

INVESTING IN CAPACITY TO MEET THE CHALLENGE OF AN INFLUENZA PANDEMIC

Mark J Ferson

Public Health Unit

South Eastern Sydney and Illawarra Health

David N Durrheim

Hunter New England Population Health

Hunter New England Area Health Service

We welcome you to the second issue of the *NSW Public Health Bulletin* that is devoted to aspects of influenza pandemic planning and response. Recent simulation exercises designed to test preparedness for pandemic influenza, Exercise Cumpston 06 on a national scale and Exercise Paton in NSW, have shown that the public health system in NSW has made substantial progress in preparing for what many consider to be an inevitable event. Of equal, if not greater, importance is a recognition that the work done has strengthened the health system's capacity to meet a much wider range of challenges. This work is the focus of this issue of the *Bulletin*.

The opening article by Letts, 'Ethical challenges in influenza pandemic planning', highlights a number of domains where the common good, individual rights and individual responsibility may conflict. In addition to the need to isolate or quarantine infectious or potentially infectious individuals to protect the health of the population, the overwhelming nature of a pandemic raises the likely need to ration health resources such as influenza antiviral medications, critical care beds, ventilators and vaccine (if one is available). Furthermore, experience with SARS has raised questions about the obligations of healthcare workers to patients when clinical care entails a significant risk to the worker's own health or that of their family. In order to deal with the likely surge of patients, it may be necessary to assign less experienced personnel, such as students or retired health professionals, to clinical or public health duties. Through all these possibilities, the message is reiterated: an ethical framework for clinical and public health care and workforce management is required, and this framework should be transparent, appropriate and consistently applied throughout the NSW health system.

continued on page 130

CONTENTS

- 129 Investing in capacity to meet the challenge of an influenza pandemic
- 131 Ethical challenges in planning for an influenza pandemic
- 135 A general practice perspective of pandemic influenza
- 138 Business continuity management and pandemic influenza
- 141 The effective use of the media during an infectious disease emergency
- 142 Challenges for the laboratory before and during an influenza pandemic
- 146 Planning for pandemic influenza surveillance in NSW
- 150 Websites and resources for avian and pandemic influenza
- 151 Bug Breakfast in the *Bulletin*: Pandemic influenza preparedness
- 152 *FactSheet*: Pandemic influenza
-
- 154 Communicable Diseases Report, New South Wales, for July and August 2006

The soon to be published 'Primary care annex' of the Australian Health Management Plan for Pandemic Influenza¹ outlines the roles of general practitioners, community health services and community pharmacists in a pandemic, and will provide guidance for their preparations. Moore's paper, 'A general practice perspective of pandemic influenza', prompts general practitioners to think about what they will need to do before and during a pandemic. Moore encourages them to maintain close links with their local Division of General Practice and their local public health unit. Their staff will need to be aware of local pandemic-related health services and know, for example, how to refer a patient to the nearest public hospital influenza clinic (formerly referred to as a 'fever clinic'). The article provides a framework to inform planning and, as Moore states, this will leave practices better able to do their normal work or to respond to simpler crises such as a case of measles or unexpected staff absences.

The importance of planning in general practice reminds us of the need for all organisations to have contingency plans for sustaining key functions and remaining viable during a pandemic, when there may be high rates of employee absenteeism, breakdowns in the supply chain of some goods and a fall in demand for some services. Dalton, in 'Business continuity management and pandemic influenza', observes that getting ready for a pandemic is not solely the province of health authorities, nor even of government, which does however have a clear duty to keep the community informed of risks. His article proposes actions that governments, businesses and individuals can take to minimise these risks. Businesses may be adept at responding to mechanical, infrastructure and supply difficulties but may have less experience in incorporating the human element into contingency planning. Likely concern among staff about the spread of contagion in the workplace, consequent risks to family members (especially children), and fear of being unable to gain access to health services or resources can be met by including staff in planning processes and providing staff with information from authoritative Australian sources. The proposed NSW Health communication strategy is outlined by Geddes in this issue.

Among the strides forward that have been made in Australia in preparing for a pandemic is the enhanced coordination and referral capacity among clinical microbiology laboratories. In the early phases of a pandemic, prompt detection and reporting of the influenza A pandemic strain will be necessary for controlling the pandemic, as it is key to the public health management of cases and contacts. However, in addition to the diagnosis of the pandemic strain, a small number of reference laboratories will need to characterise the virus as a prelude to vaccine production and to provide profiles of antiviral drug susceptibility to guide the use of these agents in influenza prophylaxis and treatment.

Dwyer and colleagues, in 'Challenges for the laboratory before and during an influenza pandemic', summarise the variety of testing modalities available for diagnosis and their respective advantages and disadvantages.

The timely and effective gathering, analysis and dissemination of data are essential to the proper management of any emergency, and will be critical during the early phases of an influenza pandemic if containment is to be achieved. Reliable reporting of surveillance data by NSW to the Australian Government will be necessary to allow a coordinated national and international response. The Australian Government in turn must comply with good practice described in the recently revised International Health Regulations², by demonstrating prompt and accurate reporting of diseases of international public health concern to the World Health Organization. In recent years, NSW Health has developed multiple approaches to health surveillance that will enable an effective response to both old and emerging public health threats. These approaches are described by Muscatello and colleagues in the article 'Planning for influenza pandemic surveillance in NSW'. Statutory case-based reporting by clinicians and laboratories in accordance with the *Public Health Act 1991 (NSW)* is complemented by a near real-time system for collating and analysing reasons for patient presentations to hospital emergency departments. This latter system has the ability to detect sudden increases in the number of patients presenting with specific combinations of symptoms, including influenza-like illness. Further developments and improvements in both systems, including the staged introduction of electronic transfer of laboratory notifications and the linking of influenza diagnostic data from animal and human sources, will place NSW in a good position to provide timely and accurate data for public health action.

While there are substantial costs involved in preparing our health system and society for a future pandemic and exercising key elements of our response, the likely deleterious nature and magnitude of the event justifies the scale of this investment. In addition, if pandemic preparations result in a health system that is better equipped to respond to major public health crises, this will deliver a significant return on our investment.

REFERENCES

1. Department of Health and Ageing. *Australian health management plan for Pandemic influenza*. Canberra, Department of Health and Ageing. Available at <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/ohp-pandemic-ahmppi.htm>. Accessed 1 December 2006.
2. Revision of the International Health Regulations. Agenda item 13.1. Resolution WHA58.3, Fifty-eighth World Health Assembly, Geneva: World Health Organization; 23 May 2005. At www.who.int/gb/ebwha/pdf_files/WHA58/WHA58_3-en.pdf, accessed 1 December 2006. ☒