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Addressing the global health security agenda

Pathogens can spread quickly through the globalised system of travel, trade, and food distribution presenting a threat to the entire world. They recognise no borders. "A threat anywhere is a threat everywhere", says Kathleen Sebelius, US Secretary of Health and Human Services. In today's interconnected world, emerging infectious disease threats have created the need for new global solutions such as the International Health Regulations (IHR; 2005), signed by all 194 WHO member states. However, fewer than 20% of countries complied with the 2012 deadline and are fully prepared to detect and respond to disease threats. To help non-compliant nations meet the IHR requirements, on Feb 13, US officials together with representatives from more than 25 nations and international organisations convened in Washington, DC, USA, for the launch of the new Global Health Security Agenda (GSHA). Participating organisations include WHO, the World Organization for Animal Health, and the UN Food and Agriculture Organization. The aim of the Agenda is to prevent, detect, and respond to infectious diseases threats, thus promoting security as an international priority. The Agenda will include programmes to help countries to develop national infectious disease laboratories, public health electronic reporting systems, and emergency operations centres.

Why has such an initiative been deemed necessary? A prime motive is concern arising from the emergence of new infectious disease threats. Every year new infections, together with the emergence of drug-resistant pathogens, pose challenges to global health and political and economic stability. SARS, which infected some 8000 people, took the lives of 775 individuals, and inflicted US\$30 billion in damage to regional economies in only 4 months in 2003, remains in the consciousness of the international community. The 2009 H1N1 influenza pandemic killed an estimated 284000 people in its first year alone. Further examples include the recent outbreak of Middle East respiratory syndrome coronavirus, first reported in 2012, and the 2013 outbreak of H7N9 influenza in China. The risk of political instability from the growing HIV epidemic in sub-Saharan Africa was certainly a motivating factor behind the establishment of the US President's Emergency Plan for AIDS Relief (PEPFAR) 11 years ago. The growth in cases of multidrug-resistant tuberculosis might soon pose a similar threat.

Another initiative to strengthen global health security was described in a Comment in The Lancet Infectious Diseases in January. Jake Dunning and colleagues emphasise how in the light of past experience with SARS and pandemic H1N1, the International Severe Acute Respiratory and Emerging Infection Consortium, launched in December 2011, should be used as a shared global platform to support clinical data collection and biological sampling protocols during epidemics.

Good examples of how efforts to improve surveillance, laboratory, and emergency response systems could limit the damage of an epidemic and contribute to meeting the IHR requirements are provided by two pilot projects undertaken by the US Centers for Disease Control and Prevention (CDC). In 2013, the CDC worked together with ministries of health in Uganda and Vietnam to modernise diagnostic testing for high-risk pathogens. In Uganda, for example, improvements included transportation systems supported by PEPFAR. A courier system was established in which motorcycle couriers travel through rural areas to pick up blood samples from newborn babies born to HIV-positive mothers and transport the blood to laboratories for quick diagnosis.

The CDC plans to spend \$40 million on such projects in another ten countries, and the Obama administration intends to allot a further \$45 million to support similar projects. The US government will collaborate with international partners through different programmes, platforms, and partnerships to build capacity and strengthen the Global Health Security Agenda. Such programmes include the Global Disease Detection Program, the Emerging Pandemic Threats Program, the Cooperative Biological Engagement Program, and the Global Emerging Infections Surveillance and Response System. These programmes will help the GSHA to develop an enhanced and secure system to prevent, treat, and respond to disease in a more effective way.

The achievement of this goal will depend on a shared effort and responsibility among the health, security, and agriculture sectors. Political determination, technical expertise for early detection, and the right economic investments will be of fundamental importance for the rapid response to and successful management of outbreaks. The Lancet Infectious Diseases



See Comment Lancet Infect Dis 2014; 14:8-9

For more on the Global Health Security Agenda see http:// www.cdc.gov/globalhealth/ security/why.htm

For more on the project in Uganda see http://www.cdc. gov/mmwr/preview/ mmwrhtml/mm6304a2.htm