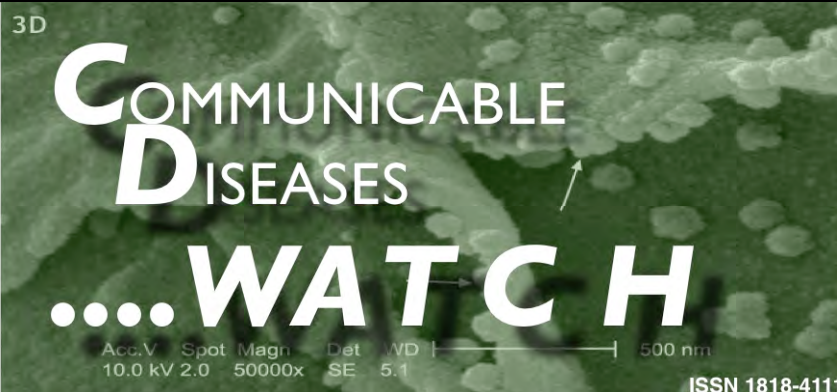




Department of Health
Hong Kong SAR

Features:

A cluster of HIV infections
Avian influenza
Fungal keratitis



LENS ON CHP



Above: CHP staff interviewing a carpark worker in Tuen Mun, where a dead chicken was detected on February 7, 2006.

NEWS

Two cases of listeriosis reported in February 2006

Up till February 13, 2006, the Centre for Health Protection (CHP) has received notification of two cases of listeriosis this year. The first case was a 76 year-old woman who had retired for more than ten years. She had history of gastric lymphoma with subtotal gastrectomy done in early November 2005. She was readmitted in mid January 2006 for *Staphylococcus aureus* wound infection. The lady developed a spike of fever on February 2 while hospitalized, and *Listeria monocytogenes* was isolated from blood culture taken on January 16. The lady denied consumption of any high risk food such as dairy products, salad in the past three months. She lived with her son who was asymptomatic. The patient was treated with intravenous ampicillin and gentamicin and was currently in stable condition.

(continued on page 13)

A cluster of HIV infections in Hong Kong

Reported by DR KRISTAL LEE, CHRISTINE WONG, DR KH WONG, Special Preventive Programme, Public Health Services Branch; DR WILINA LIM, Public Health Laboratory Services Branch, CHP.

In 2005, a cluster of HIV-1 subtype B infections was detected in Hong Kong from a molecular epidemiology study. As of December 2005, upon testing of newly reported cases and prior blood samples, twenty individuals have been identified to fall within the cluster.

The HIV genetic materials isolated from these cases displayed very similar nucleotide sequence with difference less than 2% on average. These infections were suspected to be linked and have occurred over a relatively short period of time. They were reported to the Department of Health (DH) over a two-year period since the fourth quarter of 2003. All were men aged 21-60. Fifteen were Chinese and 5 were non-Chinese. Risk factors for HIV infection were unprotected homosexual/bisexual contact in 15 cases. Risk factors for some cases could not be determined from information given by reporting doctors.

Further epidemiological investigation was conducted with the following objectives: (i) assist in understanding risk factors for rapid HIV transmission among cases in the cluster; (ii) offer counseling and testing services to people at risk but not yet aware of infection status, and (iii) reinforce risk reduction messages to infected individuals. A protocol for investigation was drafted with advice from local and overseas experts. Since mid December 2005, the cluster cases have been contacted and arranged for interview through reporting physicians. Information relating to time, place and source of HIV infection were collected. At the same time, partners who may be at risk for HIV infection were identified and options to inform, counsel and offer testing to those at risk were discussed.

As of February 14, 2006, 10 of the 20 cases have been investigated. Preliminary results suggested that all infections had occurred in Hong Kong. Unprotected sex with other men (9/10), use of internet as platform to know sexual partners (7/10) and use of soft drugs during sexual activity (4/10) were identified as risk factors. Non-regular, non-commercial sex partners were suspected to be the source of infection in eight cases, two of whom also suspected their regular partners to be a possible source. Unprotected oral and anal sex with other men were both identified as risk exposures. Most cases did not recall potential partners at risk or had lost contact with them thus rendering partner counseling and testing difficult to be arranged.

DH communicated the preliminary findings with community partners for planning and strengthening of prevention activities targeting men having sex with men (MSM) in Hong Kong. A press release on the preliminary findings was made on February 14, 2006, promoting safer sex practice and HIV testing. Efforts to optimize counseling and testing of people potentially at risk of HIV are currently underway.

EDITORIAL BOARD Editor-in-Chief Dr Thomas Tsang **Members** Dr Teresa Choi / Dr PH Chung / Dr SK Chuang / Fanny Ho / Dr Teresa Li / Dr Edmond Ma / Dr YH Tam / Thomson Wu / Dr Raymond Yung **Production Assistant** Kristy Cheng. This publication is produced by the Centre for Health Protection (CHP) of the Department of Health, 147C, Argyle Street, Kowloon, Hong Kong **ISSN 1818-4111** **All rights reserved** Please send enquiries to cdsinfo@dh.gov.hk

Technical note on HIV cluster

HIV is broadly divided into HIV-1 and HIV-2. HIV-1 causes the global AIDS epidemic. HIV-1 displays extensive and increasing genetic diversity and is further classified into groups M, N, O subtypes and recombinant forms within group M. Currently, there are at least 9 subtypes (A-D, F-H, J-K) and 16 circulating recombinant forms (CRFs, circulating strains of virus that contain genetic materials of more than 1 subtype) reported worldwide with distinctive epidemiologic patterns.

DH and the University of Hong Kong started a study to track HIV-1 subtype in Hong Kong in 2000. A total of 949 HIV cases reported up to June 2005 have been successfully subtyped and analysed thus far. The most common subtypes in Hong Kong for cases reported from January 2002 to June 2005 are CRF_01AE (49%) and subtype B (35%). While the predominant subtypes remained the same over time, increasing genetic diversity of HIV-1 infection in Hong Kong was also observed.

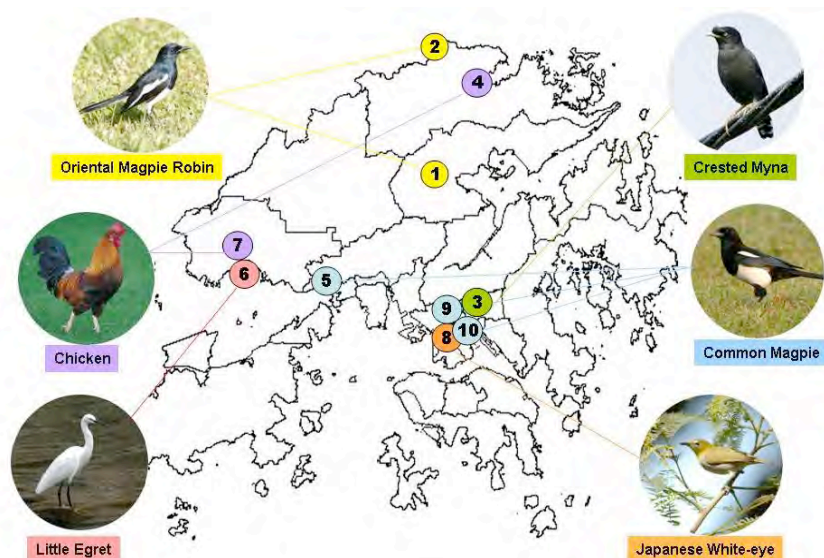
Clusters of HIV infection, i.e., cases with extremely narrow distance of nucleotide sequence, have been detected among cases reported in the past few years. Some of these belonged to couples who are known to be regular sexual partners or mother-child pairs and were of both CRF01_AE or subtype B. Others clusters of CRF01_AE were also identified to involve individuals from Southeast Asia who reported to have acquired HIV infection through injecting drug use outside Hong Kong. The cluster of HIV infections described in this report is the first large cluster detected in Hong Kong.

The findings described above are subject to limitations, including incompleteness as not all HIV infections (diagnosed or undiagnosed) were genotyped, preliminary nature of the results, and possibility of recall bias from cases interviewed.

Detection of avian influenza H5N1 viruses in local birds and chickens

Reported by DR THOMAS TSANG, Consultant Community Medicine (Communicable Disease), Surveillance and Epidemiology Branch, CHP.

During January 10 – February 17, 2006, avian influenza H5N1 virus was detected in 8 dead birds in Hong Kong, including 3 common magpies 喜鵲 (Sham Tseng, Sham Shui Po, Mong Kok), 2 oriental magpie robins 鸚鵡 (Sha Tau Kok, Tai Po), 1 crested myna 八哥 (Wong Tai Sin), 1 Japanese white-eye 相思 (Mong Kok), and 1 little egret 小白鷺 (Tuen Mun). In addition, avian influenza H5N1 virus was also found in two dead chickens (Sha Tau Kok, Tuen Mun). Figure 1 shows the date and location of detection of these dead birds and chickens.



Notes (1): 19/01, Tai Po, (2): 29/01, Sha Tau Kok, (3): 02/02, Wong Tai Sin, (4): 02/02, Sha Tau Kok, (5): 04/02, Sham Tseng, (6): 07/02, Tuen Mun, (7): 07/02, Tuen Mun, (8): 08/02, Mong Kok, (9): 17/02, Sham Shui Po, (10): 18/02, Mong Kok.

Figure 1 – Location and notification date of detection of dead birds/chickens with H5N1 viruses (Photo courtesy of Mr. Henry Lui for providing the bird pictures).

(...cont'd)

The second case was a 39 year-old housewife with history of breast cancer who had received chemotherapy and radiotherapy for bone and brain metastasis. She developed fever and episodes of seizures while she was traveling in Thailand in early February 2006 and was admitted into Princess Margaret Hospital when she returned to Hong Kong on February 6. She had decreased consciousness with Glasgow Coma Scale (GCS) of 7 out of 15. *Listeria monocytogenes* was isolated from blood culture taken on February 7.

The patient had consumed different kinds of ice-cream in the past three months before onset of symptoms. She also drank milk occasionally at home and had consumed sashimi both in Hong Kong and in Thailand before onset of symptoms. She had also consumed sliced pineapples and papaya purchased from hawkers in Thailand in early February. The lady lived with her husband, two sons and a domestic helper who were all asymptomatic. The patient remained in critical condition.

Staff from CHP and the Food and Environmental Hygiene Department (FEHD) had jointly visited the homes of the two cases. Environmental swabs and food remnants were taken for laboratory investigation. Results were pending. So far there is no evidence to suggest that the two cases had acquired the infection from a common source.

Health talks on avian flu in schools

The Infection Control Branch of CHP has prepared a series of seminars for school teachers, aimed at updating the current situation of avian influenza in Hong Kong. The government preparedness plan will be highlighted, as well as the principles in infection control. Application at school and handling of birds will be emphasized. The objective is to build up knowledge and skills among teachers and students at school. The seminar will consist of four sessions, each last about one and a half hour, for schools in different regions in Hong Kong. The first session will be held on February 22 for schools on the Hong Kong Island, followed by New Territories East on February 25, Kowloon on February 27 and New Territories West on February 28.

(continued on page 15)

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RISK COMMUNICATION DIGEST

Press Release	#
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HIV/AIDS	1
Media Interview	
Avian influenza	2
HIV/AIDS	2
Backyard poultry keeping	1
Flu preparedness	1
Media Stand-up	
Backyard poultry keeping and flu	2
Avian influenza	1
Food poisoning	1

Post mortem examinations and virus isolation conducted at the Agriculture, Fisheries and Conservation Department (AFCD)'s Veterinary Laboratory at Tai Lung showed that the infected birds were in good body condition, suggestive of sudden death. Virus was most readily demonstrated in the respiratory tract and the brain, and to a lesser extent in the intestinal tract. The origins of their infections are unknown at this point.

Of all identifiable human contacts with the dead birds and chickens, three persons in connection with the finding and handling of the dead chicken in Sha Tau Kok had unprotected exposures. Their respiratory specimens (throat swab, nasopharyngeal aspirate, conjunctival swab) were all tested negative for H5N1 genomes using RT-PCR.

Previously, H5N1 viruses were also found in the following wild birds in Hong Kong: two grey herons in 2002; a black headed gull and a peregrine falcon in 2003; two grey herons and a peregrine falcon in 2004; a Chinese pond heron in 2005. In addition there were some egrets found dead in Penfold Park during the H5N1 outbreak among its captive waterfowl in November 2002, and 1 feral pigeon and 1 wild tree sparrow were found dead in Kowloon Park during its captive waterfowl outbreak in December 2002. All positive wild birds were reported to OIE between November 2002 and the following March 2003.

It should be noted that since October 2005 the Administration has encouraged the submission of dead birds for avian influenza testing. This has resulted in an increased number of dead birds examined (15 in January 2004, 24 in January 2005 and 531 in January 2006). Despite the increase in the number of infected birds detected the apparent prevalence in dead wild birds is not increased (6.7% in January 2004, 4.2% in January 2005 and 0.6% in January 2006). No outbreak of avian influenza in poultry in Hong Kong has been detected since May 2003.

The potential for infected wild birds to infect poultry kept in backyard farms is a cause for public health concern as most human infections with H5N1 in Viet Nam, Indonesia, and Thailand are known to be associated with infected backyard poultry. Effective from February 13, 2006, the backyard keeping of poultry including chickens, ducks, geese, pigeons, and quails is no longer permitted legally in Hong Kong.

Fungal keratitis among contact lens users

Reported by DR THOMAS TSANG, Consultant Community Medicine (Communicable Disease), Surveillance and Epidemiology Branch, CHP.

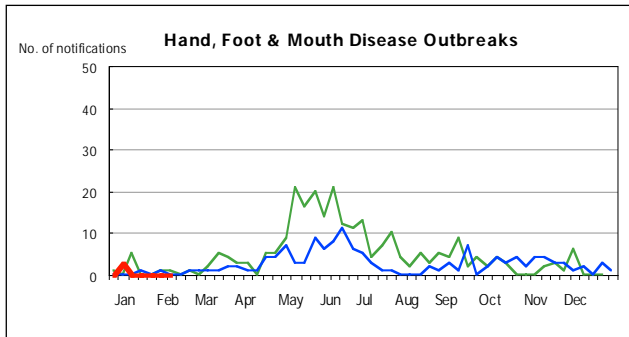
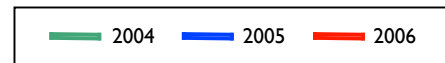
In August 2005, CHP announced in a press release about case reports of keratitis among disposable soft contact lens users. Since then, CHP worked with the Hospital Authority to monitor the occurrence of keratitis among in-patients. During June through December 2005, 2-3 cases of fungal keratitis due to *Fusarium spp.* was recorded per month.

On February 18, 2006, the Singapore Ministry of Health (MoH) issued a press release about an increasing incidence of fungal keratitis among disposable soft contact lens users. There was a spike of 7 cases of fungal keratitis due to *Fusarium spp.* in January 2006, compared with about 1-2 cases per month since May 2005. 18 of the 19 cases noted since May 2005 reported having used Bausch and Lomb's (B&L) ReNu Multipurpose contact lens solution. According to the latest report issued by Singapore MoH on February 21, as of February 20, 39 cases of fungal corneal infections were found, with 34 reported having used ReNu.

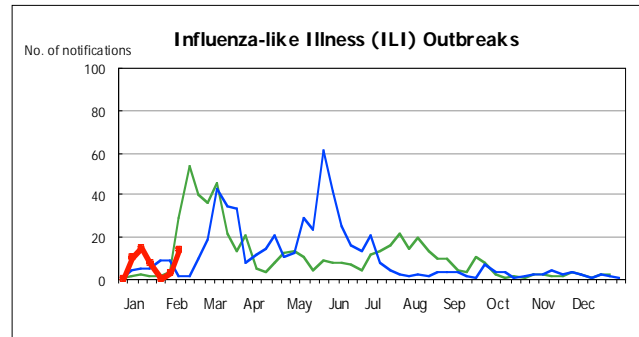
In Hong Kong, during January 2006, there was 1 case of fungal keratitis due to *Fusarium spp.* (therefore no upsurge like that in Singapore). Of the 16 cases noted in Hong Kong since June 2005, 12 reported having used the product mentioned by Singapore. Sterility tests were performed by the Public Health Laboratory Services Branch on 3 intact samples of the product in September 2005 showed negative results. In view of the current situation in Singapore, DH held a teleconference with Singapore MoH on February 21 to exchange information on fungal keratitis of the two places. DH also met with representatives of B&L, microbiological experts, ophthalmologist, optometrists and Consumer Council on the same day to discuss the local situation. The Department advised B&L to look into the problem and take necessary measures to protect local consumers. B&L (Hong Kong) Ltd has decided to voluntarily suspend the sales of its ReNu Multipurpose contact lens solution in Hong Kong on February 22. Doctors are also alerted to be on the lookout for fungal keratitis.

Keratitis (or corneal inflammation) is not uncommonly seen among contact lens users. Patients commonly present with eye pain, redness, foreign body sensation, and sometimes photophobia. The condition may or may not have an infective cause. Contact lens related microbial keratitis is usually caused by bacteria (e.g., *Pseudomonas aeruginosa*, staphylococci) and fungi (e.g., *Fusarium spp.*). Improper lens hygiene practice, overnight wear, long duration of continuous wear, and smoking are reported to increase the risk of microbial keratitis. Proper hand hygiene and cleansing of the contact lens case are important, and contact lens disinfectants should be discarded one month after opening. Professional advice may be sought from an optometrist or ophthalmologist.

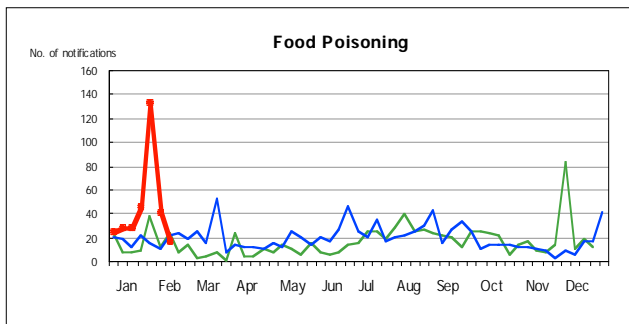
SUMMARY OF SELECTED NOTIFIABLE DISEASES AND OUTBREAK NOTIFICATIONS (WEEKS 6 - 7)



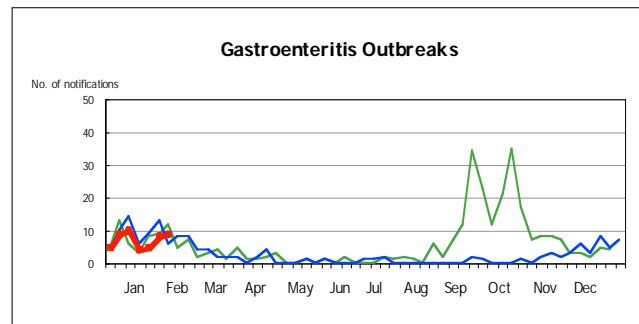
Week 4:	0	Week 6:	0
Week 5:	0	Week 7:	0



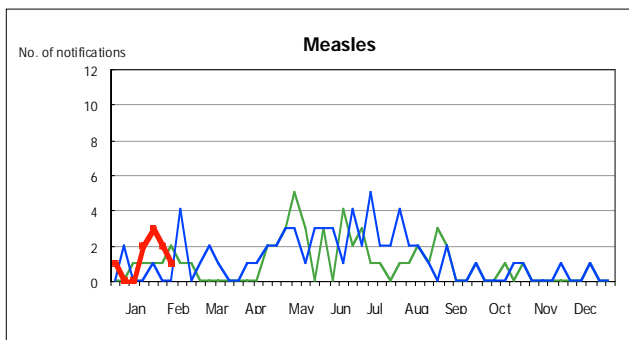
Week 4:	7	Week 6:	3
Week 5:	0	Week 7:	14



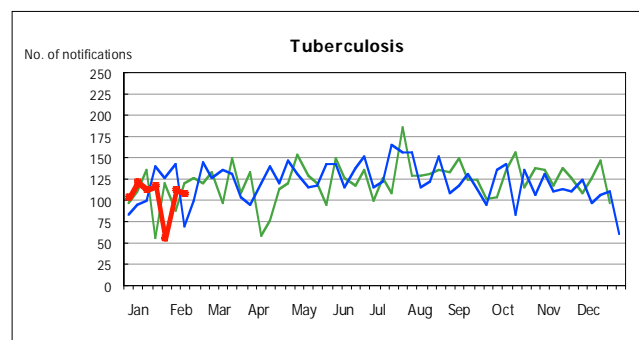
Week 4:	46	Week 6:	41
Week 5:	133	Week 7:	16



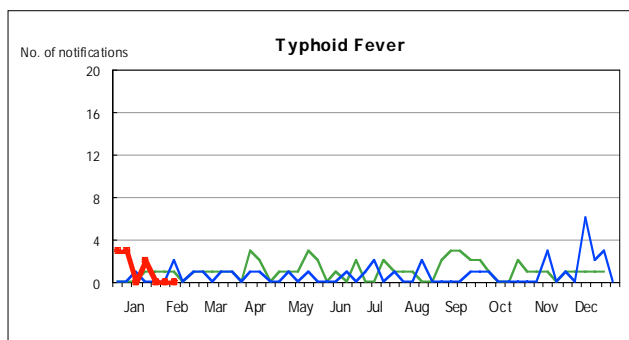
Week 4:	4	Week 6:	8
Week 5:	5	Week 7:	9



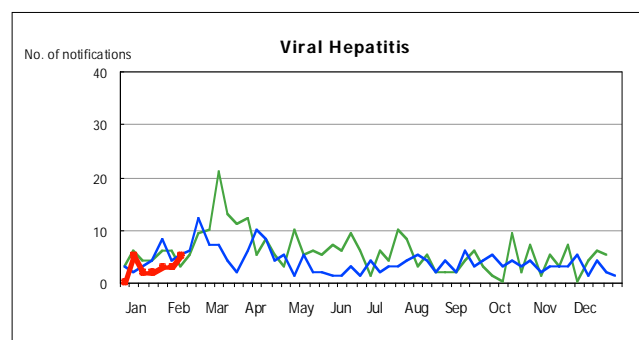
Week 4:	2	Week 6:	2
Week 5:	3	Week 7:	1



Week 4:	116	Week 6:	111
Week 5:	55	Week 7:	106



Week 4:	2	Week 6:	0
Week 5:	0	Week 7:	0



Week 4:	2	Week 6:	3
Week 5:	3	Week 7:	5

Data contained within this bulletin is based on information recorded by the Central Notification Office (CNO) and Public Health Information System (PHIS) up until February 18, 2006. This information may be updated over time and should therefore be regarded as provisional only.