

立法會 *Legislative Council*

LC Paper No. CB(2)296/17-18(05)

Ref : CB2/PL/HS

Panel on Health Services

Background brief prepared by the Legislative Council Secretariat for the meeting on 20 November 2017

Preparation for winter surge

Purpose

This paper provides background information and summarizes the concerns of members of the Panel on Health Services ("the Panel") on the preparation for winter surge.

Background

2. Influenza is a highly infectious disease caused by different strains of influenza virus. There are three known categories of influenza viruses, 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 December to April.

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 this 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 elderly 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 for winter surge at a number of meetings between 2008 and 2016. 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

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.

advised that seasonal influenza vaccination was one of the effective means in 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 as recommended by the Scientific Committee on Vaccine Preventable Diseases ("SCVPD") under the Centre for Health Protection ("CHP"), the 2016-2017 GVP and VSS would provide, among others, free or subsidized influenza vaccination for children aged six to under 12 or attending a primary school. In addition, the subsidy provided by the Government under VSS had been increased from \$160 to \$190 per dose of seasonal influenza vaccine with a view to improving the coverage.

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. 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 SCVPD's recommendations on seasonal influenza vaccination for the 2016-2017 season was that persons aged 50 or above and persons with chronic medical problems should receive seasonal influenza vaccine for personal protection. They were concerned that while free seasonal influenza vaccination were provided under GVP to persons aged 50 years or above who were recipients of Comprehensive Social Security Assistance ("CSSA") or holders of valid Certificate for Waiver of Medical Charges and all elders aged 65 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 persons receiving Disability Allowance, 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 old and persons with chronic medical problems aged 12 to under 65 years old 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 DH or HA. Members were advised that under the GVP's Residential Care Home Vaccination Programme, CHP organized outreaching immunization teams to enable eligible residents and staff of residential care homes for the elderly ("RCHEs") and residential care homes for the disabled to receive free vaccination in their institutions. It was expected that the vaccination rate for institutional elders would be about 80%.

Vaccination rate

14. Members considered that the seasonal influenza vaccination rate of the total population, which stood at less than 20%, 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. 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 rate in medical wards during the winter influenza seasons. Questions were raised about the effectiveness of the measures 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.

17. Members were advised that HA would recruit more healthcare staff and open 231 additional beds, with more than half to be added to the specialty of medicine, in 2016-2017 to enhance its service capacity. Resources would also be reserved for opening over 500 temporary beds² during the 2016-2017 winter surge period to meet the possible upsurge in service demand. The above apart, HA would, among others, provide around 18 000 additional service quotas of public general outpatient clinics ("GOPCs") during the winter surge period and increase the service quotas of GOPCs during 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. The HA Head Office would also work jointly with the cluster-based task forces in the Kowloon Central and New Territories East Clusters which had particularly serious access block problem in the A&E Departments during the past winter surge periods. To

² The breakdown of the temporary beds to be opened in HA in the 2016-2017 winter surge period was: over 50 beds in the Hong Kong East Cluster, around 10 beds in the Hong Kong West Cluster, around 100 beds in the Kowloon Central Cluster, around 50 beds in the Kowloon East Cluster, over 100 beds in each of the Kowloon West and New Territories East Clusters and around 100 beds in the New Territories West Cluster.

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. Some members considered that the opening of 500-odd temporary beds was far from adequate to meet the upsurge in service demand. They urged the Administration and HA to increase the number of public hospital beds across the territory in the longer term. There was a view that HA should allocate the additional healthcare personnel and hospital beds to the most pressurized areas of HA during the winter surge period.

19. Concern was raised over an increase in the admission rates among children aged below six years and six to 11 years in the 2016 winter influenza season. Members were advised that while children were particularly affected in the 2016 winter influenza season due to the predominance of influenza A(H1), most cases did not develop severe influenza-associated complication. Most of inpatient cases could be discharged within two days.

20. 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.

21. 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 as pneumonia was one of the major influenza complications, polymerase chain reaction testing for rapid diagnosis of influenza infections would be conducted during winter surge for all patients with community acquired pneumonia in all seven hospital clusters. The test results would be available within 24 hours to facilitate early clinical treatment and timely admission of influenza cases with complications.

22. 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

23. 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. 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.

24. 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 had extended the coverage of the A&E Support Session Programme from 12 to all 17 A&E Departments, introduced greater flexibility for participation in the Special Honorarium Scheme to encourage more staff to work extra service sessions, and continued to recruit part-time healthcare staff to ease the workload of frontline staff, etc. It should be noted that compared with 2015-2016, there would be an annual increase of 158 (i.e. 2.8%) doctors, 372 (i.e. 1.5%) nurses and 216 (i.e. 3%) allied health professionals in HA in 2016-2017.

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.

Infection control measures

25. Members considered it important to step up infection control measures in public hospitals so as to prevent cross infections. They urged the Administration and HA to implement appropriate measures to reduce the infection risk in public hospitals. 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.

26. HA advised that it had implemented a series of measures to cope with the influenza season. This included 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

27. During the discussion on the prevention and control of influenza in 2011, some members noted with concern 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 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

28. 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

29. 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.

30. 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 the Education Bureau 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

31. According to the Administration, the 2016-2017 GVP and VSS was concluded on 31 August 2017 as the last batch of seasonal influenza vaccines procured by the Government expired after 31 August 2017. A total of 703 000 doses of seasonal influenza vaccines were administered in 2016-2017, including about 414 000 via GVP and 288 000 under VSS which represented an increase of 4.7% and 46.4% respectively compared to 2015-2016. The increase was mainly due to the new eligible group of children aged from six to below 12 years, and the increase in vaccination for eligible children aged from six months to under six years and eligible elders.

32. As announced in the 2017 Policy Address in January 2017, the pilot measures in 2016-2017 to expand the scope of GVP and VSS would be regularized in 2017-2018. The target groups of recipients of free or subsidized seasonal influenza vaccination would be expanded to cover children from six months to under 12 years old (originally covering children from six months to

under six years old), pregnant women and recipients of Disability Allowance. The 2017-2018 GVP and VSS have been launched on 18 and 25 October 2017 respectively. The subsidy level under VSS remains at \$190 per dose.

33. According to CHP, based on past epidemiological patterns, it is expected that the winter influenza season may arrive in early 2018.

Relevant papers

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

Council Business Division 2
Legislative Council Secretariat
17 November 2017

**Relevant papers on the
preparation for winter surge**

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

Council Business Division 2
Legislative Council Secretariat
17 November 2017