### **PREVENT** Emerging Pandemic Threats

## About Us

PREVENT works to reduce the risks that zoonoses—diseases that move between animals and humans—can pose to public health. To stop the emergence and spread of the next SARS or HIV, we use behavior change and communication approaches to influence three key drivers of human exposure to animal pathogens: *culture, commerce,* and *land use change*.

Implemented by FHI 360, PREVENT is one of four complementary projects launched in 2009 by the U.S. Agency for International Development (USAID) to preempt or combat emerging pandemic threats (EPT). In 2012, PREVENT began receiving funding from the Australian Agency for International Development (AusAID) for activities in Burma/Myanmar, Cambodia, Lao PDR and Vietnam. With technical assistance from the U.S. Centers for Disease Control and Prevention, the EPT global program draws on expertise from across the animal and human health sectors to build regional, national and local One Health capacities for early disease detection, laboratory-based disease diagnosis, rapid response and containment, and risk reduction.

#### Where We Work: Emerging Disease "Hot Spots"

PREVENT is active in "hot spot" regions in Central and East Africa and South and Southeast Asia, where a confluence of risk factors makes disease emergence likely. Recent research in Cameroon and Gabon complements ongoing activities, including research, in DRC Uganda, Bangladesh, Cambodia, Lao PDR, Malaysia and Vietnam; in 2013 PREVENT will begin activities in Burma/Myanmar and Indonesia.

# *What We Do:* Identify Risk Factors, Develop and Test Interventions and Build Related Capacities

PREVENT takes a One Health, multidisciplinary approach drawing on a wide range of fields, including epidemiology, anthropology, economics, behavior change, communication and social marketing, as well the expertise of animal health and environmental specialists to identify people at highest risk of exposure to emerging pathogens, characterize the behaviors and practices that put them at risk, then, develop and test interventions to reduce the risk.

#### PREVENT

- Conducts in-depth qualitative and quantitative research—including key informant interviews, focus groups, market studies, quantitative anthropology, participatory action research, surveys, and behavior trials—with a range of international and host-country partners. To date, focus populations have ranged from hunters in Cameroon, Cambodia and Lao PDR, market vendors and butchers in Cameroon, and forest, agricultural and peri-urban populations in northern Thailand, to populations of different ethnicities living near a hydropower site in Lao PDR.
- Identifies existing risk mitigation strategies or feasible, less-risky alternatives to current

*practices* and develops and tests interventions to persuade people to adopt them, either permanently or during periods when risk is particularly high. In Bangladesh, for example, PREVENT developed and is testing a multi-media behavior change communication (BCC) campaign approach to reduce the risk of exposure to the Nipah virus by discouraging people from drinking raw date palm sap contaminated by infected fruit bats.

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 Develops regional, national and local capacity to use proven communication techniques to enhance effectiveness of behavior change and risk communication, as well as media relations to facilitate outbreak investigations and reporting. In 2012, PREVENT trained members of the 20-nation African Field Epidemiology Network.

### What We Focus On: Three Key Types of Animals and Three Drivers

In terms of wildlife, PREVENT focuses on non-human primates, bats, and rodents, as these three types of animals have most frequently been implicated in transmission of high-impact zoonotic diseases to humans. We also pay attention to domestic animals including poultry, pigs, and other livestock—that can transmit or amplify potentially dangerous viruses. We use behavior change and communication approaches to influence three key drivers that affect human exposure to animal pathogens: culture, commerce, and land use change. When appropriate, we also may work to change institutional practices and government policies.

#### Culture

 PREVENT conducts in-depth research regarding social preferences and customs to identify high-risk groups and distinguish the situations and behaviors that most commonly result in risky

contact between humans and animals, and then develops and tests interventions to reduce risk. For example, PREVENT has documented consumer wild animal meat preferences in urban and peri-urban populations in Indonesia, Malaysia, Thailand, and Vietnam. The project has also developed a generic protocol (formative research package and survey) for comprehensively measuring human exposure to animals. This protocol has been tested in northern Thailand, is under way in Lao PDR, and will be implemented in Malaysia and Uganda in 2013. In Cameroon, PREVENT tested an approach to fasttrack intervention development—incorporating rapid identification of specific changes in practice that will reduce risky exposure, followed by trials to identify which of these changes are most acceptable, feasible, and likely to be sustained. A revised version will be implemented in Lao PDR and Thailand in 2013.

#### Commerce

PREVENT examines local and international trade in wild animals and their meat, a recognized source of zoonotic disease exposure. Currently, in two provinces in Cambodia, PREVENT and the Wildlife Conservation Society are examining which wild animals—primates, rodents, and bats, among others—are being hunted, butchered, traded, and eaten, and by whom. The findings will help inform risk reduction interventions.

#### Land use change

PREVENT develops guidelines and tools to assess and mitigate vulnerabilities to emerging pandemic threat risks in collaboration with the Extractive Industries Working Group, members of extractive industry—mining, timber, oil and gas companies and host-country governments. The tools identify vulnerabilities to infectious disease exposure and transmission when contact increases between humans and animals—for example, as a result of new settlements in and near wild animal habitats that accompany work site and road construction.

