

**Feature:**

Update on H5N1 avian influenza

**LENS ON CHP**

Above: The Eighth Meeting of Board of Scientific Advisers (BOSA) was held on December 6, 2011.

**NEWS****A suspected case of calcium oxalate poisoning**

The Centre for Health Protection (CHP) recorded a suspected case of calcium oxalate poisoning affecting a 58-year-old woman on December 17, 2011. The patient developed pain, numbness and swelling of tongue and lips immediately after consuming soup. She sought treatment at the Accident and Emergency Department of a public hospital and remained in stable condition. Her symptoms resolved after one day. The soup was prepared and consumed by the patient herself and contained wild yam slices given by a friend. The exact source could not be traced. Raphide (needle-shaped) crystals were identified in the food remnant by microscopy on investigation.

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**Update on H5N1 avian influenza**

**Reported by Miss AMY LI, Scientific Officer, and DR ALICE WONG, Senior Medical Officer, Surveillance and Epidemiology Branch, CHP.**

Hong Kong has raised the response level under the Government's Preparedness Plan for Influenza Pandemic from Alert to Serious on December 20, 2011. This followed the confirmation of highly pathogenic H5N1 avian influenza virus in a chicken carcass sample taken from the Cheung Sha Wan Temporary Wholesale Poultry Market (Wholesale Poultry Market) on December 20, 2011. The Government is tracing the source of the chicken carcass and it is not certain at this stage whether the chicken came from local farm or was imported. All the poultry at the concerned market have been culled on the following day. The Centre for Health Protection (CHP) has worked with public and private hospitals to enhance the detection of suspected human cases. So far, no human cases have been detected in Hong Kong.

Avian influenza infection in human is caused by influenza viruses, such as influenza A H5N1, that mainly affect birds and poultry. Severe infection can result in severe respiratory failure, multi-organ failure and even death. Human infection with H5N1 is a rare event. Most cases recorded to date were sporadic infection, with limited human-to-human transmission in some cases. Below we summarize the latest global and local situation of human H5N1 avian influenza infection.

**Global Situation**

As of December 20, 2011, 573 human cases of H5N1 infection have been reported to the World Health Organization (WHO) from 15 countries since 2003. Indonesia has the highest number of human H5N1 cases, followed by Egypt and Vietnam. From 2005 to 2007, about 100 confirmed human cases of H5N1 avian influenza were reported to WHO annually. In 2008, 2009 and 2010, 44, 73 and 48 cases were recorded, respectively. In 2011 (as of December 20, 2011), 57 cases were recorded. 54% of cases from 2003 to December 20, 2011 were female. The ages of the cases were ranged from 3 months to 81 years (median 18 years). 336 cases died, giving a case fatality rate of 59%. Figure 1 shows the annual trend of human cases.

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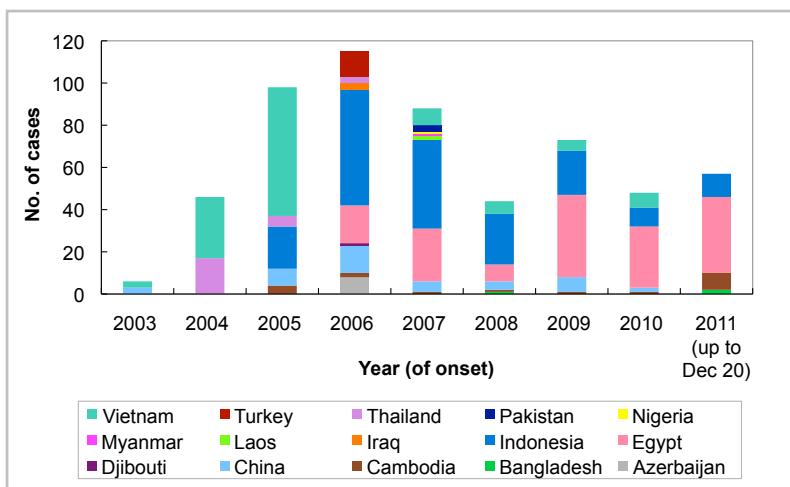


Figure 1 - Human cases of H5N1 infection confirmed by WHO.

Outbreaks in poultry and wild birds continue to occur sporadically across the globe. H5N1 outbreaks in poultry were recorded in Cambodia, China (Tibet), Bangladesh, India, Iran, Nepal and Vietnam in the past 6 months (World Organization for Animal Health). Indonesia and Egypt have also declared avian influenza endemic in poultry since September 2006 and July 2008, respectively. Overall, 63 countries/territories worldwide have outbreaks of H5N1 in poultry or wild birds since 2003.

### Local Situation

In Hong Kong, human H5N1 infection first occurred in 1997. 18 confirmed cases were recorded and six of them passed away due to viral pneumonia or other medical complications. In 2003, two imported cases were confirmed. They were a 33-year-old man and his 9-year-old son. They had travelled to Fujian province and the man eventually passed away while his son recovered. There were no further human cases in Hong Kong until November 2010 when the most recent human case in Hong Kong was recorded. The case was a 59-year-old lady who had travelled to Shanghai, Nanjing and Hangzhou before onset of symptoms.

Agriculture, Fisheries and Conservation Department (AFCD) conducts frequent inspections of poultry farms and the Wholesale Poultry Market to ensure that proper precautions against avian influenza are implemented. In response to the recent finding of H5N1 in a chicken carcass, a series of measures were implemented to prevent the spread of the virus and to protect public health. Among others, the market was declared as an infected place and all poultry in the market were culled, which amounted to more than 19,000 in total. The market will be closed for 21 days. AFCD has stepped up inspection on local chicken farms and no abnormality has been detected.

CHP is carrying out medical surveillance of poultry wholesalers and workers in the Wholesale Poultry Market as well as local chicken farmers to follow up on their health condition. A telephone hotline has been set up to answer public enquires. The Hospital Authority (HA) and private hospitals were both alerted to report suspected human avian influenza cases to CHP. Imports of live poultry have been suspended for 21 days starting from December 21.

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### Three cases of listeriosis

On December 12 and 21, 2011, CHP recorded three local cases of listeriosis affecting an 86-year-old woman with history of heart disease and a 32-year-old pregnant lady (23 weeks gestation on admission) with history of hypothyroidism and her newborn baby respectively. The 86-year-old lady presented with shortness of breath since December 6 and was admitted to a public hospital on the same day. Blood culture yielded *Listeria monocytogenes*. She was in stable condition. She had no recent travel history. Her household contacts were asymptomatic.

The pregnant lady presented with abdominal pain, per-vaginal bleeding, vomiting and diarrhoea on December 17. She was admitted to a public hospital and delivered the baby on the same day. The baby passed away the next day. Placental swab taken on December 17 yielded *Listeria monocytogenes* while blood culture of the baby also yielded the same pathogen. The patient was treated with intravenous ampicillin and in stable condition. Her household contact was asymptomatic all along. Investigation is still in progress.

### Update on scarlet fever (November 27 – December 24, 2011)

Local activity of scarlet fever was similar to the previous month. From November 27 – December 24, 2011, CHP recorded 155 cases of scarlet fever affecting 98 males and 57 females aged between 1 and 16 years old (median = 6 years). There were no fatal cases and no cases with complications. During this period, two primary school clusters, each affecting 2 people, were reported.

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### Rickettsial disease in December

From December 1 to December 29, 2011, CHP recorded six sporadic cases of rickettsial disease affecting two men and four women with age ranged from 52 to 69 years. Clinically they presented with fever with or without generalized skin rash. Serology tests suggested that two of them suffered from scrub typhus and three patients suffered from spotted fever. The type of rickettsial disease could not be delineated by serology tests for one of the patients. Five of them required hospitalization. Four of them had all gone hiking separately during the incubation period where three of them had visited Hung Mui Kuk Nature Trail. Pest Control Advisory Section (PCAS) of the Food and Environmental Hygiene Department (FEHD) has initiated vector survey on the hiking routes of these patients. The FEHD Environmental Hygiene Office has also conducted tick disinfestations and strengthened cleansing.

As winter is approaching, the public is advised to remain vigilant against avian influenza. Infected birds and poultry (live or dead) or their droppings may carry avian influenza virus. Therefore, members of the public should:

- ❖ Avoid touching birds or poultry (live or dead) or their droppings
- ❖ Wash hands with liquid soap immediately and thoroughly, if they have been in contact with birds or poultry
- ❖ Cook poultry and egg products thoroughly before eating
- ❖ Avoid touching birds or poultry when travelling outside Hong Kong. Travellers returning from affected areas should consult doctors promptly if they have flu-like symptoms. Inform the doctor of your travel history and wear a mask to help prevent the spread of the disease
- ❖ Observe hygiene at all times

The public can call the Agriculture, Fisheries and Conservation Department through the Government hotline **1823** for follow-up if they come across suspicious sick or dead birds, including the carcasses of wild birds and poultry. Persons who are required to handle the carcass should observe the following "Safety Guidelines for Handling and Disposing of Dead Wild Birds" ([http://www.chp.gov.hk/files/pdf/Handling\\_of\\_Dead\\_Birds\\_Eng.pdf](http://www.chp.gov.hk/files/pdf/Handling_of_Dead_Birds_Eng.pdf)).

This is not the first time H5N1 has been detected in poultry markets. In June 2008, samples taken from local poultry stalls were also tested positive of H5N1. In December of the same year, there was a poultry H5N1 outbreak on a farm in Yuen Long. At that time, over 80,000 chickens on that and a nearby farm, and over 18,000 poultry in a wholesale market were culled to prevent the spread of the virus.

Since October 2005, AFCD has offered sick and dead bird collection services. The annual number of sick/dead birds from 2006 to 2010 ranged from 2 to 22 each year. In 2011 (as of December 20), a total of 11 dead birds with H5N1 infection were recorded. Apart from the two bird carcasses recently found in two local schools in December 2011, others were found between January to March. Details of H5 in dead birds found in Hong Kong are available at AFCD's website ([http://www.afcd.gov.hk/english/quarantine/qua\\_vetlab/qua\\_vetlab\\_ndr/qua\\_vetlab\\_ndr.html](http://www.afcd.gov.hk/english/quarantine/qua_vetlab/qua_vetlab_ndr/qua_vetlab_ndr.html)).

According to WHO, viruses circulating and characterised from February 16, 2011 to September 19, 2011 globally belonged to the following clades shown in Table 1. Locally, clade 2.3.2.1 (previously part of clade 2.3.2) was detected in the human case in November 2010, while clade 2.3.2.1 and clade 2.3.4 were detected in wild bird and poultry carcasses.

Table 1 - Influenza A(H5N1) activity reported from February 16, 2011 to September 19, 2011.

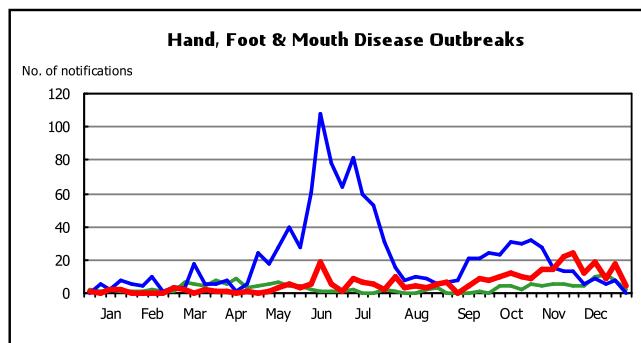
Country, area or territory	Host	Genetic clade
Bangladesh	Poultry	2.2.2/2.3.2.1/2.3.4.2
	Wild birds	2.3.2.1
	Human (2*)	2.2.2
Cambodia	Poultry	1.1
	Human (7)	1.1
China Hong Kong SAR	Poultry	2.3.2.1/2.3.4
	Poultry	2.2.1/2.2.1.1
Egypt	Humans (29)	2.2.1
	Poultry	2.3.2.1
India	Poultry	unknown
	Humans (7)	unknown
Indonesia	Poultry	2.3.2.1
	Wild birds	2.3.2.1
Israel	Poultry	2.2.1
	Wild birds	2.3.2.1
Japan	Poultry	2.3.2.1
	Wild bird	unknown
Republic of Korea	Poultry	2.3.2.1
	Wild birds	2.3.2.1
Mongolia	Poultry	2.3.2.1/2.3.4.2
Myanmar	Poultry	1.1/2.3.2.1
Viet Nam	Poultry	1.1/2.3.2.1

\*number in parentheses denotes number of reported cases during this period

(Source: Antigenic and genetic characteristics of zoonotic influenza viruses and development of candidate vaccine viruses for pandemic preparedness. World Health Organization, September 2011)

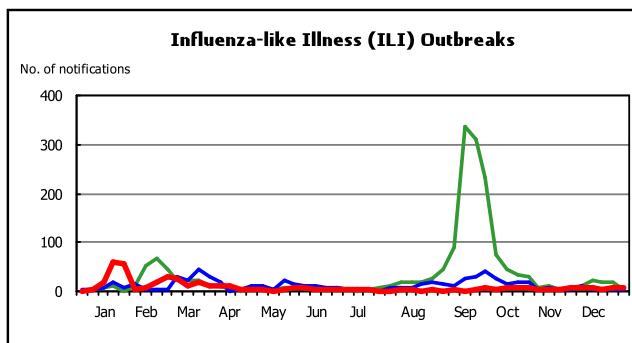
## SUMMARY OF SELECTED NOTIFIABLE DISEASES AND OUTBREAK NOTIFICATIONS (WEEK 51 - WEEK 52)

— 2009 — 2010 — 2011



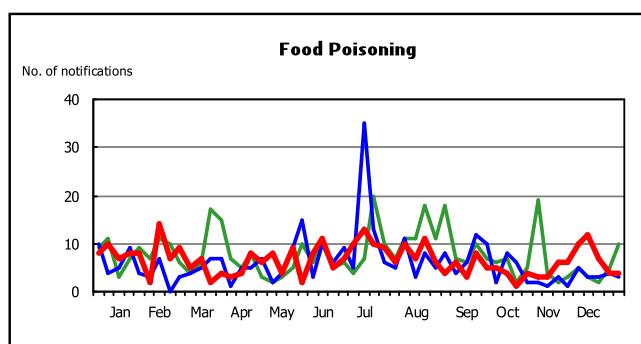
Week 49: 19  
Week 50: 9

Week 51: 18  
Week 52: 4



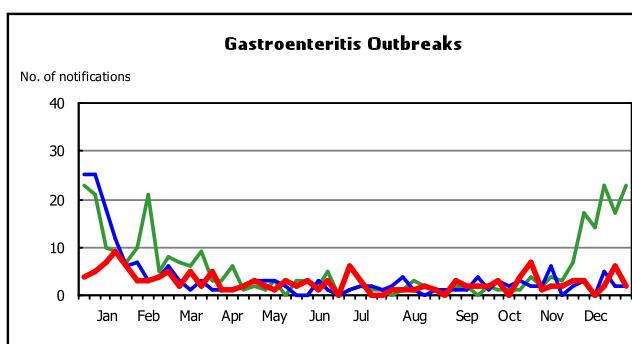
Week 49: 7  
Week 50: 4

Week 51: 8  
Week 52: 6



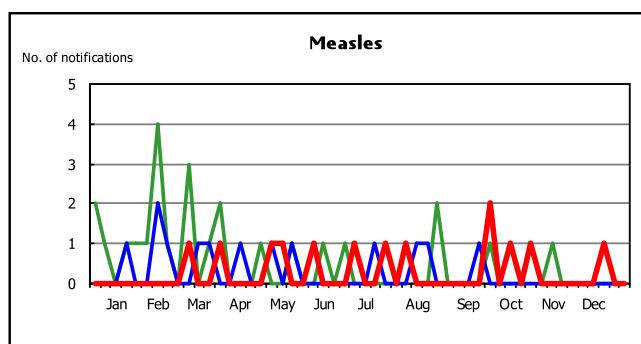
Week 49: 12  
Week 50: 7

Week 51: 4  
Week 52: 4



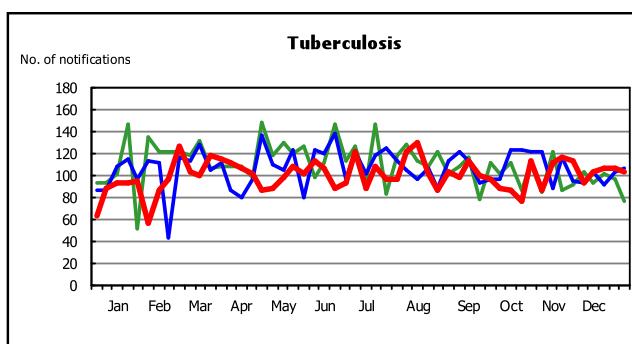
Week 49: 0  
Week 50: 2

Week 51: 6  
Week 52: 2



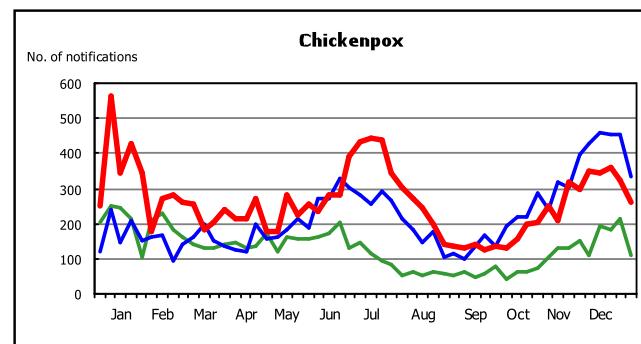
Week 49: 0  
Week 50: 1

Week 51: 0  
Week 52: 0



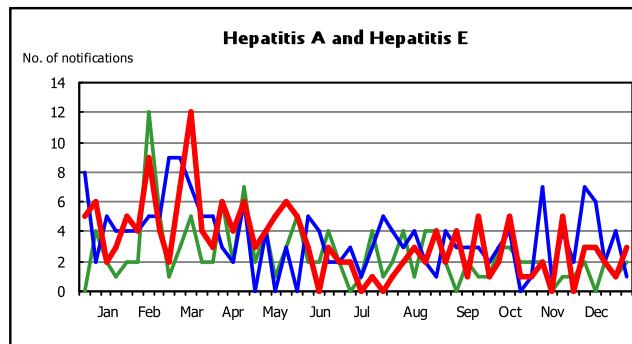
Week 49: 104  
Week 50: 107

Week 51: 106  
Week 52: 104



Week 49: 344  
Week 50: 359

Week 51: 321  
Week 52: 259



Week 49: 3  
Week 50: 2

Week 51: 1  
Week 52: 3

Data contained within this bulletin is based on information recorded by the Central Notification Office (CENO) and Public Health Information System (PHIS) up until December 24, 2011. This information may be updated over time and should therefore be regarded as provisional only.