

## 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](#))  
**Update number:** 24  
**Date:** 25 September 2006  
**Prepared by:** Dr Craig Thornley; Dr Sheryl Jury  
**Website:** [www.arphs.govt.nz](http://www.arphs.govt.nz) (+ follow [link](#))

### Regional

Changes at ARPHS Sheryl Jury is departing from her role as ARPHS pandemic planning coordinator to focus on her public health medicine specialist examinations. Jill Lomas will now take over as project manager for all ARPHS pandemic planning work. Jill's email address is [JLomas@adhb.govt.nz](mailto:JLomas@adhb.govt.nz), and her telephone number is 09 623 4600 x27130.

### National

NZ Influenza Pandemic Action Plan v16 available [MoH, 09/06](#). Version 16 of the NZIPAP is the first public release of this document since November 2005, and is expected to remain current for at least one year. The phase-by-phase action plan remains essentially the same, with minor revisions. The explanatory material and supplementary appendices have been substantially expanded in order to give planners and the public access to the more detailed information that has become available. This new or updated explanatory material includes the following sections:

- an overview of the planning process, outlining the groups involved and their interrelationships;
- ethical, community and cultural issues in planning;
- co-ordination arrangements for pandemic response, including governance and decision-making, and the roles and accountabilities of local agencies;
- powers available under legislation, including the Law Reform (Epidemic Preparedness) Bill;
- pandemic response functions including public health interventions, border management, cluster control, pandemic management and communications;
- management of economic impact;
- maintenance of essential services; and
- recovery from a pandemic.

New appendices in the document include the following:

- agency roles and responsibilities;
- border management, detailing specific responses at different pandemic alert levels;
- infection control and use of personal protective equipment (including employer's obligations under the Health and Safety in Employment Act 1992);
- the role, functions and resourcing of community-based assessment centres;
- interim guidelines on the use of antiviral medication;
- care of the deceased, which includes infection hazards from handling dead bodies, storage of dead bodies, and transport of bodies overseas;
- the national pandemic communications plan (provides key message frameworks and activities by pandemic phase, and includes communication strategies; and
- copies of health education resources.

### Current global avian influenza activity<sup>1</sup>

Confirmed human cases of avian influenza A/(H5N1), 9 - 19 Sep 2006,<sup>1</sup> by country. The complete list of human cases and poultry outbreaks to date can be found on the [ARPHS website](#).

	Human <sup>1</sup>		Poultry <sup>2</sup>
	cases	deaths	outbreaks
Indonesia	2	1	-
Iraq	1	-	-
TOTAL	3	1	-

Notes:

- 1 As reported by [World Health Organization](#)
- 2 The [World Organisation for Animal Health](#) (OIE) website showing the cumulative number of poultry outbreaks of highly-pathogenic H5N1 avian influenza has not been updated since 4 September.

### International

**Indonesia: situation update** [WHO, 14/09/06](#). Two additional cases of H5N1 avian influenza have been retrospectively confirmed in Indonesia. These cases are a five-year-old male from West Java Province who died on 19 March 2006, and a 27-year-old male from West Sumatra Province who became sick on 28 May 2006 and since recovered. This second case had no history of exposure to diseased or dead poultry, but had nursed his sister, who has previously been confirmed to have had H5N1 avian influenza. WHO state that person-to-person transmission cannot be ruled out as the source of the case's infection.

**Iraq: situation update** [WHO, 19/09/06](#). Iraq authorities have retrospectively confirmed a case of H5N1 avian influenza in a three-year-old boy who became ill in March 2006, and subsequently recovered.

### Background

**Asymptomatic H5N1 infection in Korea** [CIDRAP, 21/09/06](#). The Korean Centers for Disease Control have reported that five workers involved in culling poultry infected with H5N1 avian influenza three years ago have shown evidence of past H5N1 infection but had remained asymptomatic. During the Korean H5N1 avian influenza outbreak in late 2003 and early 2004, about 400,000 birds were found to be infected and approximately 5 million were culled to contain the outbreak. No human cases were reported. At the time, specimens from 318 workers involved in culling poultry were tested for H5N1, and four were identified to have H5N1 antibodies. Specimens were subsequently sent on a further 2109 workers, leading to identification of five additional cases. None of the nine infected individuals have been ill. A previous report in the [Journal of Virology](#) suggested that the Korean strain of H5N1 differed to both the Thai and Vietnamese strains, and had a low level of pathogenicity in mice.

**Structure of H5N1 neuraminidase suggests new opportunities for drug design** [Russell et al, Nature 2006; 443: 45-9](#). Two anti-influenza drugs in current use, oseltamivir and zanamivir, both target the neuraminidase enzyme of the virus. Reports of the emergence of drug resistance make the development of new anti-influenza molecules a priority. Neuraminidases from influenza type A viruses form two genetically distinct groups: group-1 contains the N1 neuraminidase of the H5N1 avian virus and group-2 contains the N2 and N9 enzymes used for the structure-based design of current drugs. The authors of this paper show by X-ray crystallography that these two groups are structurally distinct. Group-1 neuraminidases contain a cavity adjacent to their active sites that closes on ligand binding. The authors suggest that it may be possible to exploit the size and location of the group-1 cavity to develop new anti-influenza drugs [edited from abstract, full text not reviewed].