

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

East Asia – particularly Southeast Asia – remains the region most seriously affected by the highly pathogenic avian influenza (HPAI) H5N1 virus. It has suffered the most human infections, prompting concern that it will be the location where a pandemic strain of the virus may emerge. As of mid-November 2007, of the 335 human cases confirmed globally by the World Health Organization (WHO), 272 were in Asia, and of 206 fatal cases, 179 were in the region. The spread of the disease among birds and response efforts have affected economies 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, Republic of Korea, Laos, Malaysia, Mongolia, Thailand and Vietnam. As of November 2007, Vietnam had 100 confirmed cases (46 fatal), and Indonesia 113 cases (91 fatal). U.S. scientists and others have ruled out efficient human-to-human transmission in three family clusters of H5N1, two in Indonesia and one in Thailand.

Millions of birds have died from the disease or been culled to stop its spread. HPAI H5N1 virus is endemic in Indonesia and has resurfaced in Thailand and Vietnam despite comprehensive containment steps. Coping with outbreaks has put pressure on traditional practices such as family or “backyard” poultry breeding and live (“wet”) markets.

The U.S. combats HPAI H5N1 in East Asia 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 international organizations such as the WHO, the Food and Agriculture Organization (FAO), the U.N. Children's Fund (UNICEF) and the World Organization for Animal Health (OIE). Through the International Partnership on Avian and Pandemic Influenza, the U.S. coordinates efforts between affected East Asian nations and donors.

Of the overall U.S. international pledge of \$434 million, U.S. assistance to the region exceeded \$98 million by late 2007. Funding has focused on Cambodia (\$9.5 million), China (\$7.7 million), Indonesia (\$37.6 million), Laos (\$7.6 million), Thailand (\$8.7 million), and Vietnam (\$13.4 million). In 2006, World Bank and Asian Development Bank funding for the region totaled approximately \$63.5 million. Other countries committed approximately \$182 million to the region.

The U.S. Agency for International Development (USAID), U.S. Department of Agriculture (USDA), U.S. Department of Health and Human Services (HHS) – including the Centers for Disease Control and Prevention (CDC) and National Institutes of Health (NIH) – 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) provides medical technical assistance and personal protective equipment (PPE) for combatant command use in military-to-military and international humanitarian assistance. USAID has deployed non-pharmaceutical commodities, including PPE, and laboratory investigation and decontamination kits.

PREPAREDNESS AND COMMUNICATION

U.S. assistance for preparedness and communication includes:

- Placing a regional avian influenza (AI) team to support national and regional collaboration and coordinate technical assistance (USAID, HHS);
- Establishing regional AI hubs with U.S. and local veterinarians in Indonesia and Thailand, and national staff elsewhere (USDA);
- Assisting Indonesia, Taiwan and Vietnam with animal vaccine research (USDA);
- Conducting a good clinical practices workshop for regulators, clinical and university researchers in Vietnam (HHS/FDA);
- Assisting with preparedness plans and readiness in partnership with WHO, FAO, and others in Burma, Cambodia, China, East Timor, Indonesia, Laos, Mongolia, Philippines, Thailand and Vietnam (USAID, HHS/CDC);
- Conducting tabletop pandemic preparedness exercises (HHS via RAND Corporation) and seminars (HHS via APEC);
- Supporting the Southeast Asian Influenza Clinical Research Network to establish clinical research sites (HHS/NIH);
- Supporting AI research and training workshops in China, India, Indonesia, Singapore, Thailand and Vietnam (HHS/NIH);
- Supporting risk communications activities in multilateral venues such as APEC and in Burma, Cambodia, China, Indonesia, Laos, Mongolia, Philippines, Thailand and Vietnam (USAID, HHS/CDC);
- Providing experts and funding to WHO's Western Pacific Regional Office (HHS);
- Providing information to journalists and enhancing local language reporting on AI and risk reduction (DOS, USAID, VOA, HHS/CDC);
- Supporting production of two documentaries, conducting media workshops, and sending a CDC media expert to address media and public health audiences in Indonesia (DOS, BBG, HHS/CDC);
- Funding broadcast and language rights for the PBS documentary “Killer Flu” in Cambodia, China and Thailand (DOS);

- Carrying AI information on www.usinfo.state.gov, and broadcasting AI news on Voice of America (VOA) and Radio Free Asia in Chinese (DOS) and www.voanews.com in Burmese, Chinese, Indonesian, Khmer, Thai, Vietnamese (BBG, USAID) and Korean, Lao and Tibetan (BBG);
- Conducting live bird market workshops, providing recommendations for traditional markets, in Cambodia, Indonesia and Vietnam (USDA);
- Conducting rapid response training 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 U.S. is:

- Supporting wild bird surveillance in Cambodia, China, Indonesia, Laos, Philippines and Vietnam (USDA);
- Supporting surveillance through the Global Avian Influenza Network for Surveillance and additional efforts in Burma, Cambodia, China, East Timor, Indonesia, Laos, Mongolia, Philippines, and Vietnam (USAID);
- Supporting animal surveillance through the Pandemic Preparedness in Asia Contract (HHS/NIH);
- Committing funds for Global Disease Detection Centers in China (\$6.4 million) and Thailand (\$9 million) (HHS/CDC);
- Assisting the ministries of health of Cambodia, Laos, and Vietnam to establish national surveillance systems (HHS/CDC);
- Assisting the Lao Ministry of Health to establish a national influenza laboratory (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 high-risk provinces. As of June 2007, 593 teams (2,438 field personnel) were operational in 166 districts (USAID);
- Expanding surveillance capacity across 27,000 villages in Indonesia, training more than 9,700 village AI coordinators, and encouraging community-level surveillance and reporting (USAID);
- Supporting surveillance and epidemiology training for scientists from Cambodia, China, Laos, Malaysia, Thailand, and Vietnam;
- Training 1,685 village veterinary workers in four provinces in Laos, 2,435 village animal health workers in six Cambodian provinces, and 12,853 health volunteers (USAID);
- Training lab diagnosticians from 14 nations, veterinarians and epidemiologists in Thailand and Vietnam, and others in Indonesia (USDA);
- Expanding sentinel surveillance sites and laboratory testing techniques (HHS/CDC);

- Supporting human influenza diagnostics training with participation from Australia, Cambodia, China, Fiji, Indonesia, Japan, Korea, Laos, Malaysia, Mongolia, New Caledonia, New Zealand, Papua New Guinea, Philippines, Singapore, Thailand, and Vietnam (HHS/CDC);
- Providing five real-time polymerase chain reaction (RT-PCR) machines, and reagents for chemical analysis and personnel training (USDA);
- Training joint laboratory and epidemiology teams from China, Indonesia and Mongolia (HHS/CDC);
- Providing laboratory equipment and training to Southeast Asian military laboratories to enhance detection (DOD);
- Supporting seasonal surveillance and avian and pandemic influenza activities through U.S. Naval Medical Research Unit No. 2 (NAMRU-2) in Indonesia (DOD, HHS/CDC); and
- Promoting public-private reporting partnerships using mobile phones, an APEC workshop and sponsoring participants at a National Poultry Improvement Plan conference (USAID, USDA).

RESPONSE AND CONTAINMENT

To help East Asian nations respond to H5N1 outbreaks, the U.S. is:

- Expanding infection control in health care facilities (HHS/CDC);
- Conducting rapid response training in China (HHS/CDC);
- Supporting regional training for officials from Australia, Brunei, Cambodia, China, East Timor, Indonesia, Japan, Korea, Laos, Mongolia, Philippines, Thailand and Vietnam;
- Working with FAO, decreasing the average time for reporting animal outbreaks in five South Asian countries by 6 percent and time between onset of influenza symptoms in humans and hospitalization by 21 percent (USAID, others);
- Establishing fully equipped, regionally deployable rapid response teams (RRTs) in Thailand, and funding training for internationally mobile RRTs in China and Indonesia;
- Supporting capacity building for containment in Cambodia, Indonesia and Laos (USAID);
- Providing more than 240,000 sets of PPE, 250 decontamination kits, 17 lab kits and four investigation kits to 17 countries (USAID);
- Providing respirators for rapid responders, PPE, avian influenza antigen test kits and other materials (USDA);
- Researching anti-avian-influenza poultry vaccines (USDA);
- Providing technical assistance to Cambodia, China, Indonesia, Laos, Mongolia, Philippines, Thailand and Vietnam (HHS/CDC, USDA, USAID);
- Assisting a Vietnamese campaign to vaccinate 170 million chickens and 79 million ducks (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.

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.