SUSTAINING GLOBAL SURVEILLANCE AND RESPONSE TO EMERGING ZOONOTIC DISEASES

RECOMMENDATIONS OF THE COMMITTEE ON ACHIEVING SUSTAINABLE GLOBAL CAPACITY FOR SURVEILLANCE AND RESPONSE TO EMERGING DISEASES OF ZOONOTIC ORIGIN

Achieving an effective zoonotic disease surveillance system that is global, sustainable in funding and capacity, and integrated across disciplines and sectors will require technical, economic, and political improvements. Recommendations assigned as high priority are foundational for a global integrated zoonotic disease surveillance and response system. The remaining recommendations are considered priority, though not listed in rank order. While resources and leadership sufficient for carrying out these recommendations may result in different implementation timetables, each of the 12 recommendations is essential to achieve and sustain a successful global system.

HIGH-PRIORITY RECOMMENDATIONS

Recommendation 1-1: The U.S. Departments of Health and Human Services, Agriculture, Homeland Security, and the Interior should collaborate with one another and with the private sector and nongovernmental organizations to achieve an integrated surveillance and response system for emerging zoonotic diseases in the United States. In addition, these government agencies, including the Department of State and USAID, should collaborate with WHO, FAO, and OIE to spearhead efforts to achieve a more effective global surveillance and response system, learning from and informing the experiences of other nations.

Recommendation 2-1: USAID—in partnership with international finance institutions and other bilateral assistance agencies—should lead an effort to generate sustainable financial resources to adequately support the development, implementation, and operation of integrated zoonotic disease surveillance and response systems. An in-depth study of the nature and scope of a funding mechanism should be commissioned by these agencies, and the study should specifically consider a tax on traded meat and meat products as a potential source of revenue.

Recommendation 3-1: USAID, in cooperation with the UN and other stakeholders from human and animal health sectors, should promote the establishment of a coordinating body to ensure progress towards development and implementation of harmonized, long-term strategies for integrated surveillance and response for zoonotic diseases.

PRIORITY RECOMMENDATIONS

Recommendation 1-2: With the support of USAID, international organizations (such as WHO, FAO, OIE, and the World Bank) and public and private sector partners should assist nations in developing, adapting for local conditions, and implementing information and communication technologies for integrated...
zoonotic disease surveillance. Effective use of such technologies facilitates acquisition, integration, management, analysis, and visualization of data sources across human and animal health sectors and empowers information sharing across local, national, and international levels. To establish, sustain, and maintain this technologically sophisticated system, both leadership and investment are critically needed.

**Recommendation 1-3:** USAID should promote and initially fund the establishment of an international laboratory working group charged with designing a global laboratory network plan for zoonotic disease surveillance. The working group’s objective would be to design a laboratory network that supports more efficient, effective, reliable, and timely diagnosis, reporting, information sharing, disease response capacity, and integration of human and animal health components. In addition, a long-term coordinating body for zoonotic diseases, perhaps modeled after the U.N. System Influenza Coordinator’s office (see Recommendation 3-1), should implement the global laboratory network plan, manage it, and assess its performance in consultation with the international laboratory working group.

**Recommendation 1-4:** Given the need for increased human capacity to plan, conduct, and evaluate integrated zoonotic disease surveillance and response, U.S. government agencies should take the lead in developing new interdisciplinary educational and training programs that integrate human and animal health and allied fields. Existing national and regional training programs in field epidemiology, clinical, and laboratory diagnosis supported by the U.S. Departments of Health and Human Services, Agriculture, and the Interior should be improved to include a better balance of human and animal health concerns, incorporate contributions from laboratory and social science professionals, and connect with one another where appropriate.

**Recommendation 1-5:** The U.S. Department of State, in collaboration with WHO, FAO, OIE, and other international partners, should impanel a multidisciplinary group of technical experts to review regularly state-of-the-science information on the underlying drivers of zoonotic disease emergence and propose policy and governance strategies to modify and curb practices that contribute to zoonotic disease emergence and spread.

**Recommendation 2-2:** USAID should convene a technical working group to design and implement, by the end of 2012, an independent mechanism to audit and rate national surveillance system capacities for detecting and responding to emerging zoonotic disease outbreaks in humans and animals.

**Recommendation 2-3:** To reduce incentives to conceal outbreaks and mitigate the negative social and economic repercussions of early disease reporting (e.g. stigma of disease, food safety concerns, culling, and trade and travel disruptions), financial incentives at the following levels are needed through partnerships among bilateral aid agencies, the international community, and national governments:

(a) Country level: USAID—in partnership with international finance institutions and other bilateral assistance agencies—should implement economic incentives to encourage middle- and low-income countries to report human, animal, and zoonotic disease outbreaks.

(b) Local level: National governments, with added support from the international community, should identify and provide the resources needed for financial incentives to promote early disease reporting and to engage in effective responses at the local level.

**Recommendation 3-2:** In its work on zoonotic disease surveillance and response, USAID—in collaboration with WHO, FAO, and OIE—should convene representatives from industry, the public sector, academia, NGOs, as well as smallholder farmers, and community representatives to determine how best to build trust and communication pathways among these communities in order to achieve the efficient bi-directional flow of both formal and informal information needed to support effective, evidence-based decision making and coordinated actions.
**Recommendation 3-3:** To protect animal health and international trade, and to contribute significantly to the reduction of human and animal health impacts from zoonotic diseases, OIE members states should take the necessary steps to:

(a) Adhere to Resolution 17 (adopted on May 28, 2009), which reminds OIE member states of their obligation to make available to OIE all information on relevant animal diseases, which includes those that are of zoonotic potential.

(b) Create legally binding obligations for OIE members to develop and maintain minimum core surveillance and response capabilities for animal health risks, including zoonotic diseases.

(c) Authorize OIE to disseminate publicly information received from nongovernmental sources, in the event OIE member states fail to confirm or deny such information in a timely manner, or when denials of such information run counter to persuasive evidence OIE has obtained from other sources.

(d) Empower the OIE Director-General to declare animal health emergencies of international concern with respect to emerging or re-emerging zoonotic diseases that constitute a serious animal health or public health risk to other countries and issue recommendations about how countries should address such emergencies.

**Recommendation 3-4:** To mitigate and decrease the threat of zoonotic diseases emerging from wildlife, U.S. government entities and their international partners, especially OIE, should proactively take the following initiatives:

(a) Conduct a comprehensive review of federal and state laws on trade in wildlife as a prelude to optimizing the policy and regulatory options to: identify gaps and weaknesses in such laws; and enact new legislation, regulations, or administrative rule changes to strengthen the government’s ability to protect human and animal health from diseases carried by traded wildlife through foreign commerce or in interstate commerce.

(b) Incorporate efforts and initiatives that support actions to prevent, prepare for, protect against, and respond to threats to human and animal health into current and new international negotiations and cooperative processes that address drivers of zoonotic diseases (e.g., exotic pet trade, food safety and security, environmental degradation, and climate change).

(c) Pursue negotiations for a new international agreement on trade in wildlife species that improves international collaboration on reducing the threat that such trade presents to human and animal health. The objectives of the negotiations and the agreement would be to make wildlife-related zoonotic disease prevention and control a higher priority in the international management and control of legal and illicit trade in wildlife species, the production and distribution of food and animals, and environmental protection.

(d) Incorporate wildlife diseases and zoonoses into the OIE WAHIS system, and integrate reporting on wildlife diseases and zoonoses in GLEWS. OIE should also expand the role and capability of its Working Group on Wildlife Diseases in order to meet more effectively the growing zoonotic threat wildlife diseases represent.
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<td>Establish surveillance and response strategies (Recommendation 1-1)</td>
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