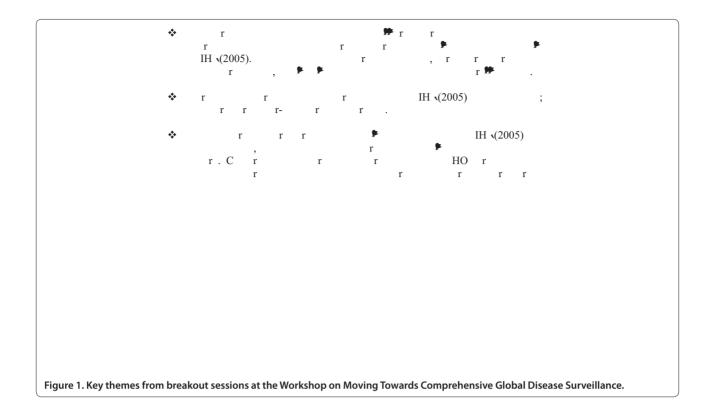


Disease surveillance, capacit building and implementation of the International He0l33 Mationae Ihe h

In rod c ion

At the December 2009 Meeting of States Parties of the Biological Weapons Convention (BWC), U.S. Under Secretary of State Ellen Tauscher committed the U.S. Government (USG) to engaging the global community to achieving and sustaining the capabilities to combat infectious diseases and protect against biological threatspace 98(eecT6 TJ 7.84619998 0 TD .0003 Tcbu 151 Tw [()371.899998100 disease surveillance capacity, and global experts gave overviews of essential components of e ective surveillance; including human workforce development, communications, epidemiologic capacity, and the human/animal interface. e remainder of the workshop was spent in



break-out sessions, enabling participants to share national viewpoints, experiences, and suggestions for cooperative e orts (see Figure 1).

In this journal supplement, we include six articles drawn directly from this workshop. Drs. McNabb and Chungong provide an overview of global surveillance elements, the important scientific, political, and technologic drivers of public health surveillance, and the surveillance core capacities required for compliance with the IHR(2005). Drs. Kant and Krishnan describe how information and communication technology is being used for disease surveillance in India. Mr. Johns and Dr. Blazes discuss how the Department of Defense is helping nations building core capacities for IHR(2005). Dr. Nsubuga from the Centers for Disease Control and Prevention (CDC), along with colleagues from the U.S. Agency for International Development (USAID), the Africa Field Epidemiology Network (AFENET) and CDC present mechanisms for strengthening surveillance and response capacity using the health systems strengthening agenda for developing countries. Dr. Andrus and colleagues from the Pan American Health Organization (PAHO) write about global health security in the context of the IHR(2005), with specific examples of how IHR(2005) guided the response to yellow fever in Paraguay and the H1N1 pandemic. Also in this supplement is the overview of the USG agencies and o ces engaged in building global capacity for disease surveillance, as representatives presented it at this meeting.

Implemen a ion of he IHR(2005)

On August 20th, 2010 a follow-on workshop was held at the Palais des Nations in Geneva, Switzerland co-hosted by the BWC Implementation Support Unit. is workshop again brought more than 100 experts from around the world together for detailed discussion of lessons learned from national experiences implementing the IHR(2005) and regional e orts to support capacity building. e aim of this workshop was to share insights into the practical implementation of the IHR(2005), to identify and address obstacles, and to facilitate sustainable, long-term collaborations. Speakers representing four WHO regions delivered national presentations, including Uganda, represented in the article by Wamala, et al. WHO representatives spoke about international collaboration e orts necessary for IHR(2005) implementation and representatives from the AFENET and the American Society for Microbiology (ASM) spoke about capacity building e orts. ese presentations are represented by articles by Dr. Specter and colleagues from ASM, and by Dr. Musenero and colleagues from AFENET.

Several major themes emerged from the meeting (see Figure 2), as well as specific challenges identified by participants. Some of the specific challenges to successful IHR(2005) implementation include:

- Some countries struggle with gaps in resources, particularly human resources. Participants emphasized the importance of regional training centers to address workforce shortages and training gaps.
- Meeting IHR(2005) obligations at Points of Entry is a universal challenge, involving human resources and multi-sectoral engagement and communication.
- e safe and e ective transportation of specimens and samples remains di cult in many parts of the world.
- ere is a need for better laboratory infrastructure.
 Specifically, labs need broad spectrum diagnostics for rare diseases and common reagents.
- Some countries have had success in developing core capacities at the national level, but found it challenging to make substantial progress in developing capacity at the local level.
- Some countries are focused on building basic public health infrastructure to address endemic health needs, and must prioritize developing this basic infrastructure before focusing specifically on IHR(2005) compliance.

Workshop participants discussed a set of eight draft principles for capacity building and global cooperation for implementing IHR(2005). ey include:

collaborate on a paper that provides a systems approach to strengthening national surveillance and detection of events of public health importance.

Concl ion

Representing the desire to foster global collaboration and find both a common political and technical vision for full implementation of the IHR(2005), the representatives at the June and August meetings, as well as a growing network of international partners are achieving important consensus, activities, and outputs. Countries recognize gaps in disease surveillance capacity and needs for intra-country and inter-sector collaboration. ey also face challenges in specific technical areas and in building leadership, communication, and collaboration. form for discussion and planning provided in June and August generated enthusiasm and targeted areas for intervention. e contributors to this supplement are codifying the vision for global disease surveillance and IHR(2005) implementation, and collectively, planning the future.

Abbreviations

Applementations

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Competing interests

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Authors' contributions

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