

Auckland Regional Public Health Service

Rātonga Hauora ā Iwi o Tamaki Makaurau



Working with the people of Auckland, Counties Manukau and Waitemata

Pandemic Postings

Current Alert Level: **WHITE** ([definition](#))
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National

Pandemic legislation passed by parliament [Hodgson, 13/12/06](#).

The Law Reform (Epidemic Preparedness) Bill has been passed unanimously by parliament. The Bill as reported by the Government Administration Committee was divided into seven separate bills for passage by parliament:

- the [Epidemic Preparedness Bill](#), comprising Part 1 of the original (enabling use of emergency powers);
- the [Health Amendment Bill](#), comprising clauses 16 to 24A (powers of Medical Officer of Health, quarantine, surveillance) and the Schedule;
- the [Immigration Amendment Bill \(No 2\)](#), comprising clauses 27 to 30 (changes to Immigration powers and processes);
- the [Parole Amendment Bill](#), comprising clauses 33 to 38 (changes to parole board processes);
- the [Sentencing Amendment Bill \(No 2\)](#), comprising clauses 41 to 44 (changes to probation officer processes);
- the [Social Security Amendment Bill \(No 2\)](#), comprising clauses 45 to 48 (changes to benefit payment processes); &
- the [Summary Proceedings Amendment Bill \(No 2\)](#), comprising clauses 51 and 52 (changes to processes for court adjournment).

Exercise programme update newsletter [MoH, 12/06](#). The latest Ministry of Health pandemic exercise newsletter is available. The newsletter has the dates for each of the four different stages of Exercise Cruickshank in May next year (10 May, Cruickshank 1 - Keep It Out; 16 May, Cruickshank 2 - Stamp It Out; 17 May, Cruickshank 3 - Manage It; and 23 May, Cruickshank 4 - Recover From It).

International

No new human cases of avian influenza A/(H5N1) have been reported (as per the WHO website) since last Pandemic Postings.

Background

Assessing the role of basic control measures, antivirals and vaccine in curtailing pandemic influenza [Nuño et al, J R Soc Interface \[internet publication\]. 2006 \[cited 19/12/06\]](#). This paper presents a mathematical model for the evaluation of the pandemic flu preparedness plans of the United States, the United Kingdom and the Netherlands. The authors report that "while the use of antivirals alone could lead to very significant reductions in the burden of a pandemic, the combination of transmission control measures, antivirals and vaccine gives the most 'optimal' result." However, "an optimal preparedness plan is largely dependent on the availability of resources; hence, it is country-specific. We show that countries with limited antiviral stockpiles should emphasize their use therapeutically (rather than prophylactically) ... [and] countries with large antiviral stockpiles can achieve greater reductions in disease burden by implementing them both prophylactically and therapeutically."

Review of antiviral agents active against influenza A viruses [De Clercq, Nat Rev Drug Discov 2006;5:1015-25](#). This article reviews agents that have been shown to have activity against influenza A viruses and discusses their therapeutic potential, and also describes emerging strategies for targeting these viruses.

Current global avian influenza activity
No new confirmed human cases of avian influenza A/(H5N1) have been reported¹ 29 Nov - 18 Dec 06; no new outbreaks of highly-pathogenic avian influenza H5N1 in poultry have been reported² 1 - 14 Dec 06. The complete list of human cases and poultry outbreaks to date can be found on the [ARPHS website](#).

Notes:

- 1 As recorded on the [World Health Organization](#) website
- 2 As recorded on the [World Organisation for Animal Health \(OIE\)](#) website.

Background (contd)

US report on effectiveness of community interventions for pandemic control [CIDRAP, 14/12/06](#). The US Institute of Medicine (IOM) has published a report on whether community interventions such as school closures, quarantine and respiratory etiquette could reduce the impact of an influenza pandemic. An IOM committee reviewed a range of information sources, including mathematical models, and reported that available evidence was insufficient to conclusively state whether interventions would be effective or ineffective. The committee endorsed a range of community interventions including home isolation, quarantine, hand hygiene, respiratory etiquette, contact tracing, preventive antiviral treatment, and community restrictions such as school closures; however the panel warned that public health officials, in recommending such steps, should take care not to overstate the evidence for their effectiveness. The group also said that any plans to use such measures should be linked with plans for mitigating their side effects. [Report published [online](#) but could not be accessed for review by Pandemic Postings]

Key transmission parameters of an institutional outbreak during the 1918 influenza pandemic estimated by mathematical modelling [Sertsou et al, Theor Biol Med Model 2006;3:38](#). This paper reports research that uses historical morbidity and mortality data from the Featherston Military Camp in 1918 to estimate transmission parameters of a pandemic influenza outbreak. The authors report that "basic reproduction number (R_0) values for three possible scenarios ranged between 1.3, and 3.1, and corresponding average latent period and infectious period estimates ranged between 0.7 and 1.3 days, and 0.2 and 0.3 days respectively. The mean and median best-estimate incidence-mortality lag periods were 6.9 and 6.6 days respectively. This delay is consistent with secondary bacterial pneumonia being a relatively important cause of death in this predominantly young male population." The authors conclude that their R_0 estimates were broadly consistent with others made for the 1918 influenza pandemic; are not particularly large relative to some other infectious diseases; and that emergence of a novel pandemic influenza strain could potentially be controlled through "prompt use of major public health measures".

Questioning aerosol transmission of influenza [Lemieux et al, Emerg Infect Dis \[serial on the internet\]. 2007 Jan \[cited 19/12/06\]](#). The authors of this letter to Emerging Infectious Diseases "have reviewed the literature cited in Tellier's Review of Aerosol Transmission of Influenza A Virus [see Pandemic Postings #27] and disagree that it supports the conclusions drawn regarding the importance of aerosols in natural influenza infection." Reasons for this view are provided. The authors encourage readers to review the relevant primary literature, and believe that "the only reasonable conclusion that can be drawn at this time is that aerosol transmission does not play a major role in natural influenza epidemiology."

Ministry of Health advice line: **0800 AVN FLU (286 358)**

MAF Hotline (for suspect animal cases): **0800 809 966**

Disclaimer: Background material is listed in Pandemic Postings to alert recipients to new publications on highly-pathogenic avian and pandemic influenza topics. While efforts are made to maintain quality by only including material from reputable sources, it is beyond the scope of this bulletin to independently establish the veracity of this material, or to place the material within the local pandemic planning context: such assessments are left to the judgement of the readership. Conclusions made by authors of material cited in this bulletin do not necessarily represent policy or opinions of Auckland Regional Public Health Service, of Waitemata, Auckland or Counties Manukau DHBs, or of the Ministry of Health.