



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

The Middle East's first outbreak of the highly pathogenic avian influenza (HPAI) H5N1 avian influenza virus in birds occurred in January 2006 in northern Iraq. The disease has since appeared in Egypt, Iran, Israel, Jordan, Kuwait, Saudi Arabia and West Bank/Gaza. As of September 2008, 50 cases of the disease in humans, 22 of them fatal, had been reported in Egypt, and three in Iraq, with two fatalities. Millions of birds have died or have been culled, causing social and economic disruption for business, farmers, and consumers in the region.

The United States combats HPAI H5N1 in Middle Eastern nations by working with governments and regional entities, and with international organizations such as the World Health Organization (WHO), the Food and Agriculture Organization (FAO) 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 nations in the Middle East and donors around the world.

To assist the Middle East in responding to avian influenza outbreaks and preparing for a possible human pandemic, the United States is supporting Middle Eastern efforts through bilateral and regional programs in Egypt, Iraq, Jordan, Libya, Morocco, Oman, West Bank/Gaza, Saudi Arabia, Syria, Tunisia, and Yemen.

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 DoD-Global Emerging Infection Surveillance and Response System (DoD-GEIS), represented by the U.S. Naval Medical Research Unit-3 (NAMRU-3), and the U.S. Department of State (DOS) focus on strengthening preparedness and response planning, building Middle Eastern capacity in human and animal health, strengthening laboratory diagnostics, increasing public awareness and information, and enhancing disease surveillance and detection. The U.S. Department of Defense (DoD) provides medical technical assistance, and has purchased personal protective equipment (PPE) for combatant-command use in military-to-military and international humanitarian assistance globally. USAID has deployed non-pharmaceutical commodities, including personal protective equipment (PPE), laboratory investigation kits, and decontamination kits throughout the region for use in outbreak surveillance and response efforts.

As of December 2007, the United States had allocated almost \$23.5 million to bilateral and regional efforts. These efforts include:

- Half of the \$14 million annual science budget of NAMRU-3 in Cairo went for seasonal and avian and pandemic-influenza-related activities. In addition to extensive technical support, approximately \$500,000 has been expended for Egypt directly. Funding for NAMRU-3 is provided by HHS, CDC, DoD-GEIS, and DOS. The facility also serves as a WHO H5 reference laboratory for avian influenza and other emerging diseases. In addition, the laboratory provides technical support for the Eastern Mediterranean Regional Office (EMRO) regional training and disease-control activities.
- HHS/CDC has committed \$2.5 million to EMRO for regional influenza efforts.

PREPAREDNESS AND COMMUNICATION

U.S. assistance efforts to the Middle East include:

- Assigning experts and providing technical assistance to the Middle East bilaterally and through FAO and other international partners, and providing critical technical and financial support to strengthen national pandemic preparedness and response plans in Egypt (HHS/CDC, USAID);
- Supporting programs in Egypt to increase capacity for monitoring poultry-vaccination efficacy, to strengthen local poultry-vaccination programs, and to assist in the delivery of effective vaccination strategies (USAID);
- In collaboration with the Government of Egypt, organizing two workshops on HPAI epidemiology in Cairo for 40 veterinary services officials (USDA);
- Supporting regional coordination, technical exchange, and strategy development through an HHS/CDC-sponsored workshop for new HHS avian influenza grantees in the region (including Libya and Morocco) in Nairobi (HHS);
- Collaborating on risk communications in Egypt, West Bank/Gaza, and Jordan (USAID, HHS/CDC);
- Conducting risk communications training for epidemiologists, communications specialists, and laboratory personnel (HHS/CDC);
- Providing a technical expert in epidemiology and infectious diseases and funding to WHO (HHS);
- Creating and distributing avian influenza posters and pamphlets, producing three TV spots, and conducting a survey of risk behaviors in Egypt, as well as producing one TV spot in Jordan to build awareness of basic information about avian influenza and prevention methods (USAID);

- Producing an Arabic version of the Public Broadcasting System’s documentary “Killer Flu” and purchasing rights for its broadcast to 21 NEA countries (DOS);
- Briefing Egyptian journalists and a Ministry of Health official in the United States (DOS);
- Carrying an avian influenza page in Arabic with news articles and other materials on the website www.america.gov (DOS);
- Briefing public health specialists from Egypt, Iraq, and Oman in the United States on infectious diseases, including pandemic influenza (DOS);
- Conducting workshops in conjunction with EMRO on rapid-response team training for control of AI/PI in Egypt, Pakistan, and Saudi Arabia, and national follow-on training for in-country teams in Jordan (DoD/NAMRU-3);
- Conducting regional training in clinical microbiology, molecular diagnostics, and virology, as well as in infection-control precautions for respiratory disease (HHS/CDC);
- In conjunction with EMRO, evaluating and developing Oman’s all-hazards preparedness plans to meet requirements of the new International Health Regulations, with an emphasis on preparedness for AI/PI (DoD/NAMRU-3).

SURVEILLANCE AND DETECTION

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

- Training and supporting training for officials, veterinarians, epidemiologists and laboratory diagnosticians from eleven countries in the region (Algeria, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Saudi Arabia, and Yemen) (USDA, HHS/CDC, DoD-GEIS/NAMRU-3);
- Providing laboratory diagnostic testing support for AI outbreaks in 13 countries in the region (DoD-GEIS/NAMRU-3);
- Assessing avian influenza animal-surveillance/response in Egypt, and providing training to veterinarians (USAID);
- Strengthening the poultry surveillance and laboratory capacity of the Egyptian Ministry of Agriculture (USAID);
- Delivering rapid diagnostic testing kits to Egypt (USDA, DoD-GEIS/NAMRU-3);
- Holding regional training on biosecurity in the live-bird market system for 30 participants from seven Middle East countries (USDA);
- Providing an international wildlife expert for the OIE conference on HPAI in wild birds in Kuwait;
- Strengthening avian influenza surveillance capacity at the central, governorate, and local levels in Egypt, including assistance to the Egyptian Ministries of Agriculture and

Health to enhance early-warning systems for disease outbreaks, and improving disease-surveillance efforts in Iraq and West Bank/Gaza (HHS/CDC);

- Initiating sentinel-site surveillance for severe acute respiratory infections in Egypt, Jordan, and Oman (DoD-GEIS/NAMRU-3);
- Providing reagents for HPAI H5N1 diagnosis and lab kits to Jordan, and annual WHO influenza reagent kits and protocols to all National Influenza Centers in the region (HHS/CDC);
- Conducting avian influenza surveillance in wild birds throughout Egypt, in collaboration with the Egyptian Ministry of the Environment (HHS/CDC).

RESPONSE AND CONTAINMENT

To help Middle Eastern nations respond to and contain avian and pandemic influenza outbreaks, the United States is taking the following actions:

- Expanding infection control capacity (HHS/CDC, DoD-GEIS/NAMRU-3);
- Establishing and training rapid response teams, and participating in Egyptian-led rapid response teams that investigate poultry outbreaks of HPAI H5N1 in Egypt (HHS/CDC, USAID, USDA);
- Establishing a fully equipped, regionally deployable rapid response team (RRT) in Egypt, based at the Global Disease Detection Center (GDD) in Cairo, for investigating human cases of H5N1 or other novel strains of influenza (DoD-GEIS, HHS/CDC);
- Sponsoring regional response workshops in Egypt, Saudi Arabia, and Pakistan that included participants from 20 Middle Eastern countries (HHS/CDC);
- Sending over 10,000 sets of PPE, such as suits, hoods, masks and gloves, as well as laboratory kits, to Egypt, Iraq, Jordan, Morocco, and West Bank/Gaza for investigating outbreaks, collecting and shipping samples, responding to outbreaks, providing training in PPE use, and providing targeted technical logistical assistance to ensure availability and efficient access to these commodities (USAID);
- Supporting avian influenza community training in Egypt and Jordan (USAID);
- Delivering laboratory reagents for HPAI diagnostics to the Central Laboratory in Islamabad, Pakistan (USDA); and
- Providing technical assistance as needed to strengthen avian influenza response and containment efforts (HHS/CDC, USAID).

The U.S. Government’s official website on avian and pandemic influenza is www.pandemicflu.gov.

This region encompasses: Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, West Bank/Gaza and Yemen.