

For information  
25 June 2003

## **LegCo Panel on Health Services**

### **The Fight Against SARS**

#### **INTRODUCTION**

Over the past few months, Hong Kong has faced a major challenge in fighting against a new disease which the World Health Organisation (WHO) named as Severe Acute Respiratory Syndrome in March 2003. With effective measures taken by the Government and the concerted efforts of the community, the epidemic is now under control. The last reported case was isolated on 2 June 2003. On 23 June 2003, the WHO removed Hong Kong from the list of areas with recent local transmission of SARS. A copy of the WHO Update is at **Annex 1**.

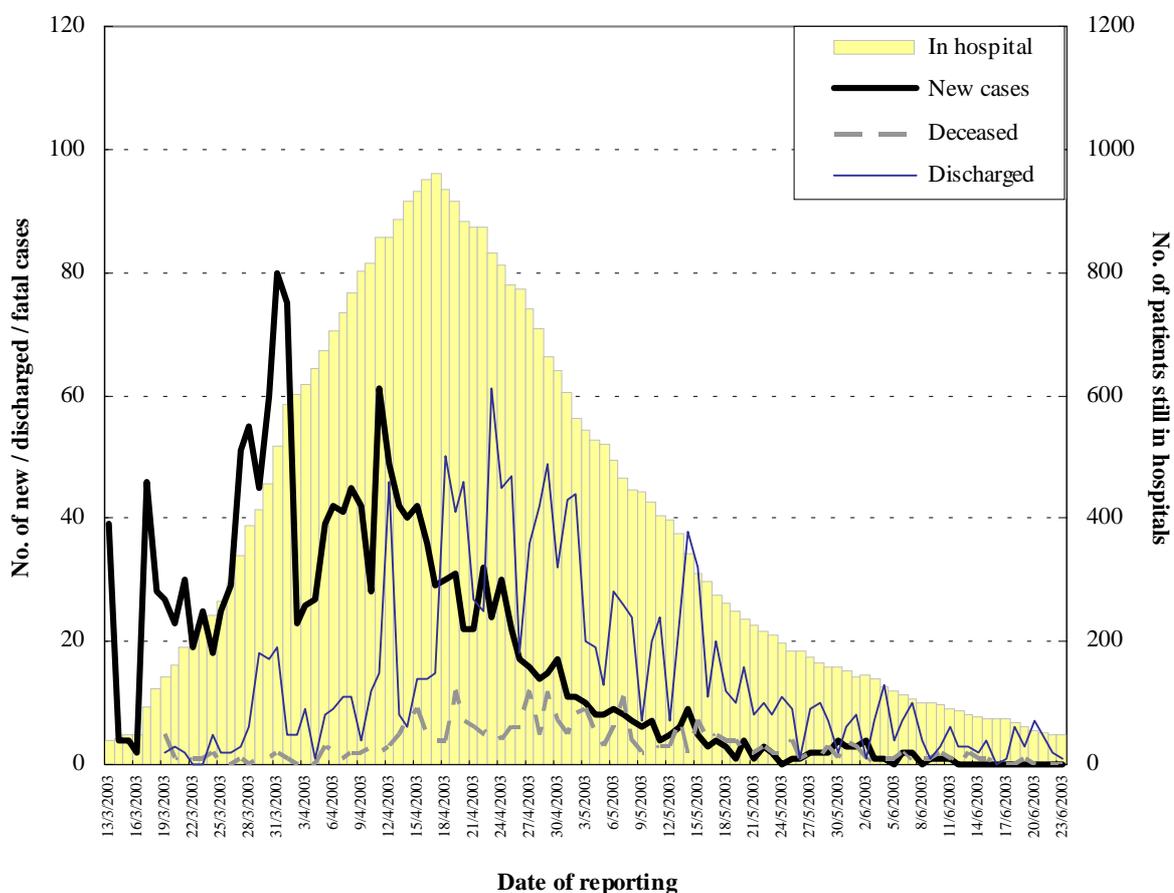
2. This paper briefs Members on the latest situation, recapitulates Government's strategy in combating SARS and describes the way forward. Some comments from the international community on Hong Kong's efforts are at **Annex 2**.

#### **LATEST SITUATION**

3. A total of 1,755 patients have been admitted to public hospitals with SARS as at 23 June 2003, which was also the 12<sup>th</sup> consecutive day of zero infection in Hong Kong. There was neither suspected case nor fatality.

4. 1,411 patients (i.e. about 80.3% of all SARS patients) have recovered from the disease and been discharged from hospitals. Among the 48 patients remaining in hospitals, 25 were undergoing convalescence before discharge and 23 were cases under treatment. The cumulative number of deaths is 296. Figure 1 shows the daily number of newly confirmed cases, discharged cases and fatal cases according to the date of reporting, and the number of patients still in hospital on the corresponding date.

**Figure 1** (as at 23 June 2003)



## OVERALL APPROACH

5. To bring the epidemic under control, the Government has put in place comprehensive public health measures centred around early detection, swift contact tracing, prompt isolation and quarantine as well as effective containment. This approach has the effects of shortening the interval between onset of symptoms and admission to hospital, reducing the number of people exposed to each infectious case, and eventually breaking the chain of transmission from infected to healthy persons. Some of the major measures implemented include -

- Making SARS a statutorily notifiable disease and conducting comprehensive public education programme to heighten awareness of SARS symptoms so that potential SARS cases are presented to medical facilities as early as possible;

- Using modern technology e.g. the online e-SARS database and the Major Incident Investigation and Disaster Support System to improve the timeliness and capacity of contact tracing;
- Requiring suspected and confirmed SARS patients to undergo home confinement and medical surveillance for a maximum of 10 days to cut off the path by which the virus spreads in the community and enable those infected to be given early treatment;
- Establishing the multi-disciplinary response team to carry out immediate investigation and undertake prompt remedial actions in hot spots or buildings whenever one SARS case is reported so as to minimize the chance of environmental transmission within the community;
- Heightening hospital infection control measures e.g. providing infection control training to health care staff, equipping them with adequate protective gear and offering advice on precautionary measures in caring for patients. In addition to allocating \$200 million for infectious disease prevention, public health education and treatment of disease, another \$200 million have been set aside for training and welfare of health care workers.
- Maintaining a high standard of personal and environmental hygiene through the launching a territory-wide cleansing and disinfection campaign since late March to clean up public places and encourage all members of the community to clean their environment;
- Maintaining close liaison with the WHO and other national authorities to contribute to global efforts in combating SARS. Hong Kong's transparency and openness in the handling of the SARS epidemic have indeed been well recognized. Apart from daily press briefing, and meetings with consular corps and chambers of commerce, we also update the WHO on our latest development through video conferences and participation in international conferences. Indeed, it was our prompt report on the infection of health care workers in the Prince of Wales Hospital on 12 March that led to the WHO's issue of the first global health alert to heighten

international awareness of SARS;

- Improving the notification mechanism between Guangdong Province and Hong Kong and extending it to cover Macao since May with a view to enhancing information flow on infection control in hospitals, notification and data analysis on epidemic situation and clinical treatment of SARS, expanding the list of infectious diseases for notification to include AIDS, dengue fever, influenza, tuberculosis, cholera and malaria, and enhancing co-operation in scientific research; and
- Stepping up health checks at border control points to prevent cross-border spread of SARS through international travel e.g. requiring arriving passengers to complete health declaration, setting up medical posts to watch for travellers displaying symptoms of SARS, implementing temperature screening at all border control points and barring close contacts of SARS patients from leaving Hong Kong during their confinement period. Since the implementation of these health checks at entry and exit control points, two SARS cases were identified and no export of case has been reported.

## **WAY FORWARD**

6. Although the recent SARS epidemic has been brought under control, we must remain vigilant to prevent its resurgence and, in the broader context, other emerging infectious diseases that may occur. In addition to maintaining the necessary public health measures already instituted e.g. conducting health checks at boundary crossings for at least a year, the Government is embarking on a number of new initiatives to gear ourselves up for any future epidemics in the shortest time possible.

### SARS Expert Committee

7. The Chief Executive has appointed a SARS Expert Committee to review the management and control of SARS outbreak in Hong Kong.

8. Comprising seven overseas, two Mainland and two local experts, the SARS Expert Committee will work under the purview of the following terms of reference –

- (1) To review the work of the Government, including the Hospital Authority, in the management and the control of the outbreak;
- (2) To examine and review the capabilities and structure of the healthcare system in Hong Kong and the organization and operation of the Department of Health and the Hospital Authority in the prevention and management of infectious diseases such as SARS; and
- (3) To identify lessons to be learnt, and to make recommendations on areas of improvements in order to better prepare our system for any future outbreaks.

The Expert Committee will submit a report on their findings and recommendations to the Chief Executive in September 2003. A membership list of the Committee is at **Annex 3**.

9. The major purview of the Committee is a review of public health and hospital management issues relating to infectious diseases in Hong Kong. To better focus and facilitate deliberations on the respective issues, two groups are formed with one looking at hospital management and administration while the other focusing on public health issues. Sir Cyril Chantler and Professor Sian Griffiths will be the chairperson of the Group on Hospital Management and Administration and the Group on Public Health respectively. The two experts will oversee information gathering and fact-finding of related issues of their respective groups and lead discussions.

10. The primary task of the Expert Committee is to identify lessons to be learnt and make recommendations on improvement measures, such as the type of isolation facilities, to our healthcare system so that we will be better prepared for any resurgence of SARS in winter.

11. The Expert Committee will hold a series of meetings in Hong Kong with the first one being the Hospital Management and Administration Group meeting, which will be held on 26-28 June 2003. The Public Health Group will convene in early July while the plenary session of the Committee is scheduled for mid August.

12. Apart from convening meetings in Hong Kong, committee members will meet with relevant parties including board members of the Hospital Authority, frontline healthcare workers as well as legislators to

seek information on areas related to their work. Site visits will also be arranged.

13. The Committee is also inviting public submissions from members of the public to provide information on the SARS incident and on issues relevant to the terms of reference of the committee, particularly on areas of improvement to the health care system, the prevention and management of infectious diseases, and lessons to be learnt to better prepare our system for any future outbreaks.

#### CDC-type organisation

14. New diseases caused by unknown agents may again catch us by surprise if we do not keep up our vigilance. To build up our strengths in the longer-term prevention and control of infectious diseases, we are studying the options for establishing a CDC-type organization. The SARS Expert Committee will cover this in its deliberations. Initially, we envisage this organization to concentrate on the prevention and control of communicable diseases, including conducting research and surveillance, facilitating training of health care professionals, providing health education to the general public etc. The specific functions of the organization, its institutional set up and resources requirements will be looked at in detail.

#### Infectious diseases control facilities

15. Adequate infectious diseases control facilities are crucial not only in the effective management of patients but also in cutting off the route of transmission from hospital settings to the community. We have set up a working group to consider options on how to expand the existing infectious diseases control facilities of the public hospital system, and oversee the smooth and timely implementation of feasible projects. As an immediate step, we must improve and develop the existing isolation facilities of all acute hospitals for suspected SARS cases so that the handling of future SARS cases could be shared among acute hospitals. A lot of work are being done to prepare ourselves including improving ventilation, more individual rooms to isolate patients where necessary, allowing our frontline health care workers more room for changing and resting. We are also studying whether we can construct additional wings for isolation and treatment of patients with infectious diseases in selected acute hospitals.

## Research

16. The SARS epidemic has witnessed the outstanding accomplishments of our experts in various areas, including identifying the causative agent and tracking the source of the virus. These are of paramount importance in the global efforts to control SARS. The Government has earmarked \$500 million for medical research in order to further strengthen our research capability in infectious diseases.

## **CONCLUSION**

17. We are grateful to all members of the community for their understanding and cooperation in the past few months. To further protect the health of the public and prevent any future outbreak, the Government is studying ways to strengthen our public health system as outlined above.

18. Members are invited to note the contents of this paper.

Health, Welfare and Food Bureau  
24 June 2003



# World Health Organization

## **Update 86 - Hong Kong removed from list of areas with local transmission**

**23 June**

WHO has today removed Hong Kong from its list of areas with recent local transmission of SARS. Twenty days, which is twice the maximum incubation period, have passed since the last case was isolated on 2 June.

When 20 days have passed since removal of the last case from the community at large, the chain of human-to-human transmission is considered broken, thus eliminating the risk of infection for both local residents and travellers.

“This is a very significant achievement,” said Dr David Heymann, Executive Director of Communicable Diseases at WHO. “Hong Kong, with its dense population and fluid border with China, had one of the hardest outbreaks to control. This success means that the whole world can now feel safer from the SARS threat.”

SARS was first carried out of southern China into Hong Kong, and then on to Hanoi, Toronto, and Singapore in late February. Some 16 visitors and guests to the ninth floor of a Hong Kong hotel became infected through contact, in ways that remain mysterious, with a symptomatic medical doctor from Guangdong Province, who stayed in the hotel’s room 911. The index case for Hong Kong’s first outbreak, in the Prince of Wales Hospital, visited an acquaintance staying on the same floor during the critical days in February. Additional clusters were also subsequently linked to the hotel.

SARS had not yet been identified as a dangerous new disease when the outbreak hit Hong Kong’s hospitals. Doctors and nurses, unaware of the need to isolate patients and protect themselves, became the first victims as they struggled to save lives. In a particularly unfortunate incident, the index patient at Prince of Wales, admitted on 4 March, was treated four times daily with a jet nebulizer, which probably aerosolized the virus and greatly increased opportunities for spread.

In late March, Hong Kong suffered a major setback when a large cluster, eventually numbering more than 300, of almost simultaneous new cases was traced to a single building in the Amoy Gardens housing estate. That event, which raised the possibility of an environmental source of infection or even airborne spread of the virus, was investigated by teams of local specialists. The outbreak was attributed to an “unlucky” convergence of environmental conditions that allowed the contamination of vertically-linked apartments. This conclusion, subsequently confirmed by additional studies, calmed fears that the SARS virus might be airborne.

From the day when the first cluster of cases was recognized, Hong Kong officials have provided open, honest, and abundant information about SARS to both the public and the media. Hong Kong also benefited from the contribution of its outstanding scientists, epidemiologists, and clinicians, who were at the forefront of efforts to track down source cases in the various clusters, identify the causative agent, develop diagnostic tests, and work out treatment protocols.

Faced with the largest outbreak outside mainland China, Hong Kong also pioneered many of the

control measures used to successfully contain smaller outbreaks elsewhere. It is gratifying that these measures have now brought Hong Kong to the point of victory over the virus, although continued vigilance remains vital.

On 2 April, WHO advised the public to consider postponing all but essential travel to Hong Kong. That recommendation was removed more than 7 weeks later, on 23 May.

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**Comments from the International Community**

*“Hong Kong has maintained a high degree of alertness and an adequate surveillance system in handling the SARS outbreak.”*

Dr. Gro Harlem Brundtland, Director-General  
World Health Organization (WHO)  
(19 June 2003)

*“It’s a very unique way of tracing contacts. It will likely be copied in the future in Hong Kong and imitated throughout the world. It’s a very important marriage of databases.”*

Dr. David Heymann, Executive Director  
WHO  
(16 June 2003)

*“In fact, it is a model for the world. The leadership shown by Dr Yeoh and the teams in the public health sector has been exemplary.”*

Dr. Mark Salter, Medical Officer  
WHO  
(14 June 2003)

*“We are impressed with the work that has been done here before. People here are knowledgeable and did a thorough job.”*

Dr Heinz Feldmann  
Team Leader, WHO Environmental Health Team  
(which investigated the SARS outbreak at the Amoy Gardens)  
(16 May 2003)

*“.....Dr Heymann characterized the efforts taken in Hong Kong to stem the spread of SARS as ‘heroic.’ ‘All of us have nothing but admiration for you and your team,’ he added.”*

SARS Situation Updates 48, WHO  
(6 May 2003)

**SARS Expert Committee  
Membership List**

**Chairman and Convenor**

Dr. Yeoh Eng-kiong

Secretary for Health, Welfare and Food, Hong Kong

**Hospital Management and Administration Group**

1. Sir Cyril Chantler (Chairman)  
Chairman, Board of the Great Ormond Street Hospital for Children  
NHS Trust, UK
2. Dr Sherene Devanesen  
President, Royal Australasian College of Medical Administrators,  
Australia
3. Mr John Wyn Owen  
Secretary, The Nuffield Trust, UK
4. Dr Tang Xiao-ping  
Director, No. 8 People Hospital in Guangzhou, China
5. Prof Rosie Young  
Former Chairman, Medical Council, Hong Kong
6. Dr Zhong Nan-shan  
Head, Institute for Respiratory Disease in Guangzhou, China

**Public Health Group**

1. Prof Sian Griffiths (Chairman)  
President, Faculty of Public Health Medicine, The Royal Colleges of  
Physicians, UK
2. Dr Meirion Evans  
Senior Lecturer, Department of Epidemiology, Statistics and Public  
Health, University of Wales College of Medicine, UK
3. Prof Harvey Fineberg  
President, Institute of Medicine, National Academy of Sciences,

USA

4. Dr Jeffrey Koplan  
Vice President for Academic Health Affairs, Emory University, USA
5. Prof Lee Shiu-hung  
Emeritus Professor of Community Medicine, Chinese University of  
Hong Kong