

**For information
on 16 February 2015**

Legislative Council Panel on Health Services

Measures for the prevention and control of seasonal influenza

PURPOSE

This paper sets out the Administration's prevention and control measures devised to prepare for the 2014/15 winter influenza season.

2014/15 INFLUENZA SEASON

2. Hong Kong usually experiences two influenza peak seasons every year – one between January and March and the other in July and August. The 2014/15 winter influenza season arrived in late December 2014. The activity of seasonal influenza has continued to increase since then and rapidly reached a high level in mid to end of January.

3. The Centre for Health Protection (“CHP”) closely monitors influenza activity in the community through its surveillance systems covering childcare centres, residential care homes for the elderly, the Hospital Authority (“HA”)’s out-patient clinics and Accident and Emergency Departments, and clinics of private practitioners and Chinese medicine practitioners. Besides, CHP monitors the positive influenza detections among respiratory specimens received by its Public Health Laboratory Services Branch.

4. To monitor the severity of admitted influenza cases, the CHP, in collaboration with the HA and private hospitals, has been operating an enhanced surveillance system during influenza seasons. From noon 2 January 2015 to noon 9 February 2015, the CHP recorded 224 intensive care unit (“ICU”) admissions or deaths (including 145 deaths) with laboratory diagnosis of influenza for patients aged 18 years or above. 213 cases were influenza A(H3N2), 5 were influenza B and 6 were influenza A pending subtype. Among the cases mentioned above, 188

cases (83.9%) and 134 deaths (92.4%) involved elderly persons aged 65 or above. Separately, 11 paediatric cases of severe influenza associated complications with no deaths were recorded in the same period, and all were influenza A(H3N2). Among the severe cases reported in this season, about 90% so far were known to have underlying chronic illnesses.

MISMATH OF CIRCULATING INFLUENZA H3N2 STRAIN AND VACCINE STRAIN

5. The World Health Organization (“WHO”) reviews the global epidemiological situation of influenza twice annually to recommend virus strains for inclusion in seasonal influenza vaccines (“SIV”) for use in the Northern and Southern Hemisphere respectively in accordance with the available data. In February 2014, the WHO recommended that the trivalent SIV to be used in the 2014/15 season in the Northern Hemisphere should contain an A/California/7/2009 (H1N1)pdm09-like virus, an A/Texas/50/2012 (H3N2)-like virus; and a B/Massachusetts/2/2012-like virus. If a quadrivalent SIV is being used, it shall contain the above three viruses and a B/Brisbane/60/2008-like virus.

6. The CHP’s Scientific Committee of Vaccine Preventable Diseases (“SCVPD”), which comprises medical experts of various fields, including public health specialists, microbiologists, clinical specialists, academics and laboratory experts, will make recommendations on SIV annually based on latest scientific evidence, international recommendations, overseas practice and local situation. For season 2014/15, the SCVPD has issued an interim recommendation on the application of SIV in Hong Kong for the 2014/15 influenza season in April 2014 and the final recommendation in July. The vaccine compositions recommended by SCVPD were the same as those recommended by the WHO.

7. The CHP has been closely monitoring local and global influenza activity, circulating virus strains and the effectiveness of seasonal influenza vaccine. According to the WHO, an antigenically drifted H3N2 strain, from A/Texas/50/2012 (vaccine strain recommended by the WHO for the Northern Hemisphere in the 2014/15 season) to A/Switzerland/9715293/2013, has been observed after its

recommendation of the SIV strains in February 2014. Locally, over 95% of the circulating H3N2 viruses also belonged to this drifted H3N2 strain.

8. Similar to Hong Kong, a number of neighbouring and overseas areas in the Northern Hemisphere have also entered the winter season since December 2014, including Taiwan, Japan, the United States (“US”), Canada, the United Kingdom and Europe. In the US, Canada and Europe, laboratory analyses revealed that most of the circulating H3N2 viruses detected in this season also belonged to the drifted H3N2 strain (A/Switzerland/9715293/2013).

9. The mismatch of the circulating and vaccine strain of influenza H3N2 strain may reduce the vaccine effectiveness for H3N2, but it is expected that the vaccine would afford a certain degree of cross-protection against different but related strains, and also reduce the likelihood of severe outcomes such as hospitalisations and deaths, particularly for high-risk groups. As such, vaccination remains an important means to prevent influenza.

HIGH ATTENDANCE TO ACCIDENT AND EMERGENCY DEPARTMENTS AND INPATIENT OCCUPANCY IN PUBLIC HOSPITALS

10. In order to cope with the surge in service demand during influenza season, HA has already drawn up a corporate-wide response plan in consultation with clusters. HA is closely monitoring the service demand statistics in all acute hospitals, including daily average of Accident & Emergency (“A&E”) first attendance, admission to Medical (“MED”) / Paediatric (“PAE”) / Orthopaedic (“ORT”) wards from A&E as well as inpatient bed occupancy rate (“OR”) of MED / PAE / ORT wards and ICU. The daily average provisional number of A&E first attendance and MED admission from A&E from 21 December 2014 to 28 January 2015 were 6,412 and 1,007 respectively. The highest provisional figures of daily A&E first attendance and MED admission from A&E during the said period were 7,541 and 1,160 respectively, which exceeded the highest figures during the influenza season of 2013-14. The daily MED inpatient bed OR generally exceeded 100%. In some acute hospitals such as Queen Elizabeth Hospital, Tseung Kwan O Hospital and United Christian Hospital, the MED inpatient bed OR was

as high as 130% intermittently during the said period. As at 29 January 2015, the ICU inpatient bed OR was 94%, with a few hospitals (e.g. Pamela Youde Nethersole Eastern Hospital and Pok Oi Hospital) exceeding 100%.

MEASURES IN PREVENTION AND CONTROL OF SEASONAL INFLUENZA

11. Given that seasonal influenza affects large segments of the community and may lead to serious infections especially among certain at-risk populations, the Government maintains alert against influenza outbreaks and has taken the following measures to prepare the community for the influenza peak season:

- (a) The surveillance systems operated by the CHP monitor influenza activity in the community. Specimens will be collected from patients for detection of influenza virus and characterization of antigenic/genetic changes, including susceptibility to antiviral agents. Influenza surveillance data will be uploaded to the CHP website every week. Since 2 February 2015, the CHP has further stepped up information dissemination by providing daily update on the latest situation of severe influenza cases on the CHP website;
- (b) The CHP issues notices to doctors, hospitals, kindergartens, child care centres, primary and secondary schools as well as residential care homes for the elderly and the disabled to alert them to the latest influenza situation;
- (c) The CHP conducts epidemiological investigations on institutional influenza-like illness (“ILI”) outbreaks. Relevant control measures will be implemented and appropriate health advice given to the institutions concerned. Following field visits, the CHP continues to closely monitor the institutions to ascertain that the outbreak is under control;
- (d) Enhanced laboratory support will be provided by the CHP to heighten surveillance and infection monitoring during the influenza season.

- (e) The seasonal influenza vaccination programmes are launched every year to protect at-risk groups from influenza related complications. Related statistics for the 2014/15 programme is shown in **Annex 1**. Moreover, an antiviral stockpile is maintained in case of an influenza pandemic;
- (f) In response to challenge of upsurge in service demand, one of the key response measures is to enhance service capacity to cope with the demand for inpatient service. HA has opened 205 additional beds in 2014-15, and will open another 250 beds in 2015-16. To further increase the service capacity to cope with the surge in service demand during the influenza season, HA has opened a total of 282 additional beds on a time limited basis for six months from December 2014. Since the demand for inpatient service has increased sharply in the past month, there have been insufficient MED beds. Various clusters have, with regard to the actual demand and manpower situation, further augmented capacity through deploying beds among specialties and adding temporary beds in the existing medical wards as far as possible. If service demand rises further, HA will consider reducing non-urgent surgery to make available beds and manpower to deal with seasonal influenza. Nevertheless, cancer surgery, urgent heart surgery and surgery involving body parts and important organs will not be affected.
- (g) To relieve pressure on A&E, HA had increased the quota for general outpatient clinics (GOPC) by 560 during Christmas holidays in 2014 and will further increase the GOPC quota by 1,486 in the Chinese New Year holidays. The above additional quota represents an increase of 14% and 30% of service capacity in the respective period.
- (h) HA will continue to recruit full time and part time staff. Manpower has been augmented by special honorarium scheme and leave encashment as far as possible. Additional manpower has been mobilized through temporary employment of Auxiliary Medical Services staff and Undergraduate Nursing Students to share out workload of frontline staff, and to provide services to the targeted patients for taking influenza vaccination and to support increased admissions at A&ED and hospital wards. In

addition, other measures taken by the HA to tackle increased service demand during influenza season are detailed in **Annex 2**;

- (i) Publicity and health education activities have been stepped up to promulgate advice on personal and environmental hygiene; and to remind the community to stay vigilant against influenza. The CHP has produced a variety of health education materials on the prevention of influenza including a thematic web page, television and radio announcements in public interests (“APIs”), guidelines, pamphlets, posters, booklets, FAQs and exhibition boards. Various publicity and health education channels e.g. websites, television and radio stations, health education hotline, newspapers and media interviews have been deployed for promulgation of health advice. The CHP has also widely distributed the health education materials in public and private housing estates, health care settings, schools and non-governmental organisations, etc. The CHP also keeps our stakeholders including bureaux and government departments, hotel and guesthouse associations, property management associations, Hong Kong Housing Society, District Councils, Healthy Cities, non-government organisations and ethnic minority groups updated of the latest influenza activity and preventive measures to solicit their co-ordination and support to strengthen the related health messages. The main message is to advise the public to maintain good personal and environmental hygiene against influenza, such as putting on a surgical mask when respiratory symptoms develop to avoid spreading the infections to others; avoid going to crowded or poorly ventilated public places when influenza is prevalent, and high-risk groups should consider wearing a surgical mask especially when staying in these places;
- (j) The Scientific Committees of the CHP regularly review latest scientific evidence in respect of seasonal influenza and influenza pandemic and make recommendations accordingly;
- (k) The CHP maintains close liaison with the WHO, the National Health and Family Planning Commission, and the health authorities of Guangdong, Macao and neighbouring

and overseas countries to monitor influenza activities and their evolution around the world. The Department of Health (“DH”) will enforce port health measures in line with International Health Regulations;

- (l) The CHP conducts exercises periodically to test the preparedness of our pandemic influenza contingency plans; and
- (m) The Agriculture, Fisheries and Conservation Department and Food and Environmental Hygiene Department under the coordination of the Food and Health Bureau, as well as the Leisure and Cultural Services Department, will step up surveillance and monitoring of avian influenza at all levels of the supply chain of live poultry, pet bird shops, recreational parks and the wild bird environment.

VACCINATION FOR 2014/15 INFLUENZA SEASON

12. In the 2014/15 season, both trivalent and quadrivalent SIV were recommended by the SCVDP. Trivalent vaccine may protect against majority of influenza burden while quadrivalent vaccine may offer additional protection against influenza B. Besides, the SCVDP recommends nine priority groups to have higher priority to receive SIV since these groups usually have higher chance to develop serious illnesses or may transmit the disease to the high risk groups. The SCVDP also recommends all persons aged 6 months or above except those with contraindications to receive SIV for personal protection.

13. The Government provides free quadrivalent vaccine to eligible groups under Government Vaccination Programme (GVP), and quadrivalent vaccine is also included in the Vaccination Subsidy Scheme (VSS) under which Hong Kong residents aged 6 months to 6 years and 65 years or above may get government subsidy for receiving SIV. GVP and VSS started on 3 November 2014 and 6 October 2014 respectively to allow ample time for vaccination and development of antibody before the arrival of the winter peak. As of 25 January 2015, over 440 000 doses of SIV have been administered through the various vaccination programmes and schemes (see Annex 1). The number of doses administered is similar to that of same period last year.

14. Series of publicity activities have been done in order to promote vaccination, in particular to the targeted high risk groups. Local survey found that professional advice was effective in promoting vaccination. As such, medical experts and specialists were engaged in various publicity activities to promote vaccination to different target groups. Experts from the SCVPD, Hong Kong Academy of Medicine and five specialists colleges came together to announce a Consensus Statement regarding the importance of SIV. Specialists also attend media interviews to explain the benefits and need of SIV. Publicity was also done through Announcement of Public Interest through mass media, advertisements in MTR, buses, newspaper, magazine and on-line apps. Promotion was also done through websites, community partners, District Councils and collaboration with non-government organisation.

15. For healthcare workers, DH, HA and Private Hospital Association have jointly conducted a press conference to promote vaccination for healthcare workers in public and private sector. Senior government officials also take the lead to receive vaccination as role models. Briefing sessions were arranged for healthcare workers to explain the safety and need for vaccination.

WAY FORWARD

16. The CHP will continue to closely monitor the situation as the current influenza season has not run its course yet. The winter influenza season in Hong Kong is expected to last for some time. The Government has prepared for the influenza season and put in place various measures to mitigate its effect. The Government will continue to monitor the situation closely and to implement appropriate measures to safeguard public health.

ADVICE SOUGHT

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

**Food and Health Bureau
Department of Health
Hospital Authority
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Statistics on 2014/15 Seasonal Influenza Vaccination

The 2014/15 seasonal influenza vaccination under the Childhood Influenza Vaccination Subsidy Scheme (CIVSS) and the Elderly Vaccination Subsidy Scheme (EVSS) commenced on 6 October 2014, while that under Government Vaccination Programme (GVP) started on 3 November 2014. The following figures are as at 25 January 2015.

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	165 956
	EVSS	161 539
Persons under 65 years with chronic illness	GVP	8 374
Persons aged 50 to 64 years	GVP	1 516
Pregnant women	GVP	12
Long-stay residents of institutions for persons with disabilities	GVP	12 554
Healthcare workers in public sector and residential care homes	GVP	30 526
Children between the age of 6 months and less than 6 years	GVP	2 104 (2 661) △
	CIVSS	46 527 (56 275) △
Poultry workers	GVP	3 637
Pig farmers and pig slaughtering industry personnel	GVP	199
Total		432 941 (443 249) △

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

HA's response measures during influenza season

Measures	Details
1) Managing demand in community	- There is enhanced support to Old Age Homes through the Community Geriatric Assessment Services, Community Nursing Service and Visiting Medical Officer programs to facilitate management of simple cases outside hospitals.
2) Gate-keeping to reduce unnecessary admission	- Additional observation areas is set up in Accident and Emergency Departments (A&ED) to solve congestion of A&ED as well as to reduce unnecessary admission to medical wards. Virology services for influenza is enhanced to help in decision of admission of paediatric patients. Additional staff are deployed to streamline patient flow, crowd control during prolonged waiting.
3) Improving patient flow	- Patient's flow through the hospital system is expedited through more frequent ward rounds especially during weekends to facilitate transfer of stable patients to convalescence. - HA Microbiology laboratories extend the rapid influenza tests to weekend and public holidays for timely case detection during winter surge period to facilitate patient flow and effective use of isolation facilities. - In addition, some hospitals will provide PCR influenza A virus testing to all patients presented with influenza-like-illness (ILI) to facilitate early clinical treatment and implementation of infection control measures.
4) Optimising and augmenting buffer capacity	- Buffer capacity in hospitals is optimised through utilisation of buffer wards, expanding day follow-up service, and reduction of re-admission. - Manpower is augmented by special honorarium scheme, leave encashment and provision of undergraduate nurses and Auxiliary Medical Service staff to handle the possible surge in A&ED attendances and hospital admissions. - Expand services in General Outpatient Clinics during long holidays to alleviate pressure on A&ED.
5) Re-prioritising core activities	- Elective admission and non-urgent surgery is reduced to reserve capacity to deal with seasonal influenza.
6) Enhancing infection	- Healthcare workers and visitors are recommended to wear surgical masks when entering patient care areas during winter

<p>control measures</p>	<p>surge period.</p> <ul style="list-style-type: none"> - Standard and droplet precautions are in place for patients with influenza symptoms to prevent spread in hospitals. - Hand hygiene is reinforced among healthcare workers, patients and visitors. - Promotion of influenza vaccination to healthcare workers and eligible patient groups. Each cluster will arrange Vaccination Mobilization Teams to provide influenza vaccines to staff at their workplace and at a time that is convenient to them. HA has also established a referral mechanism in 2014-15 to encourage eligible inpatients to have vaccine injection in outpatient clinics after discharge.
<p>7) Enhancing communication with the public</p>	<ul style="list-style-type: none"> - Enhanced communication with the public to manage their expectation on longer waiting time at A&EDs and to alert them on possible postponement of elective services.