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Panel on Health Services

**Updated background brief prepared by the Legislative Council Secretariat
for the meeting on 19 March 2018**

Measures for the prevention and control of seasonal influenza

Purpose

This paper provides background information and summarizes the concerns of members of the Panel on Health Services ("the Panel") on measures for the prevention and control of seasonal influenza.

Background

2. Influenza is a highly infectious disease caused by different strains of influenza virus. Three types of seasonal influenza viruses are recognized to cause human infection, namely A, B and C. Influenza A viruses can further be subtyped on the basis of two surface antigens: haemagglutinin (H) and neuraminidase (N). New subtype variants appear from time to time and at irregular intervals. Antigenic drifts (minor changes) of influenza viruses lead to the emergence of new viral strains every year. According to the World Health Organization ("WHO"), influenza C cases occur much less frequently than influenza A and influenza B.

3. Seasonal influenza affects large segments of the community. For healthy individuals, seasonal influenza is usually self-limiting with recovery in two to seven days. However, seasonal influenza can be a serious illness to the weak and frail or elderly people, and may be complicated by bronchitis, chest infection or even death. In Hong Kong, influenza occurs throughout the year and often displays two seasonal peaks. A smaller summer peak is sometimes observed in July and August. A larger seasonal peak is in winter time, usually from January to March.

4. In the last winter influenza season of Hong Kong which started in mid February 2017 and ended in mid April 2017, influenza A(H3N2) constituted

about 80% of influenza detections, with a slight increase in influenza B detections in the later phase of the season. In that season, the number of severe cases reported was lower than that reported during the winter influenza seasons in 2014-2015 and 2015-2016¹, with 66 adult cases of influenza-associated admission to intensive care units ("ICU") or death (including 41 fatal cases) and five cases of severe influenza-associated complication or death involving persons aged under 18 years (including one fatal case) recorded. The peak admission rate in public hospitals was highest among children aged under five years (1.30 admitted cases per 10 000 population), followed by elders aged 65 or above (0.69 admitted cases per 10 000 population) and children aged six to 11 years (0.58 admitted cases per 10 000 population). The severe cases and deaths mainly affected elders aged 65 years or above.

5. The 2017 summer influenza season of Hong Kong started in mid May 2017 and ended in late August 2017. The season started earlier and the seasonal influenza activity was higher than previous seasons. Influenza A(H3N2) predominated in this season. From 5 May to 29 August 2017, a total of 576 adult cases of influenza-associated admission to ICU or death (including 428 fatal cases) and 19 cases of severe influenza-associated complication or death involving persons aged under 18 years (including three fatal cases) were recorded. The peak admission rate in public hospitals was highest among children aged under five years (10.13 admitted cases per 10 000 population), followed by elders aged 65 years or above (6.65 admitted cases per 10 000 population) and children aged five to nine years (2.43 admitted cases per 10 000 population).

Deliberations of the Panel

6. The Panel discussed issues relating to the prevention and control of seasonal influenza at a number of meetings between 2008 and 2017. The deliberations and concerns of members are summarized in the following paragraphs.

Influenza vaccination

Effectiveness of vaccination

7. Concern was raised about the effectiveness of seasonal influenza vaccination and the best time to receive the vaccination. The Administration advised that seasonal influenza vaccination was one of the effective means in

¹ The number of severe cases reported in the 2014-2015 and 2015-2016 winter influenza season was 665 (including 502 fatal cases) and 436 (including 214 fatal cases) respectively.

preventing influenza and its complications, as well as reducing influenza-related hospitalization and death. Vaccine effectiveness depended on the similarity between the virus strains present in the vaccine and those circulating in the community. According to WHO, when the vaccine strains closely matched the circulating influenza viruses, the efficacy of inactivated influenza vaccines in individuals aged below 65 years ranged from 70% to 90% in general, whereas that in individuals aged 65 years or above was at best modest. Given that it would take about two weeks after vaccination for antibodies to develop in the body, it would be best to receive vaccination four weeks before the expected arrival of the influenza peak season.

Vaccination for children

8. Members noted that the annual Government Vaccination Programme ("GVP") would provide free seasonal influenza vaccines to target groups (i.e. at-risk and/or under-privileged populations) while the annual Vaccination Subsidy Scheme ("VSS") would subsidize eligible persons to receive seasonal influenza vaccination from enrolled private doctors. Some members had long called for extending the coverage of GVP to primary school students as a proactive approach to prevent outbreaks in schools. Some went further to suggest that given the low take-up rate of the seasonal influenza vaccine under GVP, the programme should be extended to people outside the target groups such as young people aged 19 years or below who also recorded a high infection rate.

9. Members were pleased to note that the Administration had regularized the provision of free or subsidized seasonal influenza vaccination under the 2017-2018 GVP and VSS to cover the target groups as expanded in 2016-2017. For GVP, the expanded target groups included children aged six to under 12 from families receiving Comprehensive Social Security Assistance ("CSSA") or holding valid Certificates for Waiver of Medical Charges and all recipients of Disability Allowance ("DA"). As regards VSS, children aged six to under 12, DA recipients and pregnant women had been covered since the 2016-2017 season, and the subsidy provided would remain at \$190 per dose of seasonal influenza vaccine.

10. On the suggestion of providing vaccination services to students at campuses under VSS without their having to visit private doctors for vaccination, the Administration advised that all vaccination programmes and schemes were voluntary. Apart from clinics, enrolled private doctors in VSS could provide outreach vaccination services to eligible persons at non-clinic settings, including kindergarten and primary schools. For the 2017-2018 winter season, CHP received notifications of 40 and 70 outreach vaccination activities to be organized in primary schools and kindergartens respectively as of 12 November 2017. Around 70 private doctors had indicated their interests in

providing outreach vaccination services. Consent from parents had first to be obtained before administering any vaccines to children.

Vaccination for older age groups and persons with underlying illnesses

11. Members noted that one of the recommendations of the Scientific Committee on Vaccine Preventable Diseases ("SCVPD") on seasonal influenza vaccination for both 2016-2017 and 2017-2018 seasons was that persons aged 50 or above and persons with chronic medical problems should receive seasonal influenza vaccine for personal protection.² They were concerned that while free seasonal influenza vaccination were provided under GVP to persons aged 50 years to under 65 years who were CSSA recipients or holders of valid Certificate for Waiver of Medical Charges and all elders aged 65 years or above, only elders aged 65 years or above were entitled to receive subsidized seasonal influenza and pneumococcal vaccinations from enrolled private doctors under VSS. There was a call that GVP should also cover persons between the age of 50 to 64 years who were not CSSA recipients, as overseas experience showed that adults, particularly those aged between 50 to 64 years, were at a higher risk for influenza-related ICU admission and death when influenza A(H1N1)pdm09 strain predominated. In addition, all persons with chronic medical problems living in the community, instead of only persons with intellectual disabilities and DA recipients, should be covered under VSS.

12. Members were advised that given finite public resources, there was a need for the Administration to accord priority to the population groups recommended by SCVPD for free or subsidized seasonal influenza vaccination. Assuming an uptake rate of 40%, the extra resources required for providing free or subsidized seasonal influenza vaccinations to persons aged 50 to under 65 years and persons with chronic medical problems aged 12 to under 65 years were \$110 million and \$75 million respectively.

13. Concern was raised about the difficulties encountered by elders living in residential care homes, in particular those with mobility impairment, to receive vaccination from clinics or hospitals under the Department of Health ("DH") or Hospital Authority ("HA"). Members were advised that under the Residential Care Home Vaccination Programme, CHP organized outreaching immunization teams to enable, among others, eligible residents and staff of residential care homes for the elderly ("RCHEs") and residential care homes for persons with disabilities to receive free vaccination in their institutions. It was expected that the vaccination rate for institutional elders would be about 80%.

² Recommendations on seasonal influenza vaccination for the 2017-2018 season made by SCVPD can be assessed at the website of the Centre for Health Protection: https://www.chp.gov.hk/files/pdf/short_version_of_recommendations_on_seasonal_influenza_vaccination_for_the_2017_18.pdf.

Vaccination rate

14. Members considered that the seasonal influenza vaccination rate of the total population, which stood at about 12%, was low when compared with that of the developed countries. Given that vaccination was an effective mean to prevent seasonal influenza and its complications and reduce the risks of flu-induced inpatient admission and mortality, some members urged the Administration to set a target vaccination rate.

15. According to the Administration, it would promote seasonal influenza vaccination to the public, in particular the new target groups, through a series of publicity activities. To protect the staff and reduce the risk of patients being infected, HA would encourage its healthcare staff to receive vaccination through various internal and promotional activities and arranging mobile vaccination teams to facilitate staff vaccination.

Surge capacity of HA

16. Some members were concerned about the high attendance to the Accident and Emergency ("A&E") Departments of public hospitals, the long waiting time for inpatient admission to medical wards via the A&E Departments, as well as the high inpatient bed occupancy rates in medical wards and paediatric wards of a few public hospitals during the winter influenza seasons. Questions were raised about the effectiveness of the measures, in particular the planned increase in the bed capacity of public hospitals, put in place by HA to tackle the winter surge. To help reduce unnecessary attendance at A&E Departments during winter influenza season, there was a call for the Administration to step up its efforts in appealing to private doctors to open clinics during public holidays to meet the service demand. In addition, there was a need to strengthen the collaboration among HA, DH, the Social Welfare Department ("SWD") and the social welfare sector to provide a coordinated step-down care at the community level. Some members were concerned that HA was less prepared to tackle the unexpected summer surge in 2017.

17. Members were advised that in 2017-2018, 229 new beds were being opened in those public hospitals with high service demand. To prepare for the 2017-2018 winter surge, HA anticipated the opening of more than 600 time-limited and temporary beds in phases. The plan of HA was that another 500-odd new beds would be opened in 2018-2019, some of which would be regularized from the said time-limited beds. As the Queen Elizabeth Hospital and the Prince of Wales Hospital faced serious access block problem in the A&E Departments during the past winter surge periods, more than half of these 600 time-limited and temporary beds would be opened in the Kowloon Central Cluster and the New Territories East Cluster to help alleviate the problem. The

above apart, HA would, among others, increase the service quotas of public general outpatient clinics ("GOPCs") during the winter surge period and long holidays to meet the rising service demand for winter surge. It had also formulated a series of step up measures to provide support for discharged patients and emergency services, and to enhance bed deployment and patient flow. To reduce unnecessary admission and facilitate timely referrals of the elderly patients to the most appropriate caring settings, such as non-acute hospitals or elderly homes, the geriatric teams would provide early assessment and treatment for patients at the A&E Departments.

18. Members noted that HA had designated two laboratories with 24 hours service in the Prince of Wales Hospital and Queen Mary Hospital to handle urgent testing for severe influenza cases outside office hours (i.e. from 5:00 pm every day to 9:00 am of the following day) since June 2016. There was a suggestion that since it took time to deliver samples from individual public hospitals to these two laboratories, more laboratories with 24 hours service should be designated to provide urgent testing service during the winter influenza season. HA advised that during the 2017-2018 winter surge, polymerase chain reaction testing for rapid diagnosis of influenza infections ("the PCR tests"), with a planned increase in the capacity from 30 000 to 100 000, would be provided by the seven cluster laboratories for all patients of acute public hospitals presenting with influenza-like-illness symptoms. The test results would be available within 24 hours to facilitate appropriate clinical treatment.

19. On the suggestion of setting up an A&E service hotline staffed by doctors or experienced nurses who would be able to advise as to whether the clinical conditions of the patients concerned should be managed at the A&E Departments or GOPCs, HA advised that the existing triage system of the A&E Departments could ensure that patients with pressing medical needs would receive timely medical treatment.

20. There was a view that Chinese medicine sector should be invited to prepare for the seasonal influenza seasons. According to the Administration, the 18 public Chinese Medicine Centres for Training and Research were endeavored to meet the increasing service demand during the influenza season. Chinese medicine practitioners were also involved in the influenza-like-illness surveillance system for CHP.

Manpower of HA

21. Members expressed grave concern about the readiness of HA to cope with the challenge of upsurge in service demand given its medical and nursing manpower constraints and the low staff morale among the healthcare personnel. There was a suggestion that community nurses should be deployed to pressure

wards to meet the rise in hospital admission. Members urged the Administration and HA to improve the healthcare professional-to-population ratios when working on the long-term healthcare manpower requirements. HA should also strengthen its manpower, in particular that of its care-related support staff, to cope with the heavy work pressure arising from the opening of temporary beds during the winter surge period. At the meeting on 21 March 2016, the Panel passed a motion urging the Government to take forward a number of suggestions³ to alleviate the plight confronted by frontline healthcare personnel and maintain the quality of public healthcare services.

22. Members were advised that since community nurses played a vital role in the prevention of influenza through the provision of nursing support to elderly population in the community setting, the Administration considered it not appropriate to deploy community nurses to hospital settings. To meet the service demand and address manpower shortage, HA continued the A&E Support Session Programme, introduced greater flexibility for participation in the Special Honorarium Scheme to encourage more staff to work extra service sessions, enhanced relevant career prospects to retain the care-related staff, and continued to recruit part-time healthcare staff to ease the workload of frontline staff and increase the flexibility in staff deployment, etc. It was estimated that as compared with 2016-2017, there would be an annual increase of 129 (i.e. 2.2%) doctors, 823 (i.e. 3.3%) nurses and 272 (i.e. 3.6%) allied health professionals in HA in 2017-2018. With the number of local medical graduates completing internship training increased by 100 to 420 starting from 2018-2019, the manpower of doctors would be further strengthened by then.

Infection control measures

23. Some members was concerned that given the already serious hospital ward congestion problem, the opening of new beds would further lower the

³ These suggestions included: (a) suspending all unnecessary internal meetings and administrative measures to enable full dedication of healthcare personnel (including doctors and nurses) to frontline duties and accord priority to managing patients; (b) coordinating among various clusters and hospitals in respect of triaging patients of stable medical condition to those acute hospitals of which the service capacity had not been stretched to the limits, or other convalescent hospitals, so as to ease the overcrowding attendance and enable patients to receive appropriate treatment more readily; (c) setting up 24-hour clinics in the vicinity of the A&E Departments during the influenza peak season and divert those patients being triaged as "semi-urgent" or "non-urgent" cases to these clinics for treatment, in order to alleviate pressure on the A&E Departments; (d) allocating additional resources immediately to address the long-standing problem of shortage in hospital beds, and putting into full operation those hospital beds not yet commenced service, such as those of North Lantau Hospital; and (e) allocating additional resources immediately to tackle the problem of manpower shortfall, and recruit part-time doctors and nurses with reasonable remuneration as early as possible to help ease the manpower shortage problem of public hospitals.

bed-to-bed distance for droplets precautions. They urged the Administration and HA to implement appropriate measures to reduce the infection risk in public hospitals, in particular measures to address the "superbugs" (i.e. microorganisms became resistant to antimicrobials). There was a concern that since RCHEs were regulated by SWD, some RCHEs might consider it not necessary to take heed of the recommendations given by healthcare professionals of HA or CHP on infection control measures to prevent outbreaks of influenza at the RCHEs concerned.

24. HA advised that it had implemented a series of measures to cope with the influenza season. This included recruiting additional staff to perform cleansing services so as to maintain environmental hygiene of the clinical areas of HA hospitals; promoting hand hygiene in all HA hospitals and clinics; enhancing support to RCHEs by Community Geriatric Assessment Service, Community Nursing Service and Visiting Medical Officer programmes; and restricting visiting hours to acute wards to two hours per day to prevent cross infections. Moreover, each major public hospital had an infection control team to oversee infection control policies and practices. Hospital frontline staff also worked closely with infection control officers to ensure early identification of infectious cases and implementation of appropriate actions to prevent the spread of diseases. The above apart, HA would monitor and where appropriate, follow up with DH and SWD if there were repeated admissions of a cluster of residents developing influenza-like illness from particular RCHEs.

Suspension of classes

25. During the discussion on the prevention and control of influenza in 2011, some members noted with concern about the significant surge in the hospital admission rate due to influenza among children aged under five years. There was a view that kindergartens and kindergartens-cum-child centres should temporarily suspend class to prevent widespread of influenza among young children. The Administration advised that the Education Bureau ("EDB") would work closely with DH and maintain close communication with schools to implement preventive measures against influenza at schools. However, it might not be appropriate to, as a preventive measure, require kindergartens and kindergartens-cum-child centres to suspend class throughout every influenza season taking into account the learning needs of children and views of parents.

Risk communication

26. Members were of the view that the Administration should step up its efforts in keeping the public posted of the latest influenza situation. The Administration advised that before the influenza season arrived, CHP would issue alerts to doctors, homes for the elderly, hostels for people with disabilities, schools, kindergartens and child care centres from time to time, so that

appropriate prevention actions could be taken. A weekly surveillance report, the Flu Express, would be issued during the flu season to inform the public of the latest situation. In addition, daily updates of the influenza situation were posted on CHP's dedicated influenza webpage to enhance timeliness in circulating information to the public.

Promotion of personal and environmental hygiene

27. There was a view that financial resources should be provided to residential care homes and school bus operators to assist them in enhancing environmental hygiene, such as purchasing additional cleansing materials and enhancing the disinfection of facilities, to minimize the transmission of influenza. The Administration advised that household bleach was an effective and inexpensive disinfectant. Efforts had been and would continue to be made by CHP to provide support and guidelines to schools and other institutions on the necessary precautionary measures.

28. On the suggestion that personal hygiene should be included in the curriculum of kindergartens and primary schools, the Administration advised that efforts had been and would continuously be made by EDB to encourage schools to ensure the observance of personal hygiene measures so as to guard against the spread of influenza and other communicable diseases.

Recent developments

29. CHP announced on 10 January 2018 that Hong Kong has entered the 2017-2018 winter influenza season. In view of the development of the influenza situation, the Chief Executive announced on 30 January 2018 to allocate an additional one-off \$500 million to HA for implementing additional measures, on top of the response plan for the 2017-2018 winter surge, to meet the services demand and relieve manpower shortage in the winter surge.⁴ In the light of the above one-off funding, the latest estimated total expenditure of HA for the 2017-2018 winter surge is around \$900 million. Separately, the

⁴ HA will continue to implement the following additional measures from 12 February to 31 May 2018: an increase in the rate of Special Honorarium Scheme allowance by 10% to encourage more staff, including clerical staff, supporting staff, allied health professionals, doctors and nurses, to work during the surge period with significant anticipated increase in workload; extending the use of the Scheme to provide extra manpower of clerical and supporting staff to relieve healthcare staff for clinical work; increasing the flexibility of the Scheme to a minimum operation need of one hour for all grades of staff; enhancing senior coverage and supervision to ward staff by providing the Scheme at Advanced Practice Nurse level for night-shift duties; and relaxing the criteria for implementation of the Continuous Night Shift Scheme. In addition, HA increased the service quotas of GOPCs by 1 000 during 12 February to 11 March 2018, and will further enhance the A&E Support Session Programme.

Administration announced on 7 February 2018 that all kindergartens, kindergartens-cum-child care centres, primary schools and special schools (excluding Schools for Social Development with secondary section only) would start Chinese New Year holidays from 8 February 2018 till the end of the originally scheduled holidays of the schools with an aim to prevent the spread of influenza in schools.

30. The 2017-2018 VSS and GVP were launched on 18 and 25 October 2017 respectively.⁵ For GVP, the Government has contracted to purchase around 460 000 doses of seasonal influenza vaccines before the launch of the Programme, representing an increase of around 30 000 doses over the 2016-2017 procurement. To meet the high demand under the 2017-2018 GVP, DH has procured 20 000 and 24 000 additional vaccines from the vaccine suppliers in late January and early February 2018 respectively. According to DH, it has been closely in touch with the vaccine suppliers on the supply of vaccines in the local private healthcare sector. Extra quantities of quadrivalent seasonal influenza vaccines have respectively been provided by two vaccine suppliers before and after the Chinese New Year, and another batch of vaccines would become available in mid-March 2018.

31. In view of the wide public concern on vaccine effectiveness in early February 2018, SCVDP convened an urgent meeting on 12 February 2018. According to CHP, preliminary results showed that seasonal influenza vaccine offered approximately 40% protection against laboratory-confirmed influenza infections in the 2017-2018 winter season in local primary care setting. Separately, a local study revealed that influenza vaccination effectiveness was estimated to be 66% for hospitalized children. It was advised that if the 2017-2018 northern hemisphere seasonal influenza vaccine became unavailable later, people could receive the 2018 southern hemisphere seasonal influenza vaccines⁶, which is expected to be available on the market since April 2018 the earliest, as both were either the same or antigenically similar.

32. According to CHP, as of 7 March 2018, the local influenza activity has started to decrease but is still at a high level. It is foreseen that the local influenza activity will remain elevated for some time. The predominating virus

⁵ The trivalent seasonal influenza vaccines for the 2017-2018 northern hemisphere season as recommended by WHO comprise an A/Michigan/45/2015 (H1N1)pdm09-like virus, an A/Hong Kong/4801/2014 (H3N2)-like virus and a B/Brisbane/60/2008-like virus, whereas the quadrivalent seasonal influenza vaccine contains the above three viruses and a B/Phuket/3703/2013-like virus.

⁶ The trivalent seasonal influenza vaccines for the 2018 southern hemisphere season as recommended by WHO comprise an A/Michigan/45/2015 (H1N1)pdm09-like virus, an A/Singapore/INFIMN-16-0019/2016(H3N2)-like virus and a B/Phuket/3703/2013-like virus, whereas the quadrivalent seasonal influenza vaccine contains the above three viruses and a B/Brisbane/60/2008-like virus.

currently is influenza B. From the start of the 2017-2018 winter season until 3 March 2018, a total of 467 adult cases of influenza-associated admission to ICU or death (including 300 fatal cases) and 15 paediatric cases of influenza-associated complication or death involving persons aged under 18 years (including two fatal cases) were recorded.

33. Two questions were raised at the Council meetings of 31 January and 28 February 2018 respectively on issues relating to seasonal influenza. The questions and the Administration's replies are in **Appendices I and II** respectively.

Relevant papers

34. A list of the relevant papers on the Legislative Council website is in **Appendix III**.

Council Business Division 2
Legislative Council Secretariat
15 March 2018

Press Releases 31 January 2018

LCQ2: Seasonal influenza vaccination

Following is a question by the Hon Chan Han-pan and a reply by the Secretary for Food and Health, Professor Sophia Chan, in the Legislative Council today (January 31):

Question:

The Government implements the Government Vaccination Programme and the Vaccination Subsidy Scheme annually to provide free or subsidised seasonal influenza vaccination to groups which are at a higher risk of infection (e.g. children and the elderly). It has been reported that Hong Kong is now in the peak season of influenza and there have been sporadic outbreaks of influenza in the community and schools, resulting in the bed occupancy rates of many public and private hospitals reaching or even going beyond their capacities. In this connection, will the Government inform this Council:

(1) whether it knows the number of people diagnosed with influenza and, among them, the number of those who had received influenza vaccinations within six months before contracting the disease, in each of the past five years; whether the Government has examined the reasons for some members of the public contracting influenza even after they had received vaccinations; if so, of the outcome;

(2) of the percentage of the number of people who received influenza vaccination in the population in each of the past five years; whether the Government has reviewed the effectiveness of the aforesaid programme and scheme in preventing or reducing influenza outbreaks in the community and schools; if so, of the outcome; and

(3) as it has been reported that as of the middle of this month, the paediatric inpatient bed occupancy rates of most of the public and private hospitals have reached or even gone beyond their capacities, e.g. the relevant occupancy rate of Tuen Mun Hospital was once as high as 225%, and since the overcrowdedness of wards will increase the risk of cross-infection among inpatient children, of the Government's immediate counter-measures to address the shortage of hospital beds in paediatric wards?

Reply:

President,

Vaccination is one of the effective means to prevent seasonal influenza and its complications, and can reduce the risks of influenza-associated hospitalisation and mortality. Hence, the Government has all along been encouraging the public to receive seasonal influenza vaccination as early as possible. It also provides subsidised or free seasonal influenza vaccination for eligible groups who are generally at a higher risk of severe complications or even death caused by influenza, or spreading the infection to those at high risk (please refer to Annexes 1 and 2 for details). In 2017/18, the influenza vaccines procured and used under various influenza vaccination programmes in Hong Kong are those recommended by the World Health Organization (WHO) for use in the northern hemisphere.

In consultation with the Centre for Health Protection (CHP) of the Department of Health and the Hospital Authority (HA), I provide a consolidated reply to three parts of the question as follows:

(1) For healthy individuals, influenza is usually self-limiting with recovery within a week. The majority of infected cases in the community are not tested and confirmed. Given its prevalent nature, seasonal influenza is not a statutory notifiable disease in Hong Kong. Hence, the CHP does not maintain statistics on the total number of people

diagnosed with influenza in the community.

Nevertheless, the CHP conducts routine surveillance of cases of paediatric influenza-associated severe complication or death among children (aged under 18), and also cases of intensive care unit (ICU) admission or death with laboratory diagnosis of influenza among adult patients. In the past five years, there were a total of 123 cases of paediatric influenza-associated severe complication or death. Among these cases, only 12% had received the seasonal influenza vaccine for the respective season. During the influenza seasons in the past five years, among the 2 368 adult cases of ICU admission or death with laboratory diagnosis of influenza, the percentages of adults aged from 18 to 64, community-living elderly people aged 65 or above, and elderly people aged 65 or above living in residential care homes having received the seasonal influenza vaccine for the respective season were 4%, 27% and 66% respectively.

According to the WHO, when the vaccine strains closely match the circulating influenza viruses, efficacy of influenza vaccine in healthy individuals aged under 65 typically ranges from 70% to 90%. However, the actual efficacy depends on a host of factors, e.g. degree of matching between the vaccine strains and the circulating strains, age of the vaccine recipients, timing of vaccination, and the presence of any underlying medical conditions that may impair the immune response. Many scientific studies showed that influenza vaccine could provide some degree of protection in preventing hospital admissions or deaths caused by influenza.

(2) The total number of people receiving influenza vaccination under the Government Vaccination Programme and the Vaccination Subsidy Scheme in the past five years are listed in Annex 3. Around 6.4% to 9.3% of the population joined the two programmes each year, and the percentage has been increasing year on year. Some members of the public may have received influenza vaccination in the private sector at their own expense. In this connection, the actual percentage of people having received influenza vaccination should be higher.

Past local research studies showed that the effectiveness of influenza vaccination in preventing influenza-associated hospitalisation among children ranged from about 40% to 80%. According to the analysis made earlier by the CHP on the effectiveness of seasonal influenza vaccination in elderly people living in residential care homes from 2011/12 to 2016/17, it was found that the vaccine effectiveness in preventing influenza-associated ICU admissions or deaths ranged from 37% to 69%. Besides, the CHP collaborated with the HA to analyse data of patients admitted to public hospitals for respiratory symptoms during the winter influenza season of 2015/16. It was found that the effectiveness of influenza vaccination in preventing influenza-associated admissions among elderly patients aged 65 or above for that season was about 40%. Overseas studies have also shown that providing influenza vaccination for school children can reduce absenteeism and protect other high-risk groups (e.g. the elderly). The CHP will continue to closely monitor local and global studies on influenza vaccine effectiveness and relevant scientific literature.

(3) In respect of public hospitals, the HA has been monitoring the bed occupancy rates in different specialties. Various measures have been introduced to alleviate the overcrowding in wards. During the peak seasons every year, public hospitals will exercise flexibility in deploying healthcare manpower and hospital beds, including increasing the number of time-limited beds and day beds, adding temporary beds as necessary, and transferring patients from crowded wards to alleviate the overcrowded conditions. In the long term, the HA will include in its annual plan the initiative of increasing manpower and resources for the provision of new hospital beds, with a view to addressing the overall shortage of beds in a progressive manner. During the days when some wards of public hospitals may be overcrowded because of a surge in the number of hospital admissions, hospitals will implement various measures to alleviate the situation as far as possible, including transferring patients to other wards. Moreover, the HA will transfer suitable patients, such as clinically stable surgical patients, orthopaedic

patients and medical patients receiving rehabilitation treatment, to private hospitals with low-cost hospital bed arrangement with HA for completion of treatment.

In respect of private hospitals, there were a total of 414 paediatrics and neonatology inpatient beds in 12 private hospitals across the territory at the end of 2017. As at January 22, 2018, approvals were granted to two of the hospitals for providing additional paediatric and neonatology inpatient beds, thus increasing the total number of paediatrics and neonatology beds to 440. In addition, private hospitals have set up infection control teams and formulated policies, procedures and guidelines on prevention and control of infectious diseases inside the hospital.

Ends/Wednesday, January 31, 2018
Issued at HKT 16:05

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Priority groups recommended by Scientific Committee on Vaccine Preventable Diseases	Eligible groups of Government Vaccination Programme 2017/18
1. Pregnant women	Pregnant women who are Comprehensive Social Security Assistance (CSSA) recipients or holders of valid Certificate for Waiver of Medical Charges issued by Social Welfare Department (Certificate)
2. Elderly persons living in residential care homes	Residents of residential care homes for the elderly (RCHEs)
3. Long-stay residents of institutions for persons with disabilities	Residents of residential care homes for the disabled (RCHDs)
4. Persons aged 50 years or above	Community-living persons: <ul style="list-style-type: none"> - 65 years or above: all elderly - 50 years to under 65: CSSA recipients or valid Certificate holders
5. Persons with chronic medical problems*	Community-living persons: <ul style="list-style-type: none"> - Receiving Disability Allowance: clients of Hospital Authority (HA) or clinics of Department of Health (DH) - With intellectual disabilities: clients of HA, DH clinics, designated day centres, sheltered workshops or special schools
	Aged under 50 years attending public clinics: CSSA recipients or valid Certificate holders with high-risk conditions#
	In-patients (including paediatric patients) of HA: hospitalised patients with high-risk conditions# (including those in infirmary, psycho-geriatric, mentally ill or mentally handicapped units/wards)
	Paediatric out-patients: with high-risk conditions# or on long-term aspirin
6. Healthcare workers (HCWs)	HCWs of DH, HA, RCHEs, RCHDs or other Government departments
7. Children aged 6 months to under 12 years	Children aged 6 months to under 12 years from families receiving CSSA or holding valid Certificate <i>Where to vaccinate?</i>
	<ul style="list-style-type: none"> - 6 months to under 6 years: Maternal and Child Health Centres of DH - 6 years to under 12 years: Student Health Service Centres of DH
8. Poultry workers	Poultry workers or workers who may be involved in poultry-culling operations
9. Pig farmers or pig-slaughtering industry personnel	Pig farmers or pig-slaughtering industry personnel

* For details, please refer to [Recommendations on Seasonal Influenza Vaccination for the 2017/18 Season \(June 2017\)](#).

High-risk conditions include risk factors for both invasive pneumococcal disease and seasonal influenza:

- History of invasive pneumococcal disease, cerebrospinal fluid leakage or cochlear implant;
- Chronic cardiovascular (except hypertension without complications), lung, liver or kidney diseases;
- Metabolic diseases including diabetes mellitus or obesity (Body Mass Index 30 or above);
- Immunocompromised states related to weakened immune system due to conditions such as asplenia, Human Immunodeficiency Virus infection/Acquired Immune Deficiency Syndrome or cancer/steroid treatment;
- Chronic neurological conditions that can compromise respiratory functions or the handling of respiratory secretions or increase the risk for aspiration, or those who lack the ability to take care of themselves; and
- Children and adolescents (aged 6 months to 18 years) on long-term aspirin therapy.

Vaccination Subsidy Scheme 2017/18 (subsidised seasonal influenza vaccination)

Priority groups recommended by Scientific Committee on Vaccine Preventable Diseases	Eligible groups of Vaccination Subsidy Scheme 2017/18 (\$190 per dose)
1. Pregnant women	All pregnant women
2. Children aged 6 months to under 12 years	All children aged 6 months to under 12 years
3. Persons with chronic medical problems*	Community-living persons with intellectual disabilities or receiving Disability Allowance, regardless of disability (including disabled physical, mental, intellectual or other conditions)#
4. Persons aged 50 years or above	All elderly aged 65 years or above

* For details, please refer to [Recommendations on Seasonal Influenza Vaccination for the 2017/18 Season \(June 2017\)](#).

High-risk conditions include:

- History of invasive pneumococcal disease, cerebrospinal fluid leakage or cochlear implant;
- Chronic cardiovascular (except hypertension without complications), lung, liver or kidney diseases;
- Metabolic diseases including diabetes mellitus or obesity (Body Mass Index 30 or above);
- Immunocompromised states related to weakened immune system due to conditions such as asplenia, Human Immunodeficiency Virus infection/Acquired Immune Deficiency Syndrome or cancer/steroid treatment;
- Chronic neurological conditions that can compromise respiratory functions or the handling of respiratory secretions or increase the risk for aspiration, or those who lack the ability to take care of themselves; and
- Children and adolescents (aged 6 months to 18 years) on long-term aspirin therapy.

Annex 3

**Number of people receiving influenza vaccinations under
the Government Vaccination Programme and the Vaccination
Subsidy Scheme**

Year	Number of people receiving vaccinations	Percentage of population
2013/14	463 000	6.42%
2014/15	493 000	6.80%
2015/16	579 000	7.92%
2016/17	677 000	9.18%
2017/18 (as at January 21, 2018)	687 000	9.30%

Press Releases 28 February 2018

LCQ22: Influenza surges

Following is a question by the Hon Holden Chow and a written reply by the Secretary for Food and Health, Professor Sophia Chan, in the Legislative Council today (February 28):

Question:

Hong Kong is now in the winter surge of influenza, with sporadic outbreaks of influenza in the community, institutions and schools. As at the 8th of this month, more than 400 winter influenza outbreaks were recorded by the Centre for Health Protection, outnumbering the figure of the same period last year. In this connection, will the Government inform this Council:

- (1) whether it knows, in each of the past five years, the quantities of influenza vaccines supplied to and used by the healthcare systems of the public and private sectors respectively;
- (2) of the normal differences between the influenza epidemic during the influenza summer surge and winter surge; whether it has compiled statistics on the respective numbers of persons diagnosed with influenza during the influenza summer surge and winter surge in each of the past five years and, among them, the respective numbers and percentages of children and elderly persons;
- (3) of the methods adopted by the Government for projecting the future trend of influenza epidemic; whether it has formulated new measures to ensure that the supply of influenza vaccines for and the number of hospital beds in the healthcare systems of the public and private sectors in Hong Kong are sufficient for tackling influenza surges; and
- (4) whether it knows, in each of the past five years, the respective numbers of influenza patients who sought treatment at the accident and emergency departments of public and private hospitals and, regarding those patients among them who needed to be hospitalised for treatment, the respective average duration for which they had to wait for admission to the wards?

Reply:

President,

(1) Each year, the Government provides free and subsidised influenza vaccination to eligible Hong Kong residents through the Government Vaccination Programme (GVP) and Vaccination Subsidy Scheme (VSS) (details at Annex 1 and Annex 2 respectively).

The number of people receiving seasonal influenza vaccination under the GVP and VSS over the past five years are set out in the following table:

	2012/13	2013/14	2014/15	2015/16	2016/17
GVP	241 800	240 700	356 100	392 100	414 500
VSS	202 100	222 100	234 700	184 300	288 400
Total	443 900	462 800	590 800	576 400	702 900

Note: The above figures do not include the number of people receiving vaccination in the private sector at their own

expenses.

The quantity of influenza vaccines procured by the Government under GVP and imported by vaccine suppliers for private market over the past five years are listed below:

Year	Influenza vaccines procured by the Government under GVP (doses)	Influenza vaccines imported by vaccine suppliers for private market (doses) #
2012/13	285 000	about 567 500
2013/14	285 000	about 585 000
2014/15	378 453	about 622 000
2015/16	402 730	about 539 000
2016/17	426 107	about 596 500

Information provided by vaccine suppliers

(2) Seasonal influenza, a common respiratory infection in Hong Kong, is prevalent throughout the year, particularly during the influenza seasons. Hong Kong usually experiences two influenza seasons every year, the winter influenza season normally occurs between January and March/April, and the summer influenza season between July and August. Past experience has shown that winter is the main influenza season in Hong Kong. Comparatively speaking, the summer influenza season normally lasts for a shorter period with lower influenza activity than that in the winter season. However, there are exceptions such as the summer influenza season last year which was far more severe than the winter influenza season early last year.

For healthy individuals, influenza is usually self-limiting with recovery within a week. The majority of infected cases in the community are not tested and confirmed. Given its prevalent nature, seasonal influenza is not a statutory notifiable disease in Hong Kong. Hence, the Centre for Health Protection (CHP) of the Department of Health (DH) does not maintain statistics on the total number of people diagnosed with influenza in the community. Nevertheless, the CHP conducts routine surveillance of the number of admissions with principal diagnosis of influenza in public hospitals. The total number of public hospital admissions associated with influenza in each winter/summer influenza season over the past five years were in the range of 569 to 9 813 (median: 1 780), while the percentages of children aged under 18 and elders aged 65 or above ranged from 16.1 to 49.4 per cent and 21.0 to 67.8 per cent respectively. The relevant figures are listed out in the table below:

Year	Influenza season	Persons aged 0-17		Persons aged 18-64		Persons aged 65 or above		Accumulative total
		No.	%	No.	%	No.	%	
2013		533	46.2%	378	32.8%	242	21.0%	1 153

	2012/13 Winter							
	2013 Summer	429	34.2%	217	17.3%	610	48.6%	1 256
2014	2013/14 Winter	1 516	39.0%	1 119	28.8%	1 255	32.3%	3 890
	2014 Summer	166	29.2%	100	17.6%	303	53.3%	569
2015	2014/15 Winter	1 118	16.1%	1 118	16.1%	4 698	67.8%	6 934
	2015 Summer	537	23.3%	439	19.0%	1 329	57.7%	2 305
2016	2015/16 Winter	2 356	49.4%	1 170	24.5%	1 248	26.1%	4 774
	2016 Summer	276	29.0%	148	15.5%	528	55.5%	952
2017	2016/17 Winter	396	39.3%	207	20.6%	404	40.1%	1 007
	2017 Summer	2 586	26.4%	1 947	19.8%	5 280	53.8%	9 813

(3) The CHP has been closely monitoring the activities of influenza and various respiratory pathogens in the community through a series of surveillance systems. It has established laboratory surveillance and sentinel surveillance networks which cover childcare centres, residential care homes for the elderly, the Hospital Authority (HA)'s general out-patient clinics (GOPCs), clinics of private practitioners, the Accident and Emergency (A&E) departments in public hospitals and Chinese medicine clinics. In addition, the CHP has been monitoring the weekly number of admissions in public hospitals with diagnosis of influenza and the daily number of admissions with laboratory confirmation of influenza.

Regarding the monitoring of influenza severity, the CHP conducts routine surveillance of pediatric influenza-associated severe complications or deaths among children (aged below 18). For adults, the CHP has collaborated with the HA and private hospitals to monitor the cases of intensive care unit admission or death with laboratory confirmation of influenza. This surveillance mechanism has been regularised as a routine surveillance operating throughout the year since 2018. Forecast of the trend of local influenza activity will be carried out according to the data of various local surveillance systems, the situation of neighbouring and overseas areas, and local epidemiological experience. Meanwhile, publicity and risk communication activities will also be conducted in a timely manner, including issuing press releases and letters to schools, residential care homes and doctors, with a view to raising risk awareness among the public and healthcare personnel and enabling them to remain vigilant at all times.

On the supply of influenza vaccines, the World Health Organization (WHO) will review the global epidemiology of influenza every year to recommend virus strains for inclusion in influenza vaccine for use in the northern hemisphere in accordance with the available data. Each year, the Government will determine the scope of the GVP and VSS with reference to the expert recommendations of WHO and the Scientific Committee on Vaccine Preventable Diseases. Given the limited global supply of influenza vaccines and the time required for manufacturing vaccines (take around six to eight months) and the vaccines manufactured are for use only for a single influenza season, the Government must estimate in advance at the beginning of each year the quantity of vaccine doses required for the coming season

under the GVP. The Government will then place orders with the suppliers in accordance with its established procurement procedures to secure adequate supply of vaccines for the GVP. On the supply of vaccines in local private healthcare sector, private healthcare institutions will purchase directly from vaccine suppliers on their own. Nevertheless, the DH will also actively liaise with vaccine suppliers in order to reserve sufficient stock of vaccines for use by private healthcare institutions, including those participating in the VSS.

In respect of beds in public hospitals, the HA has been progressively increasing the number of beds and addressing the shortage of manpower through allocating manpower and resources under its annual plans and progressing with the ten-year Hospital Development Plan, so as to meet the incremental service demand. Besides, to cope with the upsurge in service demand during influenza surges, the HA will allocate additional resources for provision of additional time-limited beds and temporary beds during peak seasons every year, and adopt a wide range of measures to strengthen the services. These measures include:

- (i) continuing to recruit full-time and part-time healthcare staff, and encouraging higher participation of existing healthcare staff during peak seasons through the Special Honorarium Scheme;
- (ii) enhancing virology services to facilitate and expedite patient management decision;
- (iii) enhancing ward rounds of senior clinicians and related supporting services in the evenings, at weekends and on public holidays to facilitate early discharge of patients;
- (iv) enhancing discharge support (e.g. non-emergency ambulance transfer service, pharmacy and portering services) to shorten the waiting time for patients on discharge so that their beds can be allocated to other patients at the earliest possible time;
- (v) increasing the service quotas of GOPCs during Christmas, Lunar New Year and Easter holidays as well as the whole surge period to enhance the service capacity of GOPCs; and
- (vi) strengthening geriatrics support to A&E departments and continuing the A&E Support Session Programme.

(4) The HA and the DH do not maintain statistics on the number of influenza patients who sought treatment at the A&E departments of public and private hospitals, as well as the average waiting time for admitting these patients to the wards.

Ends/Wednesday, February 28, 2018
Issued at HKT 18:25

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Priority groups recommended by Scientific Committee on Vaccine Preventable Diseases	Eligible groups of Government Vaccination Programme 2017/18
1. Pregnant women	Pregnant women who are Comprehensive Social Security Assistance (CSSA) recipients or holders of valid Certificate for Waiver of Medical Charges issued by Social Welfare Department (Certificate)
2. Elderly persons living in residential care homes	Residents of residential care homes for the elderly (RCHEs)
3. Long-stay residents of institutions for persons with disabilities	Residents of residential care homes for the disabled (RCHDs)
4. Persons aged 50 years or above	Community-living persons: <ul style="list-style-type: none"> ● 65 years or above: all elderly ● 50 years to under 65: CSSA recipients or valid Certificate holders
5. Persons with chronic medical problems*	Community-living persons: <ul style="list-style-type: none"> ● Receiving Disability Allowance: clients of Hospital Authority (HA) or clinics of Department of Health (DH) ● With intellectual disabilities: clients of HA, DH clinics, designated day centres, sheltered workshops or special schools
	Aged under 50 years attending public clinics: CSSA recipients or valid Certificate holders with high-risk conditions#
	In-patients (including paediatric patients) of HA: hospitalised patients with high-risk conditions# (including those in infirmary, psycho-geriatric, mentally ill or mentally handicapped units/wards)
	Paediatric out-patients: with high-risk conditions# or on long-term aspirin
6. Healthcare workers (HCWs)	HCWs of DH, HA, RCHEs, RCHDs or other Government departments
7. Children aged 6 months to under 12 years	Children aged 6 months to under 12 years from families receiving CSSA or holding valid Certificate <i>Where to vaccinate?</i> <ul style="list-style-type: none"> ● 6 months to under 6 years: Maternal and Child Health Centres of DH ● 6 years to under 12 years: Student Health Service Centres of DH
8. Poultry workers	Poultry workers or workers who may be involved in poultry-culling operations
9. Pig farmers or pig-slaughtering industry personnel	Pig farmers or pig-slaughtering industry personnel

* For details, please refer to [Recommendations on Seasonal Influenza Vaccination for the 2017/18 Season \(June 2017\)](#).

High-risk conditions include risk factors for both invasive pneumococcal disease and seasonal influenza:

- History of invasive pneumococcal disease, cerebrospinal fluid leakage or cochlear implant;
- Chronic cardiovascular (except hypertension without complications), lung, liver or kidney diseases;
- Metabolic diseases including diabetes mellitus or obesity (Body Mass Index 30 or above);
- Immunocompromised states related to weakened immune system due to conditions such as asplenia, Human Immunodeficiency Virus infection/Acquired Immune Deficiency Syndrome or cancer/steroid treatment;
- Chronic neurological conditions that can compromise respiratory functions or the handling of respiratory secretions or increase the risk for aspiration, or those who lack the ability to take care of themselves; and
- Children and adolescents (aged 6 months to 18 years) on long-term aspirin therapy.

Vaccination Subsidy Scheme 2017/18 (subsidised seasonal influenza vaccination)

Priority groups recommended by Scientific Committee on Vaccine Preventable Diseases	Eligible groups of Vaccination Subsidy Scheme 2017/18 (\$190 per dose)
1. Pregnant women	All pregnant women
2. Children aged 6 months to under 12 years	All children aged 6 months to under 12 years
3. Persons with chronic medical problems*	Community-living persons with intellectual disabilities or receiving Disability Allowance, regardless of disability (including disabled physical, mental, intellectual or other conditions)#
4. Persons aged 50 years or above	All elderly aged 65 years or above

* For details, please refer to [Recommendations on Seasonal Influenza Vaccination for the 2017/18 Season \(June 2017\)](#).

High-risk conditions include:

- History of invasive pneumococcal disease, cerebrospinal fluid leakage or cochlear implant;
- Chronic cardiovascular (except hypertension without complications), lung, liver or kidney diseases;
- Metabolic diseases including diabetes mellitus or obesity (Body Mass Index 30 or above);
- Immunocompromised states related to weakened immune system due to conditions such as asplenia, Human Immunodeficiency Virus infection/Acquired Immune Deficiency Syndrome or cancer/steroid treatment;
- Chronic neurological conditions that can compromise respiratory functions or the handling of respiratory secretions or increase the risk for aspiration, or those who lack the ability to take care of themselves; and
- Children and adolescents (aged 6 months to 18 years) on long-term aspirin therapy.

**Relevant papers on
the measures for the prevention and control of seasonal influenza**

Committee	Date of meeting	Paper
Panel on Health Services	10.3.2008 (Item V)	Agenda Minutes CB(2)2028/07-08(01)
	16.6.2008 (Item III)	Agenda Minutes
	10.6.2009 (Item I)	Agenda Minutes CB(2)1924/08-09(01)
	9.11.2009 (Item III)	Agenda Minutes CB(2)624/09-10(01)
	14.2.2011 (Item V)	Agenda Minutes CB(2)1175/10-11(01)
	17.12.2012 (Item V)	Agenda Minutes CB(2)458/12-13(01)
	16.2.2015 (Item III)	Agenda Minutes CB(2)880/14-15(01) CB(2)1199/14-15(01)
	21.3.2016 (Item III)	Agenda Minutes CB(2)1501/15-16(01)
	20.6.2016 (Item II)	Agenda Minutes
	21.11.2016 (Item III)	Agenda Minutes CB(2)681/16-17(01)

Committee	Date of meeting	Paper
Panel on Health Services	26.1.2017 (Item I)	Agenda Minutes
	20.11.2017 (Item VI)	Agenda

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