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Panel on Health Services

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

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. Three types of seasonal influenza viruses are recognized to cause human infection, namely A, B and C. Influenza A virus can further be subtyped on the basis of two surface antigens: haemagglutinin (H) and neuraminidase (N). For Influenza B virus, there are two important subdivisions: lineages of B/Yamagata and B/Victoria. 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. WHO convenes technical consultations each year to recommend the composition of influenza vaccines for next annual season. It will announce the proposed strains for influenza vaccines to be used in the Northern Hemisphere (where Hong Kong is located) for the next influenza season, normally in February or March of the year before the season so that vaccines would be available for the winter influenza season of the same year and the summer influenza season of the following year. Locally, the Scientific Committee on Vaccine Preventable Diseases ("SCVPD") under the Centre for Health Protection ("CHP") has been reviewing the scientific evidence of influenza vaccination and recommended the priority groups for influenza vaccinations annually since 2004.

5. The last winter influenza season of Hong Kong lasted for about 12 weeks from the week of 7 January 2018 to the week ending 31 March 2018. The predominating virus was influenza B. According to the Administration, epidemiological experience showed that children were relatively more affected. This was reflected by the large number of outbreaks of influenza-like-illness in kindergartens, child care centres and primary schools. The peak influenza-associated hospital admission rates among children aged between six and 17 years in this season had greatly exceeded the respective highest level recorded in previous seasons by more than one-fold. During the above period, a total of 570 adult cases of influenza-associated admission to the Intensive Care Unit or death (including 382 fatal cases), and 20 influenza-associated severe complication cases involving persons aged under 18 years (including two fatal cases) were recorded. Only 26% of the former and 5% of the latter were known to have received the seasonal influenza vaccination for the season.

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 2018. 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

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.

8. Expressing concern about those inaccurate or misleading remarks on seasonal influenza vaccination on the social media platforms, some members called on the Administration to step up public education on the effectiveness of vaccination in order to avoid public misunderstandings in this regard.

Vaccination for children

9. 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.

10. 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.

11. Expressing concern over the low uptake rate of seasonal influenza vaccine amongst primary school children, members urged the Administration to provide

outreach vaccination services at primary schools under VSS. The Administration should also provide assistance to private doctors in the maintenance of the cold chain of the vaccines and the handling of clinical wastes, as well as encourage primary schools and parents to join the outreach programme. The Administration advised that it would carry out a pilot programme under which vaccination teams, either by the Government or through public-private partnership ("PPP"), would be arranged to provide outreach vaccination services at selected primary schools. To improve the participation rate at kindergartens/child care centres and primary schools, the Administration would also raise the subsidies and strengthen the support of outreach vaccination services provided by enrolled private doctors under VSS.

Vaccination for older age groups and persons with underlying illnesses

Members noted that one of the recommendations of the SCVPD on 12. 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.¹ 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 pneumoccoal 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.

13. 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.

¹ Recommendations on seasonal influenza vaccination for the 2017-2018 season made by SCVPD can be accessed at the website of CHP: <u>https://www.chp.gov.hk/files/pdf/</u><u>short_version_of_recommendations_on_seasonal_influenza_vaccination_for_the_2017_18.pdf</u>.

14. 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%.

Vaccination rate

15. 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.

16. 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.

Use of unutilized vaccines

17. There was a view that the unused seasonal influenza vaccines procured by the Administration should be supplied to private doctors to benefit people who were not eligible for GVP or VSS but were willing to get vaccinated. The Administration advised that the number of seasonal influenza vaccines to be purchased by the Administration before the launch of GVP and VSS was determined based on the estimated demand under these programmes. While the Administration did not have statistics on the number of persons receiving vaccination not under GVP and VSS, it had been closely in touch with the vaccine suppliers on the supply of seasonal influenza vaccines in the local private healthcare sector.

Surge capacity of HA

18. 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.

19. 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 Price 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 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.

20. 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, 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.

21. To address the high utilization of medicine wards during winter surge, there was a view that the Administration and HA should set up temporary fever clinics in the community to provide timely treatment for patients suffering seasonal influenza and strengthen the visiting medical practitioner services for residents of RCHEs to proactively reduce influenza-associated hospitalization. Concern was also raised about the transfer of suitable patients by HA to private hospitals with low-cost hospital bed arrangement for completion of treatment. Members were subsequently advised that the collaboration with private hospitals to utilize low-charge beds for HA patients during 2017-2018 winter influenza season commenced in early January and ended in mid-April 2018. A total of 25 patients were transferred to private hospitals and the expenditure incurred was nearly \$150 000.

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. 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 suggestions² 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 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. Following the Chief Executive's announcement in January 2018 that an additional one-off \$500 million would be allocated to HA for implementing additional measures, including the increase of healthcare manpower, to meet the service demand and relieve manpower shortage in the winter surge, the estimated total expenditure for 2017-2018 winter surge would increase to around \$900 million.

Infection control measures

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

² 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.

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 This included recruiting additional staff to perform cleansing influenza season. 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 The above apart, HA would monitor and where appropriate, follow diseases. 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 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. Where appropriate and necessary, it would require kindergartens and kindergartens-cum-child centres to suspend class during the influenza season to prevent the spread of influenza in schools.

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 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

31. According to the recommendations made by SCVPD in April 2018,³ the composition of the seasonal influenza vaccination for the 2018-2019 season in Hong Kong would follow the recommendations made by WHO for the 2018-2019 northern hemisphere influenza season. For the vaccine type, both trivalent and quadrivalent inactivated influenza vaccines were recommended for use in Hong Kong. While a type of live attenuated influenza vaccines ("LAIV") has been registered in Hong Kong in April 2018, it was recommended that healthcare providers chose to use LAIV should consider the contraindications and precautions since LAIV had not been used extensively in Hong Kong before. The priority groups recommended in the 2017-2018 season would continue to be included as priority groups for influenza vaccination in the 2018-2019 season.

32. The 2018-2019 VSS and GVP have been launched on 10 and 24 October 2018 respectively. The coverage of VSS has been expanded to those aged 50

³ Recommendations on seasonal influenza vaccination for the 2018-2019 season made by SCVPD can be assessed at the website of CHP: <u>https://www.chp.gov.hk/files/pdf/</u><u>scvpd_recommendations_on_siv_for_2018_19_season.pdf</u>.

to 64. It also continues to provide subsidized vaccination to children aged six months to under 12 years, elders aged 65 years or above, pregnant women, persons with intellectual disabilities and recipients of Disability Allowance. The amount of subsidy under VSS has been increased from \$190 to \$210 per dose.

33. DH rolled out the School Outreach Vaccination Pilot Programme on 22 October 2018 to reach out to 184 primary schools and provide seasonal influenza vaccination to students through a Government outreach team or a PPP team. For the latter, a total of 36 doctors were recruited and an injection fee of \$70 per dose is provided to these doctors. According to the Administration, over 16 000 doses of seasonal influenza vaccines had been administered via the Pilot Programme in 31 schools as of 1 November 2018. Separately, as of end-October 2018, a total of 69 primary schools and 73 kindergartens and child care centres not participating in the Pilot Programme notified DH that they would arrange outreach vaccination via the Enhanced VSS Outreach Vaccination.

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 15 November 2018

Appendix

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

Relevant papers on the preparation for winter surge

Committee	Date of meeting	Paper
Panel on Health Services	26.1.2017 (Item I)	Agenda Minutes
	20.11.2017 (Item VI)	Agenda Minutes
	19.3.2018 (Item VI)	<u>Agenda</u> <u>Minutes</u> <u>CB(2)1858/17-18(01)</u>

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