

EDITORIAL

Effective Pandemic Preparedness

Kevin Yeskey, MD

Since the identification of 2009-H1N1 in the spring, the virus has caused human disease worldwide and has led to the first influenza pandemic in 4 decades. In North America, despite the unexpectedness of being the early center of the emerging epidemic, public health agencies, health care systems, and medical providers were able to make the immediate switch from preparedness to response, even after the severe economic downturn had affected most of these organizations. Many components of the public health and medical response have been implemented well. Much of the success in the United States is due in large part to the extensive preparedness work that had been done before 2009 by public health agencies and health care institutions across the local, state, interstate regional, tribal, and federal levels. The majority of pandemic influenza planning assumed that the novel influenza virus would likely be of avian origin and start spreading among humans in geographic locations distant from North America. These assumptions of course were based on the best information at the time, recognizing that H5N1 had first emerged and caused serious human disease in 1997, and then after reemerging in 2003 caused widespread disease in birds in numerous countries and continued to cause sporadic human disease in Asia. Although the original planning assumptions were not entirely accurate with regards to viral strain and geographic origination, these plans still provided a solid foundation for much of the country's and international community's early 2009-H1N1 response.

During the past 6 years, the US Department of Health and Human Services has provided \$3.2 billion in grant funding to states, territories, and selected municipalities for all-hazards hospital preparedness. The grant program transferred to the Office of the Assistant Secretary for Preparedness and Response (OASPR) with the passage of the Pandemic and All-Hazards Preparedness Act in December 2006. Within OASPR, the Hospital Preparedness Program grant program has been managed by the Office of the Preparedness and Emergency Operations (OPEO). Health and Human Services grants, in combination with other sources of preparedness dollars, allowed state and local public health agencies and health care organizations to engage at levels necessary to truly achieve meaningful influenza pandemic preparedness. When communities were encouraged to institute community mitigation or receive a proportion of antiviral medications from the Strategic National Stockpile, much of the initial planning and implementation work was already completed

because so many communities had been addressing these issues long before 2009-H1N1 was identified. We were afforded more lead time to respond to this novel influenza virus because the virus was identified early using diagnostics developed as a result of a program supported by Health and Human Services OASPR's Biomedical Advanced Research and Development Authority. Mainstays of the current response include timely, large-quantity vaccine production, sufficient quantities of first-line antiviral drugs, alternate antiviral availability, effective risk communication, private-public partnership for optimal community mitigation and continuity of critical infrastructure including supply chain. This was due to significant investment and effort in the past few years by federal agencies and their myriad of partners.

Of course, no plans or responses are perfect, but as the public health and medical institutions of this country and the world are learning organizations and committed to sharing their mistakes and successes, a review of the recent experience is necessary to develop the next generation of strategic, operational, and tactical plans for the anticipated fall 2009 outbreak. As these institutions learn from the past, it is hoped that with revised mitigation strategies and a prepared health care system, combined with the protection of an immunization program using newly developed vaccines, public health and medical institutions will be able to respond effectively to this global disease outbreak.

OPEO also has a number of additional planning and response functions and its overall mission for the 2009-H1N1 influenza pandemic has been to support the US health care system and public health response. A central tenant within OASPR is the dissemination and use of evidence-informed best practices in shaping preparedness and response and the engagement of high-quality expert review. OPEO has provided financial support to *Disaster Medicine and Public Health Preparedness* to allow timely preparation of the present supplement on 2009-H1N1, which promises to be one of the definitive 2009-H1N1 resources for public health and clinical planners and responders during fall 2009 and winter 2010. The quality of the articles that are contained in the prepublication online versions of selected articles in this supplement as well as the additional articles that will follow in the print version are testament to how far we have come regarding pandemic response and the significant uncertainties that require additional work due to the immense complexities of

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some of the planning and response issues. The author believes this supplement will be helpful as populations in the temperate climates in the northern hemisphere prepare for a potential surge in flu-associated illness in the coming months.

About the Author

Dr Yeskey is with the Office of Preparedness and Emergency Operations, US Department of Health and Human Services.

Address correspondence and reprint requests to Dr Kevin Yeskey (e-mail: kevin.yeskey@hhs.gov).

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Author's Disclosures

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