

立法會

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Panel on Health Services

Information note prepared by the Legislative Council Secretariat for the meeting on 15 April 2019

Measles outbreaks

Measles is a highly infectious disease caused by measles virus. It can be transmitted by airborne droplets spread or direct contact with nasal or throat secretions of infected persons and, less commonly, by articles soiled with nasal or throat secretions. Incubation period (the period from infection to appearance of illness) ranges from seven days to 21 days. Initial symptoms, which usually appear 10 to 12 days after infection, include fever, cough, runny nose, red eyes and white spots inside the mouth. This is followed three to seven days later by a red blotchy skin rash, which usually spreads from the face and upper neck to the rest of the body. The rash usually lasts four to seven days, but can persist for up to three weeks leaving with brownish staining and sometimes fine skin peeling. An infected person can pass the disease to other persons from four days before to four days after appearance of the rash. In some cases, infection of measles can cause severe complications, such as blindness, encephalitis (swelling of the brain), pneumonia (infection of the lungs) and severe diarrhea, and even death. It may also cause pregnant woman to give birth prematurely, or have a low-birth-weight baby. At present, there is no specific antiviral treatment for measles. Drugs may be prescribed to reduce the symptoms and antibiotics may be used to treat bacterial complications.

Global and local situation of measles

2. An increased number of measles cases were reported in many parts of the world in 2018. According to data from the World Health Organization ("WHO"), the top 10 countries with the highest number of measles cases reported during the period from February 2018 to January 2019 were Ukraine,

India, Madagascar, Pakistan, Philippines, Yemen, Brazil, Nigeria, Venezuela and Thailand.¹ There was an upsurge of measles cases in some parts of the world in 2019. A case in point is the Philippines whereby a total of 22 967 cases including 333 deaths were recorded as of 19 March 2019, with young children aged one to four years (29%) and infants aged less than nine months (25%) being the most affected age groups. It should also be noted that as of 7 March 2019, the 12-month measles incidence (i.e. number of cases per million population) has reached 86.4, 81.0, 47.9 and 16.9 in Malaysia, Thailand, India and Indonesia respectively. In view of the ongoing outbreak of measles in the Philippines, the Centre of Health Protection ("CHP") of the Department of Health ("DH") has advised foreign domestic helpers who are prepared to work in Hong Kong to receive measles-containing vaccine before they come to Hong Kong. Filipinos who are working or living in Hong Kong and plan to travel to the Philippines are advised to follow the outbreak situation in the Philippines, and arrange to receive measles vaccination in the Philippines before coming back to Hong Kong.

3. Outbreak of measles has also occurred in places with elimination of measles. For instance, Japan experienced an upsurge of measles cases since 2019, with 304 cases recorded as of 13 March 2019. The most affected age groups were young adults aged 20 to 29 years (28%), followed by adults aged 30 to 39 years (23%). The United States has 465 confirmed cases of measles in 19 states from 1 January to 4 April 2019, which is the second-greatest number of cases reported since measles was eliminated in the United States in 2000.

4. Locally, measles is one of the 50 statutorily notifiable infectious diseases under the Prevention and Control of Disease Ordinance (Cap. 599). Over the past two decades, measles has been successfully controlled in Hong Kong. In September 2016, WHO confirmed that Hong Kong has achieved the interruption of endemic measles virus transmission.² The annual number of measles notification was nine, four and 15 cases in the whole year of 2016, 2017 and 2018 respectively. However, there is an upsurge of measles cases in 2019 with an outbreak took place at the Hong Kong International Airport starting in March. As at 4:00 pm of 10 April 2019, a total of 65 measles cases were reported to CHP. A summary of these cases is in **Appendix I**. Upon receiving notification of measles cases, CHP will initiate epidemiological investigations to

¹ The numbers of reported cases in these countries during the period were: 63 948 cases in Ukraine, 63 364 cases in India, 59 407 cases in Madagascar, 30 747 cases in Pakistan, 19 401 cases in Philippines, 11 746 cases in Yemen, 10 262 cases in Brazil, 5 847 cases in Nigeria, 5 668 cases in Venezuela and 5 579 cases in Thailand.

² Endemic measles virus transmission is defined by WHO as existence of continuous transmission of indigenous or imported measles virus that persists for at least 12 months.

identify potential source of infection and high-risk exposure, and trace the patients' contacts to provide them with relevant health advice and put them under medical surveillance.

Local measles vaccination

5. The measles vaccine has been in use since the 1960s. Locally, measles vaccination has been incorporated into the Hong Kong Childhood Immunization Programme ("the Immunization Programme") since 1967.³ At present, children are given the first dose of Measles, Mumps and Rubella ("MMR") vaccine at 12 months of age at DH's Maternal and Child Health Centres ("MCHCs"), followed by a second dose at Primary One.⁴ In November 2018, the Scientific Committee on Vaccine Preventable Diseases of CHP recommended that the second dose of Measles, Mumps, Rubella & Varicella ("MMRV") vaccine under the Immunization Programme be advanced from Primary One to 18 months of age after reviewing the current measles vaccination strategy for children in Hong Kong, global and local epidemiology of measles, scientific evidence on effectiveness of measles vaccines, WHO's recommendations and overseas practices. The Administration's plan is for MCHCs to provide the second dose of MMRV vaccine to children aged 18 months from the first half of 2020.

6. In view of the outbreak of measles at the Hong Kong International Airport, DH has set up vaccination station(s) at the Airport since 22 March 2019 to provide vaccination for eligible people working at the Airport. The prevailing target groups currently refer to those who (a) are born in or after 1967, and have not received two doses of measles vaccination, and have not been infected with measles before, and with evidence of living with infants under one year old or living with pregnant women; or (b) have laboratory evidence of testing not

³ Measles immunization was first introduced as a single dose of anti-measles vaccine ("AMV") given at six months or above. The combined measles, mumps and rubella ("MMR") vaccine replaced AMV in 1990 for children at 12 months. In 1996, a second dose of MMR vaccine was provided to children in Primary Six because of the continuing occurrence of measles among older children and outbreaks at schools. During July and November 1997, a territory-wide mass immunization catch-up programme was launched and approximately one million doses of MMR vaccine were delivered to persons aged one to 19 years who had not received two doses of AMV or MMR vaccine. After the catch-up programme, the schedule of the second dose of MMR vaccine has been advanced to Primary One to shorten the gap between the two doses of vaccine.

⁴ Since 2014, varicella vaccine has been added to the Immunization Programme as a two-dose schedule for children born on or after 1 January 2013. The first doses of varicella vaccine and MMR vaccine are given to children at 12 months at MCHCs whereas the second dose will be given as the combined Measles, Mumps, Rubella & Varicella vaccine when these children reach Primary One. According to the Administration, the coverage of MMR vaccination in Hong Kong is over 95% at Primary One.

positive against measles antibody.⁵ DH provides measles serology test service at the blood test station located at the Airport for Airport staff belonging to target group (a) above to identify persons who need measles vaccination. Daily quotas for vaccination and blood test are 500 doses and 100 Airport staff respectively.

7. The Hospital Authority ("HA") rolled out a staff measles vaccination programme on 1 April 2019 to help reduce its staff members' risk of infection and further infecting other patients seeking consultation. The programme initially covers staff members with inadequate immunity⁶ working in high-risk departments such as paediatric, obstetrics and gynaecology, intensive care units and isolation wards. On 8 April 2019, HA decided to extend the programme to cover also staff members with inadequate immunity working in Accident and Emergency Departments as well as General Outpatient Clinic triage stations starting from 10 April 2019.

8. At the Council meeting of 27 March 2019, Dr Hon Elizabeth QUAT, Dr Hon Helena WONG and Dr Hon Priscilla LEUNG raised three urgent oral questions in relation to measures against measles. The questions and the Administration's replies are in **Appendices II to IV** respectively.

Council Business Division 2
Legislative Council Secretariat
11 April 2019

⁵ The initial target group refers to people working at the Hong Kong International Airport who are born in 1967 to 1984; have not received two doses of measles vaccination; and have not been infected with measles before. Given the relatively tight supply of measles vaccines, DH set up a blood test station at the Airport on 29 March 2019 to conduct a pilot serology test for 100 people working at the Airport on a voluntary basis in order to better grasp the overall immunity against measles among Airport staff for the purpose of improving the measles control and prevention strategy. The prevailing target group is worked out after taking into consideration of the pilot serology test results which indicate that (a) those who were born before 1967 were essentially immune to measles (100%), irrespective of their place of birth; and (b) for those who were born in or after 1967, a slightly higher proportion of people who had received one or more doses of measles vaccines were immune (85%) than those with unsure vaccination history or unvaccinated (81%).

⁶ According to HA, it will not provide measles vaccination to those staff members who were born before 1967 or have received two doses of vaccination at this stage as they should have adequate immunity to measles.

DAILY UPDATE ON MEASLES SITUATION IN HONG KONG

As of 4:00 PM, April 10, 2019

In 2019, as of April 10, the Centre for Health Protection of the Department of Health received notification of 65 cases of measles infection. They were 41 males and 24 females, aged from 8 months to 49 years, including:

- 29 cases were associated with the outbreak among workers in the Hong Kong International Airport (HKIA);
- 4 cases involved in 2 clusters with epidemiological linkage. One cluster affected an infant aged 11 months and her relative living in the same household with both having travelled to Mainland China during their incubation period (IP), and another cluster affected an 8-month old infant with travel history to Thailand during the IP with his father;
- 2 cases affecting healthcare workers; and
- 30 cases without obvious epidemiological linkage identified so far, and the majority had travel history outside Hong Kong during their IP.

Summary of measles cases in 2019 (as of April 10, 2019):

Case number	Sex/Age	Date of rash onset	Travel history within incubation period	Case classification	Place of birth	Genotype	Documented evidence of measles vaccination	Current condition	Remarks
1	M/41	29/12/2018	Japan	Imported	Hong Kong	D8	Unknown	Discharged	
2	F/40	09/01/2019	Philippines	Imported	Non-local born	B3	Unvaccinated	Discharged	
3#	F/11 months	12/01/2019	Mainland (Fujian)	Imported	Hong Kong	B3	Unvaccinated	Discharged	
4	F/39	12/01/2019	Philippines	Imported	Non-local born	B3	Unvaccinated	Discharged	
5#	F/33	16/01/2019	Mainland (Fujian)	Imported	Non-local born	(RT-PCR negative)	Unknown	Discharged	
6	M/22	23/01/2019	Germany	Pending	Hong Kong	D8	Unknown	Discharged	
7	F/38	28/01/2019	Philippines	Imported	Non-local born	B3	Unvaccinated	Discharged	
8	F/38	22/02/2019	Philippines	Imported	Non-local born	B3	Unknown	Discharged	
9	M/34	27/02/2019	Nepal & United States	Imported	Non-local born	B3	Unknown	Discharged	
10^	M/23	04/03/2019	United States & Korea	Pending	Hong Kong	B3	Unknown	Discharged	Flight attendant of an airline
11	F/26	10/03/2019	Philippines	Imported	Non-local born	B3	Unknown	Discharged	
12	M/41	11/03/2019	Mainland (Shenzhen)	Pending	Non-local born	(RT-PCR negative)	Unknown	Discharged	
13	M/38	16/03/2019	Australia (Sydney)	Pending	Hong Kong	D8	Unknown	Discharged	
14	M/34	06/03/2019	Nil	Pending	Non-local born	(RT-PCR negative)	Unknown	Discharged	
15	F/11 months	19/03/2019	Taiwan (Taichung)	Pending	Hong Kong	B3	Unvaccinated	Discharged	
16^	M/22	19/03/2019	Nil	Pending	Hong Kong	B3	2 doses	Discharged	Baggage handler (Level 7, T1, HKIA)

Case number	Sex/Age	Date of rash onset	Travel history within incubation period	Case classification	Place of birth	Genotype	Documented evidence of measles vaccination	Current condition	Remarks
17^	M/40	14/03/2019	Nil	Pending	Non-local born	B3	Unvaccinated	Discharged	Airport security guard (Level 5, T1, HKIA)
18^	F/46	19/03/2019	Nil	Pending	Non-local born	B3	Unvaccinated	Discharged	Baggage handler (Level 5, T1, HKIA)
19^	M/41	12/03/2019	Philippines (Manila)	Pending	Non-local born	B3	Unknown	Discharged	Pilot of an airline
20	M/27	20/03/2019	Japan (Fukuoka)	Pending	Hong Kong	B3	Unknown	Discharged	
21^	M/23	22/03/2019	Macao & Mainland (Zhuhai)	Pending	Hong Kong	B3	Unknown	Discharged	Airport security guard (Level 7, T1, HKIA)
22^	F/25	23/03/2019	Nil	Pending	Hong Kong	B3	Unknown	Discharged	Airport security supervisor (T1 & T2, HKIA)
23^	F/41	21/03/2019	Nil	Pending	Hong Kong	B3	Unknown	Discharged	MUJI shop assistant (Non-restricted area, Level 7, T1, HKIA)
24	F/43	17/03/2019	Mainland (Shenzhen)	Pending	Non-local born	B3	Unknown	Discharged	
25	M/39	22/03/2019	Nil	Pending	Non-local born	B3	Unknown	Discharged	
26^	M/28	23/03/2019	Nil	Pending	Hong Kong	B3	2 doses	Discharged	Customs & Excise Department officer (Level 2, T1, HKIA)
27^	M/31	23/03/2019	Nil	Pending	Hong Kong	B3	Unknown	Discharged	MTR staff at Airport station
28^	F/21	25/03/2019	Nil	Pending	Hong Kong	B3	2 doses	Discharged	McCafe staff (Level 8, T1, HKIA)
29	M/43	17/03/2019	Japan (Okinawa)	Pending	Hong Kong	B3	Unknown	Discharged	
30[®]	M/8 months	20/03/2019	Thailand (Bangkok & Hua Hin)	Pending	Hong Kong	B3	Unvaccinated	Discharged	

Case number	Sex/Age	Date of rash onset	Travel history within incubation period	Case classification	Place of birth	Genotype	Documented evidence of measles vaccination	Current condition	Remarks
31	M/17	25/03/2019	Philippines	Imported	Non-local born	B3	Unknown	Discharged	
32^	M/49	27/03/2019	Nil	Pending	Hong Kong	B3	Unknown	Discharged	Clerical worker (Level 2, T1, HKIA)
33*	F/26	28/03/2019	Nil	Pending	Hong Kong	D8	Unknown	Discharged	Clerk of an airline (5/F, Cathay City)
34^	M/23	28/03/2019	Mainland (Shenzhen)	Pending	Hong Kong	B3	Unknown	Discharged	Airport security guard (Level 7, T1, HKIA)
35^	F/24	29/03/2019	Mainland (Shenzhen)	Pending	Non-local born	B3	2 doses	Discharged	Passenger service officer (Level 5, T1, HKIA)
36^	M/37	30/03/2019	Nil	Pending	Hong Kong	B3	Unknown	Discharged	Senior supervisor (Basement, T1, HKIA)
37^	M/23	28/03/2019	Nil	Pending	Hong Kong	B3	2 doses	Discharged	Airport security guard (Level 7, T1, HKIA)
38^	M/29	27/03/2019	Nil	Pending	Hong Kong	B3	Unknown	Discharged	Customer service representative (T1 & T2, HKIA)
39^	M/23	30/03/2019	Nil	Pending	Non-local born	B3	Unknown	Discharged	Ramp coordinator (Cathay Pacific Cargo Terminal, HKIA)
40	M/23	01/04/2019	Nil	Pending	Hong Kong	B3	2 doses	Discharged	Healthcare worker
41@	M/27	31/03/2019	Nil	Pending	Non-local born	B3	Unknown	Discharged	
42^	F/45	01/04/2019	Nil	Pending	Non-local born	B3	Unknown	Discharged	Airport security guard (Level 5, T1, HKIA)
43^	M/31	30/03/2019	Cambodia	Pending	Hong Kong	B3	Unknown	Discharged	Baggage service supervisor (Level 5, T1, HKIA)

Case number	Sex/Age	Date of rash onset	Travel history within incubation period	Case classification	Place of birth	Genotype	Documented evidence of measles vaccination	Current condition	Remarks
44^	M/23	01/04/2019	Nil	Pending	Hong Kong	Pending	3 doses (3 rd dose was administered at the vaccination station in HKIA on 29/03/2019)	Discharged	Passenger service officer (Restricted area, Level 5, T1, HKIA)
45	M/31	30/03/2019	Mainland (Shenzhen)	Pending	Non-local born	Pending	Unknown	Discharged	
46	F/2	31/03/2019	Nil	Pending	Hong Kong	Pending	1 dose	Discharged	
47	M/11 months	01/04/2019	Mainland (Shenzhen)	Imported	Hong Kong	Pending	Unvaccinated	Discharged	
48	M/31	02/04/2019	Vietnam	Pending	Non-local born	Pending	Unknown	Discharged	
49^	F/24	02/04/2019	Taiwan (Taipei)	Pending	Hong Kong	Pending	3 doses (3 rd dose was administered at the vaccination station in HKIA on 23/03/2019)	Discharged	Baggage service officer (Level 6, T1, HKIA)
50	M/22	01/04/2019	Japan	Pending	Hong Kong	Pending	1 dose	Discharged	
51^	F/20	03/04/2019	Nil	Pending	Hong Kong	Pending	Unknown	Discharged	Baggage service officer (Level 5, T1, HKIA)
52	F/20	03/04/2019	Nil	Pending	Non-local born	Pending	Unknown	Discharged	Healthcare worker
53	M/36	02/04/2019	Turkey & Tunisia	Pending	Hong Kong	Pending	Unknown	Discharged	
54	M/14 months	02/04/2019	Nil	Pending	Hong Kong	Pending	1 dose	Discharged	
55^	M/25	04/04/2019	Thailand	Pending	Hong Kong	Pending	Unknown	Discharged	Passenger service officer (Level 7, T1, HKIA)
56^	M/30	05/04/2019	Nil	Pending	Non-local born	Pending	Unknown	Discharged	Viet's Choice staff (Level 5, T2, HKIA)
57^	F/25	04/04/2019	Japan	Pending	Hong Kong	Pending	2 doses	Discharged	Baggage service officer (Level 5 & 6, T1, HKIA)

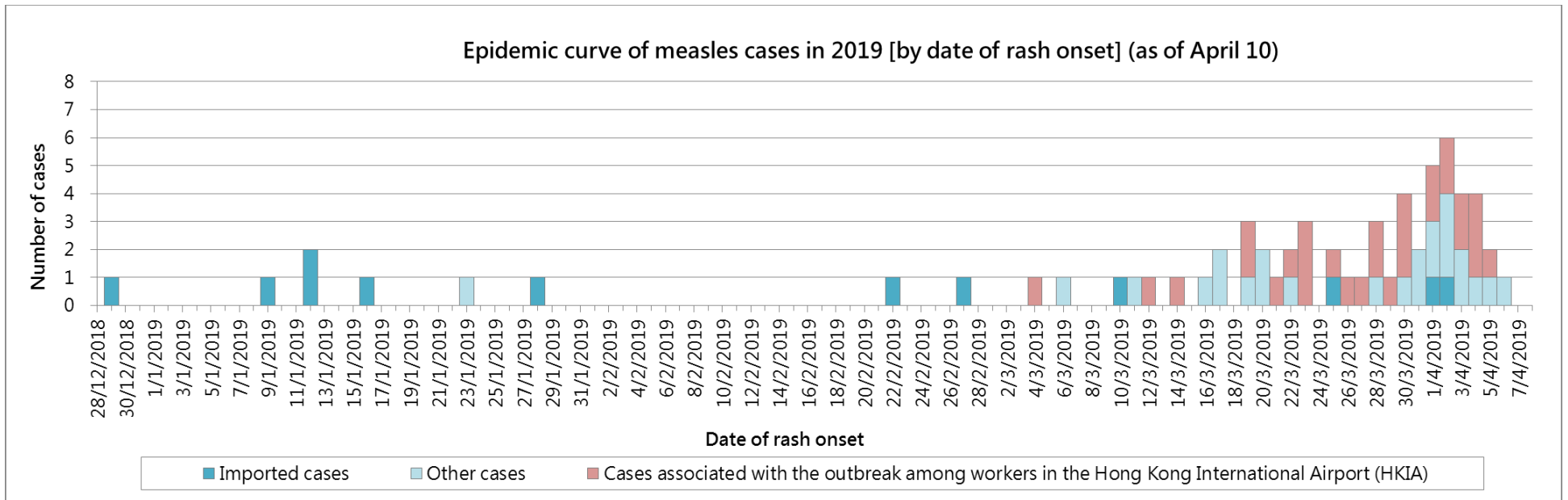
Case number	Sex/Age	Date of rash onset	Travel history within incubation period	Case classification	Place of birth	Genotype	Documented evidence of measles vaccination	Current condition	Remarks
58^	M/23	02/04/2019	Nil	Pending	Hong Kong	Pending	2 doses	Discharged	Passenger reception officer (Restricted area, Level 5 & 6, T1, HKIA)
59^	M/29	04/04/2019	Nil	Pending	Hong Kong	Pending	2 doses	Discharged	Passenger service officer (Level 7, T1, HKIA)
60	F/28	04/04/2019	Nil	Pending	Hong Kong	Pending	2 doses	Discharged	
61	M/41	02/04/2019	Philippines	Imported	Non-local born	Pending	Unknown	Discharged	
62	F/23	05/04/2019	Nil	Pending	Hong Kong	Pending	Unknown	Discharged	
63	F/2	06/04/2019	Nil	Pending	Hong Kong	Pending	Unknown	Hospitalised	
64	M/31	03/04/2019	Taiwan	Pending	Hong Kong	Pending	Unknown	Discharged	
65^	M/24	03/04/2019	Japan	Pending	Hong Kong	Pending	Unknown	Discharged	Passenger service supervisor (Level 7, T1 & Level 5, T2, HKIA)

^Cases associated with the outbreak among workers in the HKIA.

#Cases with epidemiological linkage.

@Cases with epidemiological linkage.

*The genotype of this case is different from that of the cases of the HKIA cluster.



Source: Centre for Health Protection

Press Releases *27 March 2019*

LC Urgent Q1: Tackling the outbreak of measles epidemic

Following is an urgent question by Dr the Hon Elizabeth Quat under Rule 24(4) of the Rules of Procedure and a reply by the Secretary for Food and Health, Professor Sophia Chan, in the Legislative Council today (March 27):

Question:

Measles is a highly contagious disease which may cause various kinds of complications and even death. It has been reported that the Centre for Health Protection (CHP) has confirmed that there is a recent outbreak of measles epidemic. This year up to the present, more than 20 confirmed cases of measles infection have been recorded, and a number of those who have contracted the disease work in the airport. The Director of the Carol Yu Centre for Infection of the University of Hong Kong has pointed out that there may be a second-round spread of measles and the situation is bleak. Regarding the immediate measures to tackle the outbreak of measles epidemic, will the Government inform this Council:

(1) given that members of the public born before 1967 did not receive measles vaccination in their childhood, whether the Government will immediately conduct measles antibody tests and provide measles vaccination for such members of the public for free; if so, of the details; if not, the reasons for that;

(2) whether it will immediately request airline companies to step up cleansing and disinfection of cabins of aircraft departing from and arriving in Hong Kong; if so, of the details; if not, the reasons for that; and

(3) whether CHP will immediately classify the measles response level as "emergency" and announce in a timely manner the latest development of the measles epidemic and the corresponding measures, so as to allay the concern of the public and visitors; if so, of the details; if not, the reasons for that?

Reply:

President,

Measles is a highly infectious disease caused by the measles virus. It can be transmitted by airborne droplet spread or direct contact with nasal or throat secretions of infected people, and, less commonly, by articles soiled with nasal or throat secretions. Generally speaking, a patient can pass the disease to other people from four days before to four days after the appearance of skin rash. The incubation period normally ranges from seven to 18 days, but can be up to 21 days. Although there is no specific treatment, drugs may be prescribed to reduce the symptoms of measles, and antibiotics may be used to treat bacterial complications. My reply to the three parts of the question on the control measures taken in Hong Kong is as follows:

(1) Vaccination is the most effective way to prevent measles. Measles vaccination has been in use in Hong Kong for about 50

years. Since 1967, measles vaccination has been incorporated into the Hong Kong Childhood Immunisation Programme, under which a dose of measles vaccine is given to infants aged six months to one year for free. From 1997 onwards, two doses of vaccine are given to children for free, one at one year old and the other at Primary 1. From July to November in 1997, the Department of Health conducted the Special Measles Vaccination Campaign, under which a dose of measles-containing vaccine was given to over a million children and youngsters aged one to 19 (Note) who had not received the second dose of vaccine.

Generally speaking, it is expected that the majority of the people born before 1967 in Hong Kong already have antibodies against measles from previous infections. Those who have received two doses of measles-containing vaccine, including the majority of the people born in 1985 or after and attended primary school in Hong Kong, will normally have sufficient protection against measles.

In fact, the incidence rate of measles in Hong Kong has decreased substantially since the introduction of measles vaccine in 1967. As revealed by the findings of the territory-wide immunisation surveys regularly conducted by the Department of Health, the two-dose vaccination coverage has been consistently maintained at well above 95%, and the local seroprevalence rates of measles virus antibodies reflect that most of the people in Hong Kong are immune to measles. On the whole, the information available indicates that the risk of contracting measles by the general public is considered to be low in Hong Kong. In this connection, the Regional Verification Commission for Measles Elimination in the Western Pacific of the World Health Organization confirmed in 2016 that Hong Kong had achieved the interruption of endemic measles virus transmission.

[Note: Those born between 1978 and 1996.]

(2) To prevent the spread of infectious diseases into Hong Kong, the Port Health Office of the Centre for Health Protection (CHP) has been carrying out health surveillance at all boundary control points, including the Hong Kong International Airport, seaports and ground crossings, with the use of infrared thermal imaging systems for body temperature checks on inbound travellers. Suspected cases of infectious diseases will be immediately referred by the Port Health Office to healthcare facilities for follow-up. Upon receiving notification of a confirmed measles case, the Port Health Office will notify the airline concerned so that thorough disinfection will be carried out on the aircraft on which the patient travelled.

In response to the recent outbreak of measles at the Hong Kong International Airport, the CHP has set up vaccination stations at the airport since March 22 to provide vaccination for people working there who are non-immune to measles. The vaccination exercise aims to protect those non-immune to measles. The target groups working at the airport are as follows -

- (a) those born abroad or born between 1967 and 1984 in Hong Kong; and
- (b) those who have not received two doses of measles vaccine; and
- (c) those who have not been infected with measles before.

At the same time, the Airport Authority has immediately stepped up its disinfection and cleansing work in the busy areas

of the Terminal Buildings to maintain environmental hygiene.

(3) According to the Prevention and Control of Disease Ordinance (Cap. 599), measles is one of the 50 statutory notifiable infectious diseases in Hong Kong. All registered medical practitioners are required to notify the CHP of all suspected or confirmed cases of these diseases for the purpose of disease control. Hong Kong has a well-established notification system of measles, with effective epidemiology and laboratory surveillance. We will take prompt actions in case of cases or outbreak of measles infection. Upon receiving notification of measles cases, the CHP will immediately commence epidemiological investigations to identify potential sources of infection and high-risk exposure, and notify relevant medical facilities and institutions so as to take follow-up investigations and control measures. Besides, the CHP will trace the patients' contacts in order to provide them with relevant health advice and information and put them under medical surveillance. Based on the information obtained after epidemiological investigations, the CHP will timely recommend taking further specific measures to reduce the risk of spreading the disease, including provision of measles vaccination to those who need the vaccination. To keep the public informed of the latest situation, the CHP has been reporting through press releases the latest developments in its investigations into measles cases and the follow-up actions being taken.

Ends/Wednesday, March 27, 2019
Issued at HKT 18:51

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Press Releases *27 March 2019*

LC Urgent Q2: Immediately providing measles vaccination for persons with weaker immunity

Following is an urgent question by the Dr Hon Helena Wong under Rule 24(4) of the Rules of Procedure and a reply by the Secretary for Food and Health, Professor Sophia Chan, in the Legislative Council today (March 27):

Question:

It has been reported that there is a recent outbreak of measles epidemic: this year up to the present, more than 20 confirmed cases of measles infection have been recorded, while the figure for the whole of last year was only 15. Persons such as young children below Primary One, those members of the public born between 1967 and 1985 in Hong Kong as well as new arrivals may have weaker immunity to measles as most of them have never received any measles vaccination or have received just one dose of such vaccination. As such, will the Government inform this Council whether it will immediately provide measles vaccination for such persons so as to reduce their chances of being infected with measles, thereby preventing the spread of the epidemic; if so, whether the existing measles vaccine stock is sufficient for providing such vaccination; if it is insufficient, of the solution for that?

Reply:

President,

I have briefly explained the background information concerning measles and the preventive and control measures in my previous reply to the Dr Hon Elizabeth Quat.

First, I have to reiterate that the overall coverage rate of measles vaccination has been maintained at very high level in Hong Kong. There has been no outbreak in the community in recent years. The majority of people who were born on or after 1985 and studied in primary schools in Hong Kong have received two doses of measles-containing vaccines under the Hong Kong Childhood Immunisation Programme (HKCIP); therefore, the immunity to measles in the local population is very high.

Taken into consideration the target groups of the measles vaccination programme over the years, the current immunity of the local population, the supply of vaccines and the situation of measles infection at the airport, etc., we consider at this stage that there are three priority groups for measles vaccination, which are:

- (a) children under the routine HKCIP; and
- (b) staff of the airport who were either non-local born or born in Hong Kong from 1967 to 1984, and have not received two doses of measles vaccination; and have not been infected with measles before; and
- (c) healthcare staff of the Hospital Authority.

The currently available measles-containing vaccine in Hong Kong include combined Measles, Mumps and Rubella (MMR) vaccines

and combined Measles, Mumps, Rubella and Varicella (MMRV) vaccines. Under the HKCIP, children in Hong Kong are given the first dose of MMR vaccine when they are one year old at Maternal and Child Health Centres (MCHCs) of the Department of Health (DH), followed by a second dose of MMR vaccine (Note 1) at Primary One by the School Immunisation Teams of the DH through outreach visits to schools. The DH has all along encouraged local children to receive measles vaccination under the HKCIP to ensure personal and community health.

The Scientific Committee on Vaccine Preventable Diseases (SCVPD) of the Centre for Health Protection (CHP) closely monitors the latest recommendations on the uses of vaccines made by the World Health Organization (WHO), and provides latest advice to the CHP for consideration. The WHO had published the position paper on measles vaccines in April 2017 with the following two recommendations:

- (a) in countries with low risk of measles transmission, the first dose of measles-containing vaccine (MCV1) may be administered at the age of 12 months, and the second dose of measles-containing vaccine (MCV2) be given at the age of 15 to 18 months or at the time of school entry; and
- (b) if the coverage of MCV1 is high (>90 per cent) and school enrolment is high (>95 per cent), MCV2 can be given at school entry to prevent outbreaks in schools.

In view of the latest recommendations by the WHO, the SCVPD further reviewed in 2018 the local and global epidemiology of measles, overseas experience and relevant scientific evidence, and made new recommendations on measles-containing vaccination for children.

The SCVPD noted that the practices on administration of MCV2 in overseas countries are diverse (Note 2) and there is no standard timing on MCV2, and Hong Kong is an area with low risk of endemic transmission, with a high coverage of MCV1. As measles outbreaks have been reported in various regions of the world (including some countries in Europe and Southeast Asia) in recent years, the SCVPD considered that those aged between one year and Primary One who received only one dose of MMR vaccine would have a higher risk of measles infection if they travel to places with high incidence or outbreak of measles.

After reviewing the latest epidemiological situation, the SCVPD recommended the second dose of MMRV vaccine to be advanced from Primary One to 18 months. The DH's MCHCs have already started planning, including arrangement of the tender process for vaccine procurement and other relevant logistics and manpower issues. It is estimated that the MCHCs will provide the second dose of MMRV vaccine to children aged 18 months from the first half of 2020.

In view of the measles outbreaks in many parts of the world in recent months, and the increasing trend in cases of measles among adults, the SCVPD will hold a meeting in early April to discuss the recommendations on measles-containing vaccination for non-immune adults. The CHP will take note of the recommendations of the SCVPD. Details will be announced in due course.

Regarding the vaccine supply, the DH has all along maintained close liaison with the two vaccines suppliers of measles-containing vaccines, and has signed contracts with them to ensure sufficient supply of the vaccines for the vaccination

services. Regarding the private healthcare market, since measles vaccines are included in routine vaccination programme and the annual vaccination rate is relatively stable, the private market normally does not have a large quantity of measles-containing vaccines in stock. In view of the latest cases of measles infection at the Hong Kong International Airport, we consider that it is of utmost importance to ensure sufficient vaccines for children under the routine HKCIP, people working at the airport, and healthcare staff at the HA who have higher priority for measles vaccination. Meanwhile, the Government noted that there is an upsurge in demand for the two aforesaid vaccines in the private healthcare market. The DH noted that a new batch of measles-containing vaccines from one of the vaccine suppliers will arrive Hong Kong in early April. The Government has already requested the vaccine suppliers to import additional batches of measles-containing vaccines to meet local demands, and is pending for the suppliers' response. The DH continues to maintain close liaison with the vaccine suppliers.

Note 1: Varicella vaccine has been incorporated into the HKCIP and is applicable to children born on or after January 1, 2013. Children will receive MMRV vaccine as a second dose of measles-containing vaccine when they reach Primary One.

Note 2: The United Kingdom, the United States, New Zealand, Japan and Korea, etc. recommend the MCV2 to be given at an elder age (range from three to seven years old), while Australia and Singapore, etc. recommend the MCV2 to be given at a younger age (15 to 18 months).

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Press Releases *27 March 2019*

LC Urgent Q3: Immediate measures to prevent measles epidemic from spreading

Following is an urgent question by the Dr Hon Priscilla Leung under Rule 24(4) of the Rules of Procedure and a reply by the Secretary for Food and Health, Professor Sophia Chan, in the Legislative Council today (March 27):

Question:

There is a recent outbreak of measles epidemic in Hong Kong. It has been reported that this year up to the present, 26 confirmed cases of measles infection have been recorded and the infected persons in nine of those cases are personnel working at the airport and for airline companies. In this connection, will the Government inform this Council:

- (1) of the immediate measures adopted by the Government to increase the supply of measles vaccines, so as to provide measles vaccination for all persons having a higher risk of contracting the disease (including the personnel working at the airport and for airline companies, as well as healthcare workers); and
- (2) whether it will immediately request airline companies to regularly notify the Centre for Health Protection of the cases of their staff members contracting measles, so as to minimise the risk of the epidemic spreading?

Reply:

President,

In my previous replies to the questions raised by the Dr Hon Elizabeth Quat and the Dr Hon Helena Wong, I have illustrated the immediate measures taken by the Centre for Health Protection (CHP) to cope with the cases of measles infection at the Hong Kong International Airport, and the arrangements of measles vaccination and the latest supply of measles vaccines in Hong Kong. I will now supplement the latest developments.

(1) Since a confirmed infection case emerged at the airport on March 22, the CHP has attached great importance to the infection control measures at the airport, particularly the measles vaccination for people working at the airport who are non-immune to measles. The CHP has all along been maintaining close liaison with the Airport Authority in order to improve the operation and arrangements of the measles vaccination stations at the airport to facilitate those who need to receive vaccination.

Since last Friday, the CHP has provided measles vaccination to over 1 650 people working at the airport. Starting from March 26, the CHP has deployed extra manpower and provided an additional time slot. It is expected that the daily service capacity would increase from 700 to 1 300 vaccinations. Besides, the private clinic at the airport will also provide vaccination to the staff working at the airport shortly. The CHP will closely monitor and review the situation of measles vaccination for people working at the airport. The CHP will also continue to closely liaise with the Airport Authority to explore ways to

further enhance the vaccination arrangements.

Besides, in view of the recent surge in measles cases, the Central Committee on Infectious Disease and Emergency Responses of the Hospital Authority (HA) convened early this week an ad hoc meeting, which was joined by representatives from the CHP, to discuss the risk assessment and preparedness of public hospitals. The meeting agreed that measures need to be implemented for early diagnosis and isolation of possible measles cases and to provide vaccinations to staff in need, including those who have never been vaccinated or those with inadequate immunity, to reduce the risk of nosocomial infections. Earlier the HA issued notifications, as well as updated information on measles, to remind frontline healthcare staff to be vigilant towards patients with symptoms of measles. Suspected cases will need to be reported and treated under isolation, with specimens sent to the CHP for testing.

Measles vaccination programme of the healthcare staff of the HA will commence next week. Vaccinations will be provided to staff working in high risk departments, such as paediatric, obstetrics and gynaecology, haematology, clinical oncology, intensive care units and isolation wards in the first phase.

The DH will maintain close liaison with two vaccines suppliers to strive for a steady supply to the children under the routine Hong Kong Childhood Immunisation Programme, people working at the airport, healthcare staff at the HA who have higher priority for measles vaccination.

(2) In view of the recent cases of measles infection at the Hong Kong International Airport, the CHP has immediately liaised with relevant airline company and confirmed that it has the established guidelines which stipulate sick staff should not go to work. The CHP has requested the relevant airline company to reinforce the education of relevant guidelines among staff to protect public health. According to the Prevention and Control of Disease Ordinance (Cap 599), measles is one of the 50 statutorily notifiable infectious diseases in Hong Kong. All registered medical practitioners are required to notify the CHP of all suspected or confirmed cases of these diseases for the purpose of disease control.

Lastly, I wish to appeal here that members of the public who are planning to travel to places with high incidence or outbreaks of measles should review their vaccination history and past medical history, especially people born outside Hong Kong who might not have received measles vaccination during childhood. Those who have not received two doses of measles-containing vaccines, with unknown vaccination history or with unknown immunity against measles are urged to consult their doctor for advice on vaccination at least two weeks before departure. Pregnant women and women preparing for pregnancy who are not immune to measles as well as children aged below one who are not due for the first dose of the Measles, Mumps and Rubella combined vaccine under the Hong Kong Childhood Immunisation Programme are advised not to travel to places with outbreaks of measles.

The incubation period of measles ranges from seven days to up to 21 days. Contacts who are not immune to measles may develop relevant symptoms, such as fever, skin rash, cough, runny nose and red eyes, in the incubation period. They should observe if they develop such symptoms in the period. If symptoms arise, they

should wear surgical masks, stop going to work or school and avoid going to crowded places. They should avoid contact with non-immune persons, especially persons with weakened immunity, pregnant women and children aged below one. They should also report their symptoms and prior travel history to the healthcare staff so that appropriate infection control measures can be implemented at the healthcare facilities to prevent any potential spread.

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