

**For information
on 14 February 2011**

Legislative Council Panel on Health Services

Prevention and Control of Influenza

PURPOSE

This paper provides an update on the latest influenza situation in Hong Kong and sets out the strategy and measures adopted by the Administration and the Hospital Authority (HA) for the prevention and control of influenza.

LOCAL SITUATION

Influenza activity in the community

2. Hong Kong entered the winter flu season in mid-January 2011. This flu season is dominated by Human Swine Influenza (HSI) (i.e. H1N1) which now accounts for approximately 90% of influenza isolates. Recent surveillance data collected by the Centre for Health Protection (CHP) shows a notable rise in consultation rates for influenza-like-illness (ILI) in clinics, outbreaks in institutions and the number of influenza detections in the laboratory.

3. The average ILI consultation rate among sentinel private doctors has increased from 49.8 (per 1 000 consultations) for the week ending 15 January 2011 to 71.3 for the week ending 29 January 2011. Over the same period, figures among sentinel General Outpatient Clinics rose from 4.8 (per 1 000 consultations) to 8.0; and the number of ILI outbreaks reported from schools and institutions also climbed from 18 to 55.

4. The Public Health Laboratory Centre of CHP has recorded an increasing number of influenza virus detections. The weekly number of detections grew from 149 for the week ending 15 January 2010 to 880 for the week ending 5 February 2011. Among influenza viruses during 23 January - 5 February 2011, about 90% were HSI virus.

5. Influenza activity in this current winter season as reflected by surveillance data appears higher than 2010 but remains broadly comparable with previous flu seasons. CHP will closely monitor the situation as the current flu season has not run its course yet. Based on historical data, normally winter flu seasons in Hong Kong may last about eight weeks, nonetheless longer durations have been recorded occasionally.

Influenza hospitalisations and deaths

6. CHP has been monitoring weekly hospital admission and death rates associated with influenza in public hospitals based on patient discharge diagnoses.

7. Among children aged under 5 years, the hospital admission rate due to influenza increased from 0.08 (per 10 000 population) in the first week of January to 3.96 in the last week of January 2011. In the same period, the hospital admission rate for elderly aged 65 years or above rose from 0.08 to 0.33 (per 10 000 population). Similar hospital admission rates were recorded during previous winter flu seasons in Hong Kong.

8. CHP has set up a new surveillance mechanism in collaboration with HA and private hospitals to monitor influenza associated deaths and admissions to Intensive Care Units (ICU) since 24 January 2011. In an 15-day period from 24 January to 7 February 2011, there were 47 ICU patients (including eight deaths) with laboratory confirmed influenza in HA hospitals. For the same period, there was one ICU admission associated with influenza recorded in private hospitals.

9. The 48 ICU cases recorded in HA hospitals and private hospitals involved 28 males and 20 females. Their age ranged from 21 months to 76 years (median: 51.5 years). 29 cases (60%) had known chronic diseases predisposing to more serious illnesses from influenza. Among the patients with known vaccination history, over 90% did not receive seasonal influenza vaccine.

10. For comparison against previous flu seasons, CHP has referred to a disease modelling study conducted by a local university, which estimated that around 1 000 deaths per year are attributable to influenza in Hong Kong. During the peak flu seasons in 2009 and 2010, 20 severe cases and 12 deaths were recorded every week. From May 2009 to October 2010, a total of 83 deaths associated with HSI were recorded in Hong Kong.

STRATEGY AND MEASURES IN PREVENTION AND CONTROL OF INFLUENZA

11. The Administration has taken a multi-pronged approach to prevent and control influenza outbreaks, as well as to cope with the rise in cases of influenza this season.

Influenza surveillance

12. To monitor influenza activity in the community, CHP has set up laboratory surveillance and sentinel surveillance networks which cover childcare centres, kindergartens, residential care homes for the elderly, HA out-patient clinics, clinics of private practitioners and Chinese medicine practitioners. As mentioned in paragraph 8 above, CHP has formed an enhanced surveillance mechanism with HA and private hospitals for severe influenza cases requiring admission to ICU during this winter flu season. Data from these surveillance systems, including daily reports and weekly updates, are published on the CHP website for public perusal.

Control of influenza outbreaks

13. From 20 January to 7 February 2011, CHP has conducted 89 field visits to childcare centres, kindergartens, schools, elderly homes and institutions with ILI outbreaks, in order to conduct investigations and provide health advice on control measures. Following the field visits, CHP continues to closely monitor the institutions to ascertain that the outbreak is under control. Under special circumstances, a school with flu outbreak may be advised to temporarily suspend class for one week to mitigate its spread.

Monitoring virus mutation

14. CHP has been watching out for any genetic changes in flu viruses. Genetic sequencing of recent flu virus does not show any new or significant changes. A widely publicised “Norwegian strain” of HSI (with a genetic mutation of the virus gene) has been found sporadically in Hong Kong since 2009, but recent fatal cases that were tested did not carry this mutation. While two tamiflu (oseltamivir) resistant HSI virus was found in January and February 2011, the overwhelming majority of flu viruses remain sensitive to the antiviral drugs oseltamivir and zanamivir, and studies showed that currently available seasonal vaccines confer protection.

Publicity and risk communication

15. CHP has stepped up publicity with regard to influenza since October 2010 in preparation for this winter flu season. For the general public, a new set of Announcements in the Public Interest and video documentary was produced and broadcast, targeting different groups including young children, elders, healthcare workers, and the community at large. Health information on influenza and seasonal influenza vaccination was disseminated through numerous channels, including a dedicated website, a 24-hour health education hotline, posters, leaflets and DVDs. Officers of CHP have also given numerous media briefings and interviews prior to and during the winter flu season to prepare and update the public on preventive measures. These risk communication activities will go on for the rest of the flu season.

16. At the community level, the Administration has continued to work with community organisations and self-help groups to strengthen public education on prevention and control of influenza. District Councils were provided with information papers about the ongoing Government Vaccination Programme and Vaccination Subsidy Schemes. A seminar was organised for district councillors and their assistants regarding vaccination arrangements. Professional advice and support was given to local organisations for conducting health talks and community-based activities related to influenza prevention.

17. For healthcare professionals, CHP joined professional medical organisations in a number of forums to promulgate and solicit support for seasonal influenza vaccination. Doctors were updated regularly of the latest flu situation through letters and emails. Similarly, schools and other institutions received timely information, guidelines and health advice to minimise the impact of influenza outbreaks.

Seasonal flu vaccination

18. The Scientific Committee of Vaccine Preventable Diseases under CHP recommended the following nine target groups to receive seasonal influenza vaccine in the 2010/11 season as a matter of priority –

- (i) Elderly persons living in residential care homes;
- (ii) Long-stay residents of institutions for the disabled;
- (iii) Elderly persons aged 65 years or above;
- (iv) Persons with chronic illness;
- (v) Health care workers;

- (vi) Children aged 6 months to 5 years;
- (vii) Pregnant women;
- (viii) Poultry workers; and
- (ix) Pig farmers and pig-slaughtering industry personnel

19. The 2010/11 seasonal influenza vaccination under the Government Vaccination Programme (GVP) commenced on 1 November 2010 and has been administered through DH and HA. The programme provides free seasonal influenza vaccination to nine specified target groups –

- (i) Elderly persons living in residential care homes;
- (ii) Long-stay residents of institutions for the disabled;
- (iii) Elderly persons aged 65 years or above with chronic illness and being followed up in public clinics, as well as those aged 65 years or above receiving Comprehensive Social Security Assistance (CSSA);
- (iv) Persons under 65 years with chronic illness receiving CSSA, and some long-stay HA in-patients who have chronic illness;
- (v) Health care workers of the Department of Health, HA and other Government departments, as well as health care workers in elderly homes or institutions for the disabled;
- (vi) Children between the age of 6 months and less than 6 years from families receiving CSSA;
- (vii) Pregnant women receiving CSSA;
- (viii) Poultry workers or staff who may be involved in poultry culling operations; and
- (ix) Pig farmers and pig-slaughtering industry personnel.

20. In addition to GVP, the Childhood Influenza Vaccination Subsidy Scheme (CIVSS) and Elderly Vaccination Subsidy Scheme (EVSS) also commenced on 1 November 2010. Under these respective schemes, subsidised vaccinations are provided through private doctors to eligible children aged between six months and less than six years, and elderly persons reaching the age of 65 or above. Approximately 1 500 private doctors have enrolled in the Vaccination Subsidy Schemes. The Government provides \$80 and \$130 of subsidy respectively for each dose of flu vaccine given to children and elders by participating doctors.

21. As of 6 February 2011, around 362 000 doses of seasonal influenza vaccine have been administered to target group members under the aforementioned programmes and schemes of 2010/11. Detailed statistics on the 2010/11 Seasonal Influenza Vaccination are set out in the

Annex.

22. In addition to the seasonal flu vaccinations administered under the GVP, CIVSS and EVSS, other members of the community who wish to have seasonal influenza vaccination for personal protection can consult their general practitioners. The figure is substantial as shown by the fact that approximately 1 000 000 to 1 110 000 doses of influenza vaccines are imported into Hong Kong every year.

23. To allay public misconception about side effects of the seasonal flu vaccine, CHP published a comprehensive report of the HSI vaccine in September 2010. With reference to both local and international experience, the report made clear that the HSI vaccine has a similar safety profile to traditional seasonal flu vaccine. In particular, the HSI vaccine is not associated with increased incidence of Guillain Barre Syndrome and adverse pregnancy outcomes.

Measures in public hospitals

24. HA has put in place a two-stage response plan since 2008 for monitoring and tackling upsurge in service demand during influenza season. The following contingency measures have been implemented in individual hospitals in HA as appropriate under the response plan –

- (i) transferring patients to less busy wards in tackling the overflow problem;
- (ii) adding nurses and support staff to the affected wards;
- (iii) triaging patients to convalescent wards for bed mobilisation;
- (iv) enhancing ward rounds including arranging home leaves for stable patients to facilitate bed mobilisation to facilitate discharge;
- (v) extending the HA laboratory services network in seven clusters to seven days a week with 24-hour turn-around time to speed up the rapid test for influenza;
- (vi) extending the radiological services in some hospitals during public holidays to facilitate early diagnoses and discharge of patients;
- (vii) making arrangements for overtime work and getting volunteers to assist in the Accident & Emergency Departments (A&EDs) for crowd-control and patient diversion;
- (viii) opening additional wards to manage the surge demand; and
- (ix) reducing and postponing some non-urgent or elective admissions.

25. For effective infection control and prevention of influenza outbreaks in public hospitals, all healthcare staff and visitors are reminded to wear surgical masks when entering patient care areas. HA's healthcare staff have also adopted enhanced droplet precautions when performing procedures for high risk patients.

CONCLUSION

26. The winter influenza season in Hong Kong is expected to last a few more weeks. Like previous influenza seasons, we expect to see an increased number of patients coming down with flu and developing serious complications, even some fatal cases.

27. The Administration has prepared for the flu season and put in place various measures to mitigate its effect. The Administration will continue to monitor the situation closely and to implement appropriate measures to safeguard public health. HA will also continue to monitor closely the admissions and attendances of all 16 A&EDs and the service capacity. Where necessary, contingency measures will be activated in hospitals to cope with surges in service demand.

ADVICE SOUGHT

28. Members are invited to note the contents of the paper.

**Food and Health Bureau
Department of Health
Hospital Authority
February 2011**

Statistics on 2010/11 Seasonal Influenza Vaccination

The 2010/11 seasonal influenza vaccination under Government Vaccination Programme (GVP), the Childhood Influenza Vaccination Subsidy Scheme (CIVSS) and the Elderly Vaccination Subsidy Scheme (EVSS) commenced on 1 November 2010. The following figures are as at 6 February 2011.

Category of target groups	Public / private sector	No. of recipients (no. of doses if different)	
Elderly aged 65 or above (including elderly persons living in residential care homes)	GVP	161 807	
	EVSS	104 340	
Persons under 65 years with chronic illness	GVP	18 106	
Pregnant women	GVP	16	
Healthcare workers in public sector and residential care homes	GVP	22 715	
Children between the age of 6 months and less than 6 years	GVP	3 617	(4 182)
	CIVSS	42 629	(47 463)
Poultry workers	GVP	3 955	
Pig farmers and pig-slaughtering industry personnel	GVP	226	
Total		357 411	(362 810)

Some children who had no seasonal influenza vaccination before received two doses.