MEETING OF THE STATES PARTIES TO THE CONVENTION ON THE PROHIBITION OF THE DEVELOPMENT, PRODUCTION AND STOCKPILING OF BACTERIOLOGICAL (BIOLOGICAL) AND TOXIN WEAPONS AND ON THEIR DESTRUCTION

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The Role of the World Health Organisation in Infectious Disease Surveillance: Australian Perspective

Submitted by Australia

I Introduction

1. The global surveillance of infectious diseases of potential international public health significance is a major program within the World Health Organization (WHO) Department of Communicable Diseases Surveillance and Response (CSR), and carried out by the CSR Office for Alert and Response Operations (ARO). In Australia's view, WHO is the ideal organization to undertake global surveillance because of its role and responsibilities as the health arm within the United Nations family of international organizations, its responsibilities in compiling the International Health Regulations and is coordinating the review process. In addition, it has a large international network of health specialists through its country offices, regional offices, and collaborating centres. The wide-spread acceptance of the WHO is an essential requirement for global surveillance, as it is generally provided access on request and allows it to exercise a strong leadership role with respect to verification and control activities.

II Elements of Disease Control

Surveillance

2. Surveillance is an essential component of disease control, whether it be epidemics and/or the spread of known diseases, epidemics of new emergent diseases, or epidemics arising from deliberate release of a modified or naturally-occurring infectious agent. The rationale is that the sooner that an

epidemic is detected and verified, the faster a response can be initiated to control the outbreak. Thus surveillance is broken into three overlapping areas: detection, verification and response.

Detection

3. Detection of putative epidemic activity or of a cluster of unusual events of morbidity or mortality is undertaken by WHO from various sources and agencies:

(a) Global Public Health Intelligence Network (GPHIN);
(b) WHO Regional Offices;
(c) WHO Country Offices;
(d) ProMED;
(e) NGOs, and;
(f) WHO Collaborating Centres.

4. The Global Public Health Intelligence Network (GPHIN), developed by Health Canada in collaboration with WHO, is the most important source. GPHIN is a very powerful near real-time electronic search tool which trolls the electronic media for mention of possible public health events.

5. Further information on GPHIN can be found at:
http://www.dtra.mil/about/organization/session3/St%20John.%20GPHIN%20Presentation_%20Jan%2020%202004.pdf.

6. The data obtained by GPHIN is sifted and reports are sent daily to the WHO. Information so gathered is discussed each morning by the WHO ARO operations team, and where necessary, verification sought. The importance of speed cannot be over-emphasised, and this is clearly an important aspect of the surveillance procedure.

Verification

7. WHO cannot enter a country to verify a possible epidemic without permission from the "host" Country. Initially, verification may be through a telephone call to the country's health ministry either directly or through the WHO country representative; or in some cases, through the regional office. Verification might then require sending a team into the epidemic area. A WHO team may be organized by the regional office in consultation with the health ministry, or by the ARO. Expert help may be sought from the Global Outbreak Alert and Response Network (GOARN)? a partnership between WHO and over 120 international and national organizations, such as Centers for Disease Control and Prevention (US), Health Protection Agency (UK), Médecines Sans Frontières, Health Canada, and the EU Surveillance Network. There are several Australian GOARN partners, including Curtin University, National Centre in HIV Epidemiology and Clinical Research, Australian Biosecurity CRC, National Centre for Epidemiology and Population Health, and the Australian Department of Health and Aging. Expert help may include clinical, epidemiological, laboratory, infection control, or other appropriate disciplines.

Response

8. Once verified, and if required and agreed to by the country, the ARO will initiate assistance in order to control the epidemic. Assistance is usually undertaken through GOARN. The GOARN partnership normally provide personnel and, in some instances, financial support to the outbreak investigation and control activities. In some cases, purchase of vaccines might be necessary, such as in meningitis and yellow fever.

9. The ARO experts meet daily each morning as a group to discuss epidemics of public health importance, and each epidemic is continuously monitored by the group from detection, through verification and control, and a member of the headquarters staff and a member of the regional office are detailed to have responsibility for each epidemic. A daily list of epidemics is generated for closed circulation within the organization so all are aware of activities, and a weekly Outbreak Verification List is circulated to a wide range of international health authorities and experts. Counties are alerted to any outbreak of international significance, once verified.

III Transparency and Effective Global Surveillance

10. The effectiveness of the global surveillance procedure has been proven in a number of examples, and indeed several hundred epidemics have been observed, although only a modest number have been considered to be of major international significance. Thus over the past 12 months, these have included outbreaks of cholera, meningitis, yellow fever, SARS, ebola, and avian influenza. The SARS outbreak was the first major emerging disease of this millennium, and also the first major multi-country public health event of global significance. That it was recognized, identified, and contained as quickly as it was was due to the response by WHO, it's regional office and it's relevant country offices.

11. The concept of global surveillance, however, is dependent on the honesty and transparency of countries to admit to epidemics of infectious diseases.

12. Thus where there may be issues of trade, tourism or foreign investment, honesty and transparency may be less forthcoming; this was seen recently with SARS and China and with avian influenza in Thailand. Nevertheless, the enormous financial ramifications of major potential pandemic threats, as seen with SARS where the cost of the epidemic has been estimated to be in excess of US$100 billion, make transparency of greater significance in a post-SARS world. However, there trends towards myopia as time passes, and it is important to ensure that transparency of reporting is maintained.

13. To this end, Australia considers that the revised IHR, once adopted, would provide an fundamental tool to supporting the WHO's disease surveillance activities. Moreover, the revised IHR would provide a mechanism for delivering greater transparency through greater disease reporting to the international community, and provide a basis for developing national measures.

IV Conclusion

14. Australia supports the role of the WHO in global disease surveillance. Australia receives important public health benefits from the WHO's role in offshore disease surveillance. Diseases do not respect borders and a coordinated trans-national effort is required to contain outbreaks. No single country currently the capacity or expertise to undertake the range of trans-national activities required for disease surveillance. The WHO's efforts in the coordinating the detection, verification and response to off-shore outbreaks relieves the Australian public health system of not only unnecessary casualties that may arrive undetected in Australia, but of the need to have an additional and extensive layer of national surveillance and regional capacity-building activities? these are provided or can be provided on request through the WHO information-sharing systems.

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