Guest Editorial

Matthew Lim, MD and Thomas E. Novotny, MD, MPH



A Case for Prioritizing Global Health Diplomacy

merging (and reemerging) infectious diseases (EIDs) continue to be a major concern to public health officials at local, national, and international levels. Severe acute respiratory syndrome, dengue fever, chikungunya virus, reemerging viral hemorrhagic fevers, and highly pathogenic avian influenza virus are just a few of the identified infectious disease risks in this new millennium. The reasons for the rising incidence of EIDs include increasing population pressure, worsening environmental stress (due to such factors as human encroachment on previously unexploited land and, possibly, climate change), increasing global travel, mass migration of populations, and evolving microbial resistance.1 Moreover, the potential use of microorganisms for germ warfare or terrorism is an ongoing concern to the international community.

The idea that public health does not recognize borders is particularly true with regard to infectious diseases. In an era of global travel, diseases can emerge and cross borders or even continents with surprising ease—potentially leading to massive travel disruptions, economic losses,² exacerbation of refugee problems, and heightened international tensions. When ineffective or uncoordinated, public health measures taken in one area may backfire and worsen the situation in another region. Recent disputes over intellectual property in

Dr. Lim is a medical officer at the Department of Epidemic Alert and Response, part of the Health Security and Environment Cluster at the World Health Organization, Geneva, Switzerland. **Dr. Novotny** is a professor of global health at the Graduate School of Public Health at San Diego State University, San Diego, CA.

avian influenza research have demonstrated that coordination of efforts is not automatic or simple,³ and failure to share resources or knowledge weakens the search for new vaccines, therapeutics, and interventions.

During the past three decades, the public health community has improved its global response to infectious disease outbreaks and threats significantly, but clinical medicine has not always kept apace with such developments.4 The lack of adequate clinical response to EIDs hampers disease reporting, reduces community support, fosters drug resistance, and limits scientific evaluation that could improve overall public health response in the future. Experience suggests that relatively simple interventions-applied in a rigorous, evidence-based fashion-may reduce EID morbidity and mortality substantially.⁵ Advances in rapid testing, noninvasive monitoring, and other treatment adjuncts may improve disease management and public health outcomes even further.

There is a significant mismatch, however, between the areas of the world where EID risks are greatest and those where global resources to address them are concentrated.6 In countries with limited resources, which often contain the socioeconomic, environmental, and ecologic conditions associated with increased EID risks,6 other health problems (such as malnutrition and diarrhea) usually pose more immediate health risks to the population than do EIDs of global concern (such as Ebola hemorrhagic fever or Lassa fever). Local governments in developing nations struggling with poverty and insufficient health care workforce and infrastructure cannot shoulder the additional burden of responding to these EIDs.

Improvements in clinical care during outbreaks, therefore, require coordinated international efforts not only to harmonize and standardize best practices but also to provide essential resources during an event. In this editorial, we'll explore how the U.S. government is currently supporting the development of such responses and what more it can do.

WHY GET INVOLVED?

What is the rationale for the U.S. government to participate at all in efforts to address global health concerns? There are actually several reasons, one of which is purely humanitarian. Providing assistance in times of need is a deeply rooted American value. Assisting the global response to EIDs is simply the right thing to do.

Another reason is the United States' commitment to evidence-based medicine as a global public good. Already, much of the clinical research on EIDs is supported by the U.S. government, and this continued work will ensure optimal treatment of people everywhere

Beyond the altruistic benefits, however, there is a strong argument based on enlightened self-interest. Adequate response to EIDs in other countries helps to ensure the safety of the U.S. population both at home and abroad. (In 2007, 64 million Americans travelled abroad and 31 million travelled overseas.⁷) The most effective outbreak intervention, from a population health standpoint, is "containment at the source"—that is, breaking the chain of transmission as close to the index case as possible. Thus, the U.S.

Continued on page 13

government can help prevent secondary spread of infection and new outbreaks by engaging with the international public health community.

Finally, such assistance has been shown to support peace and stability in troubled areas worldwide and to build stronger relationships between the U.S. and other nations. This type of "health diplomacy" is arguably one of the best ways to win the hearts and minds of friends and foes alike. One of the authors vividly recalls the words of a nurse he encountered while working at a South African AIDS clinic supported by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) in 2004. "I don't like your president or what your country is doing in Iraq," she said, "but I also know which country helped my people when we faced the greatest threat to life we have ever known, and I appreciate it."

A PLAN FOR EXPANDING THE U.S. ROLE IN GLOBAL EID RESPONSE

How would expanded U.S. engagement in the clinical response to EID outbreaks be structured? Because competition between bureaucracies reduces the effectiveness of international assistance, any response should be coordinated through federal aid agencies that share a common purpose.8 Furthermore, any U.S. government response should be coordinated through the World Health Organization (WHO) and its Global Outbreak Alert and Response Network (GOARN). WHO has unique authority and responsibility for such coordination efforts granted to it by its member states under the revised 2005 International Health Regulations.9 The United States already provides substantial support for GOARN and benefits from the additional global health security provided by this network.

Clinical assistance provided should take into account the size and nature of the outbreak, the cultural setting in which it occurs, and the efforts of other international donors. The sovereignty and authority of the host nation government always must be paramount. After the outbreak, responsibilities for ongoing care should be transitioned to local governmental or nongovernmental resources. U.S. assistance should then be focused on infrastructure and human resource development to assure sustainability. The Institute of Medicine (IOM) of the National Academies has called recently for an increase in overseas development assistance as a key element of foreign policy.10 This assistance could start with outbreak response and then shift to infrastructure development that can support national capacity development.10

The response of the U.S. government also should take advantage of the goodwill and experience of practicing U.S. government clinicians from across agencies. Growing interest in global health is now demonstrated by both civilian and military institutions. About 20% of U.S. foreign assistance is provided through the DoD, and there are now approximately 40 global health training and research programs in U.S. universities. Recently, the IOM proposed the establishment of a U.S. Global Health Service. Such a federal service could provide a mechanism to recruit and reward fully trained clinical professionals-a sort of "Peace Corps for health"—and offer a fellowship program for established clinicians to participate in international outbreak response and health system development.11

Finally, there is enormous potential for partnerships with the private sector to improve global health responses. Philanthropic organizations, such as the Bill and Melinda Gates Foundation and the Rockefeller Foundation, and corporations, such as Merck and Co., already provide substantial funding for such enterprises.

IN CONCLUSION

In this globalized word, geographic distance no longer insulates us from health risks that originate in far off lands—if it ever did. Fortunately, our knowledge of the management of complex illnesses continues to advance. A decade ago, it was widely believed that antiretroviral therapy could never be delivered sustainably, safely, and reliably to HIV-positive patients in Africa, but determined efforts have succeeded in demonstrating its feasibility and efficacy.

Government leaders should unite, as they did with PEPFAR, to provide opportunities for skilled clinicians and other health care workers to assist during EID outbreaks. U.S. clinicians can make a meaningful difference in outbreak response where it makes the most difference to individual patients: at the bedside. But these efforts require coordination, as well as an understanding of public health and development approaches in the 21st century. As a new Presidential administration takes the helm, health care needs to be central to U.S. foreign policy. U.S. engagement in health diplomacy will be a key contributor to improved health both at home and around the globe and will help to sustain peace and security in the global community.

Author disclosures

The authors report no actual or potential conflicts of interest with regard to this editorial.

Disclaimer

The opinions expressed herein are those of the author and do not necessarily reflect those of Federal Practitioner, Quadrant HealthCom Inc., the U.S. government, or any of its agencies. This

Continued on page 23

GUEST EDITORIAL

Continued from page 13

article may discuss unlabeled or investigational use of certain drugs. Please review complete prescribing information for specific drugs or drug combinations—including indications, contraindications, warnings, and adverse effects—before administering pharmacologic therapy to patients.

REFERENCES

- Hui EK. Reasons for the increase in emerging and re-emerging viral infectious diseases. Microbes Infect. 2006;8(6):905–916.
- Emerging Infectious Diseases: Asian SARS Outbreak Challenged International and National Responses. Washington, DC: US General Accounting Office; April 2004. Publication no. GAO-04-564. http://

- www.gao.gov/new.items/d04564.pdf. Accessed February 24, 2009.
- Indonesia to resume sharing H5N1 avian influenza virus samples following a WHO meeting in Jakarta [news release]. Geneva, Switzerland: World Health Organization; March 27, 2007. http://www.who. int/mediacentre/news/releases/2007/pr09/en/index. html. Accessed February 24. 2009.
- Bausch DG, Feldmann H, Geisbert TW, et al; and Winnipeg Filovirus Clinical Working Group. Outbreaks of filovirus hemorrhagic fever: Time to refocus on the patient. J Infect Dis. 2007:196(suppl 2): S136–S141.
- Wills BA, Nguyen MD, Ha TL, et al. Comparison of three fluid solutions for resuscitation in dengue shock syndrome. N Engl J Med. 2005;353(9):877– 889.
- Jones KE, Patel NG, Levy MA, et al. Global trends in emerging infectious diseases. *Nature*. 2008;451(7181):990–993.
- U.S. sets new records for travel abroad in 2007: Fourth straight year for record visitors and spend-

- ing abroad [news release]. Washington, DC: Office of Travel and Tourism Industries; June 30, 2008. http://tinet.ita.doc.gov/outreachpages/download_data_table/2007_Outbound_Analysis.doc. Accessed February 24, 2009.
- 8. Garrett L. The challenge of global health. Foreign Aff. 2007;86(1):14–38.
- World Health Organization. International Health Regulations (2005). 2nd ed. Geneva, Switzerland: World Health Organization; 2005. http://www.who. int/csr/ihr/HR_2005_en.pdf. Accessed February 24, 2009
- Committee on the US Commitment to Global Health, Board on Global Health, Institute of Medicine. The U.S. Commitment to Global Health: Recommendations for the New Administration. Washington, DC: The National Academies Press; 2009. http:// www.nap.edu/catalog.php?record_id=12506. Accessed February 24, 2009.
- Mullan F. Responding to the global HIV/AIDS crisis: A Peace Corps for health. JAMA. 2007;297(7):744–746