

TARRANT

The Alberta Recording and Research Network
Tracking Influenza in Alberta



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1635, 1632-14 Ave. NW ▪ Calgary, AB T2N 1M7 ▪ Ph: (403) 220-2750 ▪ Fax: (403) 270-4329 www.ucalgary.ca/tarrant

Highlights of 2005/2006 Influenza Season

During the 2005/2006 season, approximately 800 Influenza-Like Illness cases have been reported by TARRANT sentinels up to May 14, 2006. The influenza activity rose in December 2005, peaked in February and March 2006, and declined gradually since early April. Overall we had another minor influenza epidemic this year.

TARRANT sentinels submitted more than 400 samples this season, and 77 were confirmed to be influenza positive. Influenza B was the predominant virus in circulation during December 2005 and January 2006. Most of

them were B/Hong Kong/330/01-like strain in the early stage. Since March 2006, all of the influenza B viruses characterized have been B/Malaysia/2506/2004-like, which is the recommended influenza B component for influenza vaccine 2006/2007¹. More influenza A isolates were confirmed later in the 2005/2006 influenza season, most of which were A/California/7/2004-like (H3N2).

This year, all influenza A strains have matched those included in the 2005-2006 Canadian vaccine. However, 99% of the influenza B strains characterized by the National Microbiology Laboratory are not covered by this year's vaccine.

Vaccine Effectiveness Study

For the coming 2006/2007 influenza season, we will incorporate vaccine effectiveness assessment as an important component of the influenza surveillance. The research proposal has been approved by the Child Health Research Office and the University of Calgary Ethics Committee.

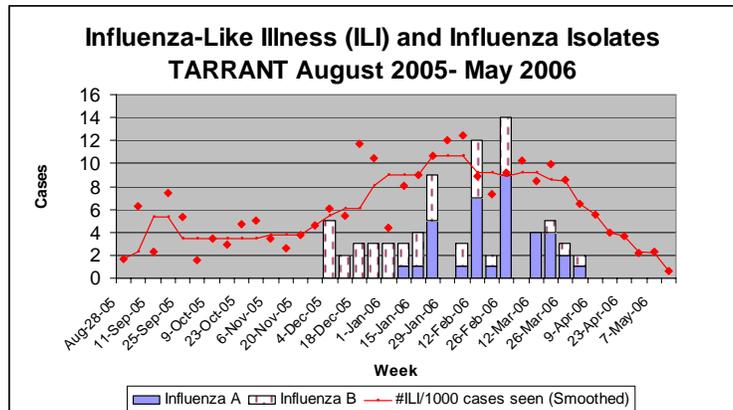
We will need your assistance as a sentinel, to complete a specifically designed lab requisition form whenever you submit a swab to the Provincial Lab. We understand this requires some extra work and will apply for funding to provide an honorarium for each respiratory specimen submitted with a fully completed requisition form. More detailed information regarding the study will be provided in the next 2 months. If you have any questions, please do not hesitate to call Pin Cai @ 403-2109258.

Avian Influenza Update

As of May 29, 2006, the Ministry of Health in Indonesia has confirmed an additional six cases of human avian influenza cases. Three of these cases were fatal. Most of them were found a history of exposure to chickens or pigeons. Sources of infection were still under investigation for some cases.

To date, 224 cases were confirmed by WHO, 127 of which were fatal. Cases of human infection with the H5N1 virus have been sporadic and rare events so far, even in areas where the virus is widespread in poultry. WHO developed rapid response and containment strategy aiming to “stop, or at least slow the spread of pandemic influenza at the source of its emergence in order to minimize global morbidity and mortality.”

WHO pandemic influenza draft protocol for rapid response and containment can be accessed on their website: http://www.who.int/csr/disease/avian_influenza/guidelines/protocolfinal30_05_06a.pdf



¹ CDR Weekly, Volume 16, No. 10, 9 March 2006



Blockhouse on the beach in east coast of Malaysia

Reflections on sentinels.

I recently visited a beach in East Malaysia, where concrete blockhouses still sit where they were built to fight off the Japanese invasion in 1941. I could imagine being on duty there for months or even years on end waiting for the attack. Each morning peering out into the dawn, glad that the invasion had not come, but bored with the nothing happening. Staying alert during this time must have been very difficult. Then when the landing occurred further up the coast, suddenly changing to heightened arousal, fighting and later to disorganised flight

So it is with sentinel practices. Despite our difficulty of staying alert for so long, let us hope that the major influenza attack never comes, so we do not have to deal with the fight and possibility of failure. Perhaps our research program will be like most military exercises, keeping us active and our minds involved, but not facing the ultimate test!

Should we be concerned about Indonesian bird flu?

There has been a lot of news recently about Indonesian bird flu outbreaks, and the number of people dying there. This includes some family clusters. My judgment at present is no.



A poultry seller in a market in Sarawak (note ducks and chickens together in the cage)

The recent Lancet conference in Singapore presented evidence that the H1N5 variant of the influenza A virus has developed and become a world-wide epidemic of birds: some species are susceptible and die, while others are carriers, especially ducks. It is mostly a disease of chickens, and some other minor poultry like quail. In factory farming, especially under unhygienic conditions, it causes major fatalities. Among the free-range chickens found in every village in South East Asia, influenza infects the family birds, and transmits among them slowly, such that it has now become endemic.

This bird infection transmits to humans only with close direct contact with sick birds, or their products, and occasionally between humans with very close contact with a sick person. Many children look after the family chickens and treat them as pets, cuddling them, and kissing them. Many men in these areas own fighting cocks, and they also are physically close to them: they groom them, tie on spurs, and whisper encouragement to them, blow down their throats to "clear their air", and give them potions for strength. This close contact allows very high doses of virus, so that a virus that is not very pathological in humans can infect. Reports of further transmission are few, only to family members who nursed the patient closely, and only one hospital staff member, though details are not clear. If the virus has mutated into a form that will become epidemic, one would expect many more contact cases.

While people are rightly anxious about the possibilities for mutation that occur when the virus is endemic over such a wide area, it does appear that viral mixing is most likely when there is a combination of pigs and ducks being reared together. Domestic pigs are rare in Indonesia, a Muslim country. Indonesia, especially out-island areas, is not well organised, with poor information transmission, and healthcare services that are only rudimentary in places. Consequently medical staff may either not know or not have the facilities to deal with infectious disease. If an epidemic starts there, it is unlikely to be controlled. But it has not started yet.