

## U.S. GOVERNMENT SUPPORT TO COMBAT AVIAN AND PANDEMIC INFLUENZA

**E**ast Asia – particularly Southeast Asia – remains the region most seriously affected by the highly pathogenic avian influenza (HPAI) H5N1 virus. According to World Health Organization (WHO) figures, it has suffered the most human infections, prompting experts' concern that it is the area from which a pandemic strain of the virus is most likely to emerge and spread globally. As of May 2007, 250 human cases, 161 of them fatal, in the region had been confirmed by WHO. The spread of the disease among birds and response efforts have affected economies and food supplies in several countries, and increased pressure for changes in social and cultural practices.

The region's first outbreak of HPAI H5N1 was identified in Hong Kong in 1997. The virus resurfaced in Southeast Asia in 2003 and has since been confirmed in Burma, Cambodia, China, Indonesia, Japan, Korea, Laos, Malaysia, Mongolia, Thailand and Vietnam. The greatest concentration of human H5N1 cases has occurred in Southeast Asia. As of May 2007, Vietnam had had 93 confirmed cases (42 of them fatal), and Indonesia had had 98 cases (78 of them fatal). Millions of birds have died from the disease or have been culled in an effort to stop its spread. HPAI H5N1 virus is endemic in Indonesia, affecting 30 of its 33 provinces. In spite of Thailand's and Vietnam's comprehensive containment steps in 2004 and 2005, the virus has resurfaced in both countries. Efforts to cope with outbreaks continue to put pressure on traditional practices such as family or "backyard" poultry breeding and the use of live "wet" markets for poultry trade.

The United States combats HPAI H5N1 in East Asian nations by working with governments and regional entities such as the Association of Southeast Asian Nations (ASEAN) and the Asia Pacific Economic Cooperation (APEC) forum, and with international organizations such as the WHO, the Food and Agriculture Organization (FAO), UNICEF and the World Organization for Animal Health (OIE). Through the International Partnership on Avian and Pandemic Influenza, the United States works to elevate the issue on national agendas – and to coordinate efforts between affected East Asian and Pacific nations and donors.

U.S. assistance to the region amounted to nearly \$78 million in 2006. U.S. funding has focused on Indonesia (\$24.6 million), Vietnam (\$13.4 million), Cambodia (\$9.5 million), Thailand (\$8.7 million), China (\$8.1 million) and Laos (\$7.7 million), with smaller amounts to several other countries. In 2006, World Bank and Asian Development Bank funding totaled approximately \$63.5 million. Other countries have committed approximately \$182 million. Total committed funding for regional avian and pandemic influenza (API) efforts was nearly \$323 million on the eve of the Bamako pledging

conference in December 2006, where a number of countries, including the United States, pledged additional funds.

The U.S. Agency for International Development (USAID), the U.S. Department of Agriculture (USDA), the U.S. Department of Health and Human Services (HHS) – including the Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH) – the U.S. Department of State (DOS) and the Broadcasting Board of Governors (BBG) focus on strengthening preparedness and response; enhancing human and animal disease surveillance and detection, research and laboratory diagnostics; and increasing public awareness. The U.S. Department of Defense (DOD) also provides medical technical assistance and has purchased personal protective equipment (PPE) for combatant command use in military-to-military and international humanitarian assistance globally.

### PREPAREDNESS AND COMMUNICATION

U.S. assistance efforts to East Asia for preparedness and communication include:

- Placing a regional avian influenza team in the region (USAID, HHS);
- Establishing regional avian influenza coordination hubs with U.S. and local veterinarians in Thailand and Indonesia, and placing Foreign Service National veterinarians in Burma, Cambodia and Laos (USDA);
- Working on animal vaccine research with Indonesia, Taiwan and Vietnam (USDA);
- Conducting a workshop in Vietnam on good clinical practices (GCP) to provide regulators, clinical and university researchers of drugs, biologics or diagnostic medical devices with a basic understanding of GCP and related processes (HHS/Food and Drug Administration);
- Supporting regional coordination, technical exchange and strategy development through WHO and FAO (USAID);
- Conducting tabletop pandemic preparedness exercises in Southeast Asia (HHS via RAND Corporation) and seminars on simulation exercises (HHS via APEC);
- Providing assistance on preparedness plans to Indonesia and Vietnam (HHS/CDC);
- Supporting the Southeast Asian Influenza Clinical Research Network to establish sites for clinical research on influenza ([www.seaclinicalresearch.org](http://www.seaclinicalresearch.org)) (HHS/NIH);
- Supporting and/or carrying out risk communications activities and training in multilateral venues such as APEC and in Burma, Cambodia, China, Indonesia, Laos, Mongolia, the Philippines, Thailand and Vietnam (USAID, HHS/CDC);

- Providing experts and funding to WHO's Western Pacific Regional Office (HHS);
- Providing information to regional journalists, enhancing reporting in local languages (USAID, VOA);
- Supporting documentary production and providing journalist orientation (DOS);
- Carrying influenza information on [www.usinfo.state.gov](http://www.usinfo.state.gov) in Chinese (DOS) and [www.voanews.com](http://www.voanews.com) in Chinese, Indonesian, Vietnamese (BBG, USAID) and Korean (BBG);
- Broadcasting API news on the Voice of America (VOA) and Radio Free Asia in Burmese, Chinese, Indonesian, Khmer, Thai, Vietnamese (BBG, USAID) and Korean, Lao and Tibetan (BBG);
- Launching a public communications project with the Thai poultry industry (USDA);
- Conducting live bird market workshops to provide policy and design recommendations for traditional markets, in Cambodia, Indonesia and Vietnam (USDA);
- Conducting rapid response training courses and exercises with Southeast Asian Ministries of Health and Defense (DOD); and
- Developing a pandemic preparedness guide for small businesses in the region (HHS and U.S. Department of Commerce via APEC).

## SURVEILLANCE AND DETECTION

To assist East Asian nations in building capacity for surveillance and detection, the United States is:

- Supporting wild bird surveillance in Cambodia, China and Laos (USDA);
- Committing funds for Global Disease Detection Centers in China (\$6.4 million) and Thailand (\$9 million) (HHS/CDC);
- Supporting influenza research and training for regional scientists and providing access to genome sequence data and other resources (HHS/NIH);
- Working with FAO and the Indonesian Ministries of Agriculture and Health to build early warning surveillance and response teams in 154 districts in seven high-risk provinces by June 2007 (USAID);
- Supporting the conduct of animal surveillance in Southeast Asia since 1999 through the Pandemic Preparedness in Asia Contract (HHS/NIH);
- Expanding surveillance capacity across 27,000 villages in Java, Bali and Sumatra through Muhammadiyah and the Indonesian Red Cross (USAID);
- Training 1,685 village veterinary workers in four high-risk provinces in Laos and 2,435 village animal health workers in six high-risk provinces in Cambodia. Trainees have conducted outreach to more than 40,000 farmers (USAID);
- Increasing awareness by training 12,853 village health volunteers in 12 high-risk provinces in Cambodia to integrate messages into community health education and to promote surveillance (USAID);

**This region encompasses:** Australia, Brunei, Burma, Cambodia, China, East Timor, Fiji, French Polynesia, Hong Kong, Indonesia, Japan, Kiribati, Laos, Malaysia, Marshall Islands, Micronesia, Mongolia, Nauru, New Caledonia, New Zealand, North Korea, Palau, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, South Korea, Taiwan, Thailand, Tonga, Tuvalu, Vanuatu and Vietnam.

- Training lab diagnosticians from 14 nations (USDA);
- Providing epidemiology training for veterinarians and epidemiologists in Thailand, and courses in Indonesia (USDA);
- Expanding sentinel surveillance sites and learning/utilizing different laboratory testing techniques (HHS/CDC);
- Providing five real-time polymerase chain reaction (RT-PCR) machines (for diagnosing HPAI), reagents (for chemical analysis) and government lab personnel training (USDA);
- Training joint laboratory and epidemiology teams from China, Indonesia and Mongolia in laboratory and surveillance methods (HHS/CDC);
- Providing laboratory equipment and training to Southeast Asian military laboratories to enhance detection (DOD);
- Funding and supporting seasonal surveillance and API activities through U.S. Naval Medical Research Unit No. 2 (NAMRU-2) in Indonesia (DOD, HHS/CDC); and
- Promoting public-private partnerships for early warning surveillance and reporting through mobile phone technology, an APEC workshop and sponsorship of participants at a National Poultry Improvement Plan conference (USAID, USDA).

## RESPONSE AND CONTAINMENT

To help East Asian nations respond to and contain API outbreaks, the United States is:

- Expanding infection control in health care facilities (HHS/CDC);
- Conducting integrated rapid response team training in China (HHS/CDC);
- Supporting capacity building for containment in Burma, Cambodia, Indonesia and Laos (USAID);
- Providing more than 170,000 sets of PPE for veterinary and human health staff, 250 decontamination kits, 17 lab kits and four outbreak investigation kits to 17 countries in Asia and the Near East (USAID);
- Supporting community training in Vietnam (USAID);
- Providing powered air purifying respirators for rapid responders, PPE, avian influenza antigen test kits and other materials requested by regional governments (USDA);
- Researching the quality and efficacy of anti-avian-influenza poultry vaccines used in Southeast Asia (USDA);
- Providing technical assistance to China, Mongolia and the Philippines (HHS/CDC, USDA);
- Providing technical assistance for a Vietnamese campaign that has ensured 170 million chickens and 79 million ducks are vaccinated (USAID); and
- Co-sponsoring with Japan a seminar on indemnity/compensation (USDA via APEC).

Further information in English, Chinese and Vietnamese is available on the U.S. Government's official website [www.pandemicflu.gov](http://www.pandemicflu.gov).