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RESPOND YEAR FIVE QUARTERLY REPORT

EMERGING PANDEMIC THREATS PROGRAM

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ACRONYMS

AET	Applied Epidemiology Training
AFENET	Africa Field Epidemiology Network
AFRO	WHO – Regional Office for Africa
ANPN	Agence Nationale des Parcs Nationaux
ARO	Alert and Response Operations
ASEAN	Association of Southeast Asian Nations
ATVCO	L'Association des Techniciens Veterinaires au Congo (Association of Veterinary Technicians of Congo)
AU-IBAR	African Union Interagency Bureau for Animal Resources
BVM	Bachelor in Veterinary Science
CAHW	Community Animal Health Workers
CCC	Country Coordinating Committee
CDC	Centers for Disease Control and Prevention
CED	Control of Epidemic Diseases
CMOA	Ministry of Agriculture (DRC)
CMOE	Ministry of Environment (DRC)
CMOH	Ministry of Health (DRC)
COVAB	Makerere University College of Veterinary Medicine, Animal Resources and Biosecurity (Uganda)
DNP	Department of National Parks, Wildlife and Plant Conservation (Thailand)
DoA	Department of Agriculture
DoF	Department of Forestry
DoH	Department of Health
DRC	Democratic Republic of Congo
DTRA	Defense’s Threat Reduction Agency
DVO	District Veterinarian Officer
E&E	Ecology & Environment, Inc.

EID	Emerging Infectious Disease
EPT	Emerging Pandemic Threats Program
EZD	Emergency Zoonotic Diseases
FAO	Food and Agriculture Organization of the United Nations
FEAT	Field Epidemiology Association of Thailand
FESC	Field Epidemiology Short Courses
FE(L)TP	Field Epidemiology (Laboratory) Training Program
FETP-V	Field Epidemiology Training Program – Veterinary Component
FOREST	Forest Ecology and Stewardship Training
FUE	Federation of Ugandan Employees
FUS	Fédération Une Santé
GHTL	Global Health True Leaders
IBAR	Inter-African Bureau for Animal Resources
IDSR	Integrated Disease Surveillance and Response
IEM	Institut d’Enseignement Médicale
IGAD	Inter-governmental Agency for Development
INDOHUN	Indonesia One Health University Network
ISTM	Institut Supérieur des Techniques Médicales
ITAV	Institut de Technique Agro-Vétérinaire
ITM	Institut Techniques Médicale
KKU	Khon Kaen University
KKUVMS	KKU School of Veterinary Medicine
M&E	Monitoring and Evaluation
MAAIF	Ministry of Agriculture, Animal Industries and Fisheries (Uganda)
MAFF	Ministry of Agriculture, Forestry and Fisheries
MINAGRI	Ministry of Agriculture and Animal Resources
MOA	Ministry of Agriculture
MoAF	Ministry of Agriculture and Forestry
MOF	Ministry of Forestry

MOH	Ministry of Health (Uganda and Vietnam)
MoNRE	Ministry of Natural Resources and Environment
MOPH	Ministry of Public Health (Thailand)
MOU	Memorandum of Understanding
MPH	Master of Public Health
MVPM	Masters of Veterinary Preventive Medicine
MUSPH	Makerere University School of Public Health
MYOHUN	Malaysia One Health University Network
OHCC	One Health Core Competencies
OHCEA	One Health Central and Eastern Africa Network
PBL	Project Based Learning
RAB	Rwanda Agriculture Board
SEA	Southeast Asia Regional Office
SEAOHUN	Southeast Asia One Health University Network
TRG	Training Resources Group, Inc.
TUSK	Tufts University Science Knowledgebase
UMN	University of Minnesota
UNIKIN	University of Kinshasa
UNILU	University of Lubumbashi
USAID	U.S. Agency for International Development
VMKKU	Veterinary Medicine Khon Kaen University
VMS	Veterinary Medical School
VPH	Veterinary Public Health
WWF-DRC	World Wildlife Fund-Democratic Republic of the Congo
WILD	Wildlife Investigation and Livestock Disease

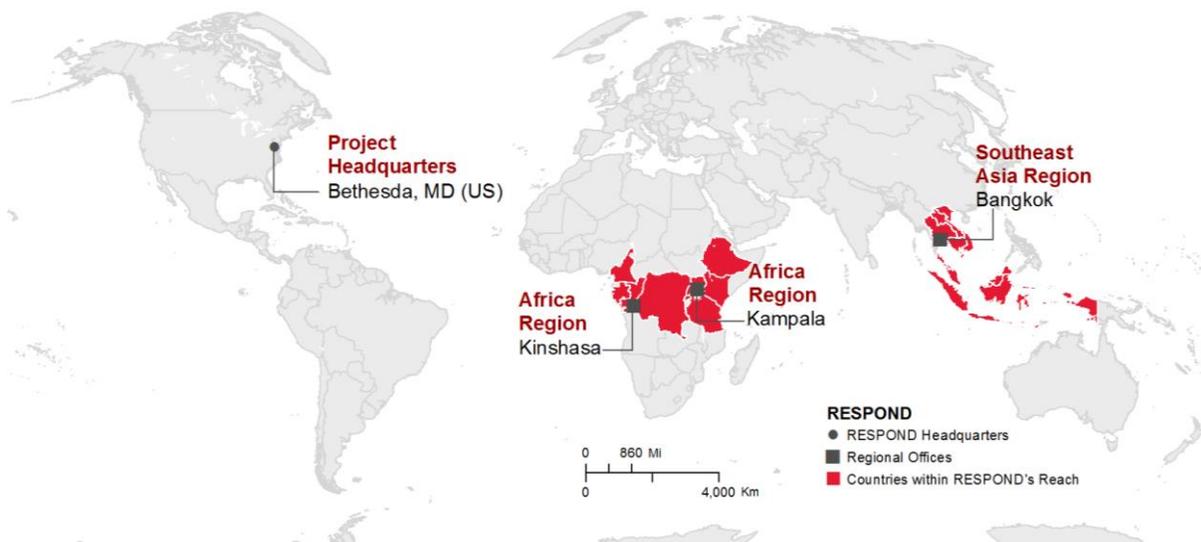
EXECUTIVE SUMMARY

As the project completed Quarter Two of Year Five (January 1 - March 31, 2014), RESPOND continued to support One Health Central and Eastern Africa (OHCEA) and Southeast Asia One Health University Network (SEAOHUN) in their common missions to strengthen their networks and upgrade training for students and faculties of member institutions. DAI worked closely with OHCEA on the financial and administrative management of network activities and with SEAOHUN on registering itself as a foundation in Thailand. The University of Minnesota (UMN) and Tufts University continued to work closely with both OHCEA and SEAOHUN to engage with faculty, students, and administrators at member faculties.

OHCEA's work enriched student experiences and provided organizational and policy support in multiple ways this quarter. The In-Service Leadership Course that was finalized last quarter has already been deployed to 152 district and national level officials from multiple ministries, as well as partners at research and civil society organizations, in Ethiopia, Kenya, Tanzania, Rwanda, and Uganda. OHCEA partnered with multiple funders, USAID projects, and the Government of Rwanda to help Rwanda become the second African country to integrate One Health into its national health strategy. The Master in Wildlife Health and Management took a vital step towards approval by Uganda's Makerere University through a collaborative process that allowed the development of three tracks focused on critical One Health priorities. University capacity to manage One Health curriculum and innovative teaching methods also increased with versions of Tufts University's TUSK curriculum management and delivery system installed at universities in the DRC, Kenya, and Rwanda. Trainings also ensured that these locally customized information resources can be locally managed by skilled staff. Connecting students to colleagues and communities, a Rwandan One Health Student club engaged with Tufts University students in the US by building an online social and information exchange platform while also executing a multi-faceted public campaign on rabies in a local community.

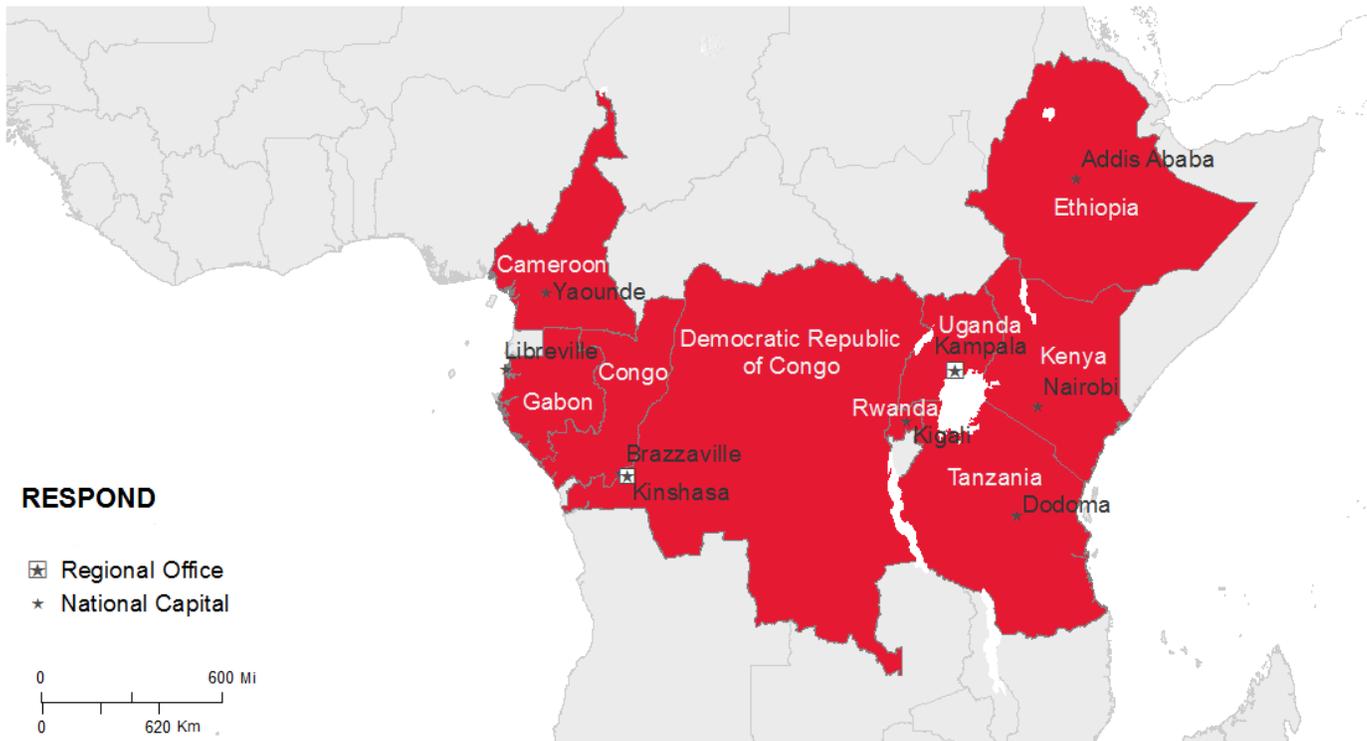
With RESPOND support, SEAOHUN co-sponsored an event to engage future public health practitioners with the One Health approach. The *Global Health True Leaders Program* connected academic knowledge with community engagement through health clinics, workshops, and livestock treatment projects that allowed youth to practice leadership skills. A VOHUN follow-on workshop that included twenty-two faculty members from local universities built on previous work that is designing a case-study to help One Health experts and practitioners recognize and mitigate the rising threat of rabies in Vietnam. Another workshop refined a draft One Health training manual and textbook. Four Vietnamese Universities collaborated on this iterative drafting process enabling the final documents to ensure a consistent One Health approach in the country.

During the quarter, the RESPOND office in the Democratic Republic of Congo closed on schedule on 15 March. Stakeholders expressed their gratitude for the commitment USAID-RESPOND made to One Health in the DRC. They noted that the successes were enabled by partnerships that aligned work around a One Health approach. Some of those successes include institutionalization of improved information sharing systems, the declaration of a national coordinating committee, and increased buy-in surrounding a One Health framework.



The global map above displays where RESPOND worked during the period of this report (in red). RESPOND Regional Hub Offices are located in Kampala (Uganda), Kinshasa (Democratic Republic of Congo), and Bangkok (Thailand), covering two regions considered hot-spot areas for the emergence and re-emergence of zoonotic pandemic threats.

I. AFRICAN ACTIVITIES



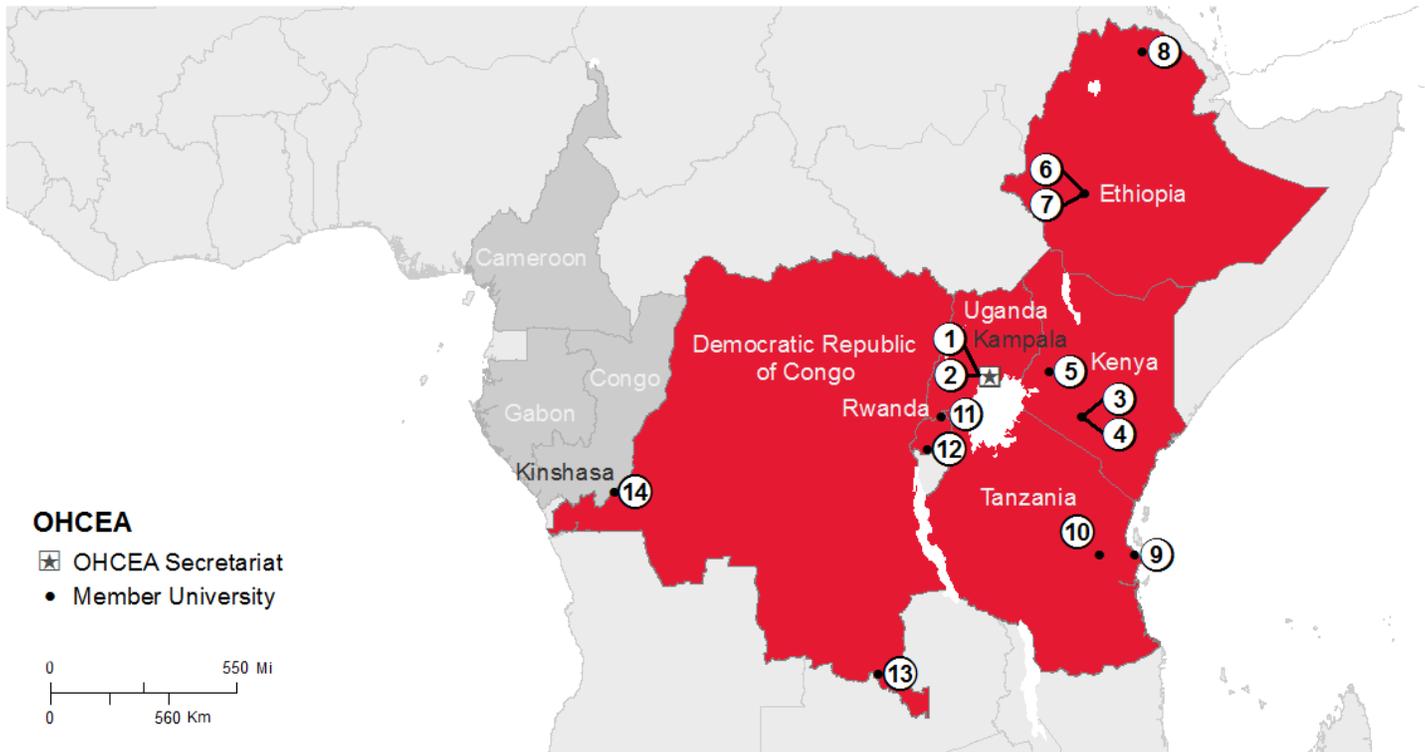
The RESPOND project operates in Eastern, Central, and West Africa primarily in the form of support to a network of universities that integrate schools of Public Health and Veterinary Medicine, using the One Health approach to diseases outbreaks in several countries.

OHCEA (One Health Central and Eastern Africa) currently has 14 schools of Public Health and Veterinary Medicine as members in six countries – Uganda, Tanzania, Rwanda, Ethiopia, Kenya and Democratic Republic of Congo. Its Secretariat is located in Kampala, Uganda, and the regional office in Uganda supports the implementation of activities.

During Quarter Two of Year Five (January - March, 2014), RESPOND/Kampala supported OHCEA as it promoted One Health throughout the region, and in collaboration with other key partners.

RESPOND/Kinshasa completed its work, closing its office and securing feedback from partners and stakeholders impacted by the focus on One Health in the DRC.

KAMPALA REGIONAL OFFICE ACTIVITIES



The map above represents the reach of the Kampala Regional Office through OHCEA (One Health Central and Eastern Africa university network).

MAJOR ACCOMPLISHMENTS

STUDENT TO STUDENT EXCHANGE

University of Rwanda's Nyagatare Campus (formerly Umutara Polytechnic) and Tufts University Student One Health Clubs Develop Online Social Platform - Members of Tufts University's One Health Student Club developed a peer-to-peer contact mechanism with their colleagues at the University of Rwanda's Nyagatare Campus's One Health Student Club. The website (<http://sites.tufts.edu/globalvetshare/>) will enable networked collaborations between Tufts and Nyagatare One Health students and eventually other One Health student clubs in Africa and around the globe. The site allows students to exchange problem-based learning (PBL) ideas, report on cases seen in the field, and enable international discussions on One Health issues. The goal is to expand understanding of disease within a One Health context by providing students at both universities with tangible examples of diseases not typical to their regions, encourage transcontinental collaboration and learning, and provide the online space to build One Health partnerships.

Home



Welcome to the GlobalHealthShare, an online collaboration between students and faculty of the Tufts University Cummings School of Veterinary Medicine and institutions around the world! This is the place to **learn, share** and **exchange** ideas about issues affecting animals, humans and the world we all live in. We hope this site may be used as a portal of learning and discussion for anyone interested in an "One Health" approach to solving the world's health problems. We envision GlobalHealthShare to become a resource for environmental studies, veterinary and human medical students, and many others to gather information to augment their respective academic and clinical experiences. Lastly, we hope this site serve as a collaboration tool for scientists, physicians, veterinarians and other individuals looking for a collaborative, cross-disciplinary way to solve some of the greatest problems the world has known. Please see the links above for information about how to use this site.

Find our collaborators across the globe at [Global Vet Share batchgeo page!](#)

Student Club to carry out their research and interventions in the community surrounding Nyagatare. This direct interaction expands collaboration beyond the internet and allows Rwandan and Tufts students to meet and work together in a local community while building professional relationships and knowledge of public health issues in a One Health framework.

Additionally, the One Health Student Club in Rwanda applied the One Health framework in the field through public health campaigns in February and March 2014. The One Health Student Club at the University of Rwanda's Nyagatare Campus conducted a rabies awareness campaign in the school's home district. Rabies is a particularly salient disease in Nyagatare because of increases in reported incidents. This collaborative campaign with the Rwanda Agriculture Board (RAB) featured a multi-pronged approach using several components: a radio talk show held February 13, a field assessment of the community's perceptions of rabies, and a sensitization and vaccination drive which was carried out between February 26 - March 11, 2014.

CURRICULUM REVIEW AND DEVELOPMENT OF IN-SERVICE ONE HEALTH LEADERSHIP TRAINING

Masters of Wildlife Health and Management Moves Vital Step Closer to Approval - During the quarter, OHCEA supported the Department of Wildlife and Aquatic Resources Management at Makerere University's College of Veterinary Medicine, Animal Resources, and Bio-Security (CoVAB) in the process of developing the curriculum for a masters level course in Wildlife Health and Management. OHCEA supported the first stakeholders meeting held in September 2013 where the first draft curriculum was reviewed to ensure incorporation of the required components, including One Health core competencies. CoVAB continued refining the draft with on-going stakeholders' consultations through online collaboration. This process allowed for a second technical consultative meeting on February 27 and 28, 2014. Supported by OHCEA, the workshop resulted in a new course outline with three defined tracks: Wildlife Medicine and Diagnostics;

The benefits of this collaboration have provided the context to expand cooperation beyond virtual interactions. Tufts announced in March that two students from the its One Health Club received awards funded by the National Institute of Health (NIH) summer research program to perform research at the Nyagatare Campus.

They will work with their Rwandan colleagues on two research proposals: one on Tuberculosis and the other on livestock parasites. They will be supervised by Rwandan faculty and work together with students from the Rwanda One Health

Wildlife Resource Management; and Aquatic Resource Management. The course development continued to be highly collaborative with technical expertise supplied by RESPOND university partners Tufts and University of Minnesota (UMN), the PREDICT project, Prof. Richard Kock (Royal Veterinary College - University of London), and key partner ministries. The progress made so far moves the course closer to securing the Makerere University Senate Council's approval.

Expanding the Access to One Health Course Materials with TUSK - OHCEA, with technical support from Tufts University, increased various universities' organizational capacity in multiple ways that enable delivery of One Health training and relevant coursework through the expansion of the TUSK (Tufts University Sciences Knowledgebase) on-line databases. These databases allow students and faculty to organize One Health course material in an integrated portal that supports collaborative learning. Erden Oktay (TUSK ICT Manager at Tufts University) provided remote support to the TUSK systems administrator teams in Kenya and Rwanda.

DRC - Tanga Goes Online at the University of Kinshasa (UNIKIN): At the DRC's UNIKIN, TUSK has been renamed Tanga, which means "read" or "study." It went live as an integrated course resource for the School of Public Health's courses in Health Economics and Public Health, Field Epidemiology, and the Laboratory Training Program. 60 students are enrolled in the courses integrated into Tanga and will be active users for the upcoming semester. UNIKIN's Faculty of Medicine and Faculty of Veterinary Medicine have also started using Tanga. Already, other academics, including the Dean and Associate Dean of the Faculty of Sciences have expressed interest in using Tanga to support their work. Tanga will support enhanced quality of education and collaboration between the disciplines as University stakeholders begin to take advantage of the resources and tools it provides.

Kenya – Moi University Installs TUSK: Faculty from Tufts travelled to Kenya in January 2014 to provide technical support for the installation of TUSK at Moi University and to conduct a workshop on how problem-based learning (PBL) cases can be modified and uploaded into the TUSK knowledge database system. The dean and faculty of the School of Public Health can now take advantage of the resources the e-learning platform can deploy for effective One Health education. Other faculties within the One Health sector may soon have access to the same tool. The Principal of Moi's College of Medicine attended the training and is now exploring how the platform could be integrated into the College's medical, dental, and nursing schools. Additionally, in February Mr. Oktay worked with Moi user support staff focusing on identifying and fixing bugs, project management, database customization, and setting up the back-up server.

Rwanda – TUSK System Customized to Local Needs: Supporting the University of Rwanda Nyagatare Campus, Mr. Oktay customized the TUSK application, including the front-end design, to the school's needs. He also provided skills development to the system administrator teams allowing greater self-sufficiency for the Nyagatare Campus in maintaining its TUSK system.

IN-SERVICE ONE HEALTH LEADERSHIP TRAINING:

Leadership Training Deployed to Additional Government Officials Across Africa – OHCEA finalized its In-Service One Health Leadership course materials and conducted trainings during the previous quarter. OHCEA deployed the course material at additional trainings during January and March, 2014 for 152 district and central government officials across multiple ministries and agencies as well as other stakeholders. The training is designed to help participants become effective champions of the adoption of a One Health

approach and to support the impact of their work in One Health with leadership skills such as self-awareness, vision and strategy, communication, team-building, and change management. During the week-long training participants acquire these skills through participatory group work that addresses the priority health issues for their regions.

At the training in Jimma Ethiopia participants left the training energized and are now pro-actively creating a One Health Civil Servants Club. This club will serve as a hub for the participants to continue sharing the progress of each team regarding the implementation of activities that address the region’s priority health issues. A national level training in Uganda focused on core training. As part of the exercise, the district and ministry level teams created three month One Health strategic road maps detailing the next steps they would take to better promote and implement One Health. Additional events occurred in Ethiopia, Kenya, Rwanda, and Tanzania in March 2013. The trainings drew diverse representatives from both local and national agencies, ministries, and district governments, as well as other stakeholders, such as NGOs, universities, funders, and development projects.



Trainees in Rwanda work together to develop One Health advocacy skills

Jimma, Ethiopia Training: 15-23 Feb 2014	
Number Trained	26
Local Agencies/Ministries	Health Disease Prevention; Health Extension; Agriculture, Disaster Prevention and Preparedness; Land Resource Management; Environmental Protection Authority Bureau; Forest and Wildlife Agency
Local Governments	Jimma
Other Organizations	The Red Cross; Jimma University

Mek’ele, Ethiopia Training: 17-21 Mar 2014	
Number Trained	21
Local Agencies/Ministries	Mek’ele Police; Mek’ele Town Health Bureau; Tigray District Health and Agriculture
Other Organizations	Mek’ele Hospital; Mek’ele University; The Red Cross

Kenya Training: 25-29 Mar 2014	
Number Trained	29
National Agencies/Ministries	Health; Agriculture, Livestock, and Fisheries; National Environmental Management Authority
Other Organizations	Kenyatta National Hospital; National Public Health Laboratories; University of Nairobi; Moi University; Kenya Wildlife Services; The CDC; Kenya Medical Research Institute

Tanzania Training: 3-7 Mar 2014	
Number Trained	26
Local Agencies/Ministries	District Planning Offices; District Natural Resources Offices; District Community Development Offices; District Education Offices; District Medical Offices; Rufiji District Veterinary Office; Kinondoni District Veterinary Office; Kilosa District Veterinary Office
National Agencies/Ministries	Health; Agriculture; Livestock; Environment

Rwanda Training: 17-21 Mar 2014	
Number Trained	17
National Agencies/Ministries	Agriculture; Education; Health
Other Organizations	Rwanda Agriculture Board; University of Rwanda; USAID- PREDICT

Uganda Training: 17-21 Feb 2014	
Number Trained	33
National Agencies/Ministries	Health; Agriculture, Animal Industry and Fisheries; Education; Water and Environment; The Office of the Prime Minister
Local Governments	Hoima; Kibaale; Bundibunyo; Kasese; Luwero

RWANDA ONE HEALTH ROAD MAP FRAMEWORK VALIDATION



Rwanda is the Second Country in Africa to Fast-Track the Integration of One Health into National Strategy - Rwanda's One Health Strategic Plan Pre-Validation process has now been completed. A workshop was held in Gisenyi from 5 - 7 February as the final in a series of three workshops to design an implementation framework for One Health in Rwanda. The first

Participants used presentations and collaboration at the pre-validation workshop to shape the final strategy to be presented to the Minister

draft of the strategic plan was presented, reviewed, revised, and finalized through a consensus building process in preparation for its presentation to the Minister of Health. The vision that was adopted clearly articulates the need for continued multi-stakeholder collaboration under a One Health framework. It states, *"No single individual, discipline, sector or ministry can pre-empt and solve complex 'Health' problems."*

The draft One Health strategic plan is a result of hard work and leadership of the One Health steering committee, supported by OHCEA, which attempted to seek consensus on a One Health framework in Rwanda through an inclusive, participatory, and consensus building process. All key Rwandan ministries participated in the development of the plan. Bi-lateral and multi-lateral partners such as CDC, OHCEA, USAID-ETP, USAID-PREDICT, USAID-RESPOND, WHO, and civil society organizations were also part of the inclusive process which was designed to ensure buy-in. Rwanda becomes the second country in Africa after Cameroon to fast track the institutionalization of One Health through the establishment of a One Health strategy. This national initiative enables national institutions to mobilize funds within their budgets for One Health implementation. It also provides a platform to attract bi-lateral and multi-lateral partner funding to support efforts in the implementation of One Health. Both the Cameroonian and Rwandan strategies provide a structure for a comprehensive and sustainable implementation of One Health at the institutional, pre-service, and in-service levels.

KINSHASA OFFICE CLOSEDOWN

RESPOND commenced its final year closedown process with the closure of the Kinshasa office on 25 March. Partners were actively engaged during the quarter. They reflected on outcome successes enabled through partnerships with Congolese stakeholders and the impact that shared efforts have had on encouraging use of the One Health approach. In addition to summary reviews of the results from grants and direct assistance activities, Lendell Foan, RESPOND's Regional Director, travelled to Kinshasa from 24 - 28 February to visit the key partners and thank them directly for their contribution to the success of the project.

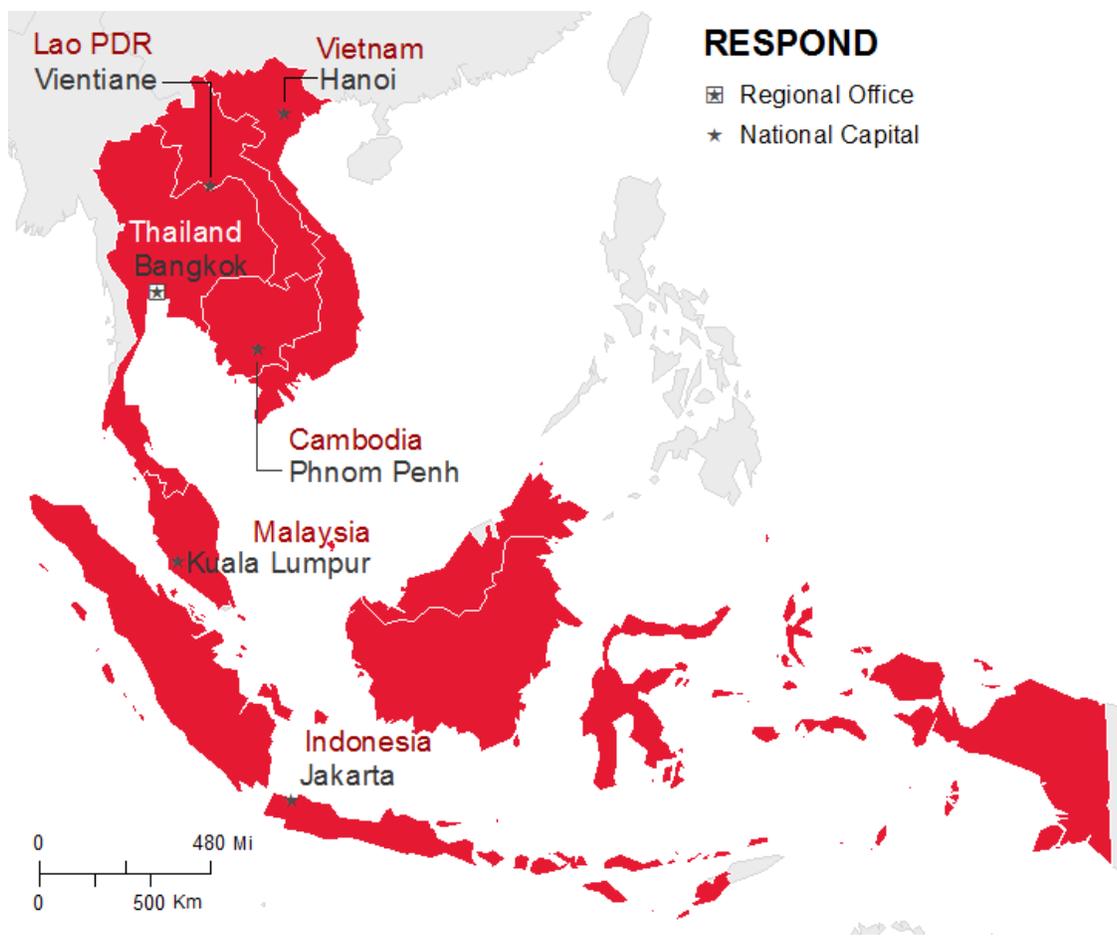
Stakeholders expressed profound appreciation for the support USAID has given to One Health in the DRC, noting that the dedicated focus has supported these outcomes. Partners demonstrated significant increases in understanding the value of taking a One Health approach. This was made clear by comparing the level of understanding of One Health when the office opened in March 2010 to the current level. The buy-in that

this understanding demonstrates, the institutionalization of improved collaborative information structures at universities, and the national coordinating committee all provide a critical foundation to allow for the One Health framework to continue positively shaping health outcomes in the DRC going forward.

Key Partners Meetings, 24-28 Feb 2013

- Secretary General of Health
 - Secretary General of Agriculture
 - Director of National Parks
 - The leadership of the Federation of One Health (FUS)
 - The leadership of the One Health Country Coordination Committee (CCUS)
 - The Rector of University of Kinshasa (UNIKIN)
 - Deans of the School of Public Health and the Veterinary Faculty (UNIKIN)
-

II. SOUTHEAST ASIA ACTIVITIES



The map above of the Southeast Asia region displays where RESPOND currently works (in red). The stars represent capital cities, and Thailand’s capital city, Bangkok, is where the RESPOND Southeast Asia Regional Hub Office is located.

MAJOR ACCOMPLISHMENTS

GLOBAL HEALTH LEADERS – INDOHUN

Global Health True Leaders Course Trains Future Public Health Practitioners - The multidisciplinary and multi-sectoral cooperation needed by the One Health framework requires strong leadership. The Global Health True Leaders (GHTL) program aims to equip health sciences students to be future health leaders through hands-on trainings, presentations, professional skills development, and interactions with various health professionals that fall within the One Health framework. This allows future health professionals and practitioners to engage with local leaders and communities in the areas where global health problems exist while beginning to think in One Health terms. 92 students and twenty-two young professionals from Indonesia, Malaysia, Vietnam, Thailand and the Philippines representing various health disciplines, including

medicine, public health, and veterinary medicine participated in the Global Health True Leaders course on January 18 - 25, 2014 at Makassar, Indonesia.

The event was sponsored collaboratively by multiple stakeholders including USAID-RESPOND and IDRC Canada. Dr. Wiku Adisasmito, INDOHUN's Coordinator and Professor at the School of Public Health at Universitas Indonesia, welcomed students and described the goals of the GHTL course. It was designed to begin to develop a cadre of health practitioners who are able to think about global problems and address them at the local level. He has seen that many top graduates lack the ability to contribute to national and regional priorities. The GHTL was designed to give students practical and academic experiences that let them contribute to these priorities through the One Health framework.

There were two major components of the course designed to meet the multi-faceted objectives:

- 1) Three days of classroom One Health training in Makassar on January 18 - 20
- 2) Community outreach and field activities at Pallantikang, Pattalassang, and Panaikang villages in Gowa Regency, South Sulawesi Province on January 21 - 22

The trainers for the three-day classroom exercises on One Health were Marc Baril (Stelerix Strategic Management Inc.), Margaret Morehouse (RESPOND/Training Resources Group), Dr. Hera Maheshwari (Bogor Agricultural University), Dr. Allan Lauder (Universitas Indonesia), as well as Prof. Wiku Adisasmito. The trainers delivered lectures, facilitated role play and games and administered table top exercises to facilitate learning that targeted the training objectives.

Selected GHTL Training Activities

- **Lectures:** Leadership; Fundamentals of Infectious Disease; Outbreak Investigation and Control; Ethics and Morality; Networking and Partnership
- **Table-Top Exercises:** Value mapping; Disease transmission and prevention; Team-building activities; Role-playing

and hashtag (#GHTL). The tweets can be reviewed through the INDOHUN website (www.indo-oh-university.net).

Global Health True Leaders Objectives

- Develop participants' leadership and One Health competency skills
- Enhance knowledge of global health issues, particularly infectious and zoonotic diseases
- Strengthen relationships and collaboration between students from various disciplines
- Improve engagement between students and local communities
- Support disposition towards community service and awareness within a One Health multi-disciplinary context

Yunus Kuntawi Aji, a graduate of the Faculty of Medicine of Universitas Indonesia who works as a medical doctor in Dompu Regency, West Nusa Tenggara Province described the reactions of participants, "Being one of its participants was one of the best experiences in my life. The program gave me opportunity to meet such smart, talented, and inspiring people from Southeast Asia. I believe in the near future, the alumni will work together across professions and across nations to solve many health problems."

Community Outreach and Field Activities

- Hygiene and Sanitation Seminars: Three groups of GHTL students presented to 200 elementary and 200 high school students in three schools
- Zoonotic disease and Waste Management Seminars: One group of GHTL students presented and answered community questions for 200 Gowa residents
- Veterinarian Practicum: Students shadowed trained veterinarians as they administered supplements to livestock
- Volunteerism: Students planted trees for the local community that had been donated by IDRC Canada

The two tiered structure of training and then experience allowed students to understand the One Health framework and how it can be applied in local communities. Lessons and table-top activities empowered students to go into communities and practice leadership skills through leading presentations and learning from professionals already engaged in One Health work. By applying the coursework with a strong community focus, students were exposed to how leadership and technical expertise can have an impact on their communities and the people who live there.

IMPROVING RECOGNITION AND TRACKING OF RABIES – VOHUN

Rabies Case Study Workshop Focuses Attention on Combating Increasing Threat - There were 362 reported cases of human rabies in 25 Vietnamese provinces between 2007 and 2010. As Northern Vietnam experiences an increasing incidence of human rabies cases, universities and government officials have been interested in developing and updating educational materials. To better plan a strategy to control rabies in Vietnam using a One Health approach, a workshop was held on March 27 and 28, 2014 in Hanoi to assist twenty-two faculty members from Thai Nguyen Medical and Pharmaceutical University and Thai Nguyen University of Agriculture and Forestry. The goal of this work is to counter the growing trend and safeguard past progress through educational materials better aligned to a One Health framework.

March 2014 VOHUN Workshop Objectives

- Teach local health workers (human health and veterinarians) how to recognize rabies and conduct surveys on local dogs
- Develop a Case Study on Rabies for use in other One Health educational activities
- Assess adequacy of training of local health workers

Previously in Vietnam rabies incidents were reduced with a national control program. Deaths due to rabies decreased from 410 deaths in 1995 to 65 deaths in 2000. However, rabies deaths have begun to increase recently; the number of deaths due to rabies increased to 110 in 2011. Rabies has been identified as an aligned priority zoonosis by the Ministry of Agriculture and Rural Development (MARD) and the Ministry of Health (MOH), but MARD’s rabies control program only allocates money to respond to human infections. To help bring focus to One Health and to build on training needs identified in a December 2013 VOHUN rabies

workshop, the March 2014 workshop provided a framework and resources for effective case study design and insight into how to develop a compelling case-scenario for discussion and study.

The work focused on the importance of understanding the economics of rabies control and transmission in dogs and humans at the local and national levels. This is particularly relevant in regions with high animal and human rabies prevalence and the northern mountainous provinces where many of the deaths happen. Most transmissions in Vietnam come through dogs rather than wild animals. Most dogs are unvaccinated and the transportation and trade of animals such as dogs and cats is poorly regulated. Dr. Jeein Chung (RESPOND/University of Minnesota) facilitated designing a case study for training medical and veterinary students on rabies epidemiology and outbreak management. An official from the National Institute of Health and Epidemiology also gave a presentation to provide insight on public sector needs. Participants worked within groups to develop a draft scenario for use by medical and veterinary students.



Participants discuss rabies control issues at a workshop in Hanoi in March 2014

Based on the feedback given, participants worked to create a work plan for implementation of a draft rabies case study. The work plan includes efforts to finalize a draft rabies case study with study questions for use by medical and veterinary students in northern Vietnam. The faculty members intend to use the draft scenario by the start of next semester in October 2014.

HANOI PREVENTATIVE MEDICINE ONE HEALTH INTEGRATION – VOHUN



One Health professionals and academics collaborate on creating a One Health text book and lesson plan

Workshop Reviews the Draft One Health Training Manual and Textbook - A second workshop for the Hanoi Medical Preventative Medicine One Health Module Integration was held on March 14 - 16, 2014 in Da Lat. Twenty-two faculty members from Hanoi Medical University, Hanoi School of Public Health, Hanoi University of Agriculture, and Ho Chi Minh Medicine and Pharmacy University continued their collaboration on the training manual and text book. They used the workshop to review the draft lesson text and handouts, developed as part of the previous workshop, which will be

used to create a One Health resource for preventive medicine doctors.

At the second workshop, the lesson text and handouts were reviewed and feedback was exchanged among the members in order to align those lessons more with a One Health framework, more clearly define lesson objectives, ensure content is appropriate to the objectives, and provide a more unified structure. Four diseases were selected to be part of the lessons, including avian influenza, leptospirosis, Fasciola inflection,

and dengue fever, which will be embedded throughout the lesson text. Participants agreed to meet again to complete the final draft lesson plan and text for an external review by a consultant. That meeting will discuss the steps needed to develop a text book by end of May 2014. This iterative, participatory process ensures that the requisite technical perspectives required by a One Health approach are incorporated in the case study that will allow public health practitioners greater preparation to combat emerging pandemic threats.

III. APPENDICES:

APPENDIX I: SUCCESS STORIES AND REGION HIGHLIGHTS

There are three success stories from this quarter:

Africa:

1. Expanding One Health Knowledge: Veterinary Field Epidemiology Program Attracts International Donors and Graduates First Cohort
2. OHCEA Launches In-service One Health Leadership Training

South East Asia:

1. INDOHUN Develops Leadership Among Future Health Practitioners

SUCCESS STORY – AFRICA REGION

EXPANDING ONE HEALTH KNOWLEDGE: VETERINARY FIELD EPIDEMIOLOGY PROGRAM ATTRACTS INTERNATIONAL DONORS AND GRADUATES FIRST COHORT



“This program equipped me with not only theoretical skills, but practical skills as well.”

Dr. Fred Monje, the first MVPM (vet epi)

recognition. To foster its expansion the program attracted funding from international donors. It gained USAID funding through OHCEA (One Health Central and Eastern Africa) to support a second cohort of 12 students, two from each OHCEA member country, who joined the program in early 2013. Further, CoVAB attracted additional grant funding over five years from the Norwegian Programme for Capacity Development in Higher Education and Research for Development (NORHED). The grant objective is to build capacity in zoonosis by enabling the students to pursue the MVPM program in a field epidemiology track. The grant supports six students from Uganda, Zambia, and South Sudan to join the program so that the national goals of the program can reach more countries.

The first cohort of the innovative MVPM Veterinary Epidemiology track graduated in January 2014 ready to deploy their One Health oriented skills in the field. The second cohort of students is already developing proposals to collect data for their dissertations. With expanded funding and increasing enrollments, the program is a positive contribution to efforts that strengthen One Health training and educational programs. Graduates and students will be able to continue to support governments, universities, and civil society organizations as they improve their capacity to respond to zoonotic and emerging infectious disease outbreaks using an interdisciplinary One Health approach.

January 2014, Uganda. In order to strengthen human capital in field epidemiology and promote the direct application of the One Health approach, a consortium was brought together in 2011 to initiate a two year applied veterinary epidemiology training track within a Masters of Veterinary Preventive Medicine (MVPM) program. Makerere University’s College of Veterinary Medicine, Animal Resources and Bio-security (CoVAB), in collaboration with the Africa Field Epidemiology Network (AFENET) and the Uganda Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), began designing a track in disease detection and control at the national level. The track was designed to integrate One Health competency-based training with hands-on skills needed to address challenges faced in the field.

Since its approval by the university senate, this program has since experienced phenomenal growth and global

SUCCESS STORY – AFRICA REGION

OHCEA LAUNCHES IN-SERVICE ONE HEALTH LEADERSHIP TRAINING



A group works on creating One Health strategic road maps

joined by representatives from national-level ministries, government departments, and civil society organizations chosen on the basis of their potential to influence One Health at the national level.

OHCEA’s master trainers facilitated technical and content support from the University of Minnesota and Tufts University. The training provided an understanding of the One Health approach and imparted the four



March 2014, Eastern Africa. Following the regional One Health leadership training that was developed and implemented by OHCEA (One Health Central and Eastern Africa) in December 2013, OHCEA launched its In-Service One Health Leadership Training for the Eastern Africa region in February and March 2014. The program benefitted 152 participants in Ethiopia, Kenya, Rwanda, Tanzania, and Uganda. The training targeted local government officials with representation from the departments relevant to the implementation of a One Health approach including planning, education, agricultural, environmental, community developmental, medical, and veterinary agencies. District officials were

joined by representatives from national-level ministries, government departments, and civil society organizations chosen on the basis of their potential to influence One Health at the national level. OHCEA’s master trainers facilitated technical and content support from the University of Minnesota and Tufts University. The training provided an understanding of the One Health approach and imparted the four pillars of One Health leadership and communications skills: team work and team building, strategic visioning and planning, change management, and communications. The goal was for participants to become champions of the adoption of a One Health approach. In each country participants created strategic road maps detailing the next steps in addressing the priority health issues for their respective communities, and how to address them taking a One Health approach. The training had an immediate impact with one district group in Uganda stating as its vision: *“A district with a well coordinated One Health service delivery system that promotes healthy animals, prosperous communities and a sustainable ecosystem.”*

The participants came from the training energized and determined. In Jimma, Ethiopia participants acted proactively by creating a One Health Civil Servants Club that will serve as a hub for participants to exchange ideas and share progress on the implementation of the One Health road map for their district. This is just one example of how the in-service training of health professionals will empower a much larger contingent of One Health leaders from across the OHCEA region.

SUCCESS STORY – AFRICA REGION

INDOHUN DEVELOPS LEADERSHIP AMONG FUTURE HEALTH PRACTITIONERS



Margaret Morehouse (Training Resources Group) conducted interactive exercises with students on public speaking, behavior development, and communication

interpersonal skills, and developing networked partnerships.

January 2014, Indonesia. Adoption and implementation of One Health approaches require buy-in from future leaders who are effective at communicating and deploying the framework at the local and national levels in the field, government, and academy.

To meet these needs, 92 students and twenty-two young professionals from Indonesia, Malaysia, Vietnam, Thailand, and the Philippines participated in a five-day leadership program called Global Health True Leaders (GHTL). It increased their academic understanding of health issues and leadership skills through workshops and then applied those acquired skills in the field. This structure helped students connect education and practical leadership.

Academic activities focused on global health and disease control. To give those skills context at the local community and national levels, students participated in table-top exercises and field activities focused on leadership,



A student shares health information with patients waiting for medical check-ups organized by the local health office

that it enabled him to meet and network with other future health practitioners from across Southeast Asia. That reaction demonstrates that the training effectively connected One Health and needed leadership training to support the approach’s ongoing use.

In order to see how these lessons can be deployed in their own communities, students participated in activities including “mini-lectures” for 286 Gowa District patients at a local health drive. Demonstrating exceptional leadership, other students conducted a zoonotic disease and waste management seminar for 200 adults, presenting material and fielding audience questions. Still another cohort shadowed veterinarians and helped administer nutrient supplements to livestock.

One participant shared, “[The] Global Health True Leaders program taught me a lot about things needed to become a leader in the health sector... teamwork, public speaking, leadership, as well as the concept of One Health,” adding

