACTED**  
E-mail: [cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)





**Sent:** Thu, 26 Oct 2017 13:15:56 -0700  
**Subject:** Re: Bat seasonality conference abstract for review  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Peter Daszak <daszak@ecohealthalliance.org>, "Kevin Olival, PhD" <olival@ecohealthalliance.org>

Really concerned to see that he is still pursuing the completion of a manuscript in a few weeks.  
What are we missing in our communications?  
Jonna

On Wed, Oct 25, 2017 at 8:19 AM, Evan Eskew <[eskew@ecohealthalliance.org](mailto:eskew@ecohealthalliance.org)> wrote:

Hi all,  
Great chatting last week to get caught up on all the bat work!

I'm writing to run the attached abstract by the Davis folks. Peter and Kevin have already taken a look. Briefly, I'm hoping to present at the One Health Congress in summer 2018. The abstracts, as usual, are due very early (November 2nd). I'm hoping to get any feedback on the abstract content, author line, or any other issues you may have. Diego and Nistara, are either of you planning to go/present as well? If so, we could shift the abstract content a bit to better accommodate everyone's work.

To be clear, we're totally onboard with the publication timeline we discussed on the conference call. This is solely for the purposes of the conference presentation. And I'm happy to send around a complete manuscript draft when I have it done (hopefully in a few weeks) so that Diego and Nistara can take a look to see how our methods and results might complement or strengthen one another.

Please do be in touch with any concerns or ways that I can help going forward.

All my best,  
Evan

--  
**Evan Eskew, PhD**  
*Research Scientist, Modeling and Analytics*

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

[1.646.868.4708](tel:1.646.868.4708) (direct)  
**REDACTED** (mobile)  
[www.ecohealthalliance.org](http://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.*

**Sent:** Wed, 1 Nov 2017 09:52:03 -0700  
**Subject:** Re: Bat seasonality conference abstract for review  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** "Kevin Olival, PhD" <olival@ecohealthalliance.org>  
**Cc:** Peter Daszak <daszak@ecohealthalliance.org>

Thanks for the clarification.

All sounds reasonable. I do think we should have that conference call or cover the methods briefly for each of the papers on the M&A call and then set the three of them loose to work together.

Of course, happy to have Evan submit an abstract and present.

Talk to you soon,

J

On Tue, Oct 31, 2017 at 11:07 AM, Kevin Olival, PhD <[olival@ecohealthalliance.org](mailto:olival@ecohealthalliance.org)> wrote:

Hi Jonna,

Sorry, just catching up on emails after getting back in country and moving apartments!

Apologize if this was unclear. Please let me clarify to you first and I can then reply all to Evan's email re-clarify to Nistara and Diego. Evan is totally on board with the publication timeline as we discussed (as he mentioned in his email), but I can see how this could be misinterpreted and apologize. Evan asked me if it would be okay to finish drafting the manuscript he's started while the preliminary analysis and findings, as well as methods, are fresh in his mind. The idea would be to create a rough first draft based on what has been done so far, that we can share with you and your grad students, and then amend as needed once we get a better understanding of what Nistara and Diego find in their studies. No plans to publish anything without getting buy-in and input from you and your students; and until Nistara and Diego have had a chance to see how their regional projects/results play out.

Before we have Evan move on to other projects this made sense to me, as I know how much more difficult it is to drop a project cold for 6+ months and then pick it up and write things up.

Regarding the abstract for the One Health Congress, as a "post-doc" (his first year out of PhD) this is a meeting Evan was really hoping to attend and also to submit a fellowship travel grant for. Glad you're all generally on board with the abstract and that we have a little more time before this is due (as Nistara pointed out). Thank you for your feedback to him on your concerns with the abstract and it's findings. I'll make sure these are all integrated in the abstract, and certainly for the talk for next year.

Please let me know if this clears things up. Hope it does!

Cheers,  
Kevin

**Kevin J. Olival, PhD**  
*Vice President for Research*

EcoHealth Alliance  
[460 West 34th Street – 17th floor](#)  
New York, NY 10001

[1.212.380.4478](tel:1.212.380.4478) (direct)  
**REDACTED** (mobile)  
[1.212.380.4465](tel:1.212.380.4465) (fax)  
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*EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.*

On Oct 26, 2017, at 4:15 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

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Please do be in touch with any concerns or ways that I can help going forward.

All my best,  
Evan

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**Evan Eskew, PhD**

*Research Scientist, Modeling and Analytics*

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[1.646.868.4708](tel:16468684708) (direct)

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**Sent:** Wed, 1 Nov 2017 11:14:43 -0700  
**Subject:** Re: Bat seasonality conference abstract for review  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** "Kevin Olival, PhD" <olival@ecohealthalliance.org>  
**Cc:** Peter Daszak <daszak@ecohealthalliance.org>

Great -- Nistara and Diego are available. They will join.

If we are also going to talk about the corona/land use, we need Carlos & Nistara, as well as Tracey & Simon, though both Tracey and Simon said that they did not cover anything on land use in their conversation with Carlos. Maybe you aren't yet all on the same page on that one?

In any case, Nistara & Diego will join.

Thanks,  
J

On Wed, Nov 1, 2017 at 10:57 AM, Kevin Olival, PhD <[olival@ecohealthalliance.org](mailto:olival@ecohealthalliance.org)> wrote:

Good idea Jonna. Just spoke with Peter and we think we can make some time to discuss the bat methods briefly after behavioral modeling projects and additions for the M&A annual report discussions.

I can let Evan know he should be on standby to join in for 10-15 min of the call. Who else, just Nistara and Diego on your end, right?

**Kevin J. Olival, PhD**

*Vice President for Research*

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New York, NY 10001

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All my best,  
Evan

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**From:** Eddy Rubin [REDACTED]  
**Sent:** Mon, 20 Nov 2017 14:49:48 -0800  
**Subject:** Discussion with ATCC  
**To:** Dennis Carroll <dcarroll@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Cara Chrisman <cchrisman@usaid.gov>, Brooke Watson <watson@ecohealthalliance.org>, [REDACTED]  
[REDACTED] Nathan Wolfe <nwolfe@metabiota.com>

Had a long conversation with a group from ATCC ( Dr Ted Mullins, Technical Director ([tmullins@atcc.org](mailto:tmullins@atcc.org), [REDACTED] and Dr. Randy Vines, Program Manager ([rvines@atcc.org](mailto:rvines@atcc.org), [REDACTED] )

) about possible interactions with GVP. ATCC is a mature and complex organization that works in many areas which overlap with GVP. Being a non-profit, the major source of their funding is the USG where they serve as a sample repository and storefront for CDC, NCI, NIAID... providing reagents, and the metadata connected with those reagents to customers who register. They also have a great deal of experience with intellectual property issues connected with the reagents that they safe guard. I think that at the very least learning more about how they operate and even getting them to participate in designing GVP sample and sample data storage and access would be helpful. They bring a lot to the table and are interested in learning about and possibly contributing their expertise to GVP. They are located 40 miles outside of DC and suggested that we should plan a visit to their place to learn more about them and brainstorm, about how to possibly work together.



**Sent:** Fri, 9 Feb 2018 09:54:11 -0800  
**Subject:** Re: Bat seasonality conference abstract for review  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Evan Eskew <eskew@ecohealthalliance.org>  
**Cc:** Diego Montecino <dmontecino@ucdavis.edu>, Nistara Randhawa <nrandhawa@ucdavis.edu>, "Kevin Olival, PhD" <olival@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>  
[Eskew IOHC 2018 Abstract 02.09.18 JM.docx](#)

Hi Evan,

Thanks for the look. Similar to last time, reads well, but I still have a couple issues with the Results and Conclusions that need to be addressed to avoid drawing reasonable criticisms. Not the pregnancy one, but around interpretation and physiology/immunology. This time I added them to the document for ease of your review and so as not to have the other co-authors have to make the same comment(s). I think they're easy tweaks.

Over to others for review and comment if desired.

Have a good weekend,

Jonna

On Fri, Feb 9, 2018 at 8:43 AM, Evan Eskew <[eskew@ecohealthalliance.org](mailto:eskew@ecohealthalliance.org)> wrote:

Hi Jonna et al.,

My apologies for the confusion regarding this conference abstract, and thanks for following up Jonna. I did indeed begin the abstract submission process (i.e., entering co-author names and emails), which resulted in the notification email you received. However, I have not actually submitted the abstract text, and therefore our final abstract submission is still pending.

Now would be a great time to get any abstract edits from all of you. Jonna, regarding your specific inquiries, based on my notes from the call I had with Diego and Nistara, it seemed Diego is finding similar pregnancy effects as what's reported in this current abstract? But if our findings are in conflict or if you all have alternative interpretations, I'd be happy to incorporate any edits/clarifications/etc.

There are definitely some bigger picture project issues that came up during our call (i.e., incorporation of different predictor variables) that I haven't gotten around to incorporating yet. If you'd like to review my current working paper draft along with the abstract, I can send that along. Otherwise, after the abstract submission process is done (February 15), I can aim to distribute a more polished version for detailed feedback from the Davis contributors well before the conference itself. Hopefully this would keep all the PREDICT bat-related work proceeding along in a productive direction.

All my best,

Evan Eskew

On Thu, Feb 8, 2018 at 5:50 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Hi Evan,

Looks like you submitted a revised abstract. Did you address the concerns, and did we see that revision? Sorry if I missed taking care of a review while I was traveling. Could you please resend the submitted version if I have received and lost it.

Thanks,

Jonna

On Thu, Oct 26, 2017 at 1:21 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Hi Evan,

Thanks for including me, and I am pleased to be involved. The abstract reads well, but I am concerned about the Results & Conclusion, as I would like to understand the rigor around how you came to your conclusions, especially on mid-year and pregnancy findings. The conclusion on immunocompetence may not be completely well informed from a systems perspective because there are reasons beyond immunocompetence that affect viral shedding. So we probably need to work more together for full understanding, as we planned to do in our last call. Also, bringing in the veterinary training,

may improve the interpretations. Can you double check the due date please to see if we can pursue our agreed-upon plan to work together on the manuscript before we convey the results. If the abstract is due in February, as Nistara indicates, we have time to follow our collaborative plan.

Thanks,  
Jonna

On Thu, Oct 26, 2017 at 12:58 PM, Nistara Randhawa <[nrandhawa@ucdavis.edu](mailto:nrandhawa@ucdavis.edu)> wrote:

Hi Evan,

Thanks for sharing your abstract and including us as co-authors. We're onboard with it, and are not sure if we're going to present yet! It looks like abstract submission starts on Nov 2nd but the last date to submit is 15th Feb (that's what I understood, please correct me if I'm wrong). Look forward to working with you.

Best wishes,  
Nistara

Nistara Randhawa  
BVSc & AH, MVSc, MPVM  
PhD candidate, Epidemiology  
One Health Institute  
UC Davis School of Veterinary Medicine  
[nistara.net](http://nistara.net)

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All my best,  
Evan

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--

Nistara Randhawa  
BVSc & AH, MVSc, MPVM  
PhD candidate, Epidemiology  
One Health Institute  
UC Davis School of Veterinary Medicine  
[nistara.net](http://nistara.net)

--  
**Evan Eskew, PhD**  
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**REDACTED** (mobile)  
[www.ecohealthalliance.org](http://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.*



## Pregnancy and Other Drivers of Viral Detection in Bat Hosts

Evan A. Eskew, Diego Montecino-Latorre, Nistara Randhawa, Kevin J. Olival, Peter Daszak, Jonna A. K. Mazet, PREDICT Consortium

### Background:

Understanding drivers of viral infection in wildlife reservoirs is critical to predicting pathogen spillover and, ultimately, managing and preventing human disease. Given their propensity to serve as reservoirs for viral pathogens of special public health concern, bats are particularly important reservoir host taxa. Therefore, characterizing natural viral dynamics in diverse bat host species is fundamental to disease management efforts.

### Methods:

To further our knowledge of viral infections in free-ranging bats, we developed and fit hierarchical Bayesian models to leverage a multi-year, global-scale dataset from the PREDICT project's pathogen surveillance efforts. Biological samples were collected across numerous bat host species, and a consensus PCR testing method was used to detect viruses, both known and novel, across multiple viral families. Our statistical modeling techniques explicitly controlled for sources of variation in the resulting viral detection data, including geographic region of data collection, specimen type, and specific testing protocol used. Consequently, these analyses address broad, general effects on bat viral dynamics using viral detection (positive or negative) as the outcome of interest. Our models allowed for species-specific seasonal trends in viral detection and incorporated influences of precipitation and important biological states, including pregnancy and lactation, as main effects.

### Results:

Although models could accommodate seasonal fluctuations in viral detection across all bat hosts, strong temporal trends were only apparent for well-sampled species like *Pteropus giganteus*, which showed a mid-year peak in viral detection (Figure 1). Our analyses revealed that, among the main effects tested, pregnancy had the most influence on viral detection in adult female bats. Intriguingly, pregnancy appeared to have a protective effect, reducing the probability that an individual female would be viral-positive. In contrast, adult male bats were more likely to be viral-positive when female conspecifics were pregnant. Precipitation and lactation variables had smaller, idiosyncratic effects across both sexes.

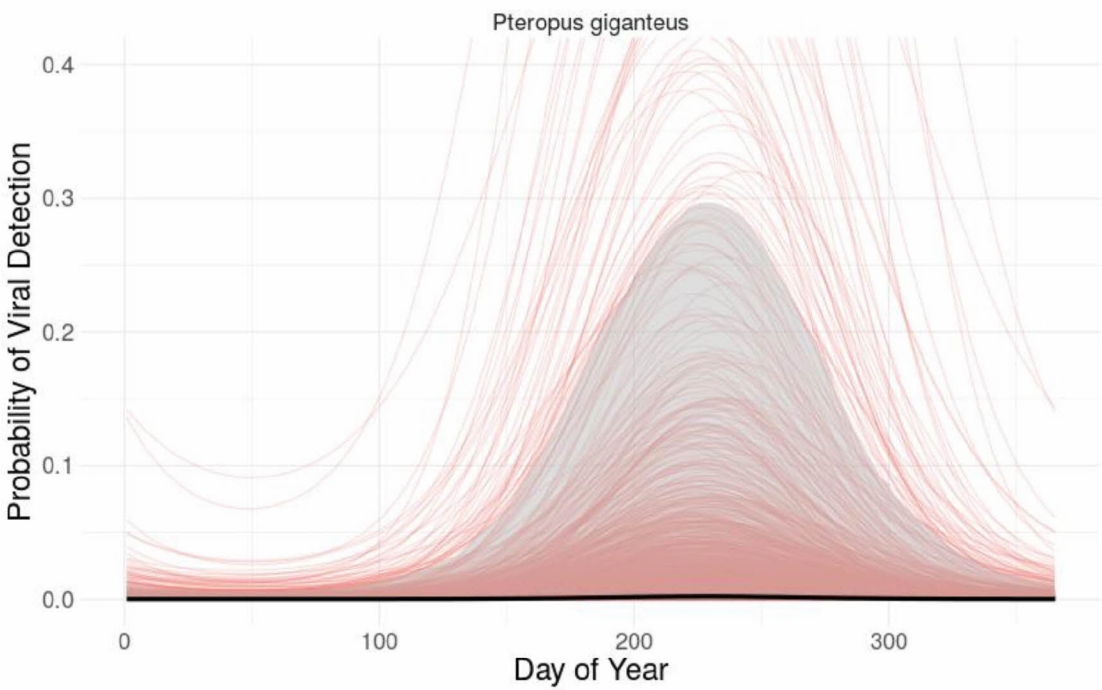
### Conclusions:

Overall, our results reflect both individual- and population-level drivers of viral infection. Female bats may be more immune-competent during pregnancy, reducing their risk of viral infection, whereas males may be more likely to be viral-positive during periods of pregnancy if reproductive activity coincides with communal roosting behaviors and increased interspecific contact rates. These findings move us closer towards



understanding when and why bat host species have the opportunity for infection with viruses that may represent a spillover threat.

**Figure 1**



**Social Media:**

Viral infection in bat host species shows seasonal trends and is modified by reproductive status

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Fri, 9 Feb 2018 14:27:32 -0500  
**Subject:** Re: Question regarding obligation of non-Ebola funding for PREDICT  
**To:** Elizabeth Leasure <ealeasure@ucdavis.edu>, ashek@usaid.gov  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Predict inbox <predict@ucdavis.edu>

Over to Amalhin....

*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](mailto:aclements@usaid.gov)*

On Feb 9, 2018, at 8:14 PM, Elizabeth Leasure <[ealeasure@ucdavis.edu](mailto:ealeasure@ucdavis.edu)> wrote:

Hi Andrew. In reviewing the most recent mods received to obligate the non-Ebola Year 4 funding, I discovered that we have received \$15.98M to date (\$2.5825M mod 9 plus \$13.3975M mod 11), not the \$16.5M that was included in the approved Year 4 budget (\$15.1M core PREDICT, \$1.4M GVP) per your guidance back in September. Is this perhaps a mathematical error or is there another modification forthcoming to obligate the remaining \$520K to fully-fund us for our Year 4 activities as described in our approved work plan? Please advise.

Thank you!  
Liz

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

**From:** Dennis Carroll <dcarroll@usaid.gov>  
**Sent:** Mon, 5 Mar 2018 09:22:50 -0500  
**Subject:** Fwd: One Health  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>, **REDACTED**

Jonna, see the email below and question about a OH CUGH side event in NYC. I noted UC Davis is involved. Alma is our only political at GH (she's the bureaus. Senior Deputy Assistant Administrator) and carries great weight absent an actual Assistant Administrator. She joined in a GVP briefing of Bill Steiger on Friday; her first exposure. Very excited and wants to be supportive. That said, will you or colleagues likely to be at the OH session? Any info you can share per her query?  
Thanks

d

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

Begin forwarded message:

**From:** Alma Golden <[agolden@usaid.gov](mailto:agolden@usaid.gov)>  
**Date:** March 5, 2018 at 8:18:56 AM EST  
**To:** Dennis Carroll <[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)>  
**Subject:** One Health

Dennis,  
I had a good visit with some of your AAVMC friends (Washington, California, Tufts, etc.) on Friday evening when I accompanied my brother to the conference reception. It is great to hear about the USAID collaboration from that view point as well.

As a follow-up I received an invitation to attend a One Health session in NYC on March 15. I will already be at a UN event about rural women and girls, so I may try to visit the One Health session. Here is the link for the event:  
<http://www.vet.upenn.edu/about/penn-vet-events-calendar/2018-cugh---one-health-session>

Do you know if anyone from USAID is planning to attend?

Thanks so much and thanks for the great briefing and strategy session with Bill Steiger on Friday. I am confident it was worth "weathering the wind" to be there!

Alma

*Alma L. Golden, MD  
Deputy Assistant Administrator  
USAID Bureau of Global Health  
1300 Pennsylvania Ave. NW  
Washington, DC 20523*

571.551.7070  
[agolden@usaid.gov](mailto:agolden@usaid.gov)

**Sent:** Mon, 5 Mar 2018 08:51:35 -0800  
**Subject:** Re: One Health  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Dennis Carroll <dcarroll@usaid.gov>  
**Cc:** **REDACTED**

Hi Dennis,  
I won't be there, but Woutrina Smith will be and is presenting in the opening panel on role of livestock in the SDGs. Woutrina is a Professor of Epi and Director of our Planetary Health Center. She is also Associate Director of the One Health Institute and leads the Capacity Building objective for Predict. So, no real GVP or Predict in the session, but certainly a friendly and articulate rep available for discussions.  
Let me know if you want to make introductions or, in case you want to do that: Woutrina Smith <[wasmith@ucdavis.edu](mailto:wasmith@ucdavis.edu)>.  
Have a nice day,  
Jonna

On Mon, Mar 5, 2018 at 6:22 AM, Dennis Carroll <[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)> wrote:

Jonna, see the email below and question about a OH CUGH side event in NYC. I noted UC Davis is involved. Alma is our only political at GH (she's the bureaus. Senior Deputy Assistant Administrator) and carries great weight absent an actual Assistant Administrator. She joined in a GVP briefing of Bill Steiger on Friday; her first exposure. Very excited and wants to be supportive. That said, will you or colleagues likely to be at the OH session? Any info you can share per her query?  
Thanks

d

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

Begin forwarded message:

**From:** Alma Golden <[agolden@usaid.gov](mailto:agolden@usaid.gov)>  
**Date:** March 5, 2018 at 8:18:56 AM EST  
**To:** Dennis Carroll <[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)>  
**Subject:** One Health

Dennis,  
I had a good visit with some of your AAVMC friends (Washington, California, Tufts, etc.) on Friday evening when I accompanied my brother to the conference reception. It is great to hear about the USAID collaboration from that view point as well.

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<http://www.vet.upenn.edu/about/penn-vet-events-calendar/2018-cugh---one-health-session>

Do you know if anyone from USAID is planning to attend?

Thanks so much and thanks for the great briefing and strategy session with Bill Steiger on Friday. I am confident it was worth "weathering the wind" to be there!  
Alma

*Alma L. Golden, MD*



*Deputy Assistant Administrator*  
*USAID Bureau of Global Health*  
*1300 Pennsylvania Ave. NW*  
*Washington, DC 20523*

*571.551.7070*  
*agolden@usaid.gov*

**From:** Peter Daszak <daszak@ecohealthalliance.org>  
**To:** Cara Chrisman <cchrisman@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, Brooke Watson <watson@ecohealthalliance.org>, Eddy Rubin <erubin@metabiota.com>, Nathan Wolfe <nwolfe@metabiota.com>, REDACTED  
**REDACTED**  
**Cc:** Dennis Carroll <dcarroll@usaid.gov>  
**Subject:** RE: I'm back!  
**Sent:** Tue, 6 Mar 2018 20:51:28 +0000

Great to have you back Cara!

I'm sure you're amused to see that the GVP paper was only just now published by Science .....so you didn't miss much while you were on leave...

Look forward to talking with you on the calls...

Cheers,

Peter

**Peter Daszak**  
President

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

Tel. +1 212-380-4474  
[www.ecohealthalliance.org](http://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:** Cara Chrisman [mailto:cchrisman@usaid.gov]  
**Sent:** Tuesday, March 6, 2018 9:11 AM  
**To:** Jonna Mazet; Peter Daszak; Brooke Watson; Eddy Rubin; Nathan Wolfe; REDACTED  
**Cc:** Dennis Carroll  
**Subject:** I'm back!

Hi GVP Team,

I wanted to let you all know that I'm officially back in the office after my maternity leave! I'm in the middle of the move from our Reagan Bldg office to the Crystal City offices, so things are a little hectic, but it's been great to be back and start to catch up on things.

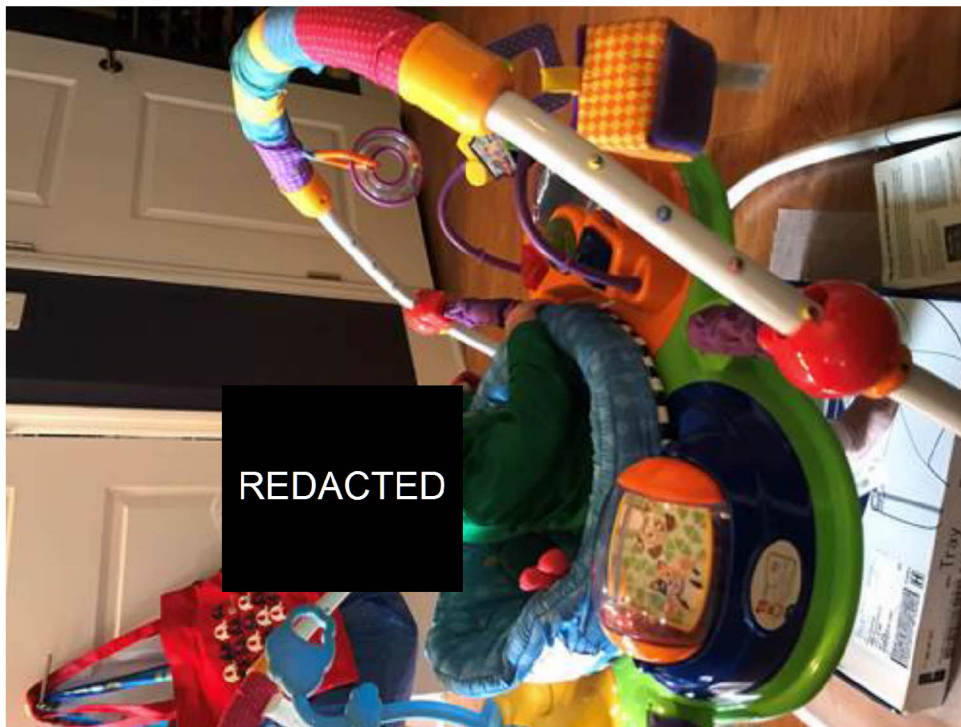
I'm looking forward to touching base with all of you and hearing how things have been going, both personally and with work! I hope that you've all been well! On the GVP end, I had a chance to touch base with Dennis before he left and have times set up to speak with BCG and Amy & Jen. Sounds like there's a lot of great progress and looking forward to assisting in continuing to move things forward.

In case you're curious how the little guy is doing, he hates napping, but is doing quite well otherwise (see attachments) and continues to be super tall! We have had lots of long chats about the benefits of vaccination and have started on basic One Health principles, so he's very much looking forward to meeting you all one day :).

Best,  
Cara

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

Desk: (202) 712-1161  
Cell: **REDACTED**  
E-mail: [cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)



A photograph of a baby sitting in a bouncer. The baby is wearing a white long-sleeved shirt with a colorful pattern. The bouncer has a green and yellow patterned fabric. A large black rectangular redaction box covers the baby's face. The word "REDACTED" is written in white capital letters across the center of the redaction box.

REDACTED



**From:** Latoya Armstrong <laarmstrong@usaid.gov>  
**Sent:** Tue, 24 Apr 2018 07:49:58 -0400  
**Subject:** Re: Japan outreach list  
**To:** **REDACTED**  
**Cc:** Cara Chrisman <cchrisman@usaid.gov>, Dennis Carroll <dcarroll@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>

**REDACTED**

Thanks so much for these suggestions. This is great. A number of these we've also been in contact with in the past, but no longer have the latest contact information.

You'll see that I've copied you on a separate note back to our USAID office in Tokyo on next steps.

Let's connect on a draft note (in Japanese) to go out to several of those listed in your note and once we have details on date for Dennis's event fully confirmed by the Embassy.

Very pleased to be working with you.

cheers,  
LaToya

On Mon, Apr 23, 2018 at 4:37 PM, **REDACTED** wrote:

Hi LaToya,

It was great connecting with you over the phone this morning. Here are my outreach ideas for Japan, with [my thoughts](#) and [notes in blue](#).

### Academia

- Tokyo University – I'm not sure about specifics but I believe there is frequent interaction between Tokyo U and the government. Many policy makers are Tokyo U graduates.
  - Institute of Medical Science (IMS, 東京大学医科学研究所) – Perhaps the most relevant research institute within Tokyo University. I know the director. Focuses on molecular science, epidemiology, emerging infectious diseases etc.
  - Prominent Ebola/influenza researcher based at the Laboratory of Virology at IMS: Dr. Kawaoka Yoshihiro (河岡義裕), who is a virologist.
  - Others?
- Nagasaki University Institute of Tropical Medicine (長崎大学熱帯医学研究所) – most prominent tropical medicine group in medical community
- Hokkaido University – most prominent veterinary school, most prominent zoonoses/One Health institution in Japan
  - Research Center for Zoonosis Control –where zoonoses research is based
    - Dr. Hiroshi Kida (喜田宏) – veterinarian, zoonoses expert, director of center

▪ Dr. Ayato Takada (高田礼人) – veterinarian, zoonoses expert, head of global epidemiology at the center

- Dr. Kohei Makita – One health expert, connections with FAO rome, based in Rakuno University (veterinary college)
  - Japan Society of Tropical Medicine(日本熱帯医学会) –I’m not sure how large/authoritative they are in the academic world.

## **Private**

Private companies that are interested in investing in global health are listed in the figure below.

•



Global Health Innovative Technology Fund (GHIT fund: グローバルヘルス技術振興基金) website.

<https://www.ghitfund.org/hww/businessmodel/jp>

Names of companies that I can make out:

- Astellas pharma
- Otsuka pharma
- Eisai pharma
- Sysmex
- Fujifilm
- Merck
- Johnson&Johnson Japan
- GSK Japan

There may be more companies if you look at them one-by-one.

## **Public**

- Ministry of Foreign Affairs

○ Japan International Cooperation-MOFA affiliated, USAID partner

- Ministry of Health, Labour, and Welfare

- National Institute for Infectious Diseases - MOHLW affiliated but don't work closely. They are more technical. My former boss at WHO was seconded from this organization

- National Center for Global Health and Medicine (国立研究開発法人 国際国立医療研究センター - Independent but public institution

- Dr. Norio Ohmagari – prominent global health physician in the global health world. I briefly met him at a WHO meeting in Manila.

- Ministry of Environment – usually less involved in health, main work is in radiation related issues, climate change etc. Lower priority.

## Others

World Organization for Animal Health (OIE) Regional Representation for Asia and the Pacific – based in Tokyo University. I have two contacts here.

World Health Organization Kobe Center – less relevant, because they do not work on EIDs. EID folks from Japan are represented in the WHO western pacific regional office in Manila.

I hope this is helpful, and I'm looking forward to exploring more.

Best,

REDACTED

--

LaToya Armstrong  
Senior Policy and Donor Engagement Advisor  
[Emerging Threats Division](#)  
Office of Infectious Diseases  
USAID/Bureau for Global Health  
phone: 571-551-7250 [desk] / [REDACTED] mobile]  
email: [laarmstrong@usaid.gov](mailto:laarmstrong@usaid.gov)

**From:** Peter Daszak <daszak@ecohealthalliance.org>  
**To:** peter@gisaid.org <peter@gisaid.org>  
**CC:** Dennis Carroll (DCarroll@usaid.gov) <DCarroll@usaid.gov>; Jonna Mazet <jkmazet@ucdavis.edu>  
**Sent:** 6/21/2018 6:51:35 AM  
**Subject:** Eddie Holmes talk at Inst Pasteur

Just gave my talk at this Pasteur meeting and eddie is up now. He only showed one slide critiquing the GVP and he seems to have a misconception that the GVP is just sequence data - doesn't realize that there will be ecological and human behavioral data too.

Peter - he will be at the crick institute meeting just FYI.

Cheers,

Peter

Peter Daszak  
(Sent from my iPhone)

President  
EcoHealth Alliance

460 West 34th Street, New York, NY10001, USA

[www.EcoHealthAlliance.org](http://www.EcoHealthAlliance.org)

On Jun 21, 2018, at 3:10 AM, Peter Daszak <daszak@ecohealthalliance.org> wrote:

Peter – Jonna mentioned you are going to the Crick Institute for a 1918 centenary mtg where you'll see Andrew Rambaut and wanted to get the talking points re. their critique of the GVP and our response.

I've attached the draft response so you can read our direct responses to their basic criticisms – that it's not possible to accurately predict emergence (which they assume is a key goal of the GVP – it isn't), and that the cost of the GVP is too high. They use a figure that compares the GVP budget (\$1.2 bn) to the annual budget of NIAID (\$4.8bn). That's misleading – the GVP is a 10 year budget (and a program that ends), and NIAID is just one country's program. We correct this in the attached pdf figure by using a 10-yr NIAID budget and pro-rating this by other country's GDPs to give a 'globalized' cost that shows the GVP is a relatively small expenditure.

Hope you're able to have a good and diplomatic debate, and thanks for supporting the mission!

Cheers,

Peter

**Peter Daszak**  
*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001



Tel. +1 212-380-4474  
[www.ecohealthalliance.org](http://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:** Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>  
**To:** Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>  
**Sent:** 6/28/2018 2:26:23 AM  
**Subject:** Re: New pub

Thanks

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

On Jun 28, 2018, at 6:50 AM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

We should -- waiting for the response from *Nature Microbiology*. They promised immediate action, but it has been a week. Tracey pinged them again today.

More soon,

J

On Wed, Jun 27, 2018 at 6:08 AM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Do you anticipate that you will have access to an embargoed copy of the paper before it is published? We expect people will want to take a look ahead of time.

*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](mailto:aclements@usaid.gov)*

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Fri, 10 Aug 2018 07:20:43 -0700  
**Subject:** Re: four unconfirmed cases of hemorrhagic fever in CAR  
**To:** "Bebay, Charles (FAOCG)" <[REDACTED]>  
**Cc:** "Ryan, Michael J." <[REDACTED]>, "BRIAND, Sylvie" <[REDACTED]>, "DRURY, Patrick Anthony" <[REDACTED]>, "Myers, Lee (AGAH)" <[REDACTED]>, "Makonnen, Yilma (FAOKE)" <[REDACTED]>, Jonna Mazet <jkmazet@ucdavis.edu>, Brian Bird <bhbird@ucdavis.edu>, Antoine Delaitre <[REDACTED]>

Thanks, Charles.

*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](mailto:aclements@usaid.gov)*

On Aug 10, 2018, at 4:14 PM, Bebay, Charles (FAOCG) <[REDACTED]> wrote:

Dear Andrew and all,

I reached out the FAO country animal health officer in CRA. He recognized that the following information may slightly differ, depending on other sources of information. However, he confirmed that the alert was given by a local rescuer from M'Boki, a place where there is no health facility available. A team of Pasteur Institute and MINSANTE plus the Minister of Health in person will be going tomorrow to M'boki, transport arranged by MINUSCA.

So far, according to him,

- 1 death
- 3 hospitalized
- 1 patient at home (family refused hospitalization)

MINUSCA and CRA national armed forces (FACA) have secured the suspected area.

More information to share as they arise,

Best regards,

Charles

**From:** Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>

**Sent:** vendredi 10 août 2018 13:43

**To:** Ryan, Michael J. <[REDACTED]>; BRIAND, Sylvie <[REDACTED]>; DRURY, Patrick Anthony <[REDACTED]>; Myers, Lee (AGAH) <[REDACTED]>; Makonnen, Yilma (FAOKE) <[REDACTED]>; Bebay, Charles (FAOCG) <[REDACTED]>; Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>; Brian Bird <[bhbird@ucdavis.edu](mailto:bhbird@ucdavis.edu)>; Antoine Delaitre <[REDACTED]>

**Subject:** four unconfirmed cases of hemorrhagic fever in CAR

FYI. Let me know if you have any additional information regarding this situation.

Last night (August 9) Minister of Health (MINSANTE) reported M'boki, and one death (also linked to the unconfirmed outbreak), a town 73 km from Obo and 1200 km from Bangui. In a meeting LTC Choate and I had with him in early July, he said that there was an approximate rate of 20% antibodies for Ebola in the area. They have been scrambling to get out there to get samples. MINSANTE called me this morning and we arranged for MINUSCA to take them there by helo, but it won't be until tomorrow. He said the suspected cases have climbed to 6. They will collect samples and bring them back to Bangui, where the Pasteur Institute and WHO will test them. Pasteur Institute has the capacity, and the Minister and WHO actually put in place a plan a few months ago. He said if he has specific needs, he will pass them on.

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](mailto:aclements@usaid.gov)

UCDUSR0010459

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



**From:** Andrew Clements <aclements@usaid.gov>  
**To:** Elizabeth Leasure <ealeasure@ucdavis.edu>  
**CC:** predict Sympa List <predict@ucdavis.edu>;Jonna Mazet <jkmazet@ucdavis.edu>;Hannah R Chale <hrchale@ucdavis.edu>;David John Wolking <djwolking@ucdavis.edu>;Amalhin Shek <ashek@usaid.gov>;Alisa Pereira <apereira@usaid.gov>  
**Sent:** 2/21/2019 7:11:37 AM  
**Subject:** Re: PREDICT Y5Q1 Expenditure by Country/Category report

Thanks, Liz.

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

On Feb 20, 2019, at 6:08 PM, Elizabeth Leasure <[ealeasure@ucdavis.edu](mailto:ealeasure@ucdavis.edu)> wrote:

Hi Andrew. Please find attached the Y5Q1 (October-December 2018) Expenditure by Country/Category report for PREDICT. If you have any questions, please let me know.

Thanks!  
Liz

*Elizabeth Leasure  
Financial Operations Manager  
One Health Institute  
530-304-1403 (cell)  
530-754-9034 (office)  
Skype: ealeasure*

**From:** Dennis Carroll <dcarroll@usaid.gov>  
**Sent:** Thu, 4 Apr 2019 09:43:18 -0400  
**Subject:** Peter Bogner's mailing address  
**To:** Peter Daszak <daszak@ecohealthalliance.org>, maher@ecohealthalliance.org, **REDACTED**, Jonna Mazet <jkmazet@ucdavis.edu>, erubin@metabiota.com, nwolfe@globalviral.org, cchrisman@usaid.gov

The GVP Board packet from the lawyers for Peter Bogner should be sent to:

[P.O. Box 3265](#)  
[Santa Monica, CA 90408-3265](#)

Dr Dennis Carroll  
Director  
Emerging Threats  
Global Health  
USAID  
301-646-6235

**From:** Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>  
**Sent:** Mon, 29 Apr 2019 21:15:06 +0200  
**Subject:** Re: Vancouver meeting  
**To:** Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>

Thanks

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

On Apr 29, 2019, at 3:09 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Hi!  
9 am is correct. You should have received an agenda, but perhaps David can resend.  
See you soon,  
Jonna

On Mon, Apr 29, 2019 at 10:29 AM Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

Hi all,  
While transiting, I was looking for the meeting start time and venue for tomorrow. No luck so far. I would guess 9:00 at the hotel.

Can you send me the details? Thanks!

See you tomorrow.

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](mailto:aclements@usaid.gov)*

**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Andrew Clements <aclements@usaid.gov>  
**CC:** William Karesch <Karesch@ecohealthalliance.org>; David J Wolking <djwolking@ucdavis.edu>; PREDICTMGT <predictmgt@usaid.gov>  
**Sent:** 5/15/2019 7:15:52 PM  
**Subject:** Re: PREDICT International Travel Requests

Hi Andrew,

That is correct, we did not plan for ROC with DTRA due to their lack of interest in ROC and the fact that samples are not currently stored there (at INRB).

That said, our pre-TVPA capacity strengthening plan did include supporting the stable electricity for freezers so that ROC could bring their samples back and store them safely. Much of those strengthening activities have been completed, so the government of ROC may request the transfer of samples back from INRB in DRC.

Best,

Jonna

On Wed, May 15, 2019 at 2:25 AM Andrew Clements <aclements@usaid.gov> wrote:

I didn't see ROC on the list of labs submitted to DTRA. Where does the ROC lab fall on the spectrum we discussed in Vancouver?

Are there any samples stored there at present (or will be in the near future)? It sounds like the samples are in Kinshasa, but will be transferred to ROC later. Is the lab considered to be sustainable and secure beyond 9/30/19?

Thanks!

*Andrew P. Clements, Ph.D.*

*Senior Scientific Advisor*

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

*U.S. Agency for International Development*

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

*Email: [aclements@usaid.gov](mailto:aclements@usaid.gov)*

Begin forwarded message:

**From:** Katherine Leasure <[kaleasure@ucdavis.edu](mailto:kaleasure@ucdavis.edu)>

**Date:** May 14, 2019 at 10:05:11 PM GMT+2

**To:** PREDICTMGT <[predictmgt@usaid.gov](mailto:predictmgt@usaid.gov)>

**Cc:** Predict inbox <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>

**Subject:** PREDICT International Travel Requests

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

1. Laudisoit (RoC, CIV): \$120 boat crossing, \$1290 airfare/\$376 (Brazzaville), \$344 (Abidjan) max daily per diems
2. Desmond (CIV): \$500 airfare/\$344 (Abidjan) max daily per diem
3. Poultolnor, Samuels, Arku, Kollie, Sackie, Harris, Larmouth, Bonason, Brown, Ross (CIV): team will drive from Monrovia to CIV, estimated cost of \$600 total/\$344 (Abidjan) max daily per diem  
*\*trainee's estimate a daily per diem actual cost of \$60/day while in the field*

Travel Requests –

1. EcoHealth Alliance would like to request travel approval for Dr. Anne Laudisoit to travel from Kinshasa, DRC, to Brazzaville, Republic of Congo from June 1-5, 2019 for official visits and meetings. From Brazzaville, Republic of Congo, she will travel to Abidjan, Cote d'Ivoire for from June 6-25, 2019 for meetings and trainings. *\*Dr. Laudisoit's origin city is Kinshasa, where she will be traveling on*



*non-PREDICT business. From Abidjan, Cote d'Ivoire she will return to Brussels, Belgium.*

**Trip purpose:** RoC – As Country Liaison to RoC, Dr. Laudisoit will visit Brazzaville from June 1-5 to finalize the installation and outfitting of the PREDICT laboratory to ensure capacity for viral screening by the end of P2Y5. She will meet with the PREDICT RoC team at the Public Health Lab (LNSP) in Brazzaville. She will organize a joint meeting with the Director of Parks and Reserves, and the POC for Nagoya and CITES to arrange sample transfer from Kinshasa to Brazzaville and work on viral PREDICT results publications. CIV - As Country Liaison to CIV, Dr. Laudisoit will, with Liberia Country Coordinator Dr. Jim Desmond, conduct a joint training in wildlife surveillance sampling in the region with One Health representatives (DSV, DFRC, FAO, Zoo staff and OIPR). A team-building workshop, a theoretical training on non-invasive sampling techniques, and a practical training in Banco forest is planned between the PREDICT CIV and Liberia teams. This training is programmed in P2Y5 workplan, solicited by the Ministry of Water and Forestry (DFRC) and the Ivorian Parks and Reserves Office (OIPR). Dr. Laudisoit will be in CIV June 6-25 with the training planned for June 10-21.

2. EcoHealth Alliance would like to request travel approval for James Desmond to travel from Monrovia, Liberia to Abidjan, Cote d'Ivoire from June 7-13, 2019 to organize and conduct a joint training between the PREDICT Cote d'Ivoire team with members of the PREDICT Liberia team.

**Trip Purpose:** Dr. Desmond will conduct a joint training in wildlife surveillance sampling in the region. A team-building workshop, a theoretical training on non-invasive sampling techniques, and a practical training in Banco forest is planned between the PREDICT CIV and Liberia teams. The Liberia team, with their extensive experience in the field, will be able to instruct the Cote D'Ivoire team on safe bat capture and handling, sample collection and cold chain.

3. EcoHealth Alliance would like to request travel approval for **the below list of travelers\*** to travel from Monrovia, Liberia to Abidjan, Cote d'Ivoire from June 9-22, 2019 to conduct a joint training between the PREDICT Cote d'Ivoire team with members of the PREDICT Liberia team.

**Trip Purpose:** This training is meant to be a regional capacity strengthening wildlife surveillance training between CIV and Liberia PREDICT teams. PREDICT Liberia serves as an experienced and well-trained team that can help share best practices and protocols with the newer CIV team. A team-building workshop, a theoretical training on non-invasive sampling techniques, and a practical training in Banco forest is planned between the PREDICT CIV and Liberia teams.

**\*PREDICT Liberia Team:** Jackson Poultonor - Field Team lead; Sandra Samuels - Research technician; Jallah Arku – Research technician; Amos Kollie – Research technician; Melkor Sackie – Research technician; Daniel Harris – Research technician; Emmauel Larmouth – Research technician; Margret Bonason – Research technician; Joseph Brown – Driver; Albert Ross – Driver

--

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

--

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

To unsubscribe from this group and stop receiving emails from it, send an email to [predictmgt+unsubscribe@usaid.gov](mailto:predictmgt+unsubscribe@usaid.gov).

To post to this group, send email to [predictmgt@usaid.gov](mailto:predictmgt@usaid.gov).

To view this discussion on the web visit [https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CAD6-xM%2B6TjfFogat%2B\\_jygWHcE7HMnpRy%2BKjB\\_D-%2BKmYPHs58Q%40mail.gmail.com](https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CAD6-xM%2B6TjfFogat%2B_jygWHcE7HMnpRy%2BKjB_D-%2BKmYPHs58Q%40mail.gmail.com).

**From:** Andrew Clements <aclements@usaid.gov>  
**To:** David J Wolking <djwolking@ucdavis.edu>  
**CC:** Jonna Mazet <jkmazet@ucdavis.edu>; PREDICTMGT <predictmgt@usaid.gov>  
**Sent:** 5/20/2019 11:10:53 AM  
**Subject:** Re: Bat book

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](mailto:aclements@usaid.gov)*

On May 20, 2019, at 5:51 PM, David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

Hi Andrew,

We had a live link on our [www.predict.global](http://www.predict.global) site for the book but in the web migration it didn't import (still working out a few kinks there with our web design team). We have two versions, [here's a link to the original for download](#). This [second link](#) is the same book just formatted for printing (flip book style used by teams in the field). You probably don't need this second version but sharing nonetheless.

On the Asia version, I talked with Emily a few weeks ago and they were making progress but hadn't pushed it to EB yet for final review. I'll check in today on timeline and status.

David

On Mon, May 20, 2019 at 2:24 AM Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:  
Hi David,

Can you send me the latest version of the bat book? I want to look through it again, but want to make sure I have the most-recent version.

Also, I would like to look at the Asia adaptation of the bat book if a draft is available.

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](mailto:aclements@usaid.gov)*

**From:** Dennis Carroll <dcarroll@usaid.gov>  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Sent:** 6/13/2019 2:19:34 PM  
**Subject:** Just arriving at DuPont metro be there in 5 minutes

Dr Dennis Carroll  
Director  
Emerging Threats  
Global Health  
USAID  
301-646-6235

**From:** Tegegne Shiferaw <tegegnes@jhuccpeth.org>  
**To:** Stephanie Martz <smartz@usaid.gov>, Etsub Brhanesilassie <ebrhanesilassie@usaid.gov>  
**Cc:** "dechassa.tegegne@ju.edu.et" <dechassa.tegegne@ju.edu.et>, Stefania Slabyj <Sslabyj@ghsc-psm.org>, Tesfaye Seifu <TSeifu@ghsc-psm.org>, Andre Zagorski <azagorski@mtapsprogram.org>, Betemariam Alemu <betemariam@jhuccpeth.org>, Betemariam Alemu [REDACTED], Daniel Tadesse <DTadesse@ghsc-psm.org>, Darsema Gulima [REDACTED], "Darsema Gulima Huluka" <d huluka@hrh2030program.org>, David Mutonga <david.mutonga@thepalladiumgroup.com>, Dechassa Tegegne [REDACTED], Denise Johnson <Denise.Johnson@icf.com>, "Diafuka Sala-Ngita" <diafuka.saila\_ngita@tufts.edu>, Dinah Tjipura <dtjipura@mtapsprogram.org>, Dr Filimona CGE <filimonab@crdaethiopia.org>, "Dr. Filimona Bisrat" [REDACTED], Fern Greenwell <Fern.Greenwell@icf.com>, Gebretsadik Berhe [REDACTED], Gebretsadik Berhe [REDACTED], Hellen Amuguni <Janetrix.Amuguni@tufts.edu>, Innocent Rwego <irwego@umn.edu>, Jeff Bender <bende002@umn.edu>, Jennifer K Lane <jklane@ucdavis.edu>, "Makonnen, Yilma (AGAH)" [REDACTED], Jonna Mazet <jkmazet@ucdavis.edu>, "Katey Pelican" <pelicank@umn.edu>, Khadijah Alibhai <kalibhai@brynmawr.edu>, "kifle WMichael" [REDACTED], Legesse Bezabih [REDACTED], "McNichols, Corinne" <Corinne.McNichols@icf.com>, "Mekonnen, Negussu" <nmeconnen@msh.org>, Mohan Joshi <mjoshi@msh.org>, Muluken Alemu [REDACTED], Mungai David Ndung'u <DNdungu@fhi360.org>, "Nigatu Kebede" [REDACTED], Sarah Paige <spaige@coregroup.org>, "Saul Tzipori" <saul.tzipori@tufts.edu>, Simon Heliso <Simonh@jhuccpeth.org>, "Tegegn Shiferaw" [REDACTED], Tegegne Shiferaw <tegegnes@jhuccpeth.org>, "VantKlooster, Gijs (FAOET)" [REDACTED], Woutrina A Smith <wasmith@ucdavis.edu>, Gijs VantKlooster [REDACTED], "Cc: Lisa Kramer" <lkramer@usaid.gov>, Lindsay Parish <lparish@usaid.gov>, "Andrea Long-Wagar" <alongwagar@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, "Ashna Kibria" <akibria@usaid.gov>, Andrew Clements <aclements@usaid.gov>, "Marilyn Crane" <mcrane@usaid.gov>, Ricardo Echalar <rechalar@usaid.gov>, Mandy Paust <apaust@usaid.gov>, Yirgalem Gebremeskel <ygebremeskel@usaid.gov>, "Guda Alemayehu" <galemayehu@usaid.gov>, Anton Schneider <aschneider@usaid.gov>, Angela Wang <awang@usaid.gov>, Faith Bartz Tarr <fbartz@usaid.gov>, "Etsub Brhanesilassie" <ebrhanesilassie@usaid.gov>, "Bebay, Charles (FAOKE)" [REDACTED], "Kivaria, Fredrick (FAOKE)" [REDACTED], "Kimutai, Joshua (FAOKE)" [REDACTED], "Kimani, Tabitha (FAOKE)" [REDACTED], "Damelio, Jacopo (FAOET)" [REDACTED], Lisa Kramer <lkramer@usaid.gov>, Ashna Kibria <akibria@usaid.gov>, hrh one health pmu <hrhonehealthpmu@chemonics.com>, Mariam Reda <mreda@chemonics.com>, "Grace Tran" <gtran@chemonics.com>, Amy Strang <astrang@chemonics.com>, Andrea Poling <apoling@hrh2030program.org>, Alexis Katzelnick-Wise <awise@hrh2030program.org>, hrh one health pmu <hrhonehealthpmu@chemonics.com>, "Tewolde, Nega (FAOET)" [REDACTED], Stephanie Clayton <sclayton@jhu.edu>, Lindsey Leslie <lindseyleslie@jhu.edu>, Betemariam Alemu <betemariam@jhuccpeth.org>, "Tsega Berhanu" <tberhan2@jhu.edu>  
**Subject:** Bi-weekly update  
**Sent:** Tue, 16 Jul 2019 12:18:23 +0000  
[GHSA Ethiopia BiWeekly Update 16 July 2019.docx](#)

Dear Stephanie and Etsub,

Please find attached Zoonotic diseases risk communication project update.

Regards,

Tegegne



**Ethiopia GHSA Implementation Bi-Weekly Updates**  
**USAID Implementing Partners**

Date Submitted	16, July, 2019
Project	GHSA, ZD risk communication, JHU CCP

**I. Highlighted Updates: Please list (maximum five) major updates on activity implementation in Ethiopia.**

**FORMAT:** Insert JEE milestone and description relevant to this update (e.g. **D.1.4 Laboratory Quality System**). Provide 1 sentence summary of update (**bold**). Include 1-3 sentences of additional information.

**R.5.2 Internal and partner coordination for emergency risk communication**

- JHU CCP risk communication project had assisted the National One Health Communication Task Force (NOHCTF) in development of annual action plan to be enriched by members of the taskforce. This action plan was commented, enriched, and endorsed by members of the taskforce to be communicated for the NOHSC.
- Potential options of communication technology platforms that help to easily communicate, share resources and collaborate among One Health partners presented by JHU CCP SBCC technology solutions officer and web developer. The pro and cons of different options (such as opening web page, use of google drive, drop box, one drive, and use of other social medias) discussed among members of the NOHCTF and agreed to share this presentation at the NOHSC meeting.

**R.5.3 Public communication for emergencies**

- July 11-12, 2019 Amhara region one health TWG in collaboration with Sekota Zone One health TWG, and JHU CCP conducted site visit to two of the woredas (Ziquala and Abergelle) where most recent anthrax cases were reported. During the visit the team conducted discussion with woreda health, woreda livestock office, health centers, and HPs staff about how the outbreak was managed and encountered challenges. Half day advocacy meeting on Anthrax prevention was conducted after site visit at Sekota town. Thirty-seven participants (woreda administrators, zonal and woreda human and animal health offices heads and experts, zonal and woreda government communication leads) attended this the advocacy meeting. At the end of the meeting the zone administrator gave direction to woreda leadership to take anthrax and rabies issues as one of the key monthly evaluation indicators and send monthly report to zonal administration and zonal one health taskforce.

- II. **Coordination:** Please describe any activities in Ethiopia that may benefit from coordination with other GHSA implementing partners or USG agencies (e.g. CDC, USDA, DTRA, etc.) and how.

--

- III. **Challenges:** Please describe any significant challenges related to planning or implementation of GHSA activities in Ethiopia.

--

- IV. **Upcoming GHSA related TDYs:** Please provide the information requested below on all GHSA-related TDYs to Ethiopia for the next six weeks. Insert additional rows as necessary.

Traveler(s)	Location (areas to be visited)	Dates	Trip Objectives	Trip Impact (including deliverables) <i>This should also specify if/how this TDY will build host nation capacity and contributes to overarching GHS objectives</i>

- V. **Upcoming major GHSA related meetings/trainings/events** for the next six weeks (if information is not captured in TDY table above)

Meeting/Training/Event Topic	Location	Dates	Objectives	Number and type of participants
Anthrax prevention roadshow	Abergel and Temben woredas, Tigray	July 24-27, 2019	To raise community awareness on Prevention and control of Anthrax.	Hundreds of community members per market place

**From:** Innocent Rwego <irwego@umn.edu>  
**Sent:** Wed, 17 Jul 2019 17:36:02 +0300  
**Subject:** Re: Bi-weekly update  
**To:** Tegegne Shiferaw <tegegnes@jhuccpeth.org>  
**Cc:** Stephanie Martz <smartz@usaid.gov>, Etsub Brhanesilassie <ebrhanesilassie@usaid.gov>, "dechassa.tegegne@ju.edu.et" <dechassa.tegegne@ju.edu.et>, Stefania Slabyj <Sslabyj@ghsc-psm.org>, Tesfaye Seifu <TSeifu@ghsc-psm.org>, Andre Zagorski <azagorski@mtapsprogram.org>, Betemariam Alemu <betemariam@jhuccpeth.org>, Betemariam Alemu [REDACTED] Daniel Tadesse <DTadesse@ghsc-psm.org>, Darsema Gulima [REDACTED], Darsema Gulima Huluka <dhuluka@hrh2030program.org>, David Mutonga <david.mutonga@thepalladiumgroup.com>, Dechassa Tegegne [REDACTED] Denise Johnson <Denise.Johnson@icf.com>, Diafuka Sala-Ngita <diafuka.saila\_ngita@tufts.edu>, Dinah Tjipura <dtjipura@mtapsprogram.org>, Dr Filimona CGE <filimonab@crdaethiopia.org>, "Dr. Filimona Bisrat" [REDACTED] Fern Greenwell <Fern.Greenwell@icf.com>, Gebretsadik Berhe <gebretsadik\_b@yahoo.com>, Gebretsadik Berhe <gebretsadikberhe@gmail.com>, Hellen Amuguni <Janetrix.Amuguni@tufts.edu>, Jeff Bender <bende002@umn.edu>, Jennifer K Lane <jklane@ucdavis.edu>, "Makonnen, Yilma (AGAH)" [REDACTED] Jonna Mazet <jkmazet@ucdavis.edu>, Katey Pelican <pelicank@umn.edu>, Khadijah Alibhai <kalibhai@brynmawr.edu>, kifle WMichael [REDACTED] Legesse Bezabih [REDACTED] "McNichols, Corinne" <Corinne.McNichols@icf.com>, "Mekonnen, Negussu" <nmekonnen@msh.org>, Mohan Joshi <mjosshi@msh.org>, Muluken Alemu [REDACTED] "Mungai David Ndung'u" <DNdungu@fhi360.org>, Nigatu Kebede [REDACTED] Sarah Paige <sipaige@coregroup.org>, Saul Tzipori <saul.tzipori@tufts.edu>, Simon Heliso <Simonh@jhuccpeth.org>, Tegegn Shiferaw [REDACTED] "VantKlooster, Gijs (FAOET)" [REDACTED] Woutrina A Smith <wasmith@ucdavis.edu>, Gijs VantKlooster [REDACTED], "Cc: Lisa Kramer" <lkramer@usaid.gov>, Lindsay Parish <lparish@usaid.gov>, Andrea Long-Wagar <alongwagar@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, Ashna Kibria <akibria@usaid.gov>, Andrew Clements <aclements@usaid.gov>, Marilyn Crane <mcrane@usaid.gov>, Ricardo Echalar <rechalar@usaid.gov>, Mandy Paust <apaust@usaid.gov>, Yirgalem Gebremeskel <ygebremeskel@usaid.gov>, Guda Alemayehu <galemayehu@usaid.gov>, Anton Schneider <aschneider@usaid.gov>, Angela Wang <awang@usaid.gov>, Faith Bartz Tarr <fbartz@usaid.gov>, "Bebay, Charles (FAOKE)" [REDACTED] "Kivaria, Fredrick (FAOKE)" [REDACTED] "Kimutai, Joshua (FAOKE)" [REDACTED] "Kimani, Tabitha (FAOKE)" [REDACTED] "Damelio, Jacopo (FAOET)" [REDACTED] hrh one health pmu <hrhonehealthpmu@chemonics.com>, Mariam Reda <mreda@chemonics.com>, Grace Tran <gtran@chemonics.com>, Amy Strang <astrang@chemonics.com>, Andrea Poling <apoling@hrh2030program.org>, Alexis Katzelnick-Wise <awise@hrh2030program.org>, "Tewolde, Nega (FAOET)" [REDACTED] Stephanie Clayton <sclayton@jhu.edu>, Lindsey Leslie <lindseyleslie@jhu.edu>, Tsega Berhanu <tberhan2@jhu.edu>, Timothy Wakabi <twakabi@ohcea.org>  
[17072019 GHSA Ethiopia BiWeekly OHW OHCEA Updates.docx](#)

Hello Stephanie and Etsub,  
Please find attached OHCEA's/OHW Project biweekly report.

Kind regards,  
Innocent

On Tue, Jul 16, 2019 at 3:07 PM Tegegne Shiferaw <tegegnes@jhuccpeth.org> wrote:

Dear Stephanie and Etsub,

Please find attached Zoonotic diseases risk communication project update.

Regards,

Tegegne



**Ethiopia GHSA Implementation Bi-Weekly Updates**  
**USAID Implementing Partners**

Date Submitted	17 <sup>th</sup> July 2019
Project	OHW Project/OHCEA

**I. Highlighted Updates: Please list (maximum five) major updates on activity implementation in Ethiopia.**

**FORMAT:** Insert JEE milestone and description relevant to this update (e.g. **D.1.4 Laboratory Quality System**). Provide 1 sentence summary of update (bold). Include 1-3 sentences of additional information.

- Workforce Development Indicator D.4.1: Human Resources are available to implement IHR Core Capacities:** OHCEA Institutions worked together with EPT 2 partners and the National One Health Steering Committee (NOHSC) to disseminate and validate a policy brief that had been developed out of the Workforce planning assessment and OH-SMART workshop previously conducted and held in 2016. This validation workshop was held on 6<sup>th</sup> July 2019 at Monarch Hotel. Participants were drawn from USAID, EPT 2/GHSA partners, different government sectors (e.g. EPHI, Ministry of Education EWCA, Ministry of Agriculture), HORN Project and OHCEA Ethiopia university institutions and partners. The policy brief will be presented to the NOHSC for further follow up and possible implementation of recommendation.
- Workforce Development Indicator D.4.1: Human Resources are available to implement IHR Core Capacities:** Mekelle University conducted a One Health Field Attachment Orientation workshop for 31 students from veterinary medicine, Nursing, Midwifery, Pharmacy, Environmental, Psychiatry, Medicine, Public health and Health Informatics from 13<sup>th</sup> to 14<sup>th</sup> July 2019. Students were trained on community entry, engagement and how to train community members on infectious diseases. From 15<sup>th</sup> to 20<sup>th</sup> July students were attached at Lake Hashenge, a One Health Demonstration Site for Mekelle University. This is the last activity for Mekelle University out of the OHW Project 2018/2019 approved workplan.

**II. Coordination: Please describe any activities in Ethiopia that may benefit from coordination with other GHSA implementing partners or USG agencies (e.g. CDC, USDA, DTRA, etc.) and how.**

OHCEA and OHW Project, with support and in collaboration with the National One Health Steering Committee, disseminated One health policy brief. This dissemination and endorsement workshop took place on 6<sup>th</sup> July 2019 at Monarch Hotel, Addis Ababa.

**III. Challenges: Please describe any significant challenges related to planning or implementation of GHSA activities in Ethiopia.**

**IV. Upcoming GHSA related TDYs: Please provide the information requested below on all GHSA-related TDYs to Ethiopia for the next six weeks. Insert additional rows as necessary.**

Traveler(s)	Location (areas to be visited)	Dates	Trip Objectives	Trip Impact (including deliverables) This should also specify if/how this TDY will build host nation capacity and contributes to overarching GHS objectives




V. Upcoming major GHSA related meetings/trainings/events for the next six weeks (if information is not captured in TDY table above)

Meeting/Training/ Event Topic	Location	Dates	Objectives	Number and type of participants
OH Student Field Attachment (Originally planned for 16 – 2 July)	Jimma	2 <sup>nd</sup> week of August 2019	<ul style="list-style-type: none"> <li>Train students on community engagement around priority zoonotic diseases.</li> <li>Identify challenges and develop intervention for infectious diseases at the human-animal-environment interface</li> </ul>	30 Multidisciplinary undergraduate group of students from nursing, public health, veterinary, environmental and agricultural sciences.
3rd OHCEA International One Health Conference	Kampala, Uganda	24 – 27 July 2019	<ul style="list-style-type: none"> <li>OHCEA members (students and faculty) will join other researchers and policy makers to share experiences and information on One health work conducted in Ethiopia.</li> </ul>	8 people from OHCEA Ethiopia institutions will be supported to attend the conference

**From:** **REDACTED**

**To:** Amanda Fine <afine@wcs.org>, Brian H Bird <bhbird@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>, Corina Grigorescu Monagin <cgmonagin@UCDAVIS.EDU>, Dawn Zimmerman <Zimmermand@si.edu>, Jon Epstein <epstein@ecohealthalliance.org>, David John Volking <djvolking@ucdavis.edu>, Karen Saylor <ksaylor@labyrinthgh.com>, Marc Valitutto <ValituttoM@si.edu>, "Murray, Suzan" <MurrayS@si.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Jonna Mazet <jkmazet@ucdavis.edu>, Woutrina A Smith <wasmith@ucdavis.edu>, Sarah Olson <solson@wcs.org>, Simon Anthony <sja2127@columbia.edu>, Tammie O'Rourke <torourke@metabiota.com>, Tracey Goldstein <tgoldstein@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>

**Cc:** Alison Andre <andre@ecohealthalliance.org>, Amanda Andre <amanda.andre@ecohealthalliance.org>, Ava Sullivan <sullivan@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, Nicole R Gardner <nrgardner@ucdavis.edu>, **REDACTED** Brooke Genovese <bgenovese@ucdavis.edu>, "Churchill, Carolina" <cchurchill@wcs.org>, Molly Turner <turner@ecohealthalliance.org>, predict Sympa List <predict@ucdavis.edu>

**Subject:** [Canceled] PREDICT EB Aug 7

**Sent:** Thu, 1 Aug 2019 18:10:21 +0000

Hi PREDICT EB,

Your next PREDICT EB meeting, originally scheduled on August 7, has been canceled.

Best,  
Eri

**From:** Dennis Carroll <dcarroll@usaid.gov>  
**Sent:** Mon, 26 Aug 2019 14:58:08 -0400  
**Subject:** Hello and Goodbye - Leaving USAID  
**To:** **REDACTED** DCarroll <dcarroll@usaid.gov>  
**Bcc:** jkmazet@ucdavis.edu

Dear friends and colleagues, After 30 years (one part AAAS fellow, fourteen parts CDC detailee, and fifteen parts USAID direct hire) I am wrapping up my career at USAID as of August 30th. 30 years was not my original plan. I initially took a year off from my research position at Cold Spring Harbor Laboratories (I once was a fledgling scientist) to accept a AAAS Science and Diplomacy Fellowship. At the time I had every intention of returning to the bench, my, then, one true passion – once I finished my one year sojourn through the mysterious interface between science, development and diplomacy. Well, like Ulysses and his encounter with the Sirens and their song I was bewitched – and thus began a 30 year odyssey, always on the fringes of the “big engines” of global health, but always at the center of what needed to be done. From leprosy to guinea worm, chagas to oncho, schisto to dengue, and even a foray into the extraordinary world of water and sanitation; 15 years of gathering the evidence for a malaria “tool box” and the design of the President’s Malaria Initiative; and for the past 15 years the most exciting of all, being part of a global effort to decode the mysterious world of emerging infectious diseases and build a generation of One Health leaders to battle everything from avian influenza to ebola. Like Ulysses of old, the stories of this adventure are rich and wondrous; and the friendships formed and partnerships forged extraordinary. I want to acknowledge that nowhere could I have had the honor of such a journey but at USAID. Senior leadership from the very beginning gave me the space (and Congress the money) to work on important but (at the time) neglected public health challenges. Thank you! I would also like to acknowledge the very special partnerships forged over the decades with multiple generations of extraordinary colleagues and friends at FAO, WHO, WFP, UNICEF and the UN at-large; as well as dedicated leaders from an extraordinarily diverse collection of governmental ministries from around the globe, including multiple agencies and departments across my own government. Similarly, a special thanks to the deep friendships I have made with an amazing group of leaders from universities, NGOs, private sector entrepreneurs, and communities spanning too many countries to count. To all of you, I remain in awe of the inspiration each of you have engendered by your passion and commitment for making this world a better place. Lastly, the biggest of THANK YOUs to that “band of fellow travelers” with whom I have had the honor and privilege of “building our ship as we sail it” across the uncharted seas of emerging diseases. What a marvelous journey – 15 years and going strong – though in recent years troubling headwinds have emerged within USAID that threaten the very existence of this portfolio. Now would be a good time for senior leadership to reaffirm their support for the Emerging Threats Program and its new leadership team of Padma Shetty and Cara Chrisman.

While my journey at USAID is now coming to an end, my journey across the world of global health continues. After a brief respite, I will continue the adventure – pushing forward, with an even greater passion, the Global Virome Project and it’s audacious vision of ushering in the “beginning of the end of the pandemic era”, and, taking up teaching opportunities with an eye on the next generation of leaders in Africa and Asia.

As Bob Dylan famously sang – “he not busy being born is busy dying”. Words to live by! Life’s journey is always forward, always towards the future.

Again, thank you all for your support, partnership, and most of all, friendship

I look forward to continuing our journey together as I continue the adventure.

“Live long and prosper” 

d

My new contact info:

**REDACTED**

Dr. Dennis Carroll

UCDUSR0010475

Director, Emerging Threats Program  
Bureau for Global Health  
U.S. Agency for International Development  
Office: 571-551-7109  
Mobile: REDACTED

*NOTE: I will leave USAID on August 30, 2019. Afterwards I can be contacted at:*

*personal email:* REDACTED  
*personal mobile:* REDACTED



**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Tue, 3 Dec 2019 06:08:01 -0800  
**Subject:** Re: PREDICT October 2019 Ebola financial report  
**To:** Elizabeth Leasure <ealeasure@ucdavis.edu>  
**Cc:** Alisa Pereira <apereira@usaid.gov>, Amalhin Shek <ashek@usaid.gov>, Jonna Mazet <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, predict Sympa List <predict@ucdavis.edu>, Cara Chrisman <cchrisman@usaid.gov>

Thanks, Liz.

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

On Dec 3, 2019, at 5:33 AM, Elizabeth Leasure <[ealeasure@ucdavis.edu](mailto:ealeasure@ucdavis.edu)> wrote:

Hi Andrew. Please find attached the October 2019 Ebola financial report. You will note a drop in expenditures from last month, which reflects the end of in-country partner subawards as of 9/30/19. If you have any questions, please let me know.

Thanks,  
Liz

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

<PREDICT Ebola Financial Report\_Oct2019\_final.pdf>

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Sat, 14 Dec 2019 06:50:46 -0800  
**Subject:** Re: URGENT ACTION REQUESTED: FY20, Q1 Accrual  
**To:** Elizabeth Leasure <ealeasure@ucdavis.edu>  
**Cc:** Amalhin Shek <ashek@usaid.gov>, PREDICTMGT <PREDICTMGT@usaid.gov>, predict Sympa List <predict@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>

Received. Thanks, Liz.

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

On Dec 13, 2019, at 11:34 PM, Elizabeth Leasure <[ealeasure@ucdavis.edu](mailto:ealeasure@ucdavis.edu)> wrote:

Hi Amalhin. The requested accrual information is below for PREDICT. Let me know if you have any questions. Thanks!

October: \$863,122  
November: \$968,933  
December: \$853,622

Jan 1, 2020 Pipelines:  
\$1,225,243 (Core)  
\$42,775 (Ebola)

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

**From:** Amalhin Shek <[ashek@usaid.gov](mailto:ashek@usaid.gov)>

**Sent:** Tuesday, December 10, 2019 3:02 PM

**To:** predict Sympa List <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>; David Whitfield <[David\\_Whitfield@dai.com](mailto:David_Whitfield@dai.com)>; David John Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)>; Mirela (TCE) <[REDACTED]>; Bianca (TCE) <[REDACTED]>; Erik Kohler <[ekohler@email.gwu.edu](mailto:ekohler@email.gwu.edu)>; Ahmed Al-Ariqi <[aalariqi@email.gwu.edu](mailto:aalariqi@email.gwu.edu)>; Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>; Katie Taratus <[REDACTED]>; Annie Bartels <[barte113@umn.edu](mailto:barte113@umn.edu)>; Elizabeth Leasure <[ealeasure@UCDAVIS.EDU](mailto:ealeasure@UCDAVIS.EDU)>; Cesnalis, Daniel <[DCesnalis@nas.edu](mailto:DCesnalis@nas.edu)>; Wiltshire, Julie <[JWiltshire@nas.edu](mailto:JWiltshire@nas.edu)>; Anna Isabel <[AJavier@nas.edu](mailto:AJavier@nas.edu)>; YNegussie@nas.edu; [msutherl@usgs.gov](mailto:msutherl@usgs.gov); [momeara@usgs.gov](mailto:momeara@usgs.gov); [ljordan@usgs.gov](mailto:ljordan@usgs.gov)  
**Cc:** OHWMGT <[ohwmgt@usaid.gov](mailto:ohwmgt@usaid.gov)>; PREDICTMGT <[PREDICTMGT@usaid.gov](mailto:PREDICTMGT@usaid.gov)>; FAOMGT <[faomgt@usaid.gov](mailto:faomgt@usaid.gov)>; P&RMGT <[prmgmt@usaid.gov](mailto:prmgmt@usaid.gov)>; Ashna Kibria <[akibria@usaid.gov](mailto:akibria@usaid.gov)>; Cassandra Louis Duthil <[clouisduthil@usaid.gov](mailto:clouisduthil@usaid.gov)>; Amanda Paust <[apaust@usaid.gov](mailto:apaust@usaid.gov)>; Ayan Mohamed <[aymohamed@usaid.gov](mailto:aymohamed@usaid.gov)>; Padmaja Shetty <[pshetty@usaid.gov](mailto:pshetty@usaid.gov)>

**Subject:** URGENT ACTION REQUESTED: FY20, Q1 Accrual

Dear all,

It is once again Accruals time for us... Please send us the following information, in an email no later than OOB, this Friday(12/13):

- Projected /Actual  
October Expenses
- Projected November Expenses
- Projected December Expenses

- Projected Pipeline for January 1, 2020

Thanks in advance

Amalhin Shek | **Budget & Communications Analyst**

Bureau for Global Health, Office of Infectious Disease, [Emerging Threats Division](#)

Phone: 202-916-2069(o) [REDACTED] (c) | UA 4.6.2H

**USAID Contractor**

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

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

To unsubscribe from this group and stop receiving emails from it, send an email to

[predictmgt+unsubscribe@usaid.gov](mailto:predictmgt+unsubscribe@usaid.gov).

To view this discussion on the web visit

<https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/MWHPR08MB332622C940B1BC7CC1D88AA4A2540%40MWHPR08MB3326.namprd08.prod.outlook.com>.

**From:** Dean Jamison <djamison@uw.edu>  
**To:** [REDACTED]  
**Cc:** Ben Oppenheim <boppenheim@metabiota.com>, Nita Madhav <nmadhav@metabiota.com>, Dennis Carroll [REDACTED], Jonna Mazet <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Samantha Maher <maher@ecohealthalliance.org>, "erubin@metabiota.com" <erubin@metabiota.com>, "nwolfe@metabiota.com" <nwolfe@metabiota.com>, Cara Chrisman <cchrisman@usaid.gov>  
**Subject:** Re: BCA updates and two requests  
**Sent:** Thu, 19 Dec 2019 01:22:08 +0000

HiBen, Nita

I believe you have my main input on this. If you want to use any of that material in slides, Matt can help with getting the appropriate material to you in a usable format.

Note that I have revised our key left to right sequence of events slide to separate annualized EPFs into a return time component and an EPF conditional on an event occurring component. If that is the way we end up going, that would be the slide to use.

Best to all

Dean

On Dec 18, 2019, at 2:58 PM, [REDACTED] > wrote:

Hi Dean, Ben, and Nita,

I am reaching out with updates and two requests related to BCA. Recently, a 501(c)3 non-profit organization was formed for the Global Virome Project, and GVP will be holding its first Board meeting in mid-February 2020. During the meeting, we would like to brief board members about the BCA group's great activities to date.

Would you be able to develop **a short brief about the BCA group's activities (1-2 page max), and a couple of slides?** Our timeline would likely be around the end of January, prior to the BOD meeting. My colleagues copied here can follow up with an exact deadline.

In addition to the request above, would you be able to share quick updates (some bullet points in an email to the group cc'ed here) about the progress of the analysis since our last meeting?

Please send your response to my colleagues copied here, as I will be handing my GVP work over. Thank you very much for your hard work.

Best wishes,

[REDACTED]



**From:** Peter Daszak <daszak@ecohealthalliance.org>  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**CC:** Samtha Maher <maher@ecohealthalliance.org>  
**Sent:** 1/12/2020 8:24:33 PM  
**Subject:** RE: draft GVP Board meeting Agenda for your comments/changes

Thanks Jonna – agree re. dinner the night before and I’ve accepted all your changes in this version.

Samantha – please change the reservation at the Blue Duck for the 12<sup>th</sup> Feb at 7pm if possible, or we can find another restaurant of similar caliber (Robert has a list).

Please check the agenda for any errors, and if this looks correct I’ll circulate tomorrow. We then need to get the docs together and send them out.

Jonna – I’ve checked in with Julie Pavlin on renting the room at the Keck Center – it can’t be free this time, and will cost around \$1,000 or so (Room rate is between \$510-760 per day depending on which rooms are available. AV support is \$80.00 per hour per day, food on top of that). I’ve asked her to go ahead at this point and book the room, assuming that the charge can be to any remnant GVP funds you’re managing, or other funds we’ve both got. I think it’s very reasonable

Cheers,

Peter

**Peter Daszak**  
*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

Tel. +1 212-380-4474  
Website: [www.ecohealthalliance.org](http://www.ecohealthalliance.org)  
Twitter: [@PeterDaszak](https://twitter.com/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:** Jonna Mazet [mailto:jkmazet@ucdavis.edu]  
**Sent:** Wednesday, January 8, 2020 10:42 PM  
**To:** Peter Daszak  
**Cc:** Samtha Maher  
**Subject:** Re: draft GVP Board meeting Agenda for your comments/changes

Thanks for the peek -- my comments/suggestions attached.  
Talk to you tomorrow.  
Happy New Year!  
J

On Wed, Jan 8, 2020 at 8:34 AM Peter Daszak <daszak@ecohealthalliance.org> wrote:  
Hi Jonna – here’s a draft agenda for the GVP board meeting.

Can you edit/comment on this so you and I can get it lined up before the meeting Thursday...

Cheers,

Peter

**Peter Daszak**

*President*

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**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 and the well-being of the peoples of the world. The GVP has an ambitious objective: to characterize the majority of viruses within 25 viral families believed to 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) will mark 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: There will be a GVP Dinner on the evening of Feb 12<sup>th</sup> beginning 7pm for those who arrive in DC that day. Optional dinner on 13<sup>th</sup>.**

Time	Topic	Lead
9:30	<b>Arrive at Keck Center</b>	All
10:00 - 10:30	<b>Introductions</b>	Dennis Carroll
10:30 - 12:30	<b>Welcome to the Global Virome Project</b> <ul style="list-style-type: none"><li>○ History, partners, current status [PD]</li><li>○ Working groups:<ul style="list-style-type: none"><li>- Science and Tech, GVP Targeting (PD)</li><li>- Economic justification, Governance options, Legal &amp; Ethical Philosophies (JM)</li><li>- Data Management (ER)</li></ul></li><li>○ Governance structure [JM]</li></ul>	Peter Daszak Jonna Mazet Eddy Rubin
12:30 - 1:30	<b>Lunch &amp; Discussion (on site)</b>	All
1:30 - 3:00	<b>Review of the Bylaws, Discussion, Signing</b>	Peter Daszak
3:00 - 4:00	<b>Future of GVP and Fundraising Strategy Discussion</b>	Dennis Carroll
4:00 - 5:00	<b>Wrap-up and next steps</b> <ul style="list-style-type: none"><li>● Closing reflections from each participant</li><li>● Plans for further engagement &amp; next steps</li><li>● Meeting times/locations in 2020 (confs.)</li></ul>	All
7:00 - 9:30	<b>Optional Dinner</b>	Please indicate

**Board Members**

Peter Bogner, GISAID Initiative  
Dennis Carroll, U.S. Agency for International Development  
Christian Brechot  
Peter Daszak, EcoHealth Alliance  
Jennifer Gardy, Bill & Melinda Gates Foundation  
Jonna Mazet, University of California, Davis  
Eddy Rubin, Metabiota  
Suzan Murray, Smithsonian Institution  
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.
- Bylaws of the Global Virome Project, Inc.
- GVP Certificate of Incorporation
- Benefit-cost analysis of Global Virome Project
- Legal and Ethical brief
- 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
- EcoHealth Alliance (2018). Global Costs of Emerging Infectious Diseases: an Economic Case for the Global Virome Project. *Emerging Disease Insights*. Ecohealth Alliance



**From:** Peter Daszak <daszak@ecohealthalliance.org>  
**To:** Samtha Maher <maher@ecohealthalliance.org>  
**Cc:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Subject:** RE: draft GVP Board meeting Agenda for your comments/changes  
**Sent:** Tue, 14 Jan 2020 13:23:18 +0000

First step is to get sign off from Dennis et al.

I'll put both affiliations for Christian Brechot, then send it over to the core group for a quick OK, then we can get it out to the Board.

Cheers,

Peter

**Peter Daszak**  
*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

Tel. +1 212-380-4474  
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Twitter: [@PeterDaszak](https://twitter.com/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:** Samantha Maher [mailto:maher@ecohealthalliance.org]  
**Sent:** Monday, January 13, 2020 10:34 AM  
**To:** Peter Daszak  
**Cc:** Jonna Mazet  
**Subject:** Re: draft GVP Board meeting Agenda for your comments/changes

Hi Jonna and Peter,

I went ahead and changed the reservation to February 12th at 7pm at the Blue Duck Tavern- we will have a table there that can seat 12.

Peter, the agenda looks good to me- the only question is what we should list Christian Brechot's affiliation with as since he has multiple (GVN or USF). Once that is determined, the agenda should be ready to send out.

Cheers,

Sam

On Sun, Jan 12, 2020 at 11:24 PM Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)> wrote:  
Thanks Jonna – agree re. dinner the night before and I've accepted all your changes in this version.

Samantha – please change the reservation at the Blue Duck for the 12<sup>th</sup> Feb at 7pm if possible, or we can find another restaurant of similar caliber (Robert has a list).

Please check the agenda for any errors, and if this looks correct I'll circulate tomorrow. We then need to get the docs together and

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Jonna – I've checked in with Julie Pavlin on renting the room at the Keck Center – it can't be free this time, and will cost around \$1,000 or so (Room rate is between \$510-760 per day depending on which rooms are available. AV support is \$80.00 per hour per day, food on top of that). I've asked her to go ahead at this point and book the room, assuming that the charge can be to any remnant GVP funds you're managing, or other funds we've both got. I think it's very reasonable

Cheers,

Peter

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*President*

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Twitter: [@PeterDaszak](https://twitter.com/PeterDaszak)

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**From:** Jonna Mazet [mailto:[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)]

**Sent:** Wednesday, January 8, 2020 10:42 PM

**To:** Peter Daszak

**Cc:** Samtha Maher

**Subject:** Re: draft GVP Board meeting Agenda for your comments/changes

Thanks for the peek -- my comments/suggestions attached.

Talk to you tomorrow.

Happy New Year!

J

On Wed, Jan 8, 2020 at 8:34 AM Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)> wrote:

Hi Jonna – here's a draft agenda for the GVP board meeting.

Can you edit/comment on this so you and I can get it lined up before the meeting Thursday...

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Peter

**Peter Daszak**

*President*

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--

**Samantha M. Maher, MEd**  
*Research Scientist, Conservation and Health*

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[460 West 34th Street – 17th floor](#)  
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1.212.380.4464 (direct)

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[www.ecohealthalliance.org](http://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:** Dennis Carroll <[REDACTED]>  
**Sent:** Thu, 6 Feb 2020 11:01:44 +0700  
**Subject:** Planned deliverables/accomplishments for BOD  
**To:** Cara Chrisman <cchrisman@usaid.gov>, Eddy Rubin <[REDACTED]>, Jonna Mazet <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Samtha Maher <maher@ecohealthalliance.org>

all, during our last call I said I would take a stab at outlining deliverables/actionable we would hope to accomplish at our upcoming GVO board meeting. The outline is largely for our use to guide our discussions and measure progress. Take a look, edit etc

Thanks

## **Suggested Actionables for GVP BOD**

**Overall:** A shared way-forward (with milestones) on where we want GVP to be two years from now

∇\* Vision for GVP organizational structure:

∇\* Interim structure over next six months

∇\* Target at end 2 years

∇\* Agree on interim role of Core Team

∇\* Planned path with potential milestones towards GVP organizational build-out – e.g.

∇\* Status of Hub

○ CEO - transitional to permanent hire

○ Core staff

✦ hires

○ Data portal

✦ Operational status

∇\* Scientific Advisory Group

○ Terms of reference

○ Operational status

∇\* Working Groups

○ Roles/responsibilities

○ Status

∇\* Roles of Steering Committee members in the future of GVP

∇\* Endorse staged field operations over next 6 months

∇\* e.g. China, Thailand, other?

∇\* e.g. China, Thailand, other?

∇\* Agree on advocacy outreach plan

∇\* First year

∇\* Expanded partnerships

∇\* If we should and if so how do we partner with existing organizations

(GISAID, China, Thailand, other...)



∇\*GVP funding

∇\* Agree on short term (next six months funding needs (for personnel, advocacy, field support)

∇\* Resource mobilization strategy for next 6 months

∇\*

∇\* Priority activities over next 6 months

∇\* Organizational build out

∇\* Field Operations

∇\* Advocacy

∇\* Fund raising

∇\* Formalizing partnerships

--

Dr Dennis Carroll

Global Virome Project, Core Team

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

mobile: 202-999-6144

email: **REDACTED**

**From:** David J Wolking <djwolking@ucdavis.edu>  
**Sent:** Wed, 26 Feb 2020 15:02:36 -0800  
**Subject:** Fwd: [predict] Invitation: PREDICT Briefing at National Museum of the American Indian  
**To:** Aleksei Chmura <chmura@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Amanda Fine  
**REDACTED** Ava Sullivan <sullivan@ecohealthalliance.org>, Brian Bird <bhbird@ucdavis.edu>, Christine Kreuder Johnson  
<ckjohnson@ucdavis.edu>, "Churchill, Carolina" **REDACTED** Corina Grigorescu Monagin <cgmonagin@ucdavis.edu>,  
Dawn Zimmerman <Zimmermand@si.edu>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Jon Epstein  
<epstein@ecohealthalliance.org>, Karen Saylor **REDACTED** Kevin Olival <Olival@ecohealthalliance.org>, Marc  
Valitutto <ValituttoM@si.edu>, "Murray, Suzan" <MurrayS@si.edu>, Nicole Gardner <nrgardner@ucdavis.edu>, Peter Daszak  
<daszak@ecohealthalliance.org>, "predict@ucdavis.edu" <predict@ucdavis.edu>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>,  
"Prof. Woutrina Smith" <wasmith@ucdavis.edu>, Sarah Olson <solson@wcs.org>, Simon Anthony <sja2127@columbia.edu>,  
"Tammie O'Rourke" <torourke@metabiota.com>, Tracey Goldstein <tgoldstein@ucdavis.edu>, "William B. Karesh"  
<karesh@ecohealthalliance.org>

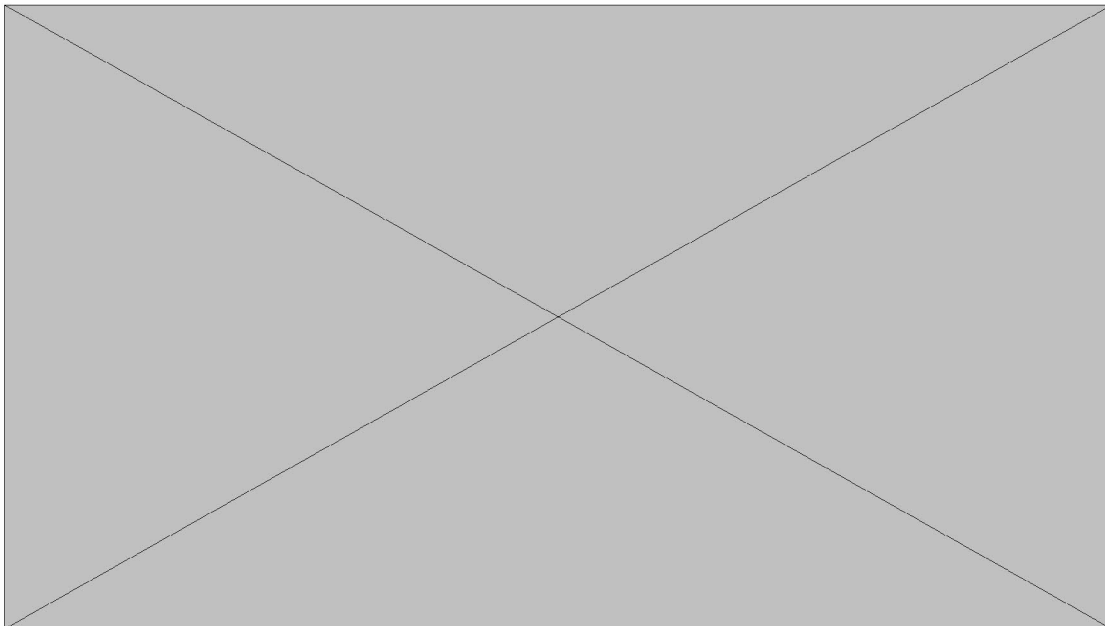
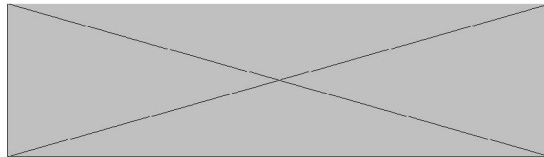
Hi EB,  
Please circulate strategically to help us fill the 300+ seat capacity of the Rasmuson Theater on March 17th!

Cheers,

David

----- Forwarded message -----

**From:** **PREDICT Consortium** <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>  
**Date:** Wed, Feb 26, 2020 at 11:03 AM  
**Subject:** [predict] Invitation: PREDICT Briefing at National Museum of the American Indian  
**To:** <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>



# PREDICT BRIEFING

Join us for an exclusive briefing on how [PREDICT](#) has changed the way we think about pandemic preparedness through our partnerships across the globe.

Featured speakers include PREDICT's own Jonna Mazet (One Health Institute), Simon Anthony (Columbia University), Peter Daszak (EcoHealth Alliance), Tracey Goldstein (One Health Institute), Christine Kreuder Johnson (One Health Institute), Billy Karesh (EcoHealth Alliance), Suzan Murray (Smithsonian Institution), and Karen Saylor (Labyrinth Global Health).

Interactive Q&A to follow presentations.

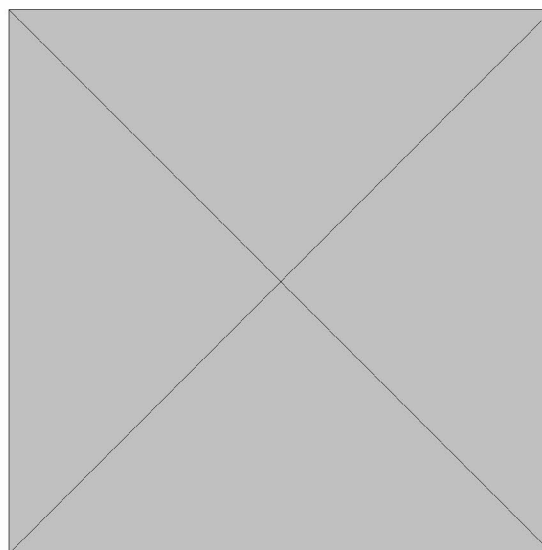
**Limited seating. Please RSVP by March 13 to guarantee your seat.**

RSVP online at [predict-dc.eventbrite.com](https://predict-dc.eventbrite.com)

[Click here to download the event flyer](#)

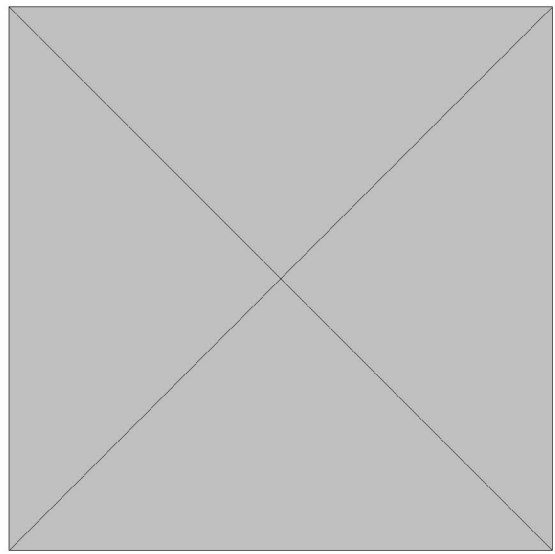
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## FEATURED SPEAKERS

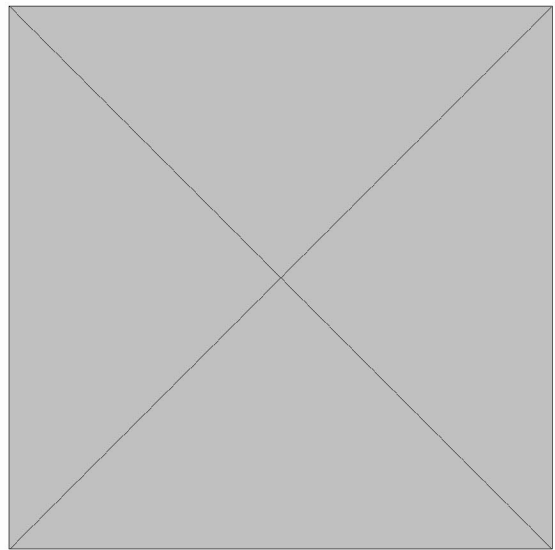


**JONNA MAZET**

UC Davis One Health Institute

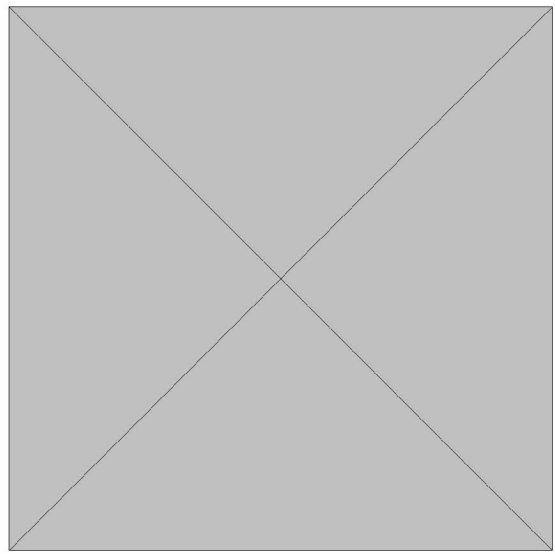


**SIMON ANTHONY**  
Columbia University

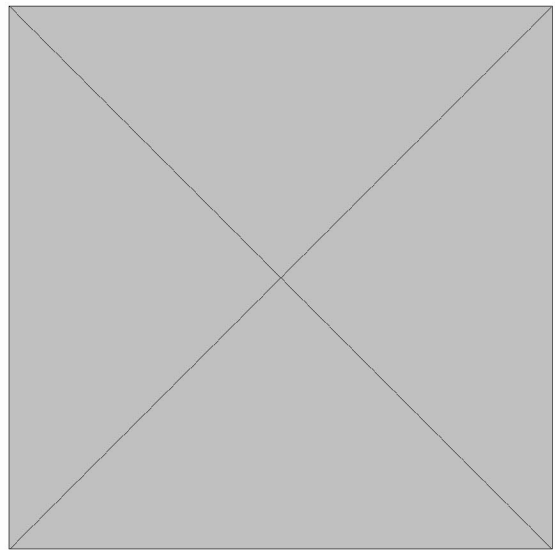


**PETER DASZAK**  
EcoHealth Alliance

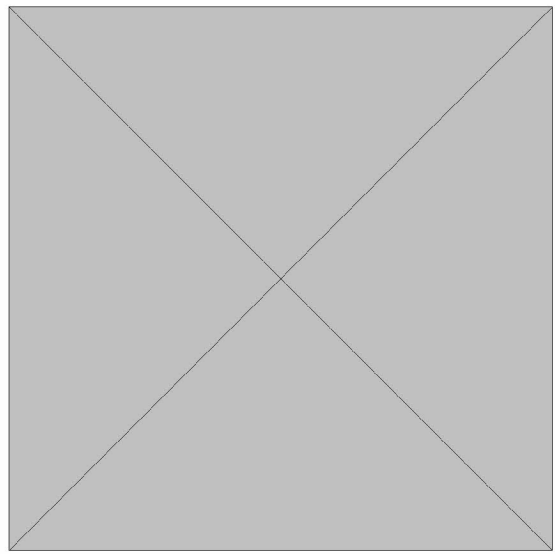




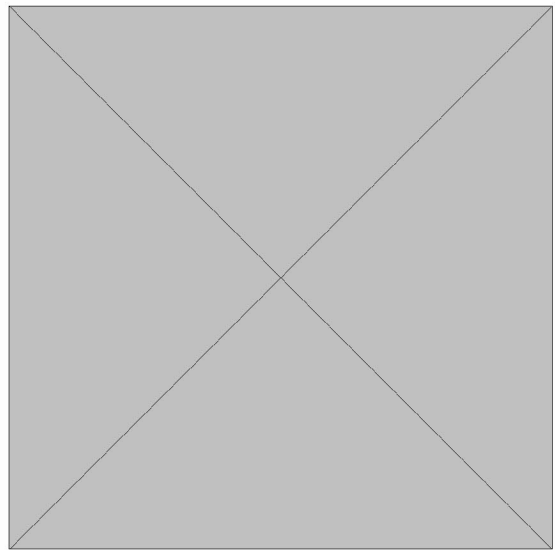
**TRACEY GOLDSTEIN**  
UC Davis One Health Institute



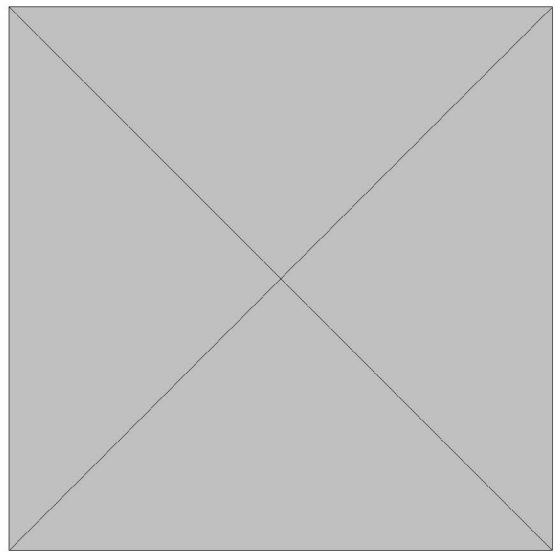
**CHRISTINE JOHNSON**  
UC Davis One Health Institute



**BILLY KARESH**  
EcoHealth Alliance



**SUZAN MURRAY**  
Smithsonian Institution

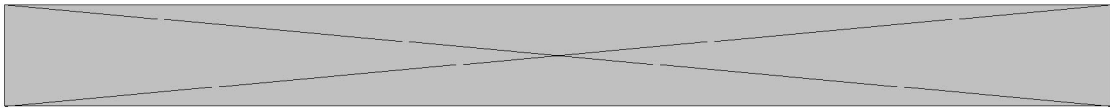


**KAREN SAYLORS**  
Labyrinth Global Health

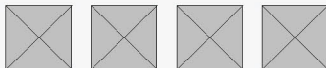
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***PREDICT was initiated in 2009 to strengthen global capacity for detection and discovery of viruses with pandemic potential that can move between animals and people. Learn more at [p2.predict.global](https://p2.predict.global).***

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UC Davis One Health Institute 1089 Veterinary Medicine Drive  
Davis, CA | 95616 US

This email was sent to [predict@ucdavis.edu](mailto:predict@ucdavis.edu).

*To continue receiving our emails, add us to your address book.*



**From:** Jon Epstein <epstein@ecohealthalliance.org>  
**Sent:** Fri, 3 Apr 2020 14:57:27 -0400  
**Subject:** Re: EB call - potential change to Mondays?  
**To:** David J Wolking <djwolking@ucdavis.edu>  
**Cc:** Aleksei Chmura <chmura@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Amanda Fine  
[REDACTED], Ava Sullivan <sullivan@ecohealthalliance.org>, Brian Bird <bhbird@ucdavis.edu>, Carolina Churchill  
[REDACTED], Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Corina Grigorescu Monagin  
<cgmonagin@ucdavis.edu>, Dawn Zimmerman <Zimmermand@si.edu>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Karen  
Saylor [REDACTED], Kevin Olival <Olival@ecohealthalliance.org>, "Murray, Suzan" <MurrayS@si.edu>, Nicole  
Gardner <nrgardner@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, "predict@ucdavis.edu" <predict@ucdavis.edu>,  
"Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, "Prof. Woutrina Smith" <wasmith@ucdavis.edu>, Sarah Olson [REDACTED]  
Simon Anthony <sja2127@columbia.edu>, "Tammie O'Rourke" <torourke@metabiota.com>, Tracey Goldstein  
<tgoldstein@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>

David,  
10 onward works for me.  
Thanks,  
Jon

Jonathan Epstein DVM, MPH, PhD  
  
Vice President for Science and Outreach  
  
EcoHealth Alliance  
New York

(e) [epstein@ecohealthalliance.org](mailto:epstein@ecohealthalliance.org)  
(o) 212.380.4467  
(m) 917.385.5315  
@epsteinjon

On Fri, Apr 3, 2020, 11:26 AM David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

Hi there P2 EB,  
Chris and I are exploring changing our EB call to Mondays so we can connect in advance of discussions with USAID the  
next day on senior management. Would any of the times below work with your schedules?

8:00-9:00AM  
9:00-10:00AM  
10:00-11:00AM  
11:00-12:00PM  
12:00-1:00PM

thanks!

David

**From:** Karen Saylors [REDACTED]  
**Sent:** Fri, 3 Apr 2020 14:20:09 -0700  
**Subject:** Re: EB call - potential change to Mondays?  
**To:** David J Wolking <djwolking@ucdavis.edu>  
**Cc:** Aleksei Chmura <chmura@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Amanda Fine [REDACTED], Ava Sullivan <sullivan@ecohealthalliance.org>, Brian Bird <bhbird@ucdavis.edu>, Carolina Churchill [REDACTED], Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Corina Grigorescu Monagin <cgmonagin@ucdavis.edu>, Dawn Zimmerman <Zimmermand@si.edu>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Jon Epstein <epstein@ecohealthalliance.org>, Kevin Olival <Olival@ecohealthalliance.org>, "Murray, Suzan" <MurrayS@si.edu>, Nicole Gardner <nrgardner@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, "predict@ucdavis.edu" <predict@ucdavis.edu>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, "Prof. Woutrina Smith" <wasmith@ucdavis.edu>, Sarah Olson [REDACTED] Simon Anthony <sja2127@columbia.edu>, "Tammie O'Rourke" <torourke@metabiota.com>, Tracey Goldstein <tgoldstein@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>

Hey David. I can do 9 am or anytime after.  
thanks,  
Karen

On Fri, Apr 3, 2020 at 8:26 AM David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

Hi there P2 EB,  
Chris and I are exploring changing our EB call to Mondays so we can connect in advance of discussions with USAID the next day on senior management. Would any of the times below work with your schedules?

8:00-9:00AM  
9:00-10:00AM  
10:00-11:00AM  
11:00-12:00PM  
12:00-1:00PM

thanks!

David

**From:** "Murray, Suzan" <MurrayS@si.edu>  
**To:** David J Wolking <djwolking@ucdavis.edu>  
**Cc:** Aleksei Chmura <chmura@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Amanda Fine  
**REDACTED** Ava Sullivan <sullivan@ecohealthalliance.org>, Brian Bird <bhbird@ucdavis.edu>, Carolina Chrurchill  
**REDACTED**, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Corina Grigorescu Monagin  
<cgmonagin@ucdavis.edu>, "Zimmerman, Dawn" <ZimmermanD@si.edu>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Jon  
Epstein <epstein@ecohealthalliance.org>, Karen Saylors **REDACTED** Kevin Olival <olival@ecohealthalliance.org>,  
Nicole Gardner <nrgardner@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, "predict@ucdavis.edu"  
<predict@ucdavis.edu>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, "Prof. Woutrina Smith" <wasmith@ucdavis.edu>, Sarah Olson  
**REDACTED** Simon Anthony <sja2127@columbia.edu>, Tammie O'Rourke <torourke@metabiota.com>, Tracey Goldstein  
<tgoldstein@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>  
**Subject:** Re: EB call - potential change to Mondays?  
**Sent:** Sun, 5 Apr 2020 21:47:44 +0000

Thanks David  
That works for us

Suzan

Sent from my iPhone

On Apr 5, 2020, at 5:39 PM, David J Wolking <djwolking@ucdavis.edu> wrote:

External Email - Exercise Caution

Hi there EB,  
Thanks for your feedback. Though we don't have perfect consensus, it looks like the best bet is Monday's from 11AM-12PM Pacific. We'll try to keep to an hour block and hopefully after 2 months or so we can revert back to Tuesday's again.

Best,

David

On Fri, Apr 3, 2020 at 8:25 AM David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

Hi there P2 EB,  
Chris and I are exploring changing our EB call to Mondays so we can connect in advance of discussions with USAID the next day on senior management. Would any of the times below work with your schedules?

8:00-9:00AM  
9:00-10:00AM  
10:00-11:00AM  
11:00-12:00PM  
12:00-1:00PM

thanks!

David

**From:** William B. Karesh <karesh@ecohealthalliance.org>  
**To:** Andrew Clements <aclements@usaid.gov>  
**CC:** Jonna Mazet <jkmazet@ucdavis.edu>; Peter Daszak <daszak@ecohealthalliance.org>; Chris Johnson <ckjohnson@ucdavis.edu>; David Wolking <djwolking@ucdavis.edu>; predictmgt@usaid.gov" <predictmgt@usaid.gov>  
**Sent:** 9/8/2020 8:09:57 AM  
**Subject:** Re: Trump administration restarts disease research after backlash

Fascinating.

And a vaccine to be available by election day. Yay! (which apparently is a word that fell off the most commonly used word list this year)

BK

On Sep 8, 2020, at 10:50 AM, Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)> wrote:

I continue to be baffled by the fact that people don't seem to be able to tell the difference between Predict and Stop Spillover. Now they're throwing in the new NIH work and making it more confusing.

<https://news.yahoo.com/trump-administration-restarts-disease-research-233420449.html>

*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](mailto:aclements@usaid.gov)*



**Sent:** Thu, 26 Jan 2017 06:57:16 -0800  
**Subject:** Re: GVP, Beijing  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Carlos Morel <[REDACTED]>  
**Cc:** Carlos M Morel <[REDACTED]>, Dennis Carroll <dcarroll@usaid.gov>, George GAO <[REDACTED]>, Katherine Leasure <kaleasure@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Renata Curi Hauengen <[REDACTED]>

Enjoy your time, there, Carlos.

Happy to discuss next week, as I value you immensely as a friend and colleague. If you'd still like to consider the trip, please see the final (I think best) option sent to you by email from Matthew Blake.

If not, we understand.

Have a good visit,

Jonna

On Thu, Jan 26, 2017 at 6:37 AM, Carlos Morel <[REDACTED]> wrote:

Dear Jonna,

Many thanks fir this detailed email. I have no problem to apologize if my judgement was so wrong. I hope you - and your staff - understand that it is difficult to understand why a travel to Italy receives a different treatment as compared to a longer travel to China. I could travel business to Bellagio, but not to Beijing!

Again: if I was so wrong, my apologies to you and your staff, no hard feelings.

I am not in Rio, I am in São Paulo with my wife and grandson. Will be back in Rio this Sunday, when it would be ok for us to talk over the phone, if you would like.

Best regards,

Carlos

-/

Em qui, 26 de jan de 2017 às 12:23, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> escreveu:

Dear Carlos,

Unfortunately, your assumption is absolutely not correct. We have tried through every mechanism possible to provide you the business class ticket you merit. In fact offered you another more optimal itinerary after your last cancellation (email from Matt Blake yesterday). We deeply apologize for the ineffectual communications and the US travel rules that are completely outside of our control, but please know that I and my staff have spent more than the cost of a business class ticket in personnel hours just to try to make this work for you -- having meetings with the Chancellor's office, finding work arounds, etc. None of that is your fault, but to do all of this work and find that you think we weren't trying is incredibly demoralizing to me and my team. We still have a viable option -- more than one that we've offered, but understand if it is all just to much.

I would be happy, as offered, to discuss by phone, but some of this grey area is inappropriate for email communication to the extent that some employees who have been trying diligently to help you are concerned about their future at the university for trying to stretch the rules as far as we have.

Very sorry for this result, and especially your feelings about it. We value you and your expertise and guidance immensely and hope to continue to work together.

Best,

Jonna

On Thu, Jan 26, 2017 at 2:02 AM, Carlos Morel <[REDACTED]> wrote:



Dear Dennis,

I am really sorry I will not attend the GVP Beijing meeting. I believe I owe you, Jonna, Peter and others an explanation in relation to my decision:

- I found incomprehensible that I could travel business to Italy, to attend the Bellagio meeting, and under exactly the same travel policy guidelines from UC Davis, the travel to Beijing was treated in a totally different way;
- I thank you for trying to find alternatives that would circumvent the 'problems' that surfaced in relation to the travel to China (which were not a problem when traveling to Bellagio): reimbursing as an 'honorarium', or profiting from the PMAC invitation; a pity these options did not work;
- After I agreed to arrive at the same day the Beijing meeting would start - a condition to receive a business ticket, according to the UC Davis travel policy - I was surprised to receive another demand: that I needed to show I had a business back in Brazil the same day I would arrive - otherwise I would have to fly back from China in economy! This was a bit too much to accept and therefore I concluded that the real issue was that there was already a decision from the managers at UC Davis that I would not get a business travel, no matter how much I would ask for.

I imagine the real problem, this time, was not the travel policy, but a matter of economics and budget at the disposition of GVP. Otherwise, how to explain I could travel business to Italy - a much shorter flight - and could not receive a business travel to China, a 20plus hour travel, both ways.

This episode does not alter my conviction that GVP is an excellent initiative that merits all our efforts to make it come true.

I hope this issue could be sorted out in the near future, either adopting the travel policy in good faith (if I could fly business to Italy, the same ought to be also true to China) or by raising new funds that would free GVP of such odd, US-government rules that should not be used internationally.

Renata Curi will represent not only myself in Beijing but also our institution, Fiocruz, which I believe will be a critical international partner to make the GVP come true.

Hoping the Beijing meeting will be a success,

Carlos

--

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Carlos M. Morel MD DSc

Director

National Institute of Science and Technology for Innovation in Neglected Diseases (INCT-IDN)

Centre for Technological Development in Health (CDTS)

**REDACTED**

**REDACTED**

Twitter @cmmorel

<http://www.researcherid.com/rid/B-4079-2009>

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Wed, 5 Apr 2017 22:27:13 +0200  
**Subject:** Re: PREDICT International Travel Request - Matthias Sagno to Mali April 10-11  
**To:** Cassandra Louis Duthil <clouisduthil@usaid.gov>  
**Cc:** Katherine Leasure <kaleasure@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>, David J Wolking <djwolking@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>

Approved subject to concurrence by the Mali mission.

*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](mailto:aclements@usaid.gov)*

On Apr 5, 2017, at 3:12 PM, Cassandra Louis Duthil <[clouisduthil@usaid.gov](mailto:clouisduthil@usaid.gov)> wrote:

Andrew,

please approve.

Best,

**Cassandra Louis Duthil**  
Program Assistant  
Emerging Threats Division  
U.S. Agency for International Development (USAID)

**Telephone: 202-712-5583 Cell: [REDACTED] [clouisduthil@usaid.gov](mailto:clouisduthil@usaid.gov)**

On Tue, Apr 4, 2017 at 4:23 PM, Katherine Leasure <[kaleasure@ucdavis.edu](mailto:kaleasure@ucdavis.edu)> wrote:

Hi Andrew. Please find below an international travel request for your review and approval. Our apologies for the urgent nature of this request. At the moment, there is no liquid nitrogen available in Sierra Leone. Metabiota needs liquid nitrogen for their work in Sierra Leone and Guinea, and had been using the previous source to supply both countries. They can access liquid nitrogen in Bamako, Mali but this requires sending a driver over the border to pick it up; as the drive is long he will need to spend the night. They need him to go as soon as possible in order to continue work in Guinea. Please let me know if you have any questions. Thanks!

1. Sagno (Mali): \$150 ground transportation/\$215 (Bamako) max daily per diem

Travel Requests:

1. Metabiota would like to request travel approval for Matthias Sagno, Guinea Program Assistant to travel from Conakry, Guinea to Bamako, Mali from April 10 – 11, 2017 to pick up and purchase liquid nitrogen from Mali Gaz.

**Trip purpose:** To purchase and pick up liquid nitrogen from Mali Gaz. Due to the length of the drive, Mr. Sagno will spend one night in Bamako and return the next day. The liquid nitrogen is required to maintain

cold chain for animal sampling in the field, and this is the nearest source available.

*Katherine Leasure*

HR/Payroll/Financial Assistant

One Health Institute

University of California, Davis

[530-752-7526](tel:530-752-7526)

[530-752-3318](tel:530-752-3318) FAX

[kaleasure@ucdavis.edu](mailto:kaleasure@ucdavis.edu)

--

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

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[predictmgt+unsubscribe@usaid.gov](mailto:predictmgt+unsubscribe@usaid.gov).

To post to this group, send email to [predictmgt@usaid.gov](mailto:predictmgt@usaid.gov).

To view this discussion on the web visit

<https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/027601d2ad81%2457ac1ed0%2407045c70%24%40ucdavis.edu>.

--

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To post to this group, send email to [predictmgt@usaid.gov](mailto:predictmgt@usaid.gov).

To view this discussion on the web visit

[https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CACJhmAvr0LqeKDJP5VGDU0zEMP\\_9uiqJmir5H2FL2Axh-MMoA%40mail.gmail.com](https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CACJhmAvr0LqeKDJP5VGDU0zEMP_9uiqJmir5H2FL2Axh-MMoA%40mail.gmail.com).



**From:** Peter Daszak <daszak@ecohealthalliance.org>  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Cc:** Elizabeth Leasure <ealeasure@ucdavis.edu>, Elizabeth S Chase <eschase@ucdavis.edu>  
**Subject:** RE: Invitation to PMAC 2018 Coordinators Meeting in Montreux, Switzerland - Dr. Daszak  
**Sent:** Mon, 1 May 2017 15:16:33 +0000

Good – I didn't really want to go, and agree it'll be much better if you're there in Davis when we do our country-by-country meeting....

See you then...

Cheers,

Peter

**Peter Daszak**  
*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

+1.212.380.4473 (direct)  
+1.212.380.4465 (fax)  
[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

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

**From:**  On Behalf Of Jonna Mazet  
**Sent:** Saturday, April 29, 2017 7:22 AM  
**To:** Peter Daszak  
**Cc:** Elizabeth Leasure; Elizabeth S Chase  
**Subject:** Re: Invitation to PMAC 2018 Coordinators Meeting in Montreux, Switzerland - Dr. Daszak

Hi Peter,  
I can't accommodate Switzerland, as I'll just be getting back from this trip, Sunday is Mother's Day, and it took us months to get the country-by-country scheduled.  
Bummer, should be beautiful this time of year,  
J

On Thu, Apr 27, 2017 at 12:45 PM, Elizabeth S Chase <[eschase@ucdavis.edu](mailto:eschase@ucdavis.edu)> wrote:  
Hello Peter,  
I am responding to let you know Jonna is in India right now and may have limited internet access. She will be in New Delhi on April 29 and will have service then. I have flagged the PMAC meeting for her attention as I will with your email as well.

Best, Liz Chase

---

**From:** Peter Daszak [mailto:[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)]  
**Sent:** Thursday, April 27, 2017 12:38 PM  
**To:** Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>; Elizabeth S Chase <[eschase@ucdavis.edu](mailto:eschase@ucdavis.edu)>; Elizabeth Leasure <[ealeasure@UCDAVIS.EDU](mailto:ealeasure@UCDAVIS.EDU)>  
**Subject:** FW: Invitation to PMAC 2018 Coordinators Meeting in Montreux, Switzerland - Dr. Daszak

Hi Jonna – this PMAC coordinators meeting is right when we're in Davis for the country-by-country review – May 16-17. I think you've probably also been invited. Will you be going to the PMAC meeting?

Cheers,

Peter

**Peter Daszak**

*President*

EcoHealth Alliance  
460 West 34<sup>th</sup> Street – 17<sup>th</sup> Floor  
New York, NY 10001

[+1.212.380.4473](tel:+12123804473) (direct)

**REDACTED**

[www.ecohealthalliance.org](http://www.ecohealthalliance.org)

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

---

**From:** Prince Mahidol Award Conference

**REDACTED**

**Sent:** Thursday, April 27, 2017 1:10 AM

**To:** Peter Daszak

**Cc:** 'Prince Mahidol Award Conference'; 'Dennis Carroll'

**Subject:** Invitation to PMAC 2018 Coordinators Meeting in Montreux, Switzerland - Dr. Daszak

Dear Dr. Daszak,

The Prince Mahidol Award Conference, the World Health Organization, the World Bank, the United Nations Development Programme, the Joint United Nations Programme on HIV/AIDS, the International Organization for Migration, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the U.S. Agency for International Development, the National Institutes of Health, the Japan International Cooperation Agency, The Rockefeller Foundation, the China Medical Board, the Chatham House, and the Bill & Melinda Gates Foundation will co-host the Prince Mahidol Award Conference 2018 on the theme ***“Making the World Safe from the Threats of Emerging Infectious Diseases”***. The conference will be held in Bangkok, Thailand during 29 January - 3 February 2018.

In this connection, we are pleased to invite you to attend **the Coordinators Meeting on 16-17 May 2017 at Royal Plaza Montreux and Spa in Montreux, Switzerland**. The purpose of the Coordinators Meeting is to discuss details of each session, possible overlaps and gaps, and finalize the conference sessions and time slot. Please find the attached invitation letter and related documents.

We would be grateful if you could let us know your availability to join the Coordinators Meeting by **1 May 2017**. Should you have any inquiries, please do not hesitate to contact the PMAC Secretariat at

**REDACTED**

Yours sincerely,

Prince Mahidol Award Conference Secretariat  
Institute for Population and Social Research  
Mahidol University

**REDACTED**



REDACTED

**From:** Andrew Clements <aclements@usaid.gov>  
**To:** Brooke Genovese <bgenovese@ucdavis.edu>  
**CC:** Jonna Mazet <jkmazet@ucdavis.edu>  
**Sent:** 6/4/2017 12:26:55 AM  
**Subject:** Re: SL Mission Call

Hi Brooke

Wednesday at 5:00 CEST would be best. Thanks.

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](mailto:aclements@usaid.gov)*

On Jun 2, 2017, at 10:26 PM, Brooke Genovese <[bgenovese@ucdavis.edu](mailto:bgenovese@ucdavis.edu)> wrote:

Hi Dr. Clements,

My name is Brooke Genovese and I assist Dr. Mazet with administrative tasks. Jonna would like to set up a call with the Sierra Leone Mission and Brian Bird for next week – do any of the dates/times below work for you?

All times are in CEST with corresponding **EAT** times in bold:

Tues. June 6; 8:00PM/**9:00PM**  
Wed. June 7; 5:00PM/**6:00PM** or 7:00PM/**8:00PM**  
Thurs. June 8; 6:30AM/**7:30AM** or 7:00AM/**8:00AM**

Please let me know what days/times you prefer and I will send a confirmation email out to all involved parties.

Thank you!  
Best,  
Brooke Genovese  
Project Manager  
Executive Analyst  
One Health Institute  
School of Veterinary Medicine  
Tel: 530-752-6459  
[bgenovese@ucdavis.edu](mailto:bgenovese@ucdavis.edu)

**From:** Cara Chrisman <cchrisman@usaid.gov>  
**Sent:** Fri, 30 Jun 2017 19:14:22 -0400  
**Subject:** WHO Bulletin Submission  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, Nathan Wolfe <nwolfe@metabiota.com>, Eddy Rubin <erubin@metabiota.com>, Brooke Watson <watson@ecohealthalliance.org>, **REDACTED**  
**REDACTED**  
**Cc:** Dennis Carroll <dcarroll@usaid.gov>  
[GVP.PMAC.WHO.Bulletin.docx](#)

Hi All,  
Just wanted to let you all know that we submitted the GVP paper. It turns out that we actually needed to officially submit through the WHO Bulletin submission page, so you may all receive an email soon.

Please find attached the version we submitted. We've also reached out to a number of other colleagues to gauge their interest in being listed as co-authors (we just included them, given the deadline). This included many of the usual suspects - Carlos, Keiji, etc. and we'll see what they say.

Any thoughts or questions, please let us know and thanks again for your hard work on the submission!

Best,  
Cara

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

Desk: (202) 712-1161  
**REDACTED**  
E-mail: [cchrisman@usaid.gov](mailto:cchrisman@usaid.gov)

## **Launching the Global Virome Project: The Beginning of the End of the Pandemic Era**

Summary: At the Prince Mahidol Awards Conference on January 30, 2018, representatives from across the globe – high level policy and decision makers, thought leaders, subject matter experts, researchers, representatives from international organizations working on animal, human and environmental health, as well as donors, foundations, and representatives from the private sector – came together to launch the Global Virome Project, a bold and innovative 10 year partnership to develop a global atlas of the majority of the planet’s naturally-occurring viral threats, transforming the world of emerging diseases into a data-rich field – driving the advanced development of prevention efforts and countermeasures against future threats. This international alliance will connect the next generation of local scientists, and promote equitable access to data and benefits.



We live in an era when the threats posed by pandemics and epidemics that have the potential to spread globally (e.g. the Ebola West Africa epidemic) are greater than at any other point in human history. Previously-unknown viruses emerge with increasing frequency, driven by our expanding population, surging global travel, and our domination of the environment. We live in fear of a new pathogen suddenly emerging and sweeping through every household, through every community, irrespective of borders, or of its hosts' social and economic standing. This fear alone can cost billions, as we saw in the global panic that followed the SARS and H1N1 influenza virus outbreaks, but it is not unfounded, as evidenced by the 35-year HIV/AIDS epidemic that has cost over 35 million lives.

Despite the potential impact of viral threats, the world remains unable to predict when, where, or from what species the next emerging virus will break out. Global trends indicate that over the course of this century, new microbial threats will continue to emerge at an accelerating rate, driven by the world's expanding population, growing interconnectedness, and increasing interactions with animal populations (1). The majority of these global threats originate in a seemingly endless pool of viruses carried by our relatives in the Animal Kingdom (2). Modern science has been able to characterize some of these viruses and trace their roots to their mammalian origins – HIV-1 that spilled over from chimpanzees to people, for example, or Ebolavirus carried by bats in Africa (3). But recent estimates put the total number of these animal viruses that could threaten us at more than 1.5 million, spanning 24 viral families (4). Compared to the 260+ viruses known from humans (5), this viral “dark matter” represents 99.9% of the potential pandemic threat. It means that, for every known strain of the SARS virus

there are likely thousands of unknown “SARS-like” viruses (6) circulating in wildlife that could emerge in the future. The same likely holds for other viral families – HIV and retroviruses, Ebola and filoviruses, and Zika and flaviviruses.

However, we believe the dire consequences of epidemic viral infections, such as those experienced from SARS, avian flu, swine flu, Ebola, MERS, and Zika viruses are avoidable. Success in preventing pandemics and the uncontrolled spread of epidemics requires thinking and acting differently. Rapid and revolutionary advances in health science and technology allow us to imagine a world without the threat of pandemics. With new knowledge comes the ability to move away from a reactionary approach to these threats, to a strategy that focuses ever more on prediction and prevention. This strategy is captured by the Global Virome Project’s (GVP’s) bold global-scale ‘big science’ project with its near-term time horizon akin to the Human Genome Project. This 10 year partnership to develop a global atlas of the majority of the planet’s naturally-occurring viral threats, transforming the world of emerging diseases into a data-rich field, will drive the advanced development of prevention efforts and countermeasures against future threats.

The Global Virome Project (GVP) was conceived in response to the challenge posed by the repeated and unpredictable emergence and re-emergence of high impact viral epidemics. These outbreaks can lead to pandemics that compromise global health security and the well-being of the peoples of the world (1). The recently launched Coalition for Epidemic Preparedness Innovations (CEPI) represents a critical step to address known but long-neglected

viral threats, such as MERS-CoV, Lassa Fever, and Nipah Virus (7). This vital work addresses long-known but underfunded viral threats; however, a tremendous challenge remains: how do we best prepare for those “unknown” future threats? The GVP is designed to complement the efforts of CEPI by targeting the vast pool of unknown future viral threats. The GVP’s goal of characterizing viral threats in wildlife – their natural hosts – allows us to prepare for viruses *before they jump to us*. This will transform our public health culture from one that responds to the latest outbreak to one that predicts and prevents future pandemics. The benefit are not limited to our response to naturally-occurring viral threats, as this effort will also better prepare us to prevent accidental or intentional release of laboratory-enhanced virus variants.

The volume of new data produced by the GVP will enable disruptive approaches for the development of biomedical and non-medical countermeasures. Imagine how Big Data virology could transform vaccine and drug development. Tens of thousands of new viruses could allow biotechnology efforts to move from single-virus therapeutics and vaccines to ones that target a whole family of viruses. In addition, as we build up a picture of every virus' ecologic profile – which species it infects, where on the planet it’s found, which communities are exposed to it – we can target our vaccines, drugs, and behavioral risk mitigation or policy interventions to the people on the front line of the next emerging disease.

The GVP aims to achieve this vision through core principles that:

- Embrace an international scope, while fostering local ownership
- Promote equitable access to data and benefits

- Foster transparency
- Assist countries in building their national capabilities for “prevention, detection, and response” for emerging viral threats in all partner countries on an unprecedented scale
- Foster global participation through an international alliance

The success of the GVP will be measured by its deliverables, which in the course of its 10-year lifespan will include:

- Detecting and identifying the vast majority of potential zoonotic viral threats to human, livestock, and wildlife health;
- Characterizing the host range of the detected viruses (reservoirs and transmission hosts);
- Determining the geographic distribution and ecologic scope of nearly all potential zoonotic viruses to inform on risk and surveillance in human and animals;
- Promoting the monitoring of the movement of detected viruses across hosts and regions;
- Improving the assessment of the risk of spillover to humans and epidemic potential;
- Prioritizing high-risk viruses for further characterization, surveillance targeting, research, and mitigation development;
- Strengthening global surveillance networks through local and global



capacity enhancements (e.g. surveillance, field biology, lab proficiencies, biosafety);

- Enabling in-country/regional laboratory and surveillance capacities to monitor for high-risk viruses across animal-human interfaces;
- Establishing sample biobank(s) for further research;
- Creating open-access databases that include sequence and metadata;
- Making data and samples available for public health risk assessments and mitigation, as well as further detailed pathogen studies;
- Providing new insights into virus and host biology, conservation, and ecology;
- Identifying markers for transmission and pathogenicity for high-risk viruses; and
- Establishing a global ethical framework for sample, data, information, and benefit sharing, including authorship and intellectual property.

The GVP will likely do for pandemics and large-scale epidemics what the Human Genome Project is just beginning to do for personalized medicine (8). Like the Human Genome Project, the GVP will spark unrelated and often unexpected advances in human and animal health and in science, making the return on investment in the GVP even greater. Pandemics don't just cause sickness, misery, and death – they also affect a global economy that is now dependent on open borders, free trade, and the global movement of goods and services. In one single outbreak, in one year, the SARS virus wiped at least

\$40-54 billion off of Asian stock markets due to disrupted trade and commerce (9, 10).

Overall, pandemics likely cause around \$570 billion in economic damages per year to our globalized way of doing business (11), and these costs will only rise as our economies expand and become more interconnected. The GVP will cost less than 0.2% of this figure (4) – less than was spent on the 2014-2015 Ebola response alone. In light of the devastating potential costs of an increasingly inevitable pandemic, the GVP is more than just good economics – it's something we can't afford to delay.

With broad support for the Global Virome Project, the world will be better prepared to deal with the consequences of escalating spillover of deadly viruses, likely in just ten years. The initiative will generate an unprecedented atlas of viral diversity and ecology, build global surveillance and laboratory capacity in the most high-risk areas, catalyze technological advances in diagnostics and vaccines, and establish a global framework for triaging and neutralizing novel viral outbreaks before they spread between humans. In short, the GVP is designed to herald in the beginning of the end of the Pandemic Era.

## References

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2. Prediction and prevention of the next pandemic zoonosis, (2012).
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*Note: The views expressed in this document do not necessarily reflect the views of the United States Agency for International Development.*

**From:** Andrew Clements <aclements@usaid.gov>  
**To:** Elizabeth Leasure <ealeasure@ucdavis.edu>  
**CC:** David J Wolking <djwolking@ucdavis.edu>; Jonna Mazet <jkmazet@ucdavis.edu>; Alisa Pereira <apereira@usaid.gov>; Shana Gillette <sgillette@usaid.gov>  
**Sent:** 7/17/2017 1:14:26 AM  
**Subject:** Vehicle procurement in Jordan

Hi Liz,

I got a question from the Jordan mission about a vehicle being procured under Predict. Can you tell me where this is in the process?

Thanks!

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](mailto:aclements@usaid.gov)*

**From:** Leilani Francisco <[francisco@ecohealthalliance.org](mailto:francisco@ecohealthalliance.org)>  
**Sent:** Fri, 29 Sep 2017 16:45:20 -0400  
**Subject:** Re: Quarterly surveillance activities summary June 2017  
**To:** Christine Kreuder Johnson <[ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu)>  
**Cc:** Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>, "predictmgt@usaid.gov" <[predictmgt@usaid.gov](mailto:predictmgt@usaid.gov)>, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)>, Tracey Goldstein <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)>, "William B. Karesh" <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)>, Megan M Doyle <[mmdoyle@ucdavis.edu](mailto:mmdoyle@ucdavis.edu)>, "predict@ucdavis.edu" <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>

Thanks Andrew, glad to hear it and appreciate the suggestions.

Best,  
Leilani

On Sep 29, 2017, at 4:39 PM, Christine Kreuder Johnson <[ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu)> wrote:

Andrew, that's great; we should be able to get start dates and test result approvals added in for this next update.  
Have a nice weekend,  
/ckj

---

**From:** Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>  
**Date:** Friday, September 29, 2017 at 2:52 AM  
**To:** Christine Kreuder Johnson <[ckjohnson@UCDAVIS.EDU](mailto:ckjohnson@UCDAVIS.EDU)>  
**Cc:** "[predictmgt@usaid.gov](mailto:predictmgt@usaid.gov)" <[predictmgt@usaid.gov](mailto:predictmgt@usaid.gov)>, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)>, Tracey Goldstein <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)>, Billy Karesh <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)>, Leilani Francisco <[francisco@ecohealthalliance.org](mailto:francisco@ecohealthalliance.org)>, Megan M Doyle <[mmdoyle@UCDAVIS.EDU](mailto:mmdoyle@UCDAVIS.EDU)>, "[predict@ucdavis.edu](mailto:predict@ucdavis.edu)" <[predict@ucdavis.edu](mailto:predict@ucdavis.edu)>  
**Subject:** Re: Quarterly surveillance activities summary June 2017

Hi Chris and Leilani,

Your quarterly surveillance matrix has rapidly become a go-to reference guide for our team in USAID/W and we're looking forward to the new update next week. We find it extremely useful for showing what PREDICT is accomplishing across all countries as well as for managing expectations.

For your consideration for the new update, I made some suggestions in the attached version of your previous report. My changes are in red font with the cells also highlighted in yellow. We already discussed adding a column for results approved for release.

Please let me know if you have any questions.

Thanks!

Andrew

On Fri, Jun 9, 2017 at 12:04 AM, Christine Kreuder Johnson <[ckjohnson@ucdavis.edu](mailto:ckjohnson@ucdavis.edu)> wrote:

Hi everyone,

Attached is our summary of surveillance activities in each country. All wildlife, human, and livestock counts and test counts are based on data in EIDITH to date.

We've added a quick view 'summary' on the 2<sup>nd</sup> tab as well. Once we have findings approved for release, we will add a column for this too.

Please let Leilani and I know if there are any questions or if there's anything else you need.

Kind regards,  
Chris

Christine Kreuder Johnson, VMD, PhD



Professor of Epidemiology and Ecosystem Health  
Senior Biological and Ecological Surveillance Coordinator, Emerging Pandemic Threats PREDICT Project  
One Health Institute  
VM3B 1089 Veterinary Medicine Drive  
One Health Institute  
School of Veterinary Medicine  
University of California  
Davis, California 95618  
[+1.530.752.1238](tel:+15307521238)

---

**From:** Leilani Francisco <[francisco@ecohealthalliance.org](mailto:francisco@ecohealthalliance.org)>

**Date:** Thursday, June 8, 2017 at 12:15 PM

**To:** "[predictmgt@usaid.gov](mailto:predictmgt@usaid.gov)" <[predictmgt@usaid.gov](mailto:predictmgt@usaid.gov)>

**Cc:** Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)>, Peter Daszak <[daszak@ecohealthalliance.org](mailto:daszak@ecohealthalliance.org)>, Christine Kreuder Johnson <[ckjohnson@UCDAVIS.EDU](mailto:ckjohnson@UCDAVIS.EDU)>, Tracey Goldstein <[tgoldstein@ucdavis.edu](mailto:tgoldstein@ucdavis.edu)>, Billy Karesh <[karesh@ecohealthalliance.org](mailto:karesh@ecohealthalliance.org)>

**Subject:** 2-page behavioral risk plan

Dear Andrew, Dennis, Alisa, and Shana,

Please find attached a 2-page summary of the behavioral risk surveillance plan.  
Chris will be sending the complementary PREDICT country activities tracker shortly.

We look forward to your thoughts and feedback.  
Best regards,  
Leilani

--

**Leilani Francisco, PhD, MA, PMP**

*Senior Scientist | PREDICT-2 Senior Behavioral Risk Surveillance Coordinator*

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To view this discussion on the web visit <https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/32FFA488-C4AC-465B-BA7E-A78F989E0330%40ucdavis.edu>.

--

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](mailto:aclements@usaid.gov)

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

UCDUSR0010520

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Wed, 25 Oct 2017 23:02:32 +0300  
**Subject:** Re: Great Predict & GVP coverage in the Atlantic!  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>

Thanks

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

On Oct 25, 2017, at 10:08 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Could have gone horribly wrong, as they were calling for a response to a paper that said don't bother trying to collect data & predict epidemics & pandemics, but it didn't:

<https://www.theatlantic.com/science/archive/2017/10/pandemic-prediction-challenge/543954/>

Phew & congrats team,  
Jonna

--

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[predictmgt+unsubscribe@usaid.gov](mailto:predictmgt+unsubscribe@usaid.gov).

To post to this group, send email to [predictmgt@usaid.gov](mailto:predictmgt@usaid.gov).

To view this discussion on the web visit

[https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CAO5tDrEDGfn3voYymkGZwiAo8b\\_49TjKsrv%2BcuLm090GSJhO6Q%40mail.gmail.com](https://groups.google.com/a/usaid.gov/d/msgid/predictmgt/CAO5tDrEDGfn3voYymkGZwiAo8b_49TjKsrv%2BcuLm090GSJhO6Q%40mail.gmail.com).

**Sent:** Thu, 26 Oct 2017 13:21:27 -0700  
**Subject:** Re: Bat seasonality conference abstract for review  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Evan Eskew <eskew@ecohealthalliance.org>  
**Cc:** Diego Montecino <dmontecino@ucdavis.edu>, Nistara Randhawa <nrandhawa@ucdavis.edu>, "Kevin Olival, PhD" <olival@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>

Hi Evan,

Thanks for including me, and I am pleased to be involved. The abstract reads well, but I am concerned about the Results & Conclusion, as I would like to understand the rigor around how you came to your conclusions, especially on mid-year and pregnancy findings. The conclusion on immunocompetence may not be completely well informed from a systems perspective because there are reasons beyond immunocompetence that affect viral shedding. So we probably need to work more together for full understanding, as we planned to do in our last call. Also, bringing in the veterinary training, may improve the interpretations. Can you double check the due date please to see if we can pursue our agreed-upon plan to work together on the manuscript before we convey the results. If the abstract is due in February, as Nistara indicates, we have time to follow our collaborative plan.

Thanks,

Jonna

On Thu, Oct 26, 2017 at 12:58 PM, Nistara Randhawa <[nrandhawa@ucdavis.edu](mailto:nrandhawa@ucdavis.edu)> wrote:

Hi Evan,

Thanks for sharing your abstract and including us as co-authors. We're onboard with it, and are not sure if we're going to present yet! It looks like abstract submission starts on Nov 2nd but the last date to submit is 15th Feb (that's what I understood, please correct me if I'm wrong). Look forward to working with you.

Best wishes,  
Nistara

Nistara Randhawa  
BVSc & AH, MVSc, MPVM  
PhD candidate, Epidemiology  
One Health Institute  
UC Davis School of Veterinary Medicine  
[nistara.net](http://nistara.net)

On Wed, Oct 25, 2017 at 8:19 AM, Evan Eskew <[eskew@ecohealthalliance.org](mailto:eskew@ecohealthalliance.org)> wrote:

Hi all,  
Great chatting last week to get caught up on all the bat work!

I'm writing to run the attached abstract by the Davis folks. Peter and Kevin have already taken a look. Briefly, I'm hoping to present at the One Health Congress in summer 2018. The abstracts, as usual, are due very early (November 2nd). I'm hoping to get any feedback on the abstract content, author line, or any other issues you may have. Diego and Nistara, are either of you planning to go/present as well? If so, we could shift the abstract content a bit to better accommodate everyone's work.

To be clear, we're totally onboard with the publication timeline we discussed on the conference call. This is solely for the purposes of the conference presentation. And I'm happy to send around a complete manuscript draft when I have it done (hopefully in a few weeks) so that Diego and Nistara can take a look to see how our methods and results might complement or strengthen one another.

Please do be in touch with any concerns or ways that I can help going forward.

All my best,  
Evan

--

**Evan Eskew, PhD**

*Research Scientist, Modeling and Analytics*

EcoHealth Alliance

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

--

Nistara Randhawa

BVSc & AH, MVSc, MPVM

PhD candidate, Epidemiology

One Health Institute

UC Davis School of Veterinary Medicine

[nistara.net](http://nistara.net)

**From:** Andrew Clements <aclements@usaid.gov>  
**To:** Jonna Mazet <jkmazet@ucdavis.edu>; djwolking@ucdavis.edu <djwolking@ucdavis.edu>  
**CC:** Alisa Pereira <apereira@usaid.gov>  
**Sent:** 1/17/2018 2:11:33 AM  
**Subject:** Fwd: One Health Congress flights

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](mailto:aclements@usaid.gov)*

Begin forwarded message:

**From:** Dennis Carroll <[dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)>  
**Date:** January 16, 2018 at 10:10:13 PM GMT+1  
**To:** Andrew Clements <[aclements@usaid.gov](mailto:aclements@usaid.gov)>, Alisa Pereira <[apereira@usaid.gov](mailto:apereira@usaid.gov)>, Ricardo Echalar <[rechalar@usaid.gov](mailto:rechalar@usaid.gov)>, Lindsay Parish <[lparish@usaid.gov](mailto:lparish@usaid.gov)>, Marilyn Crane <[mcrane@usaid.gov](mailto:mcrane@usaid.gov)>  
**Subject:** Fwd: One Health Congress flights

See below. Let me know how you want to respond

d

----- Forwarded message -----

From: **Jill Poulton** <[jill@ixtapatravel.ca](mailto:jill@ixtapatravel.ca)>  
Date: Tue, Jan 16, 2018 at 3:38 PM  
Subject: One Health Congress flights  
To: [dcarroll@usaid.gov](mailto:dcarroll@usaid.gov)

Dear Dennis,

Further to the e-mail sent to you earlier by David de Pooter from the One Health Platform, I am contacting you on behalf of Ixtapa Travel, the partner of choice of the One Health Congress for organising your flights to and from the 5th International One Health Congress in Saskatoon from 22 until 25 June 2018

In order to book your flight tickets at the most favourable rates possible, please fill out the link below on our website with your names, preferred dates, time and airport and I will get back to you with flight options.

<http://www.ixtapatravel.ca/one-health-submission-form.html>

Please read carefully the attached Travel Policy and sign and send back the attached credit card authorization form.



Please do not hesitate to contact me at any time if you have questions or need help with your flight reservation or any other travel related information.

Looking forward to meeting you in Saskatoon!

Best Regards,

Jill Poulton

**Jill Poulton CTC**

**Office Manager**

Ixtapa Travel

#103-3929 8<sup>th</sup> Street East

Saskatoon, SK S7H 5M2

Agency (306) 664-3233

Fax (306) 664-9844

[www.ixtapatravel.ca](http://www.ixtapatravel.ca)



## Credit Card Authorization Form

Attention:	Company:
Fax #:	Date:

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<input type="checkbox"/> Insurance		
<input type="checkbox"/> Radisson Hotel		
<input type="checkbox"/> Optional Tours		
<input type="checkbox"/> Ixtapa Travel Service fee		

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I authorize Ixtapa Travel/ Radisson Hotel (Silver Birch Hotels) to charge the agreed charges above to my credit card provided herein. I understand that the charges will appear as the supplier ie. the airline, Manulife Insurance, etc. I agree that I will pay for this purchase in accordance with the issuing bank cardholder agreement.

The credit card provided on this form will be used for all charges identified above. Your privacy is important to us. The information you've provided is confidential and will only be used in accordance with Ixtapa Travel policy and applicable privacy legislation. If you have any questions, please do not hesitate to contact us.

Card Holder Signature: \_\_\_\_\_

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## Travel Policy for Session Chairs, Invited Speakers and One Health Platform Scientific Advisory Board

### 5<sup>th</sup> International One Health Congress Saskatoon – 22 – 25 June 2018

The One Health Platform will book and pay for a single hotel room for you at the conference hotel, Radisson Saskatoon hotel from 21 until 25 June 2018.

The One Health Platform will cover air travel expenses for this Congress for its SESSION (CO-) CHAIRS, INVITED SPEAKERS and the ONE HEALTH PLATFORM SUPERVISORY BOARD (hereinafter called 'IOHC2018 guests'). The following travel policy outlines the process for booking air and hotels:

#### **Booking Air Travel:**

1. Ixtapa Travel is the travel agent of choice for the One Health Congress in Saskatoon. They are an experienced Canadian travel agency and will handle all air travel to and from the Congress. Confirmed guests will receive an e-mail from Barbara Crowe, President of Ixtapa Travel with an invitation to provide details of their preferred itinerary (dates and times of departure/arrival, departure city, etc.), knowing that flight dates can be within 21 and 25 of June 2018. Other travel periods must be approved by the conference organizers first.
2. Based on the details provided by the individual guests, Barbara and /or her assistant Jill Poulton will examine airline offers and propose the most favourable route, a detailed airline ticket and the associated cost.
3. IOHC2018 guests are required to purchase the proposed ticket by credit card or bank transfer within 24 hours.
4. Tickets are issued by Barbara and her assistant Jill.
5. During the Congress 2018, IOHC2018 guests will be invited to apply for full refund of their approved travel costs. Please note that in case of no-show, tickets will not be refunded.

#### **Booking criteria for Air Travel:**

Ixtapa will use the following criteria to select air travel:

- Preferred itinerary details must be received at least two months before the conference
- Class of service will be 'economy'
- The flight's departure or arrival time will be within two hours before the requested departure or arrival time
- One stop or connecting flights will be selected if savings of 300 CAD or more can be achieved
- IOHC2018 guests can specify a preferred carrier. If a significantly lower fare is available with another carrier, the travel agent will substitute
- One piece of checked baggage will be included in the price
- Rebooking or change fees will not be reimbursed

**Booking hotels:**

1. The Radisson Saskatoon Hotel is the official faculty hotel for the Congress. Situated in the centre of downtown, the hotel is a 10-minute walk from the TCU Place, the Congress host. Marissa Theriault, Sales Manager will manage the hotel bookings.
2. Once air travel is confirmed, Ixtapa Travel will provide confirmed travel arrangements to Marissa and based on the travel details provided by Ixtapa for the individual IOHC2018 guests, Marissa will book hotels.
3. Hotel rooms for SESSION CHAIRS and INVITED SPEAKERS can be booked between June 21 – 25 with a maximum of 4 nights, and these charges (room and taxes only) will be paid by the Congress. If you wish to extend their stay to enjoy Saskatoon beyond these dates, the additional days will have to be paid for by yourself.
4. Guests will receive an email from the Radisson Saskatoon Hotel to confirm their hotel reservation.



**From:** "Harris, Samuel" <Harris.Samuel@bcg.com>  
**To:** Peter Daszak <daszak@ecohealthalliance.org>, Dennis Carroll <dcarroll@usaid.gov>, Jennifer Fluder <jfluder@usaid.gov>, Nathan Wolfe <nwolfe@metabiota.com>, Amy Lin <amylin@usaid.gov>, "erubin@metabiota.com" <erubin@metabiota.com>, "watson@ecohealthalliance.org" <watson@ecohealthalliance.org>, "dstanton@usaid.gov" <dstanton@usaid.gov>, "[REDACTED]" <[REDACTED]>, "jkmazet@ucdavis.edu" <jkmazet@ucdavis.edu>, "pmahanna@usaid.gov" <pmahanna@usaid.gov>  
**Cc:** "Rodriguez, Andrew" <rodriguez.andrew@bcg.com>, "Stroman, Trish" <Stroman.Trish@bcg.com>, "Sacchetti, Ben" <Sacchetti.Ben@bcg.com>, "Gabrielle Fitzgerald" <gabrielle.fitzgerald@panoramaglobal.org>  
**Subject:** RE: GVP Core Team meeting  
**Sent:** Thu, 25 Jan 2018 17:51:48 +0000  
[GVP side meeting agenda ET JM.DOCX](#)  
[BCG Report Out\\_vCoreTeam\\_24Jan18.pptx](#)

Hi All,

Please find attached materials for today's Core Team meeting. In our discussion today, we'd love to: align on the final outstanding logistics for PMAC (**latest agenda for closed and open sessions attached**), get the group's take on select slides from the BCG Report Out (**slides attached**), and get an update on how the open session materials are shaping up.

Thanks and talk soon!  
Sam

---

Sam Harris  
THE BOSTON CONSULTING GROUP  
Tel. +1 646 448 5047 • Mobile +1 [REDACTED]

-----Original Appointment-----

**From:** Sacchetti, Ben  
**Sent:** Thursday, November 30, 2017 5:36 PM  
**To:** Sacchetti, Ben; Stroman, Trish; Linda Patterson; Gabrielle Fitzgerald; Raelyn Campbell; Peter Daszak; Rodriguez, Andrew; Dennis Carroll; Jennifer Fluder; Kabay, Kendra; Nathan Wolfe; Harris, Samuel; Amy Lin; erubin@metabiota.com; watson@ecohealthalliance.org; [REDACTED] kmazet@ucdavis.edu  
**Cc:** Woods, Wendy; pmahanna@usaid.gov; dstanton@usaid.gov  
**Subject:** GVP Core Team meeting  
**When:** Thursday, January 25, 2018 1:00 PM-2:30 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** RRB 3.6 150 / Dial-In

As discussed yesterday, we are extending future Core Team meetings to 90 minutes. We may not use the full time every week, but wanted to be safe and ensure we have time to cover all of the topics we need to. Thank you for your time!

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The Boston Consulting Group, Inc.

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**Global Virome Project**  
**PMAC side-meeting, closed session**  
Monday January 29, 2018, 9.00am-12.30pm

**Meeting objectives**

1. **REDACTED**
2. **REDACTED**
3. Discuss plans for "Open Session" in the afternoon

**Agenda**

Time	Agenda item	Presenters/facilitators
8:30 – 9:00	Registration	All participants
9:00 – 9:15	<b>REDACTED</b>	Dennis Carroll
9:15 – 9:40		Dennis Carroll
9:40 – 10:10		Peter Daszak Donna Mazet Dennis Carroll
10:10 – 10:30		
10:30 – 11:30		Boston Consulting Group
11:30 – 12:00		Country representatives
12:00 – 12:20	6. Plan for Open Session	





12:20 – 12:30	7.  Closing remarks	
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**Global Virome Project**  
**PMAC side-meeting, open session**  
Monday January 29, 2018, 14.00-17.30

**Meeting objective**

To introduce the rationale, evidence and strategic approach for GVP and its goal of building a world safe from emerging viral threats.

**Agenda**

Time	Agenda item	Presenters/facilitators
13:30 – 14:00	Registration	All participants
14:00 – 14:10	<b>1. Introduction</b> <ul style="list-style-type: none"> <li>• Welcoming remarks</li> <li>• Review of meeting agenda &amp; objectives</li> </ul>	Dennis Carroll
14:10 -15:50	<b>2. What is the Global Virome Project?</b> <ul style="list-style-type: none"> <li>• The Challenge</li> <li>• Proof-of-concept</li> <li>• Solution</li> <li>• Global Health Impact</li> <li>• Way-forward vision: 10 year vision, path to launch</li> </ul>	Dennis Carroll Jonna Mazet Peter Daszak Eddy Rubin
15:50 – 16:10	Break	
16:10 – 17:15	<b>3. Panel discussion: GVP from the perspective of key stakeholders</b>	Moderator Panelists
17:15 – 17:30	<b>4. Closing remarks</b>	Dennis Carroll

**From:** David J Wolking <djwolking@ucdavis.edu>  
**Sent:** Mon, 5 Feb 2018 09:52:58 -0800  
**Subject:** PREDICT Management Team Call - Tuesday February 6 2018 @ 10AM PST/1PM EST  
**To:** Cassandra Louis Duthil <clouisduthil@usaid.gov>, Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Eddy Rubin <erubin@metabiota.com>, Leilani Franciso <francisco@ecohealthalliance.org>, Lindsay Parish <lparish@usaid.gov>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, William Karesh <karesh@ecohealthalliance.org>, Karen Saylors <ksaylors@metabiota.com>, Elizabeth Leasure <ealeasure@ucdavis.edu>  
**Cc:** PREDICTMGT <predictmgt@usaid.gov>, Molly Turner <turner@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, Amanda Andre <amanda.andre@ecohealthalliance.org>, Brooke Genovese <bgenovese@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Ava Sullivan <sullivan@ecohealthalliance.org>, Catherine Machalaba <Machalaba@ecohealthalliance.org>,  
**REDACTED**

[PREDICT MT Call \(2.6.18\).docx](#)

Hi there,  
Below and attached for quick reference is the agenda for tomorrow's PREDICT Management Team call.

Best,

David

**PREDICT Management Call Agenda**

**Tuesday, February 6, 2017**

**10:00-11:00AM PDT/1:00-2:00pm EDT**

**REDACTED**, Access code **REDACTED**

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

**Standing items**  
**USAID Updates**

1. **Administrative items**
  - a. Core (regular) funding update
  - b. Feedback on P2 additional testing request
2. **PMAC and GVP update (Jonna et al)**
3. **Mission communications roundup**
  - a. Myanmar and viral testing plans with LBVD
  - b. Guinea mission visit and updates
  - c. Liberia and data sharing inquiry
4. **Outbreak updates (Liberia, Cameroon, others)**
6. **EPT partner collaboration/coordination updates (Billy)**
7. **Publication, media, and conference updates**
  - CUGH Global Health Conference, New York (March 15-18, 2018)
  - "Outbreak: Epidemics in a Connected World" exhibit at NMNH (May 2018)
  - One Health Congress Saskatoon (June 22-25, 2018)
  - International Conference on Emerging Infectious Diseases (ICEID) in Atlanta (August 26–29, 2018)
  - International Meeting on Emerging Diseases and Surveillance (IMED) 2018 in Vienna, Austria (November 9-12, 2018)
  - Others?

On Fri, Feb 2, 2018 at 8:10 AM, David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

Hi there,  
Just a reminder about next week's Management Team call on Tuesday February 6 2018 @ 10AM PST/1PM EST.

We will follow-up with an agenda early next week.

Enjoy the weekend,

David

**PREDICT Management Call Agenda**

**Tuesday, February 6, 2017**

**10:00-11:00AM PDT/1:00-2:00pm EDT**

**REDACTED** Access code **REDACTED**

**International Dial-in number: 612-575-1339 (toll charges apply)**

**Standing items**

**USAID Updates**

- 1. Administrative items**
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  - Others?



**From:** David J Wolking <djwolking@ucdavis.edu>  
**Sent:** Tue, 6 Feb 2018 10:41:22 -0800  
**Subject:** Re: PREDICT Management Team Call - Tuesday February 6 2018 @ 10AM PST/1PM EST  
**To:** David J Wolking <djwolking@ucdavis.edu>  
**Cc:** Cassandra Louis Duthil <clouisduthil@usaid.gov>, Alisa Pereira Emerging Threats Division <apereira@usaid.gov>, Christine Kreuder Johnson <ckjohnson@ucdavis.edu>, Eddy Rubin <erubin@metabiota.com>, Leilani Franciso <francisco@ecohealthalliance.org>, Lindsay Parish <lparish@usaid.gov>, "Clements, Andrew (GH/HIDN)" <AClements@usaid.gov>, Peter Daszak <daszak@ecohealthalliance.org>, "Prof. Jonna Mazet" <jkmazet@ucdavis.edu>, William Karesh <karesh@ecohealthalliance.org>, Karen Saylor <ksaylor@metabiota.com>, Elizabeth Leasure <ealeasure@ucdavis.edu>, PREDICTMGT <predictmgt@usaid.gov>, Molly Turner <turner@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Evelyn Luciano <luciano@ecohealthalliance.org>, Amanda Andre <amanda.andre@ecohealthalliance.org>, Brooke Genovese <bgenovese@ucdavis.edu>, "predict@ucdavis.edu" <predict@ucdavis.edu>, Ava Sullivan <sullivan@ecohealthalliance.org>, Catherine Machalaba <Machalaba@ecohealthalliance.org>,  
**REDACTED**

Hi there,  
Just sharing these links to items Billy introduced today from World Bank and WHO. Thanks to Catherine Machalaba for her hard work on the WB operational framework and to Dan Schar, Catherine, and Billy for contributions to the Bulletin piece.

World Bank Operational Framework for One Health released last week:  
<http://documents.worldbank.org/curated/en/703711517234402168/pdf/WP-P133691-PUBLIC.pdf>

Investments for Pandemic Prevention paper came out in WHO Bulletin last week: <http://www.who.int/bulletin/volumes/96/2/17-199547.pdf>

Best,

David

On Mon, Feb 5, 2018 at 9:52 AM, David J Wolking <[djwolking@ucdavis.edu](mailto:djwolking@ucdavis.edu)> wrote:

Hi there,  
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Best,

David

### **PREDICT Management Call Agenda**

**Tuesday, February 6, 2017**

**10:00-11:00AM PDT/1:00-2:00pm EDT**

**# REDACTED Access code REDACTED**

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

#### **Standing items USAID Updates**

- 1. Administrative items**
  - a. Core (regular) funding update
  - b. Feedback on P2 additional testing request
- 2. PMAC and GVP update (Jonna et al)**
- 3. Mission communications roundup**
  - a. Myanmar and viral testing plans with LBVD
  - b. Guinea mission visit and updates
  - c. Liberia and data sharing inquiry



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6. **EPT partner collaboration/coordination updates (Billy)**
7. **Publication, media, and conference updates**
  - CUGH Global Health Conference, New York (March 15-18, 2018)
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  - One Health Congress Saskatoon (June 22-25, 2018)
  - International Conference on Emerging Infectious Diseases (ICEID) in Atlanta (August 26–29, 2018)
  - International Meeting on Emerging Diseases and Surveillance (IMED) 2018 in Vienna, Austria (November 9-12, 2018)
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We will follow-up with an agenda early next week.

Enjoy the weekend,

David

**Sent:** Thu, 8 Feb 2018 14:50:31 -0800  
**Subject:** Re: Bat seasonality conference abstract for review  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Evan Eskew <eskew@ecohealthalliance.org>  
**Cc:** Diego Montecino <dmontecino@ucdavis.edu>, Nistara Randhawa <nrindhawa@ucdavis.edu>, "Kevin Olival, PhD" <olival@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>

Hi Evan,

Looks like you submitted a revised abstract. Did you address the concerns, and did we see that revision? Sorry if I missed taking care of a review while I was traveling. Could you please resend the submitted version if I have received and lost it.

Thanks,

Jonna

On Thu, Oct 26, 2017 at 1:21 PM, Jonna Mazet <jkmazet@ucdavis.edu> wrote:

Hi Evan,

Thanks for including me, and I am pleased to be involved. The abstract reads well, but I am concerned about the Results & Conclusion, as I would like to understand the rigor around how you came to your conclusions, especially on mid-year and pregnancy findings. The conclusion on immunocompetence may not be completely well informed from a systems perspective because there are reasons beyond immunocompetence that affect viral shedding. So we probably need to work more together for full understanding, as we planned to do in our last call. Also, bringing in the veterinary training, may improve the interpretations. Can you double check the due date please to see if we can pursue our agreed-upon plan to work together on the manuscript before we convey the results. If the abstract is due in February, as Nistara indicates, we have time to follow our collaborative plan.

Thanks,

Jonna

On Thu, Oct 26, 2017 at 12:58 PM, Nistara Randhawa <nrindhawa@ucdavis.edu> wrote:

Hi Evan,

Thanks for sharing your abstract and including us as co-authors. We're onboard with it, and are not sure if we're going to present yet! It looks like abstract submission starts on Nov 2nd but the last date to submit is 15th Feb (that's what I understood, please correct me if I'm wrong). Look forward to working with you.

Best wishes,

Nistara

Nistara Randhawa  
BVSc & AH, MVSc, MPVM  
PhD candidate, Epidemiology  
One Health Institute  
UC Davis School of Veterinary Medicine  
[nistara.net](http://nistara.net)

On Wed, Oct 25, 2017 at 8:19 AM, Evan Eskew <eskew@ecohealthalliance.org> wrote:

Hi all,

Great chatting last week to get caught up on all the bat work!

I'm writing to run the attached abstract by the Davis folks. Peter and Kevin have already taken a look. Briefly, I'm hoping to present at the One Health Congress in summer 2018. The abstracts, as usual, are due very early (November 2nd). I'm hoping to get any feedback on the abstract content, author line, or any other issues you may have. Diego and Nistara, are either of you planning to go/present as well? If so, we could shift the abstract content a bit to better accommodate everyone's work.

To be clear, we're totally onboard with the publication timeline we discussed on the conference call. This is solely for the purposes of the conference presentation. And I'm happy to send around a complete manuscript draft when I have it done

(hopefully in a few weeks) so that Diego and Nistara can take a look to see how our methods and results might complement or strengthen one another.

Please do be in touch with any concerns or ways that I can help going forward.

All my best,  
Evan

--  
**Evan Eskew, PhD**  
*Research Scientist, Modeling and Analytics*

EcoHealth Alliance  
[460 West 34th Street – 17th Floor](#)  
[New York, NY 10001](#)

[1.646.868.4708](#) (direct)  
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[www.ecohealthalliance.org](http://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.*

--  
  
Nistara Randhawa  
BVSc & AH, MVSc, MPVM  
PhD candidate, Epidemiology  
One Health Institute  
UC Davis School of Veterinary Medicine  
[nistara.net](http://nistara.net)



**Sent:** Mon, 12 Feb 2018 20:18:32 -0800  
**Subject:** Re: Bat seasonality conference abstract for review  
**From:** Jonna Mazet <jkmazet@ucdavis.edu>  
**To:** Evan Eskew <eskew@ecohealthalliance.org>  
**Cc:** Diego Montecino <dmontecino@ucdavis.edu>, Nistara Randhawa <nrandhawa@ucdavis.edu>, "Kevin Olival, PhD" <olival@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>

Hi Guys,

Viral detection is safest, but the majority of our samples are from secretions/excretions, so referring to viral shedding in many instances will be appropriate. We have almost no samples from liver, but may have some from blood -- at least no results that you should really be trusting. I don't remember much in the way of positives from blood, except in Metabiota, specific-pathogen testing that is not consistent with the majority of Predict testing. If you are using those results, Evan, we should discuss. Fine for the abstract, but the methods are so different from the majority of our data set that they shouldn't be combined for analyses for a real manuscript. You should only be using positive results in the interpreted cell, not the PCR presumptive positive cell. The latter will be full of false positives, etc. Hope that's helpful.

Have a good day,

J

On Fri, Feb 9, 2018 at 12:37 PM, Evan Eskew <[eskew@ecohealthalliance.org](mailto:eskew@ecohealthalliance.org)> wrote:

Thanks so much Jonna. These are extremely helpful, and I'll incorporate them into the final abstract.

One point perhaps worth further clarification: at the very least, we can say something about "viral detection" regarding our positive tests. My initial thought was that referring to "viral infection" or "viral-positive" individuals would also be defensible, but Jonna's comments on the abstract are well-taken. So is it better to speak about "viral shedding" with regards to our positive samples even if the specimen type (like liver or blood) wouldn't seem to necessarily be linked to viral excretion into the environment? Will people interpret "viral shedding" to mean active replication in the organism or environmental excretion? We could be extremely safe and just use "viral detection" throughout.

I'll wait till Tuesday to receive any other abstract feedback then plan to submit on Wednesday.

Thanks again,

Evan

On Fri, Feb 9, 2018 at 12:54 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Hi Evan,

Thanks for the look. Similar to last time, reads well, but I still have a couple issues with the Results and Conclusions that need to be addressed to avoid drawing reasonable criticisms. Not the pregnancy one, but around interpretation and physiology/immunology. This time I added them to the document for ease of your review and so as not to have the other co-authors have to make the same comment(s). I think they're easy tweaks.

Over to others for review and comment if desired.

Have a good weekend,

Jonna

On Fri, Feb 9, 2018 at 8:43 AM, Evan Eskew <[eskew@ecohealthalliance.org](mailto:eskew@ecohealthalliance.org)> wrote:

Hi Jonna et al.,

My apologies for the confusion regarding this conference abstract, and thanks for following up Jonna. I did indeed begin the abstract submission process (i.e., entering co-author names and emails), which resulted in the notification email you received. However, I have not actually submitted the abstract text, and therefore our final abstract submission is still pending.

Now would be a great time to get any abstract edits from all of you. Jonna, regarding your specific inquiries, based on my notes from the call I had with Diego and Nistara, it seemed Diego is finding similar pregnancy effects as what's reported in this current abstract? But if our findings are in conflict or if you all have alternative interpretations, I'd be happy to incorporate any edits/clarifications/etc.

There are definitely some bigger picture project issues that came up during our call (i.e., incorporation of different predictor variables) that I haven't gotten around to incorporating yet. If you'd like to review my current working paper draft along with the abstract, I can send that along. Otherwise, after the abstract submission process is done (February 15), I can aim to distribute a more polished version for detailed feedback from the Davis contributors well before the conference itself. Hopefully this would keep all the PREDICT bat-related work proceeding along in a productive direction.

All my best,  
Evan Eskew

On Thu, Feb 8, 2018 at 5:50 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Hi Evan,  
Looks like you submitted a revised abstract. Did you address the concerns, and did we see that revision? Sorry if I missed taking care of a review while I was traveling. Could you please resend the submitted version if I have received and lost it.  
Thanks,  
Jonna

On Thu, Oct 26, 2017 at 1:21 PM, Jonna Mazet <[jkmazet@ucdavis.edu](mailto:jkmazet@ucdavis.edu)> wrote:

Hi Evan,  
Thanks for including me, and I am pleased to be involved. The abstract reads well, but I am concerned about the Results & Conclusion, as I would like to understand the rigor around how you came to your conclusions, especially on mid-year and pregnancy findings. The conclusion on immunocompetence may not be completely well informed from a systems perspective because there are reasons beyond immunocompetence that affect viral shedding. So we probably need to work more together for full understanding, as we planned to do in our last call. Also, bringing in the veterinary training, may improve the interpretations. Can you double check the due date please to see if we can pursue our agreed-upon plan to work together on the manuscript before we convey the results. If the abstract is due in February, as Nistara indicates, we have time to follow our collaborative plan.  
Thanks,  
Jonna

On Thu, Oct 26, 2017 at 12:58 PM, Nistara Randhawa <[nrindhawa@ucdavis.edu](mailto:nrindhawa@ucdavis.edu)> wrote:

Hi Evan,

Thanks for sharing your abstract and including us as co-authors. We're onboard with it, and are not sure if we're going to present yet! It looks like abstract submission starts on Nov 2nd but the last date to submit is 15th Feb (that's what I understood, please correct me if I'm wrong). Look forward to working with you.

Best wishes,  
Nistara

Nistara Randhawa  
BVSc & AH, MVSc, MPVM  
PhD candidate, Epidemiology  
One Health Institute  
UC Davis School of Veterinary Medicine  
[nistara.net](http://nistara.net)

On Wed, Oct 25, 2017 at 8:19 AM, Evan Eskew <[eskew@ecohealthalliance.org](mailto:eskew@ecohealthalliance.org)> wrote:

Hi all,  
Great chatting last week to get caught up on all the bat work!

I'm writing to run the attached abstract by the Davis folks. Peter and Kevin have already taken a look. Briefly, I'm hoping to



present at the One Health Congress in summer 2018. The abstracts, as usual, are due very early (November 2nd). I'm hoping to get any feedback on the abstract content, author line, or any other issues you may have. Diego and Nistara, are either of you planning to go/present as well? If so, we could shift the abstract content a bit to better accommodate everyone's work.

To be clear, we're totally onboard with the publication timeline we discussed on the conference call. This is solely for the purposes of the conference presentation. And I'm happy to send around a complete manuscript draft when I have it done (hopefully in a few weeks) so that Diego and Nistara can take a look to see how our methods and results might complement or strengthen one another.

Please do be in touch with any concerns or ways that I can help going forward.

All my best,  
Evan

--

**Evan Eskew, PhD**  
*Research Scientist, Modeling and Analytics*

EcoHealth Alliance  
[460 West 34th Street – 17th Floor](#)  
[New York, NY 10001](#)

[1.646.868.4708](#) (direct)  
**REDACTED** (mobile)  
[www.ecohealthalliance.org](http://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.*

--

Nistara Randhawa  
BVSc & AH, MVSc, MPVM  
PhD candidate, Epidemiology  
One Health Institute  
UC Davis School of Veterinary Medicine  
[nistara.net](http://nistara.net)

--

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

**From:** Andrew Clements <aclements@usaid.gov>  
**Sent:** Fri, 10 Aug 2018 14:43:23 +0200  
**Subject:** four unconfirmed cases of hemorrhagic fever in CAR  
**To:** "Ryan, Michael J." <[REDACTED]>, "BRIAND, Sylvie" <[REDACTED]>, "DRURY, Patrick Anthony" <[REDACTED]>, "Myers, Lee (AGAH)" <[REDACTED]>, "Makonnen, Yilma (FAORNE)" <[REDACTED]>, "Bebay, Charles (AGAH)" <[REDACTED]>, Jonna Mazet <jkmazet@ucdavis.edu>, Brian Bird <bhbird@ucdavis.edu>, Antoine Delaitre <[REDACTED]>

FYI. Let me know if you have any additional information regarding this situation.

Last night (August 9) Minister of Health (MINSANTE) reported M'boki, and one death (also linked to the unconfirmed outbreak) , a town 73 km from Obo and 1200 km from Bangui. In a meeting LTC Choate and I had with him in early July, he said that there was an approximate rate of 20% antibodies for Ebola in the area. They have been scrambling to get out there to get samples. MINSANTE called me this morning and we arranged for MINUSCA to take them there by helo, but it won't be until tomorrow. He said the suspected cases have climbed to 6. They will collect samples and bring them back to Bangui, where the Pasteur Institute and WHO will test them. Pasteur Institute has the capacity, and the Minister and WHO actually put in place a plan a few months ago. He said if he has specific needs, he will pass them on.

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](mailto: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:** Wed, 15 Aug 2018 05:00:13 -0400  
**Subject:** Re: PREDICT Q3Y4 Expenditure by Country/Category report  
**To:** Elizabeth Leasure <ealeasure@ucdavis.edu>  
**Cc:** Predict inbox <predict@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Hannah R Chale <hrchale@ucdavis.edu>, David John Wolking <djwolking@ucdavis.edu>, Amalhin Shek <ashek@usaid.gov>, Alisa Pereira <apereira@usaid.gov>

Thanks, Liz.

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

On Aug 15, 2018, at 12:07 AM, Elizabeth Leasure <[ealeasure@ucdavis.edu](mailto:ealeasure@ucdavis.edu)> wrote:

Hi Andrew. Please find attached the Q3Y4 (April-June 2018) Expenditure by Country/Category report for PREDICT. Overall expenditures are up from last quarter, but please note that we have slightly slowed down core spending in an effort to ensure bridge funding is available to keep the project going while we wait for the FY19 core obligation. If you have any questions, please let me know.

Thanks!  
Liz

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

<PREDICT Quarterly Financial Report\_By Country-Category\_Q3Y4\_final.pdf>

**From:** Megan M Doyle <mmdoyle@UCDAVIS.EDU>  
**To:** "predict-surveillance@ucdavis.edu" <predict-surveillance@ucdavis.edu>  
**Cc:** Catherine Machalaba <machalaba@ecohealthalliance.org>, "William B. Karesh" <karesh@ecohealthalliance.org>, Jonna Mazet <jkmazet@ucdavis.edu>  
**Subject:** FW: Joint call this Thurs, Aug 30th @ 10am PT/1pm ET  
**Sent:** Thu, 30 Aug 2018 14:57:49 +0000  
[P2\\_FY18Q2 GHSA Phase 1 Report \(FINAL\).docx](#)

Hi everyone,  
Please see the final agenda for our call today below:

Draft agenda

- Behavior
  - Bat book updates
  - Universal analysis prototype
  - USAID Behavioral Risk brown bag
- Surveillance
  - Master IRB renewal (David) – due to UCD by Friday, Sept 7<sup>th</sup>
  - GHSA Phase I report (David) – see attached, due to UCD by Monday, Sept 10<sup>th</sup>
  - Updating species names (Tammie)
  - Serology sample lists – progress, questions?
  - Material transfer agreements/export issues

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Or Telephone:

Dial(for higher quality, dial a number based on your current location):

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Meeting ID: **REDACTED**

International numbers available: **REDACTED**

---

**From:** Megan M Doyle  
**Sent:** Tuesday, August 28, 2018 2:25 PM  
**To:** 'predict-surveillance@ucdavis.edu' <predict-surveillance@ucdavis.edu>  
**Cc:** 'Catherine Machalaba' <machalaba@ecohealthalliance.org>; 'William B. Karesh' <karesh@ecohealthalliance.org>; Jonna Mazet <jkmazet@ucdavis.edu>  
**Subject:** Joint call this Thurs, Aug 30th @ 10am PT/1pm ET

Hi PREDICT Surveillance Team,  
Our next joint call is this Thurs, Aug 30<sup>th</sup> @ 10am PT/1pm ET. See agenda below & let us know if you have any other items to add.  
Talk soon!  
Megan

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Or Telephone:

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Meeting ID: **REDACTED**

International numbers available: **REDACTED**

Draft agenda

- Behavior
  - Bat book updates
  - Universal analysis prototype
  - USAID Behavioral Risk brown bag



- Surveillance
  - Master IRB renewal due Sept 7<sup>th</sup> (David)
  - GHSA Phase I report (template?)
  - Updating species names (Tammie)
  - Serology sample lists – progress, questions?
  - Material transfer agreements/export issues

# 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](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. <a href="#">Burkina Faso</a>
2. <a href="#">Cameroon</a>
3. <a href="#">Cote d'Ivoire</a>
4. <a href="#">Ethiopia</a>
5. <a href="#">Guinea</a>
6. <a href="#">Kenya</a>
7. <a href="#">Liberia</a>
8. <a href="#">Mali</a>
9. <a href="#">Senegal</a>
10. <a href="#">Sierra Leone</a>
11. <a href="#">Tanzania</a>
12. <a href="#">Uganda</a>

## Asia

Country
1. <a href="#">Bangladesh</a>
2. <a href="#">India</a>
3. <a href="#">Indonesia</a>
4. <a href="#">Vietnam</a>

## Burkina Faso

### 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
<b>Antimicrobial Resistance (AMR)</b>	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		
<b>Zoonotic Disease</b>	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		
<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		

	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	D.4.1: Human resources are available to implement IHR core capacity requirements		
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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

<b>Antimicrobial Resistance (AMR)</b>	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		
<b>Zoonotic Disease</b>	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	<p>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</p>	<p>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.</p> <p>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.</p>

		<p>individuals this period with community members at zoonotic disease surveillance sites. Data from these interviews is undergoing analysis.</p> <p>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>	
	P.4.2: Veterinary or Animal Health Workforce	<p>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 &amp; 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.</p>	<p>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>
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	<p>PREDICT continued to work with EPT-2 partners (P&amp;R, FAO, OHCEA) in the operationalization of the One Health Strategic</p>	

		<p>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).</p> <p>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.</p>	
<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	<p>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</p>	<p>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</p>



		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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	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 <a href="http://www.data.predict.global">www.data.predict.global</a>



	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	D.4.1: Human resources are available to implement IHR core capacity requirements	<p>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.</p>	<p>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.</p>
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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 Sangmélina 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 Sangmélina 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 Sangmélina 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 Sangmelima 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	<p>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 (1-2<sup>nd</sup> October 2017) and safely transported to the PREDICT partner laboratories Institut Pasteur du Côte d'Ivoire (IPCI) and Laboratoire National d'Appui au Développement 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.</p>	<p>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.</p> <p>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.</p>

		<p>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.</p> <p>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.</p> <p>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</p>	
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		Direction of Veterinary Services.	
	P.4.2: Veterinary or Animal Health Workforce	<p>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.</p> <p>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>	
	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 21 <sup>st</sup> , 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.	
<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	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)		
<b>Real Time Surveillance</b>	D.2.1 Indicator and event based surveillance systems	PREDICT took part in the 2 <sup>nd</sup> 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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	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.	
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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'Ivoire. 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
<b>Antimicrobial Resistance (AMR)</b>	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		
<b>Zoonotic Disease</b>	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



		<p>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.</p>	<p>recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options.</p> <p>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>
	P.4.2: Veterinary or Animal Health Workforce	<p>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.</p>	<p>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>
	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.
<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	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.
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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
<b>Antimicrobial Resistance (AMR)</b>	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		
<b>Zoonotic Disease</b>	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.	<p>fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options.</p> <p>To date, the PREDICT/Guinea team has sampled over 2,100 wildlife as part of the Ebola Host Project.</p>
	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.	
<b>Biosafety and Biosecurity</b>	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.	
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		



<b>Laboratory Systems Strengthening</b>	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	<p>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.</p> <p>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.</p>	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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	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.
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		

<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(fill in appropriate indicator)		

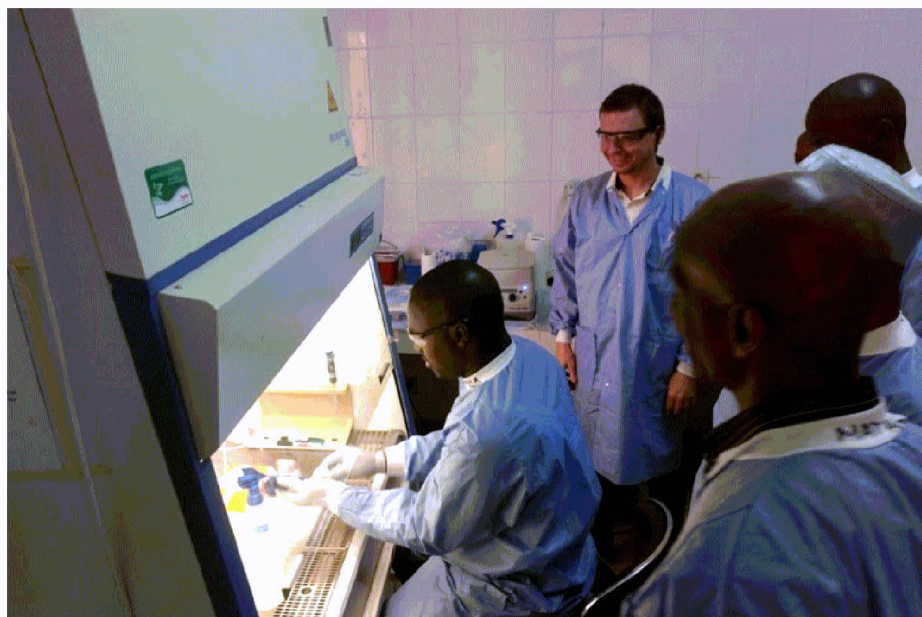
## Section 2: Major success stories/notable achievements

***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	2	3	4
USAID's GHSA Technical Focus Areas	GHSA Indicator	Specific progress made toward capacity level	Comments
<b>Antimicrobial Resistance (AMR)</b>	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		
<b>Zoonotic Disease</b>	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



		<p>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.</p>	<p>fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options.</p> <p>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>
	P.4.2: Veterinary or Animal Health Workforce	<p>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.</p> <p>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</p>	<p>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.</p>

		demonstrations, and laboratory methodology and biosecurity.	
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	<p>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&amp;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.</p> <p>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.</p>	<p>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.</p> <p>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.</p>
<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		

	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	<p>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.</p> <p>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.</p> <p>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</p>	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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	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.	
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		

<b>Other relevant Action Package (fill in)</b>	(fill in appropriate indicator)		
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## 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	2	3	4
USAID's GHSA Technical Focus Areas	GHSA Indicator	Specific progress made toward capacity level	Comments
<b>Antimicrobial Resistance (AMR)</b>	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		
<b>Zoonotic Disease</b>	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

		<p>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.</p>	<p>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.</p> <p>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>
	P.4.2: Veterinary or Animal Health Workforce	<p>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.</p>	<p>PREDICT has made significant progress in strengthening Liberia's animal health workforce towards JEE goals. See success stores for details.</p>
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	<p>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.</p> <p>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</p>	<p>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).</p>

		<p>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.</p> <p>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.</p>	
<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	D.1.1: Laboratory testing for detection of priority diseases (focused on animal health)	<p>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</p>	<p>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.</p>

		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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	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.
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>USAID's GHSA Technical Focus Areas</b>	<b>GHSA Indicator</b>	<b>Specific progress made toward capacity level</b>	<b>Comments</b>
<b>Antimicrobial Resistance (AMR)</b>	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		
<b>Zoonotic Disease</b>	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		



<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		

<b>Workforce Development</b>	D.4.1: Human resources are available to implement IHR core capacity requirements		
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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
<b>Antimicrobial Resistance (AMR)</b>	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		
<b>Zoonotic Disease</b>	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	<p>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.</p> <p>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</p>	<p>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.</p> <p>To date, PREDICT/Senegal has conducted 284 behavioral risk interviews and sampled 226 wildlife</p>

		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	<p>PREDICT/Senegal partner, the Ecole Inter-États des Sciences et Médecine Vétérinaires (EISMV) continued to collaborate with the Direction des Parcs 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.</p> <p>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.</p>	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.	
<b>Biosafety and Biosecurity</b>	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.	
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	D.4.1: Human resources are available to implement IHR core capacity requirements	<p>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.</p>	<p>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.</p>

<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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 Health. 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
<b>Antimicrobial Resistance (AMR)</b>	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		
<b>Zoonotic Disease</b>	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	<p>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.</p> <p>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</p>	<p>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.</p>



		<p>a “1”, recognizing the deep challenges in SL to build and enhance surveillance activities.</p> <p>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).</p> <p>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.</p>	<p>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>
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	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	<p>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.</p> <p>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</p>	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.	
<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	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, <u>animal</u> 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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	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.	
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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
<b>Antimicrobial Resistance (AMR)</b>	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		
<b>Zoonotic Disease</b>	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



		<p>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</p> <p>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.</p>	<p>areas for disease transmission and emergence and fosters improved recognition of zoonotic diseases and awareness of transmission pathways and prevention and control options.</p> <p>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>
	P.4.2: Veterinary or Animal Health Workforce	<p>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.</p> <p>In addition, PREDICT's lab at the Sokoine University of Agriculture welcomed five</p>	<p>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.</p>

		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.
<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		

<b>Workforce Development</b>	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.
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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			
<b>Antimicrobial Resistance (AMR)</b>	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		
<b>Zoonotic Disease</b>	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	<p>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.</p>	<p>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.</p> <p>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>



	P.4.2: Veterinary or Animal Health Workforce	<p>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 <i>in situ</i> 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.</p>	<p>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>
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	<p>PREDICT was requested to attend the 4<sup>th</sup> 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.</p> <p>As well, PREDICT participated in several workshops that advanced Uganda's preparedness for outbreak response and surveillance: the Uganda One Health stakeholders titled <i>Mapping and After Action Review of Avian Influenza Outbreak</i>, 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</p>	<p>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.</p>

		the National Epidemiological Surveillance Networks and Outbreak Response to Priority Zoonotic Diseases, held February 26 - March 2 in Masaka, facilitated by FAO.	
<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	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)		



<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	D.4.1: Human resources are available to implement IHR core capacity requirements		
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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 4<sup>th</sup> 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	2	3	4
USAID's GHSA Technical Focus Areas	GHSA Indicator	Specific progress made toward capacity level	Comments
<b>Antimicrobial Resistance (AMR)</b>	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 associated infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
<b>Zoonotic Disease</b>	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	<p>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.</p> <p>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</p>	<p>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.</p> <p>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.</p>

		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	<p>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.</p> <p>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.</p>	

<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	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.
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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		

<b>Zoonotic Disease</b>	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	<p>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.</p> <p>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.</p>	<p>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.</p> <p>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>
	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

		<p>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).</p> <p>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.</p>	<p>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>
	<p>P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis</p>	<p>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.</p> <p>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&amp;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</p>	<p>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.</p>

		US Centers for Disease Control and Prevention.	
<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		
	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	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.
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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	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 associated infection (HCAI) prevention and control programs		
	P.3.4 Antimicrobial stewardship activities		
<b>Zoonotic Disease</b>	P.4.1: Surveillance systems in place for priority zoonotic diseases/pathogens	<p>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, filoviruses, flaviviruses, and influenza viruses).</p>	<p>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.</p> <p>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>
	P.4.2: Veterinary or Animal Health Workforce	<p>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</p>	<p>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</p>



		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
<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		

<b>Laboratory Systems Strengthening</b>	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)		
<b>Real Time Surveillance</b>	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		
<b>Reporting</b>	D.3.1 System for efficient reporting to WHO, FAO and OIE		

	D.3.2 Reporting network and protocols in country		
<b>Workforce Development</b>	D.4.1: Human resources are available to implement IHR core capacity requirements		
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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
<b>Antimicrobial Resistance (AMR)</b>	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		
<b>Zoonotic Disease</b>	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



		<p>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.</p> <p>This period samples were collected from individuals in the following populations at high-risk sites to advance zoonotic disease surveillance in Viet Nam.</p> <p>Human:</p> <ul style="list-style-type: none"> <li>• 22 febrile patients at the Thact That District Hospital of Hanoi</li> <li>• 22 individuals with wildlife farm occupational risk in Dong Nai Province</li> </ul> <p>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.</p> <p>Wildlife on wildlife farms:</p> <ul style="list-style-type: none"> <li>• 49 non-human primates</li> <li>• 189 rodents</li> <li>• 101 civet cats from wildlife farms in Dong Nai Province</li> </ul> <p>Wildlife in the trade:</p> <ul style="list-style-type: none"> <li>• 99 rodents from live animal markets and restaurants.</li> </ul>	<p>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.</p> <p>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.</p>
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		<p>Finally, 105 bat samples were collected from bat guano harvesting sites.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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>	
	P.4.2: Veterinary or Animal	PREDICT provided on-the-job training for	

	Health Workforce	<p>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.</p> <p>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>	
	P.4.3: Mechanisms for responding to infectious zoonosis and potential zoonosis	<p>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</p>	<p>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.</p>

		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.	
<b>Biosafety and Biosecurity</b>	P.6.2: BSS training and practices (focused on animal health)		
<b>Immunization</b>	P.7.1 Vaccine coverage (measles) as part of national program		
	P.7.2 National vaccine access and delivery		
<b>Laboratory Systems Strengthening</b>	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 paramyxoviruses); 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 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.	
<b>Real Time Surveillance</b>	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.	
<b>Reporting</b>	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.	

<b>Workforce Development</b>	D.4.1: Human resources are available to implement IHR core capacity requirements		
<b>Preparedness</b>	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		
<b>Medical Countermeasures and Personnel Deployment</b>	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		
<b>Risk Communication</b>	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		
<b>Other relevant Action Package (fill in)</b>	(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 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:** Muluken Alemu [REDACTED]  
**Sent:** Tue, 16 Jul 2019 22:29:57 +0300  
**Subject:** Re: Bi-weekly update  
**To:** Stephanie Martz <smartz@usaid.gov>, Etsub Brhanesilassie <ebrhanesilassie@usaid.gov>  
**Cc:** "dechassa.tegegne@ju.edu.et" <dechassa.tegegne@ju.edu.et>, Stefania Slabyj <Sslabyj@ghsc-psm.org>, Tesfaye Seifu <TSeifu@ghsc-psm.org>, Andre Zagorski <azagorski@mtapsprogram.org>, Betemariam Alemu <betemariam@jhuccpeth.org>, Betemariam Alemu [REDACTED], Daniel Taddesse <DTaddesse@ghsc-psm.org>, Darsema Gulima [REDACTED], Darsema Gulima Huluka <dhuluka@hrh2030program.org>, David Mutonga <david.mutonga@thepalladiumgroup.com>, Dechassa Tegegne [REDACTED], Denise Johnson <Denise.Johnson@icf.com>, Diafuka Sala-Ngita <diafuka.saila\_ngita@tufts.edu>, Dinah Tjipura <dtjipura@mtapsprogram.org>, Dr Filimona CGE <filimonab@crdaethiopia.org>, "Dr. Filimona Bisrat" [REDACTED], Fern Greenwell <Fern.Greenwell@icf.com>, Gebretsadik Berhe [REDACTED], Gebretsadik Berhe [REDACTED], Hellen Amuguni <Janetrix.Amuguni@tufts.edu>, Innocent Rwego <irwego@umn.edu>, Jeff Bender <bende002@umn.edu>, Jennifer K Lane <jklane@ucdavis.edu>, "Makonnen, Yilma (AGAH)" <[REDACTED]>, Jonna Mazet <jkmazet@ucdavis.edu>, Katey Pelican <pelicank@umn.edu>, Khadijah Alibhai <kalibhai@brynmawr.edu>, Kifle WMichael [REDACTED], Legesse Bezabih [REDACTED], "McNichols, Corinne" <Corinne.McNichols@icf.com>, "Mekonnen, Negussu" <nmekonnen@msh.org>, Mohan Joshi <mjosshi@msh.org>, "Mungai David Ndung'u" <DNdungu@fhi360.org>, Nigatu Kebede [REDACTED], Sarah Paige <spaige@coregroup.org>, Saul Tzipori <saul.tzipori@tufts.edu>, Simon Heliso <Simonh@jhuccpeth.org>, Tegegn Shiferaw [REDACTED], Tegegne Shiferaw <tegegnes@jhuccpeth.org>, "VantKlooster, Gijs (FAOET)" [REDACTED], Woutrina A Smith <wasmith@ucdavis.edu>, Gijs VantKlooster [REDACTED], "Cc: Lisa Kramer" <lkramer@usaid.gov>, Lindsay Parish <lparish@usaid.gov>, Andrea Long-Wagar <alongwagar@usaid.gov>, Alisa Pereira <apereira@usaid.gov>, Ashna Kibria <akibria@usaid.gov>, Andrew Clements <aclements@usaid.gov>, Marilyn Crane <mcrane@usaid.gov>, Ricardo Echalar <rechalar@usaid.gov>, Mandy Paust <apaust@usaid.gov>, Yirgalem Gebremeskel <ygebremeskel@usaid.gov>, Guda Alemayehu <galemayehu@usaid.gov>, Anton Schneider <aschneider@usaid.gov>, Angela Wang <awang@usaid.gov>, Faith Bartz Tarr <fbartz@usaid.gov>, "Bebay, Charles (FAOKE)" [REDACTED], "Kivaria, Fredrick (FAOKE)" [REDACTED], "Kimutai, Joshua (FAOKE)" [REDACTED], "Kimani, Tabitha (FAOKE)" [REDACTED], "Damelio, Jacopo (FAOET)" [REDACTED], hrh one health pmu <hrhonehealthpmu@chemonics.com>, Mariam Reda <mreda@chemonics.com>, Grace Tran <gtran@chemonics.com>, Amy Strang <astrang@chemonics.com>, Andrea Poling <apoling@hrh2030program.org>, Alexis Katzelnick-Wise <awise@hrh2030program.org>, "Tewolde, Nega (FAOET)" [REDACTED], Stephanie Clayton <sclayton@jhu.edu>, Lindsey Leslie <lindseyleslie@jhu.edu>, Tsega Berhanu <tberhan2@jhu.edu>  
[July 1-15 2019 GHSA Ethiopia BiWeekly Update MA SP.docx](#)

Dear Stephanie and Etsub  
Dear Stephanie and Etsub

Attached please find CGPP-GHSA biweekly update for the period of July 1-15, 2019  
Thanks  
Muluken

On Tue, Jul 16, 2019 at 3:07 PM Tegegne Shiferaw <[tegegnes@jhuccpeth.org](mailto:tegegnes@jhuccpeth.org)> wrote:

Dear Stephanie and Etsub,

Please find attached Zoonotic diseases risk communication project update.

Regards,

Tegegne

**Ethiopia GHSA Implementation Bi-Weekly Updates**  
**USAID Implementing Partners**

Date Submitted	July 16, 2019
Project	CGPP-GHSA

**I. Highlighted Updates: Please list (maximum five) major updates on activity implementation in Ethiopia.**

*FORMAT: Insert 1 sentence summary of update (bold). Insert 1-3 sentences of additional information.*

**D.2.1. Indicator and event-based surveillance systems**

**P.4.1. Surveillance systems in place for priority zoonotic diseases/pathogens**

- CORE Group Secretariat has drafted Community-Based Surveillance Trainers guide for review and comment by the GHSA Advisor.
- Preliminary data to assess the status and structure of animal health surveillance system has been collected from 78 sites; data are being cleaned and prepared for analysis.
- Reviewed and submitted CGPP secretariat and four local partners work plans to WV US for budget modification. Following this submission CGPP-GHSA project agreement will be finalized.

**II. Coordination: Please describe any activities in Ethiopia that may benefit from coordination with other GHSA implementing partners or USG agencies (e.g. CDC, USDA, DTRA, etc.) and how.**

- On June 3, 2019 the CGPP-GHSA hosted USAID mission newly joined GHSA Advisors. In this meeting CGPP-GHSA provided brief update presentation on history of CGPP, Major achievements and future priorities on CGPP and GHSA.
- On June 13, 2019 the CGPP-GHSA Secretariat Focal person attended Somali Region GHSA steering Committee establishment Launching workshop. In the workshop CGPP-GHSA presented its intervention areas and achievements so far. In addition, OWDA (a CGPP implementing partner in the Somali region) was represented at the meeting.

**III. Challenges: Please describe any significant challenges related to planning or implementation of GHSA activities in Ethiopia.**

In Somali region the livestock sectors have no experience on community-based surveillance. So, it requires a great energy to bring them on board.

**IV. Upcoming GHSA related TDYs: Please provide the information requested below on all GHSA-related TDYs to Ethiopia for the next six weeks. Insert additional rows as necessary.**

Traveler(s)	Location (areas to be visited)	Dates	Trip Objectives	Trip Impact (including deliverables) <i>This should also specify if/how this TDY will build host nation capacity and contributes to overarching GHS objectives</i>

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V. **Upcoming major GHSA related meetings/trainings/events for the next six weeks (if information is not captured in TDY table above)**

<b>Meeting/Training/ Event Topic</b>	<b>Location</b>	<b>Dates</b>	<b>Objectives</b>	<b>Number and type of participants</b>
Community-based surveillance Training of Trainers	AA	August 5-9, 2019 in two sites (Assosa and Jima) and August 12-16, 2019 in other two sites (Dire Dawa and Hawasa)	To provide TOT for project implementing personnel for further cascading trainings	80 NGOs (central and field) staffs of implementing NGOs,  16 Zonal government Public Health Emergency Management Health Officer and Animal health focal persons
Joint Risk Assessment				



**From:** Ben Oppenheim <boppenheim@metabiota.com>  
**Sent:** Tue, 7 Jan 2020 21:16:11 -0800  
**Subject:** Re: BCA updates and two requests  
**To:** **REDACTED** Nita Madhav <nmadhav@metabiota.com>, Dean Jamison <djamison@uw.edu>, Dennis Carroll <dcarroll008@gmail.com>, Jonna Mazet <jkmazet@ucdavis.edu>, Nicole Stephenson <nstephenson@metabiota.com>, Cara Chrisman <cchrisman@usaid.gov>, "nwolfe@metabiota.com" <nwolfe@metabiota.com>, Samantha Maher <maher@ecohealthalliance.org>, Peter Daszak <daszak@ecohealthalliance.org>, "erubin@metabiota.com" <erubin@metabiota.com>, Kierste Miller <kmiller@metabiota.com>

Dear GVP colleagues

Happy new year -- I hope that you all had a wonderful holiday and start to 2020.

We would of course be happy to prepare a short brief about the BCA activities, as well as a few slides, around the end of January. Please let us know if you have an exact deadline, or any specs we should bear in mind (e.g., how much background would be needed on methodologies employed, such as catastrophe modeling).

Since the last meeting we have made progress on several fronts, including:

**Exceedance probability estimates**

- Built on existing data sets and compiled additional data on losses from historical epidemics (cases, deaths), to provide an actuarial view of risk
- Developed preliminary baseline ("no GVP") estimates for Infrequent spillover / moderate  $R_0$  pathogens (e.g., filoviruses) and respiratory non-influenza viruses (e.g., coronaviruses), with continuing development work on other catalogs
- Developed methodology for modeling GVP impacts on exceedance probability curves (e.g., via reduced spark risk, improved time to intervention)

**Characterization of GVP impact**

- Research into PREDICT-driven capacity building improvements, with preliminary indications of improvement to response time.
- Synthesized research (e.g. new key informant interviews) on potential GVP benefits for new product development

**Economic losses**

- Finalized methodology for estimating statistical value of lives lost (saved)
- Compiled revised dataset on shocks to national income from historical epidemics

Looking forward to our call next week,

Ben (and colleagues)

On Wed, Dec 18, 2019 at 2:58 PM **REDACTED** wrote:

Hi Dean, Ben, and Nita,

I am reaching out with updates and two requests related to BCA. Recently, a 501(c)3 non-profit organization was formed for the Global Virome Project, and GVP will be holding its first Board meeting in mid-February 2020. During the meeting, we would like to brief board members about the BCA group's great activities to date.

Would you be able to develop a **short brief about the BCA group's activities (1-2 page max), and a couple of slides?** Our timeline would likely be around the end of January, prior to the BOD meeting. My colleagues copied here can follow up with an exact deadline.



In addition to the request above, would you be able to share quick updates (some bullet points in an email to the group cc'ed here) about the progress of the analysis since our last meeting?

Please send your response to my colleagues copied here, as I will be handing my GVP work over. Thank you very much for your hard work.

Best wishes,

Eri

--

**Ben Oppenheim, PhD**

Director, Product Development // Senior Scientist

510.501.1097

**From:** Woutrina A Smith <wasmith@ucdavis.edu>  
**To:** David John Wolking <djwolking@ucdavis.edu>, Aleksei Chmura <chmura@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>, Amanda Fine [REDACTED], Ava Sullivan <sullivan@ecohealthalliance.org>, Brian H Bird <bhbird@ucdavis.edu>, Carolina Chrurhill [REDACTED], Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>, Corina Grigorescu Monagin <cgmonagin@UCDAVIS.EDU>, Dawn Zimmerman <Zimmermand@si.edu>, Elizabeth Leasure <ealeasure@UCDAVIS.EDU>, Jon Epstein <epstein@ecohealthalliance.org>, Karen Saylors [REDACTED], Kevin Olival <Olival@ecohealthalliance.org>, "Murray, Suzan" <MurrayS@si.edu>, Nicole R Gardner <nrgardner@ucdavis.edu>, Peter Daszak <daszak@ecohealthalliance.org>, predict Sympa List <predict@ucdavis.edu>, Jonna Mazet <jkmazet@ucdavis.edu>, Sarah Olson [REDACTED], Simon Anthony <sja2127@columbia.edu>, Tammie O'Rourke <torourke@metabiota.com>, Tracey Goldstein <tgoldstein@ucdavis.edu>, "William B. Karesh" <karesh@ecohealthalliance.org>  
**Subject:** Re: EB call - potential change to Mondays?  
**Sent:** Fri, 3 Apr 2020 16:58:34 +0000

Hi David, these are PDT time zone I assume. The 8am PDT slot is out for Jonna and I. Thx, Wout

Get [Outlook for iOS](#)

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**From:** David J Wolking <djwolking@ucdavis.edu>  
**Sent:** Friday, April 3, 2020 8:25:55 AM  
**To:** Aleksei Chmura <chmura@ecohealthalliance.org>; Alison Andre <andre@ecohealthalliance.org>; Amanda Fine [REDACTED]; Ava Sullivan <sullivan@ecohealthalliance.org>; Brian H Bird <bhbird@ucdavis.edu>; Carolina Chrurhill [REDACTED]; Christine Kreuder Johnson <ckjohnson@UCDAVIS.EDU>; Corina Grigorescu Monagin <cgmonagin@UCDAVIS.EDU>; Dawn Zimmerman <Zimmermand@si.edu>; Elizabeth Leasure <ealeasure@UCDAVIS.EDU>; Jon Epstein <epstein@ecohealthalliance.org>; Karen Saylors [REDACTED]; Kevin Olival <Olival@ecohealthalliance.org>; Murray, Suzan <MurrayS@si.edu>; Nicole R Gardner <nrgardner@ucdavis.edu>; Peter Daszak <daszak@ecohealthalliance.org>; predict Sympa List <predict@ucdavis.edu>; Jonna Mazet <jkmazet@ucdavis.edu>; Woutrina A Smith <wasmith@ucdavis.edu>; Sarah Olson [REDACTED]; Simon Anthony <sja2127@columbia.edu>; Tammie O'Rourke <torourke@metabiota.com>; Tracey Goldstein <tgoldstein@ucdavis.edu>; William B. Karesh <karesh@ecohealthalliance.org>  
**Subject:** EB call - potential change to Mondays?

Hi there P2 EB,

Chris and I are exploring changing our EB call to Mondays so we can connect in advance of discussions with USAID the next day on senior management. Would any of the times below work with your schedules?

8:00-9:00AM

9:00-10:00AM

10:00-11:00AM

11:00-12:00PM

12:00-1:00PM

thanks!

David

**From:** <alexandrazuber@atahealthstrategies.com>  
**To:** Sam Halabi <sfh9@georgetown.edu>, Peter Daszak <daszak@ecohealthalliance.org>, "William B. Karesh" <karesh@ecohealthalliance.org>, Alison Andre <andre@ecohealthalliance.org>  
**Cc:** Federico Castillo <f.castillo@berkeley.edu>, Jonna Mazet <jkmazet@ucdavis.edu>  
**Subject:** Fw: Kindly request your inputs re: SWOT analysis for SEAOHUN's sustainability  
**Sent:** Mon, 20 Apr 2020 18:36:28 +0000

FYI- SEAOHUN Executive Board member interview scheduling is also underway.

Alexandra Zuber, MPP, DrPH  
Founder and CEO, Ata Health Strategies, LLC  
Email: [alexandrazuber@atahealthstrategies.com](mailto:alexandrazuber@atahealthstrategies.com)  
Phone: +1 (617) 680-3950  
LinkedIn: [alexandrazuber/](https://www.linkedin.com/in/alexandrazuber/)  
Website: [www.atahealthstrategies.com](http://www.atahealthstrategies.com)  
Twitter: [@alexandrazuber](https://twitter.com/alexandrazuber)

---

**From:** alexandra zuber <alexandrazuber@atahealthstrategies.com>  
**Sent:** Monday, April 20, 2020 1:53 PM  
**To:** Vipat Kuruchittham <vipat@seahun.org>; Srihadi Agungpriyono <srihadi@apps.ipb.ac.id>; Ova Emilia **REDACTED** Parntep Rat <parntep.rat@cra.ac.th>; Ging Sathirakorn **REDACTED** Abdul Rahman Omar <aro@upm.edu.my>; Hidayatulfathi Othman <hida@ukm.edu.my>; Thị Hương Lê <lethihuong@hmu.edu.vn>; Btadao <btadao@vnua.edu.vn>; Michael Tee <mltee@up.edu.ph>; LUZ SIMBORIO **REDACTED** Mayfong <mayfong@tropmedres.ac>; Fongsamoud Suthammavong <fongsamouth@nuol.edu.la>; Vathana **REDACTED** SENG Sopheap <sengsopheap@uhs.edu.kh>  
**Cc:** Ratsuda Poolsuk <ratsuda@seahun.org>; OHW NG <ohw-ng@seahun.org>; onehealthnextgen Sympa List <onehealthnextgen@ucdavis.edu>; Tracey Goldstein <tgoldstein@ucdavis.edu>; Woutrina A Smith <wasmith@ucdavis.edu>; Elizabeth Leasure <ealeasure@ucdavis.edu>; Matthew Blake <mblake@ucdavis.edu>; oromero@haas.berkeley.edu <oromero@haas.berkeley.edu>; Federico Castillo <f.castillo@berkeley.edu>; Wiku Adisasmito **REDACTED** Saengduen Moonsom <saengduen.moo@mahidol.ac.th>; Phuc Pham Duc <pdp@vohun.org>; Latiffah Hassan **REDACTED**  
**Subject:** Re: Kindly request your inputs re: SWOT analysis for SEAOHUN's sustainability

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We would like to invite you to participate in one hour interviews to provide your insight on the strengths, weaknesses, opportunities and threats (SWOT) facing SEAOHUN's organizational sustainability. These interviews are not for research purposes, but rather to inform our work with SEAOHUN in Year 1, including formulating the business plan for organizational sustainability. Your participation is voluntary, and your individual contributions will be kept confidential- attributed only to "a SEAOHUN Executive Board Member". We will compile feedback from this assessment in a presentation to SEAOHUN as part of an upcoming virtual planning workshop in May.

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**Poll:** <https://doodle.com/poll/nn37zqwgpn2f2>, by no later than this Wednesday, April 22. We will then reach out with a calendar invite later this week to confirm your interview date and time.

If you are unable to make this time, please know that this is not the only time to provide feedback in to our shared work together- we will make other opportunities available in the future.

Please do not hesitate to ask any questions or clarifications.



Sincerely,  
Alexandra Zuber, Objective 3 Lead, and the Objective 3 team  
OHW-NG

Alexandra Zuber, MPP, DrPH  
Founder and CEO, Ata Health Strategies, LLC  
Email: [alexandrazuber@atahealthstrategies.com](mailto:alexandrazuber@atahealthstrategies.com)  
Phone: +1 (617) 680-3950  
LinkedIn: [alexandrazuber/](https://www.linkedin.com/in/alexandrazuber/)  
Website: [www.atahealthstrategies.com](http://www.atahealthstrategies.com)  
Twitter: [@alexandrazuber](https://twitter.com/alexandrazuber)

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**Sent:** Monday, April 20, 2020 6:17 AM  
**To:** Srihadi Agungpriyono <ysrihadi@apps.ipb.ac.id>; Ova Emilia **REDACTED** Parntep Rat <parntep.rat@cra.ac.th>; Ging Sathirakorn **REDACTED**; Abdul Rahman Omar <aro@upm.edu.my>; Hidayatulfathi Othman <hida@ukm.edu.my>; Thi Hương Lê <lethihuong@hmu.edu.vn>; Btadao <btadao@vnua.edu.vn>; Michael Tee <mltee@up.edu.ph>; LUZ SIMBORIO **REDACTED** Mayfong <mayfong@tropmedres.ac>; Fongsamoud Suthammavong <fongsamouth@nuol.edu.la>; Vathana **REDACTED** SENG Sopheap <sengsopheap@uhs.edu.kh>  
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**Subject:** Kindly request your inputs re: SWOT analysis for SEAOHUN's sustainability

Dear members of SEAOHUN Executive Board,

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All the OHUNs, the Secretariat, and the Prime team are working from home and try to proceed with any activities that can be conducted virtually.

One of the global level activities is to gather insight and perspective on the strengths, weaknesses, opportunities, and threats to SEAOHUN's organizational sustainability. This is part of the support by the global team (UC Davis and its consortium) to strengthen SEAOHUN Secretariat to receive direct funding from USAID in the next two years.

I would like to introduce Dr. Alexandra (Alex) Zuber to you. She is taking the lead on organizational sustainability. Alex and her team will collect information as part of a rapid "SWOT analysis", which comprises a series of interviews with SEAOHUN stakeholders including Executive Board members to develop a business plan for SEAOHUN. The team will gather inputs from Coordinators and OHUN faculty members in separate sessions.

Attached please find the concept note for your information. Alex will get in touch with you to solicit your inputs on the SWOT analysis. Your participation is entirely voluntary, and information will not be attributed to individuals to preserve anonymity. This is an important opportunity for you to share your ideas on how best to strengthen SEAOHUN and its country networks moving forward.

Thank you very much in advance for your participation.

Best regards,

Pat



---

**Vipat Kuruchittham, PhD**  
Executive Director

**From:** alexandra zuber <alexandrazuber@atahealthstrategies.com>  
**To:** Thị Hương Lê <lethihuong@hmu.edu.vn>  
**Cc:** Abdul Rahman Omar <aro@upm.edu.my>, Btadao <btadao@vnua.edu.vn>, Elizabeth Leasure <ealeasure@ucdavis.edu>, Federico Castillo <f.castillo@berkeley.edu>, Fongsamoud Suthammavong <fongsamouth@nuol.edu.la>, Ging Sathirakorn **REDACTED** Hidayatulfathi Othman <hida@ukm.edu.my>, Jonna Mazet <jkmazet@ucdavis.edu>, LUZ SIMBORIO **REDACTED**, Latiffah Hassan **REDACTED**, Matthew Blake <mblake@ucdavis.edu>, Mayfong <mayfong@tropmedres.ac>, Michael Tee <mltee@up.edu.ph>, OHW NG <ohw-ng@seaohun.org>, Ova Emilia **REDACTED** Parntep Rat <parntep.rat@cra.ac.th>, Peter Daszak <daszak@ecohealthalliance.org>, Phuc Pham Duc <pdp@vohun.org>, Ratsuda Poolsuk <ratsuda@seaohun.org>, SENG Sopheap <sengsopheap@uhs.edu.kh>, Saengduen Moonsom <saengduen.moo@mahidol.ac.th>, Sam Halabi <sfh9@georgetown.edu>, Srihadi Agungpriyono <ysrihadi@apps.ipb.ac.id>, Tracey Goldstein <tgoldstein@ucdavis.edu>, Vathana **REDACTED** Vipat Kuruchittham <vipat@seaohun.org>, Wiku Adisasmito **REDACTED** "William B. Karesh" <karesh@ecohealthalliance.org>, Woutrina A Smith <wasmith@ucdavis.edu>, "margaritamartins@berkeley.edu" <margaritamartins@berkeley.edu>, onehealthnextgen Sympa List <onehealthnextgen@ucdavis.edu>, "oromero@haas.berkeley.edu" <oromero@haas.berkeley.edu>  
**Subject:** Re: Kindly request your inputs re: SWOT analysis for SEAOHUN's sustainability  
**Sent:** Tue, 28 Apr 2020 01:38:30 +0000

Dear Dr. Thị Hương Lê,

We are delighted you can participate, and I see you signed up on the Doodle Poll for today. Unfortunately we were not able to mobilize our side over the weekend in time to schedule this. Could you confirm a time of 7 pm Hanoi Time on Monday, May 4?

We look very forward,  
Alexandra

Alexandra Zuber, MPP, DrPH  
Founder and CEO, Ata Health Strategies, LLC  
Email: [alexandrazuber@atahealthstrategies.com](mailto:alexandrazuber@atahealthstrategies.com)  
Phone: +1 (617) 680-3950  
LinkedIn: [alexandrazuber/](https://www.linkedin.com/in/alexandrazuber/)  
Website: [www.atahealthstrategies.com](http://www.atahealthstrategies.com)  
Twitter: [@alexandrazuber](https://twitter.com/alexandrazuber)

---

**From:** Thị Hương Lê <lethihuong@hmu.edu.vn>  
**Sent:** Monday, April 27, 2020 9:34 PM  
**To:** alexandra zuber <alexandrazuber@atahealthstrategies.com>  
**Cc:** Abdul Rahman Omar <aro@upm.edu.my>; Btadao <btadao@vnua.edu.vn>; Elizabeth Leasure <ealeasure@ucdavis.edu>; Federico Castillo <f.castillo@berkeley.edu>; Fongsamoud Suthammavong <fongsamouth@nuol.edu.la>; Ging Sathirakorn **REDACTED** Hidayatulfathi Othman <hida@ukm.edu.my>; Jonna Mazet <jkmazet@ucdavis.edu>; LUZ SIMBORIO **REDACTED**, Latiffah Hassan **REDACTED**, Matthew Blake <mblake@ucdavis.edu>; Mayfong <mayfong@tropmedres.ac>; Michael Tee <mltee@up.edu.ph>; OHW NG <ohw-ng@seaohun.org>; Ova Emilia **REDACTED** Parntep Rat <parntep.rat@cra.ac.th>; Peter Daszak <daszak@ecohealthalliance.org>; Phuc Pham Duc <pdp@vohun.org>; Ratsuda Poolsuk <ratsuda@seaohun.org>; SENG Sopheap <sengsopheap@uhs.edu.kh>; Saengduen Moonsom <saengduen.moo@mahidol.ac.th>; Sam Halabi <sfh9@georgetown.edu>; Srihadi Agungpriyono <ysrihadi@apps.ipb.ac.id>; Tracey Goldstein <tgoldstein@ucdavis.edu>; Vathana **REDACTED** Vipat Kuruchittham <vipat@seaohun.org>; Wiku Adisasmito **REDACTED** William B. Karesh <karesh@ecohealthalliance.org>; Woutrina A Smith <wasmith@ucdavis.edu>; margaritamartins@berkeley.edu <margaritamartins@berkeley.edu>; onehealthnextgen Sympa List <onehealthnextgen@ucdavis.edu>; oromero@haas.berkeley.edu <oromero@haas.berkeley.edu>  
**Subject:** Re: Kindly request your inputs re: SWOT analysis for SEAOHUN's sustainability

Dear Alexandra

I have not received your confirmation about the SWOT analysis interview, Please confirm

I can make it any day from 7pm Hanoi Time

Thank you!

On Fri, Apr 24, 2020 at 04:12 alexandra zuber <[alexandrazuber@atahealthstrategies.com](mailto:alexandrazuber@atahealthstrategies.com)> wrote:

Dear esteemed SEAOHUN Executive Board members,

Thank you to those of you that have already signed up for these SWOT interviews. I wanted to send a gentle reminder to any other Board member that is interested, to kindly indicate your windows of availability in the Doodle Poll **REDACTED** by no later than the end of your day on April 24. The last date for these interviews is May 5.

We really hope to obtain your input at this stage.

Thank you again,

Alexandra Zuber, OHW-NG Objective 3 Lead (global team) and the Objective 3 team

Alexandra Zuber, MPP, DrPH  
Founder and CEO, Ata Health Strategies, LLC  
Email: [alexandrazuber@atahealthstrategies.com](mailto:alexandrazuber@atahealthstrategies.com)  
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Sincerely,  
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OHW-NG

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Twitter: [@alexandrazuber](https://twitter.com/alexandrazuber)

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**Sent:** Monday, April 20, 2020 6:17 AM

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Best regards,

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**Vipat Kuruchittham, PhD**  
Executive Director

--

Prof. Le Thi Huong, MD, PhD.  
Dean, School of Preventive Medicine and Public Health

**REDACTED**