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VIET NAM UPDATE NO. 5
July 2017 – March 2018

BEHAVIORAL RISK SURVEILLANCE

A primary goal of PREDICT-2 is to strengthen global capacity for the detection and discovery of viruses with pandemic potential, specifically those that can move between animals and people (zoonotic viruses). PREDICT-2 works to improve the characterization of associated biological, behavioral, and ecological risks to better understand which geographic locations, 'epidemiological zones', animal-animal and/or animal-human interfaces, and environmental factors are most associated with the evolution, spillover, amplification, and spread of zoonotic viruses with pandemic potential. Ethnographic interviews are used to identify factors associated with zoonotic disease transmission risk.

Below are quotes from PREDICT interviews at two key animal-human interfaces:

"I've only heard about zoonotic diseases from poultry. Such as chicken, pigeon and also other livestock. I brought civets here and then vaccinated them. In my opinion maybe there are zoonotic diseases that pass from civets to humans but my animals are vaccinated so I can have peace"_*a civet farm owner*

"My father told me when I was a child, whenever I was bitten by snake and rat or when I got cut, just suck the blood. He taught me that." _*a rat hunter*

PROGRAMMATIC HIGHLIGHTS

PREDICT-2 biological and behavioral surveillance in human populations at key animal-human interfaces potentially associated with the spillover, amplification, and spread of zoonotic viruses is underway. Biological samples are collected from humans enrolled in the project for viral testing. Quantitative and qualitative research methods are used to identify risk factors for viral transmission and obtain descriptive accounts of human behaviors and perceptions to support the development of effective public health interventions. Enrollment of humans is part of PREDICT's triangulated surveillance for viruses of pandemic potential in wildlife, domestic animals, and humans at key concurrent surveillance sites.

- PREDICT-2 is working with the National Institute of Hygiene and Epidemiology (NIHE) to conduct surveillance in humans in Ha Noi, Dong Nai, and Bac Giang Provinces. The protocol approved by the NIHE IRB includes biological sample collection, viral family level testing, and administration of a human behavioral risk questionnaire.
- As of March 2018, a total of 399 people were surveyed and sampled, through community surveillance of people with occupational exposure to wildlife (327 people), and through syndromic surveillance of people with fevers of unknown origin in hospitals (72 people) at PREDICT-2 concurrent surveillance sites.
- PREDICT-2 received the IRB approval from the Hanoi School of Public Heath to conduct the qualitative research, including the ethnographic interviews and focus group discussions, in Dong Nai and Quang Ninh Provinces.
- As of March 2018, 51 people were enrolled in the qualitative research, with 31 ethnographic interviews and 2 focus group discussions completed.

Figure 1: Mechanisms underlying emergence and spread of zoonotic disease

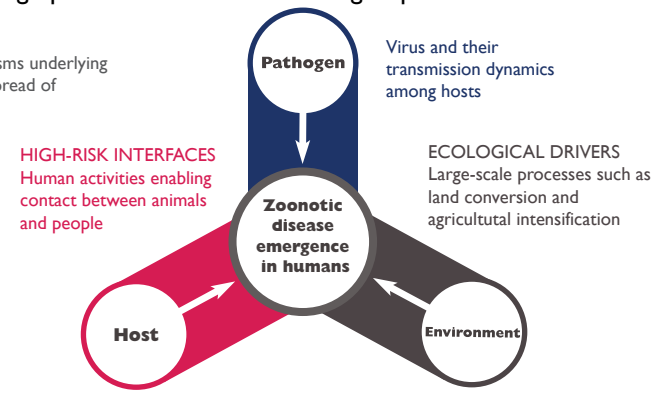
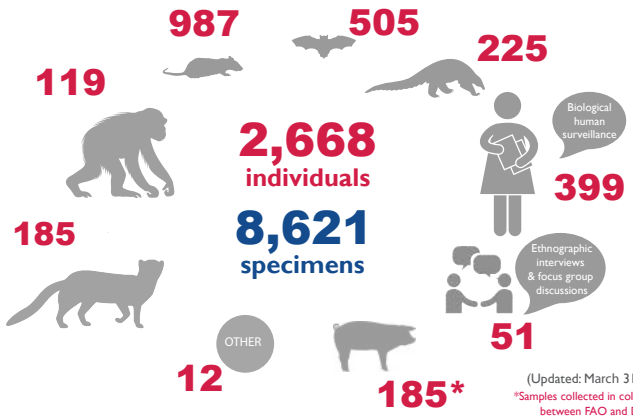


Photo 1: Working visit to Dong Nai General Hospital. *Photo credit: WCS Viet Nam*

SURVEILLANCE AND FIELD ACTIVITES

One Health Surveillance collected samples:



(Updated: March 31, 2018)
*Samples collected in collaboration between FAO and DAH

LAB DEVELOPMENT/TESTING

PREDICT/Viet Nam conducted tests at its key partner laboratories

1,675 completed viral PCR tests	4,158 completed viral PCR tests	1,218 completed viral PCR tests
190 on-going confirmatory tests	88 on-going confirmatory tests	50 on-going confirmatory tests
Viet Nam National University of Agriculture	**Regional Animal Health Office No.6**	**National Institute of Hygience and Epidemiology**

Testing all target viral families: Paramyxovirus, Coronavirus, Influenza, Flavivirus and Filovirus

CAPACITY BUILDING

PREDICT/Viet Nam continued strengthening capacity with project partners and stakeholders

95 MALE | 43 FEMALE

Photo 2: Participants at the PREDICT human surveillance coordination meetings at the Preventive Medicine Center and the Forest Protection Department in Dong Nai on November 16-17, 2017. *Photo credit: WCS Viet Nam*

STAKEHOLDER ENGAGEMENT AND PARTNER COORDINATION

- December 12, 2017: Participated in the first Research to Policy meeting of the One Health Partnership, chaired by International Cooperation Department of Ministry of Agriculture and Rural Development.
- December 20, 2017: Participated in the One Health Communication Network quarterly meeting, and shared available surveillance results and up-coming plans of the PREDICT project to representatives of various agencies and NGOs.
- February 6, 2018: Participated in the first meeting of Technical Advisory Committee for Phase-2 of the Strengthening Capacity for the Implementation of One Health Project in Viet Nam and provided technical inputs.

PREDICT PARTNERS IN VIET NAM

- Department of Animal Health (DAH), Ministry of Agriculture and Rural Development (MARD)
- National Institute of Hygiene and Epidemiology (NIHE), Ministry of Health (MoH)
- Viet Nam National University of Agriculture (VNUA)
- Regional Animal Health Office No. 6 (RAHO6)
- Hanoi School of Public Health
- Viet Nam One Health University Network (VOHUN)

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