



VIETNAM

Emerging Pandemic Threats Program

PREDICT • RESPOND • PREVENT • IDENTIFY

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EPT VIETNAM PROGRAM HIGHLIGHTS

Soc Trang Provincial Department of Animal Health (sub-DAH)

and the Regional Animal Health Office 6 (RAHO6) are working with PREDICT to carry out **disease surveillance and collect wildlife samples in wet markets** in Soc Trang Province. An Activity Agreement was signed in December 2012.

The Vietnam Administration of Forestry (VNFOREST) under the Ministry of Agriculture and Rural Development

(MARD) and PREVENT, co-organized an expert consultation workshop on “**Strengthening Wildlife**

Farm Biosecurity and

Supporting the Development of Good Wildlife Farm Production Practices” on

January 25, 2013 in Ho Chi Minh City. The meeting provided a platform for the Government of Vietnam to announce plans to review policies relating to wildlife farm management. It also provided an opportunity to improve awareness of wildlife farming issues, including risks

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from zoonotic diseases, conservation issues and challenges and constraints facing wildlife farms and regulators in Vietnam.

The Hanoi School of Public Health (HSPH) held a **national meeting of the VOHUN and a One Health session** on October 10, 2012. Supported by RESPOND, this was a side event of the 3rd National Congress of the Vietnam Public Health Association (VPHA) organized on October 10-12, 2012 in Hanoi. A key purpose of the meeting was to engage high level stakeholders from human, animal and environmental health working on One Health in the country.

As part of the Regional Laboratory Networking activities, FAO, under the joint financial support by IDENTIFY and EUHPED, organized the **Regional Proficiency Testing (PT) program** in collaboration with AAHL to **ensure quality services on diagnosis** of selected regional priority diseases among the network laboratories. There are 14 laboratories from 9 countries (Cambodia, China, Indonesia, Lao PDR, Philippines, Malaysia, Myanmar, Thailand and Viet Nam) participated in the Regional PT program conducted during September-December 2012.

On January 7-9, 2013 in HCMC and on January 10-12, 2013 in Can Tho province, the National Institute for Hygiene and Epidemiology (NIHE) in collaboration with IDENTIFY/WHO held **Integrated Laboratory and Epidemiology trainings** for public health epidemiologists, laboratory specialists, and animal health laboratory professionals in Southern Viet Nam. 48 participants from provincial Preventive Medicine Centers, including 8 animal health laboratory professionals from Regional Animal Health Offices (RAHOs) attended the training course. The training course was aimed to improve understanding and collaboration between epidemiologists and laboratory staff involved in surveillance, outbreak investigation and response of infectious disease to strengthen routine surveillance and outbreak response capacity in country.



PROGRAM UPDATES



PROJECT ADMINISTRATION

New EPT PREDICT Country Coordinator for Vietnam, Dr. Amanda Fine, was selected and took over responsibilities in-country in December 2012:

Amanda Fine joins PREDICT as the Country Coordinator for Vietnam after directing the Wildlife Conservation Society's programs in Mongolia since 2005. Amanda is a graduate of Swarthmore College (BA Biology, 1993) and has a degree in veterinary medicine from the University of Pennsylvania (1997) and a PhD in Veterinary Epidemiology from Michigan State University (2006). In

Mongolia she opened and staffed the WCS Country Program office in Ulaanbaatar and her principal responsibilities have included oversight for two large landscape-level conservation projects funded by USAID. Amanda has also been involved in implementing wildlife health projects in Mongolia focused on avian influenza in wild birds and Foot and Mouth Disease (FMD) in wild and domestic ungulates. Amanda has over 10 years of experience managing conservation and development projects in Asia.

WILDLIFE PATHOGEN DETECTION

In December 2012 an Activity Agreement was completed and signed with Soc Trang Province Department of Animal Health (sub-DAH) and the Regional Animal Health Centre (RAHO6) to carry out **disease surveillance and collect wildlife samples in wet markets in Soc Trang Province**. The surveillance was carried out between January 8th and 17th 2013. Samples were collected from rat and bat species. The PREDICT team surveyed 8 of the 11 districts of Soc Trang Province including Soc Trang City, My Xuyen, Thanh Tri, Nga 5, Tran De, My Tu, Chau Thanh, Ke Sach and Long Phu. A total of 11 markets, 3 restaurants, 1 pagoda with bat roosts and 1 bat guano farm were surveyed. A total of 1,161

samples from bats and rats were collected including oral swabs, rectal swabs, feces, and tissues. These samples were delivered to RAHO6 in Ho Chi Minh City where they will be screened for viral pathogens. The samples from rats will initially be screened for 4 viral families (Arenaviridae, Flaviviridae, Hantaviridae, Paramyxoviridae) and the samples from bats will be screened for 3 viral families (Arenaviridae, Flaviviridae, and Paramyxoviridae).



Activities of the PREDICT Vietnam Project during this quarter included the following:

Supported **improved laboratory capacity to detect viral pathogens in wildlife** in Vietnam by ordering and delivering the following test kits for processing samples to partner laboratories: QIAamp Viral RNA Mini Kit; RNEasy Plus Mini Kit, QIAprep Spin Mini Kit; and QIAquick Gel Extraction Kit.

Hanoi University of Agriculture’s capacity to run PREDICT protocols from extraction through cloning has been improved with the ordering and delivery of 1 wide gel comb for their gel electrophoresis box and a free-standing UV transilluminator.

Cat Ba Langur Conservation Project will work together to **coordinate arrangements for sample collection, transport, storage and diagnostic procedures** related to Cat Ba Langur Translocation activities.



The “One Health” concept was introduced by PREDICT at a workshop held December 4-7, 2012, in Hanoi entitled “Strengthening Law Enforcement Preparedness for Key Government Agencies to **Address Illegal Wildlife Trafficking in Quang Binh Province**”. Information presented included health risks at the human, wildlife, and domestic animal interface and the need for a coordinated approach.

RISK DETERMINATION

Strengthened Wildlife Farm Biosecurity and Good Production Practices

From November 26-30 VNForest, MARD and PREVENT conducted a biosecurity scoping at six wildlife farms in three provinces of the Mekong region of Vietnam. The objectives of the scoping were: (i) To discuss with local forestry authorities the scope of work and wildlife farm observation, and (ii) To collect quick information about wildlife farming in the provinces in order to support an international consultant on

development of the BAT. The team found that biosecurity standards were variable and generally low, providing significant potential for disease transmission and propagation. The scoping revealed that at macaque farms animals are produced for medical research. Recent tightening of export conditions has excluded the small macaque farms from the market however several very large farms continue to farm and export macaques. At porcupine wildlife farms we learned there has been a collapse in porcupine prices since 2010 (from 15-20 M VND/

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breeding pair to 2-3 M VND/pair) and it takes 1.5-2 years to raise a porcupine to market weight (10kg). Farmers are seeking alternative income streams or strategies to reduce costs, hoping that as production volume drops prices may recover. The farm visits yielded a useful amount of information and generated considerable interest within VNForest. VNFOREST and PREVENT also co-organized an expert consultation meeting, held January 25 in Ho Chi Minh City, on “**Strengthening Wildlife Farm Biosecurity and Supporting the Development of Good Wildlife Farm Production Practices.**” Following the meeting a biosecurity assessment tool will be revised, pretested and further revisions will be made as needed. After the tool is finalized it will be implemented at farms that raise wildlife mammals, particularly those with a minimum number of at least one of the key species - primates, rodents, bats,

and civets. The results of the study will provide input for developing regulations and identify areas that may benefit from capacity building. In addition, the tool can provide a template for biosecurity assessments of other types of farmed wildlife.



OUTBREAK RESPONSE CAPACITY

The activities implemented during the past three months focused on **laboratory capacity building and promoting of the quality management systems** through the Regional Proficiency Testing (PT) program. The PT program consists of 3 components including trainings on disease

diagnoses, procurement and distribution of the PT panels, and backstopping mission. The recent backstopping mission provided opportunities to identify and rectify the issues related to laboratory management and services for the national veterinary laboratories in Viet Nam.

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Laboratory capacity assessment for influenza surveillance in Southern Viet Nam, October - November 2013. Assessments were conducted by Pasteur Institute HCMC with support from IDENTIFY/WHO. 17 provincial Preventive Medicine Center's (PMC) laboratories were assessed with focus to influenza diagnostic capacity for outbreak response and influenza pandemic preparedness. WHO laboratory assessment tool (LAT 2012) was adapted and used for field assessment of provincial laboratories with focus to testing RT- PCT capacity, referring and networking activities (data and specimens sharing), availability of trained staff, essential reagents, equipment, and testing protocols including information management system.

January 7-9, 2013 in HCMC and January 10-12, 2013 in Can Tho province, National Institute for Hygiene and Epidemiology (NIHE) and IDENTIFY/WHO held the Integrated Laboratory and Epidemiology trainings for public health epidemiologists, laboratory specialists, and animal health laboratory professionals in Southern Viet Nam. 48 participants from Preventive Medicine Centers, including 8 animal health laboratory professionals from Regional Animal Health Offices (RAHOs) attended the training course. The 3 day training program provided the participants with the opportunity to learn, gain the experiences and discuss cross- discipline issues on laboratory - epidemiology communication, epidemiology and surveillance of communicable diseases, specimen collection and laboratory tests used for surveillance and response, laboratory and epidemiology practices for outbreak investigation and response.

IDENTIFY/WHO organized an External Quality Assurance Program for public health priority pathogens during March



2012 - March 2013. Six national and regional institutes, National Institute for Hygiene and Epidemiology (NIHE), National Institute for Food Control (NIFC), Pasteur Institute HCM (PI HCM), Pasteur Institute NhaTrang (PI NT), Tay Nguyen Institute for Hygiene Epidemiology (TIHE), Institute for Hygiene and Public Health (IHPH) have been supporting through the IDENTIFY project to participate in the EQAS programs for Enteric Bacteria "E.Coli, Salmonella, Shigella", "Pathogenic Vibrio", "Dengue" and "Influenza ". These laboratories are responsible for communicable diseases surveillance and outbreak investigation and participation in EQAS programs allow them to evaluate their performances and to ensure the quality of diagnostic service for priority diseases.

Strengthening OH Epidemiological Teams: A grant was provided to the Institute for Preventive Medicine and Public Health (IPMPH) of Hanoi Medical University to support joint field epidemiology short course training between the Ministry of Health (MoH), the Ministry of Agriculture and Rural Development (MARD), WHO and CDC, targeting relevant government staff responsible for outbreak investigation and response at the provincial and district levels. A total of 59 staff from the MOH and MARD were trained. The trainees

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were tasked as a provincial team to design joint disease investigations of potential zoonotic diseases in their provinces such as trichinellosis, rabies and leptospirosis. The teams are made up of veterinary and medical professionals. Upon completion of each workshop, the trainees returned to their provinces to work together for about 10 weeks on the planned joint disease investigations. It is planned that a final, national workshop will be organized in April 2013 to share the provincial findings and discuss the challenges and benefits of using One Health approach in the disease investigations.

One Health coordination, communication, professional development and information exchange were promoted through support to the following events:

- a. National meeting of the VOHUN and a One Health session on October 10, 2012 as a side event of the 3rd National Congress of the Vietnam Public Health Association (VPHA) organized on October 10-12 in Hanoi.
- b. PENAPH workshop organized by International Livestock Research Institute (ILRI) on December 11-13, 2012 in Chiangmai, Thailand. PENAPH is the Participatory Network

for Animal and Public Health and its aim is to strengthen the discipline of Participatory Epidemiology (PE) to assist the integration of human and veterinary medicine.

- c. EcoHealth 2012: 4th Biennial Conference of the International Association for Ecology & Health held on October 15-18 in Kunming of the People Republic of China.
- d. 7th TEPHINET Global Scientific Conference held in Amman, Jordan during November 10-15, 2012 which its technical theme was “Communicable and Non-Communicable Diseases: Public Health Challenges for Response” and to attend a RESPOND organized pre-conference workshop entitled “Government-University Partnerships in Applied Epidemiology Training”.
- e. Prince Mahidol Award Conference (PMAC) organized in Bangkok on January 28- February 2, 2013 and participate in the OHCEA-SEAOHUN Summit (the summit of two One Health networks from Southeast Asia and Central and East Africa) held on January 29th as part of the PMAC.

RISK REDUCTION

In order to strengthen the public health response to acute diarrheal diseases and to develop a strong public health laboratory capacity for timely detection and identification of epidemic prone-diseases. National Institute for Hygiene and Epidemiology (NIHE) Enteric Bacteria Laboratory was supported through

IDENTIFY Project for developing core functions of National Reference Laboratory for Cholera and Enteric Bacteria taking into account ISO 15189 specific requirements for quality and competence. The Enteric Bacteria Laboratory NIHE was pre-accredited and moving towards for full accreditation in April 2013.

SELECT EPT EVENTS CALENDAR

<i>Name of Event</i>	<i>Date</i>	<i>Location</i>	<i>EPT Project</i>	<i>Implemented by</i>
Conduct scoping of wildlife farms in the Mekong region of Vietnam	November 26-30, 2012	Mekong region	PREVENT	PREVENT/ VNFOREST
Expert consultation workshop on strengthening wildlife farm biosecurity and supporting the development of good wildlife farm production practices (one day)	January 25, 2013	HCMC	PREVENT	PREVENT/ VNFOREST
Develop and finalize a biosecurity assessment tool for wildlife farms	November 2012 - March 2013	Hanoi and Mekong region	PREVENT	PREVENT/ VNFOREST
Organization of an External Quality Assurance Program for priority pathogens	March 2012 - March 2013	Hanoi, HCMC, Nha Trang, Tay Nguyen	IDENTIFY	NIHE, PI HCMC, PI NT, TIHE, NIFC, IHPH
IDENTIFY Inter-Regional Meeting	March 4-5, 2013	Thailand	IDENTIFY	FAO
Workshop on National Technical Regulations on Practice and Biosafety in Laboratories	March 28, 2013	Hanoi	IDENTIFY	MOH/WHO
Biorisk assessment in Pasteur Institute Nha Trang	April 2013	Nha Trang	IDENTIFY	PI NT /WHO
Training of Trainer course on Laboratory Quality Management System for public health laboratories in Vietnam.	April 2013	Hanoi	IDENTIFY	NIHE/WHO
Regional training on Laboratory-Epidemiology linkage	May 2013	Thailand	IDENTIFY	FAO/AAHL
Vietnam Faculty Development Workshop	May 6-9, 2013	Hanoi	RESPOND	VOHUN
Vietnam EZD Risk Assessment Workshop	June 3-7, 2013	Hanoi	RESPOND	TBD
MOH staff study tour on Biosafety Management (4 days)	June 2013	Canada (TBD)	IDENTIFY	MOH
Regional training on Applied Veterinary Bioinformatics	June or July 2013	Thailand	IDENTIFY	FAO/CEIRS-St. Jude/CU-EIDAs