

## Editorial

# Planning for an Influenza Pandemic

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Influenza experts have consistently warned of the possibility of a pandemic in the near future. Historically, pandemics have occurred at intervals of 11 – 42 years and it has now been 38 years since the last Hong Kong flu (H3N2) in 1968 – 1969. Whether the current strain (H5N1) undergoes mutation to enable it to transmit efficiently from human to human, or whether another, as yet unidentified virus, becomes the pandemic strain remains to be seen. Regardless, one thing is certain – We need to prepare.

The World Health Organization and governments around the world are actively preparing for the possibility of a pandemic by investing in vaccine development and stockpiling neuraminidase inhibitor antiviral drugs. In the event of a pandemic, three major interventions for controlling person-to-person transmission include use of vaccine, antiviral agents, and social distancing<sup>1</sup>. A model based on analysis of the 1918 influenza pandemic, estimates that in the developed world one-third of transmissions will occur in the household, one-third in workplaces and schools, and one-third in the general community. Therefore, an important containment strategy will target antiviral agents combined with school and business closings<sup>2</sup>.

Models developed by Meltzer estimate that Victoria alone will have to contend with an excess of up to 700,000 outpatient visits, 24,000 hospital admissions and 10,000 deaths<sup>3</sup>. Whether hospitals would be able to have the surge capacity to take care of such numbers of sick patients is seriously questioned. Within our own institution we have modelled the impact on our health service<sup>4</sup>. For a pandemic with a 25% attack rate and a duration of eight weeks we will be faced with a peak admission rate of 500 cases/week (80 cases/day), a peak need of 56 ventilators operating at one time and ICU capacity full during the second week. Plans to close this gap need to be addressed at the regional level by local providers and public health authorities.

Measures to control the spread of disease will inevitably lead to a dwindling of health services in other areas. During the SARS outbreak, difficult choices about which medical services to maintain and which to put on hold had to be made. Thousands of people were denied medical care and some died before receiving treatment<sup>5</sup>. Hospitals need to have plans for setting priorities should a future pandemic occur.

Individual hospitals should be preparing by stockpiling personal protective equipment, alcoholic hand rub and disinfectants. Clear and fair infection control measures that do not create barriers to care need to be formulated. Antivirals and antibiotics should be stockpiled, and how they are to be used decided before the

pandemic arrives. Hospitals have been advised to plan for fever clinics, but how are these to be run? Will they serve as acute triage centres for influenza victims or will they become antiviral dispensing clinics for the worried well?

Planning for health care in alternative, non-hospital settings is also required. In the past, train stations, warehouses and football ovals have been used to accommodate the ill. Hospitals need to identify similar structures that will allow them to care for more patients in the event of a pandemic.

Pandemic planning must also include consideration of the risks to which health care workers can reasonably be expected to expose themselves and their families. Hand washing is going to be a major factor in preventing transmission and this message needs to get across now. Hospitals have a duty of care to minimise any risks and educate in advance of a pandemic what the expected roles of each health care workers will be. For example, some staff may need to move to another hospital and others may face a change in job structure. In the 1918 pandemic, medical students ran entire wards, performing both medical and nursing duties<sup>6</sup>. Staff need to be informed now of the expectations that may be placed on them during a pandemic.

How we cope with the next inevitable pandemic depends on how we all prepare now. Hospitals need to consider their coping ability and plan well in advance to minimise the disruption that will occur.

## References

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