

ITEM FOR FINANCE COMMITTEE

HEAD 149 – GOVERNMENT SECRETARIAT : HEALTH, WELFARE AND FOOD BUREAU

Subhead 700 General other non-recurrent

Item 020 Commitment for the fight against Severe Acute Respiratory Syndrome

Members are invited to increase the approved commitment for the fight against the Severe Acute Respiratory Syndrome under Head 149 Subhead 700 Item 020 from \$200 million to \$700 million.

PROBLEM

The approved commitment of \$200 million under Head 149 Subhead 700 Item 020 for the fight against Severe Acute Respiratory Syndrome (SARS) is insufficient to meet the funding requirements for treating patients infected with SARS, and strengthening infection control and public health education. In addition, there is a need to provide assistance to those civil servants and public officers not working in the Hospital Authority (HA) who have been infected with SARS while on duty.

PROPOSAL

2. The Secretary for Health, Welfare and Food (SHWF) proposes to increase the commitment for the fight against SARS under Head 149 Subhead 700 Item 020 by \$500 million from \$200 million to \$700 million.

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JUSTIFICATION

3. SARS is a new respiratory illness caused by a member of the coronavirus family never before seen in humans. The recent SARS outbreak turned out to be one of the worst outbreaks of infectious disease ever experienced by Hong Kong for decades. As at 10 July 2003, a total of 1 755 persons have been confirmed to have contracted SARS, including 386 health care workers. Of these 1 755 SARS patients, 1 433 have recovered, 24 are still in hospital and 298 have died. The number of patients hospitalized for SARS reached a peak of 960 on 17 April. Over 100 patients required medical treatment in intensive care units between 4 April and 27 April, reaching a peak of 127 on 15 April.

4. Additional resources are required for various Government departments and HA to cope with the extra workload and activities associated with the fight against SARS. In response to the SARS outbreak, we have put in place comprehensive public health measures to bring the epidemic under control. These measures include, among others, enhanced port health measures to prevent the import and export of the disease, contact tracing, isolation and quarantine measures, home confinement, cleansing and disinfection operations, and comprehensive public health education programmes to heighten awareness of SARS. HA has mobilized its resources and recruited additional hands for the management of SARS cases. Additional medical equipment has been procured to cope with the increase in SARS patient load. To minimise cross-infection among patients and health care workers, HA and the Department of Health (DH) have stepped up infection control measures in public hospitals and clinics, including providing frontline health care staff with appropriate and sufficient protective gears. HA also conducted alteration and addition works for hospital facilities to improve the ventilation of wards. Notwithstanding that the World Health Organisation (WHO) has removed Hong Kong from its list of areas with recent local transmission of SARS on 23 June 2003, there is a need for continued vigilance. Because of the many unanswered scientific questions, particularly concerning the origins of the virus and the contribution of environmental contamination to overall transmission, we see a need for at least a full year of surveillance as recommended by WHO to determine whether the disease has established endemicity and to ensure that no cases have spread, undetected, to territories with poor surveillance and reporting systems.

5. On 31 March 2003, Members considered FCR(2002-03)66 and approved the provision of \$200 million as an initial commitment for the fight against SARS. Members noted that depending on need, the Administration might need to seek Members' approval to increase the commitment. As at 10 July 2003, SHWF approved nine funding applications totalling \$172.5 million, exhausting over 86% of the approved commitment. In the light of the committed funding

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requirements as well as expenditure projections in the coming months, additional funding is required to support the additional activities arising from SARS and to sustain our efforts in the fight against SARS.

Infection Control

Port Health Measures

6. To contain the spread of SARS, DH has strengthened port health control at various control points through a number of port health measures. These include setting up Health Declaration Posts at the control points and requiring all passengers arriving in or departing from all control points by air, by sea and by land to have their body temperature taken. To implement these port health measures, DH has enlisted the support of the Auxiliary Medical Service (AMS) and Civil Aid Service (CAS) to assist in collecting and screening health declaration forms, measuring temperature of incoming and outgoing passengers, as well as manning the medical posts and making referrals to hospitals as required. To facilitate the smooth implementation of temperature checking arrangement with minimal disruption of passenger flow, DH has installed infrared thermal imaging temperature scanning devices and equipment at the airport and various control points. At present, on average about 340 AMS members are required each day for implementing the port health measures. Thus far, we have allocated \$20.9 million to DH to meet some of the related expenditure.

7. Although Hong Kong has been removed from the WHO's list of SARS affected areas, we need to remain vigilant to prevent the resurgence of the disease. In this connection, we shall continue to implement the enhanced port health measures to prevent the import/export of the disease into/from the territory for at least up to June 2004. The estimated additional funding requirement up to July 2003 is \$19.3 million.

8. Both international and local experts have warned that SARS might return to the region later in the year. Experience from the recent SARS outbreak clearly demonstrated that enhanced surveillance for SARS is critically important for early detection of the disease to prevent its further spread. During the SARS outbreak, DH has developed various new strategies and structures for enhanced SARS surveillance in collaboration with other stakeholders, through redeployment of resources from other units of DH and at the expense of other DH services. These structures can only be sustained with extra resources. In this connection, DH proposes to enhance surveillance and intelligence gathering on SARS, and the estimated expenditure up to end July 2003 would be \$0.4 million.

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Home Confinement and Isolation Arrangements

9. During the SARS outbreak, DH introduced a number of quarantine measures at the community level. These included the evacuation and isolation of residents of Block E of Amoy Gardens at the three isolation camps, and home confinement of all household contacts of confirmed or suspected SARS patients. DH has enlisted the support from AMS and CAS to assist in the management of the isolation camps and Designated Medical Centres. To support the Designated Medical Centres, DH has recruited temporary staff for conducting X-ray examinations. We have also mobilised a large number of staff from various departments in the evacuation, home confinement, investigation, cleansing and disinfection operations. In this connection, we have procured protective gears for use by these staff during the operations as well as DH's frontline healthcare and paramedical staff having direct contact with patients or pathological specimen. The estimated expenditure requirements for these operations and for the procurement of protective gears, consumables and cleansing materials up to end July 2003 amount to \$16.3 million, of which \$8.6 million has already been reimbursed to DH.

Infection Control Measures in Public Hospitals

10. To protect its health care staff from infection in SARS and non-SARS wards, HA provides all its staff with standard protective gears, including caps, goggles, eye shields, surgical masks, gowns, gloves, protective clothing against splashing in ordinary ward areas, and water-proof clothing against soiling in wards with patients who have dementia or incontinence. HA provides more sophisticated protective devices (including N95/N100 respirators, full-face shields, air-mate and stryker hoods) for health care workers engaged in high-risk activities, such as potentially aerosol-generating procedures and nasopharyngeal aspiration, and extensive nursing care for dependent and uncooperative patients. With increasing number of health care workers coming down with SARS during the outbreak, HA upgraded the provision of protective gears in order to provide comprehensive protection to staff both in the low risk general areas and high risk environment. At its peak, the daily consumption of standard protective gears amounted to 29 100 N95 respirators, 700 N100 respirators, 278 600 surgical masks, 81 700 disposable gowns, 16 000 eye shields, 15 700 face shields and 2 600 goggles. We allocated \$46.8 million to HA for the procurement of protective gears up to end April 2003. HA estimates that the expenditure on protective gears in May and June to be \$77.4 million and \$38.6 million respectively. As SARS has now come under control, HA anticipates that the consumption of protective gears by its frontline health care staff should reduce to a lower level in the coming months. In this connection, HA is reviewing its policy on the provision of personal protective equipment for health care workers in the light of local and overseas experiences. HA estimates that it would consume about \$27.7 million-worth of protective gears in July. There is also a need to build 1-month stock for protective gears. In sum,

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HA estimates that an additional funding of \$171.4 million is required for the procurement of protective gears up to end July 2003 to meet the estimated consumption and building up 1-month stock.

11. In the fight against SARS, facilities improvement works have to be conducted on an urgent basis to improve the ventilation of wards and priority areas with a view to reducing the chance of cross-infection among patients and health care staff. During the SARS crisis, HA conducted various ad hoc improvement works at 28 hospitals on a need basis, including substantial works in the Prince of Wales Hospital, Princess Margaret Hospital, United Christian Hospital and Wong Tai Sin Hospital. Such works included setting up designated wards for SARS patients, installation of exhaust fans and high efficiency particulate air (HEPA) filters at air exhaust ducts to reduce the viral load in wards, provision of shower and hand washing facilities to improve the standard of hygiene in the patient care areas, setting up negative pressure rooms to provide a safe environment for high-risk procedures, etc. Based on the advice of the Environment, Transport and Works Bureau on how the existing ventilation systems of SARS wards could be improved, HA plans to carry out short-term hospital environment improvement measures by installing 121 local exhaust units in 14 hospitals for SARS patients, 529 floor-stand air purifiers and 310 mobile air purifiers in 22 hospitals, and adding extra HEPA filters to the return air points of the ventilation systems at an estimated cost of \$25.5 million. HA requires a total of \$48.5 million additional funding for conducting these facilities improvement works, of which \$1.9 million has already been allocated to HA to meet the expenditure incurred up to end April 2003.

Treatment of SARS Patients

Staffing requirements

12. Treatment of SARS draws a lot on the already strained resources of the public hospital system. At the peak of the outbreak, there were 960 SARS patients in public hospitals and around 15% of SARS patients were in need of intensive care service. To cope with the additional workload arising from treatment of patients with SARS and with an increasing number of clinical staff coming down with SARS or taking sick leave, HA suspended non-urgent operations and some specialist out-patient services since March 2003. Health care staff were deployed among individual hospitals and diverted from their mainstream duties to pressure areas. Staff were requested to cancel their planned annual leave in May and June to cope with the patient load. Circumstances were such that additional health care staff (including doctors, registered nurses and supporting staff) were required on an urgent basis to provide strengthened acute care to patients infected with the virus, as well as to support the enhanced surveillance programme and cope with the

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enhanced infection control measures. Back in end March, HA started to recruit additional nurses, doctors, radiographers and supporting staff to strengthen its health care team. By end May, HA has recruited 948 additional staff, including six doctors, 48 nurses, 284 temporary undergraduate nursing students, 25 allied health staff and 576 supporting staff. The majority of the additional staff are hired on short-term contracts or on a temporary basis in the case of undergraduate nursing students.

13. As the current SARS epidemic comes under control, HA has begun to resume the pre-SARS services and started to plan for enhancing its capacity and capability to clear the patient backlog and for handling a possible SARS outbreak later in the year. To protect psychiatric patients who are vulnerable to SARS, HA has proceeded to recruit some 190 additional supporting staff to enforce enhanced infection control measures in psychiatric wards starting from June. At the peak of the epidemic, HA was not able to recruit additional medical/nursing staff, doctors in particular, to relieve the severe manpower shortage and cope with the huge SARS patient load. Starting from July 2003, medical graduates and nurse graduates would be available in the market. HA estimates it would be able to recruit about 330 additional nurses in July. HA would also strengthen its medical workforce by some 120 additional doctors through contract renewal, intake of new recruits and employment of additional residents on a temporary basis. These additional hands can help clear the patient backlog accumulated during the SARS crisis. We allocated \$3.7 million to HA to meet the cost of additional staff up to end April 2003. HA estimates that an additional funding of \$62.9 million will be required to meet the extra staff costs up to end July 2003, including the cost of leave encashment.

Drugs and Diagnostic Services

14. Patients infected with SARS are treated with a combination of therapy involving a range of drugs, including anti-viral agent, ribavirin, steroids, antibodies and other supplementary therapeutic agents. Taking into account the latest treatment protocol, the average full drug cost for treating a confirmed SARS patient is \$18,400. SARS patients require a high level of diagnostic service support, including laboratory tests and radiological examinations. In this connection, three additional laboratories at the Queen Elizabeth Hospital, Princess Margaret Hospital and Tuen Mun Hospital have been set up at a total cost of \$1.7 million to enhance HA's capacity in handling polymerase chain reaction tests for the identification of the coronavirus. We allocated \$34.2 million to HA to meet the costs of drugs, pharmaceutical supplies, laboratory tests and radiological tests up to end April 2003. We estimate that HA will need an additional funding of \$13.7 million to meet drug and diagnostic service costs up to end June 2003. In addition, the laboratories operated by DH have been providing support to its clinics and hospitals

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operated by HA in performing tests for the confirmation of SARS infection. We estimate that DH would require \$5.3 million to meet the relevant expenditures up to end July 2003.

Medical Equipment

15. During the SARS crisis, HA has procured additional essential medical equipment, such as ventilators, mobile x-ray machines, physiologic monitors, infusion pumps and pulse oximeters, to meet the significant demand for intensive clinical care and treatment of SARS patients. The additional equipment procured included 180 ventilators to assist critically ill patients to breathe, 251 physiologic monitors to monitor the vital signs of severely ill patients, 239 pulse oximeters to monitor patients' blood oxygen saturation level, 885 infusion pumps for intravenous infusion and 30 mobile X-ray machines. The estimated total cost of procuring the additional equipment is \$95 million, of which \$23.2 million has been reimbursed to HA.

Others

16. Other additional expenditures incurred by HA in the fight against SARS include purchase of some 150 infirmary bed spaces from non-governmental organisations for three months starting from June 2003 to move elders who are most vulnerable to SARS from the hospital setting to convalescent institutions; strengthening cleansing services of hospital premises; strengthening security services for implementing the policy of restricting visits to wards; consultancy and research fees for Chinese medicine services; the development of various SARS-related information systems; staff-related expenses such as the purchase of home appliances for temporary staff quarters; additional hospital supplies such as antiseptic wash, cleansing and disinfection agents; and additional expenditure on utilities. We allocated \$18.3 million to HA to meet these additional expenditures up to end April 2003. We estimate that HA will need an additional funding of \$36.8 million to meet the additional expenditures to be incurred up to end July 2003.

17. To address the demand for temporary accommodation from the health care staff of HA during the SARS crisis, the Government has enlisted the assistance of the Housing Authority in providing some 350 vacant units in King Hin Court and 1 050 vacant units in Tin Yan Estate respectively for use as temporary quarters for these health care staff. We estimate that \$22.6 million is required for paying the Housing Authority for the costs of fitting out works, the procurement of furniture and appliances, and the costs of utilities and management services up to end July 2003.

Public Health Education

18. To raise the awareness of the community on the prevention of SARS, DH and Information Services Department (ISD) have been carrying out an intensive publicity campaign since mid-March 2003 to enhance public understanding of the disease and their awareness of the precautionary measures needed, and towards the latter part of the outbreak, to urge the public not to discriminate against SARS patients. The campaign covers the production of leaflets, posters, signage, radio and television Announcements of Public Interests, display of health advice in public transport systems/outdoor areas and placement of advertisements in newspapers. DH also runs a hotline service to answer public enquiries relating to SARS and provide advice on public health issues. Although SARS is now under control, our publicity and public education efforts should continue so as to maintain the vigilance of the community on this severe and readily transmissible disease. DH and ISD will continue to keep the community and various sectors updated about the disease and educate them on the need to maintain good hygienic practices. We estimate a total funding of about \$10 million is required up to end July 2003 for the publicity and public education programmes, and an allocation of \$5 million has already been made to ISD.

Special Recuperation Grant for Civil Servants and Public Officers (not working in HA) infected with SARS while on duty

19. Like HA staff, staff of government departments, such as DH, Hong Kong Police Force, Fire Services Department, Food and Environmental Hygiene Department, and Electrical and Mechanical Services Department (EMSD), as well as members of AMS and CAS, may be infected with SARS in the course of discharging their duties such as contact tracing, enforcement of home confinement/isolation requirements, transfer of SARS patients, disinfection and disinfestation work, enhanced port health measures, management of isolation camps, and installation and maintenance of equipment in public hospitals. In recognition of the physical suffering, turmoil and psychological stress experienced by the infected officers and their family members during treatment, and the quarantine and recuperation periods, we propose to provide a special recuperation grant to civil servants and public officers (not working in HA) infected with the disease while on duty.

20. In the case of an HA staff (including civil servants working in HA) who contracted SARS while on duty, he will be provided with a special recuperation grant of \$50,000 under the Training and Welfare Fund for HA approved by Members vide FCR(2003-04)16 on 27 June 2003. Likewise, we propose to provide a special recuperation grant, which will be a non-accountable

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one-off fixed sum of \$50,000, to a civil servant or public officer (not working in HA) infected with SARS while on duty, and whose case has been reported to the Labour Department according to the Employees' Compensation Ordinance as a confirmed case of injury on duty. The grant will be provided to an eligible officer irrespective of the length of stay in hospital or the seriousness of the disease. Eligible officers should file an application for the special recuperation grant with the Health, Welfare and Food Bureau (HWFB). Where the department which an eligible officer belongs to operates a staff welfare fund, the officer may choose to obtain either a grant from the departmental welfare fund, or a special recuperation grant financed by the commitment for the fight against SARS. If an eligible officer has already obtained a grant of less than \$50,000 from the staff welfare fund operated by his department, he may apply for a reduced special recuperation grant equal to the difference between the amount of grant received and the special recuperation grant of \$50,000. As at 10 July 2003, the Labour Department received five notifications under the Employees' Compensation Ordinance covering three EMSD officers, one police constable and one AMS member who were confirmed by their respective employing departments as having contracted SARS at work.

FINANCIAL IMPLICATIONS

Non-recurrent Cost

Encl. 21. Based on the committed funding requirements and the estimated funding requirements of HA and Government departments up to July 2003 and having regard to the need to make necessary preparations for the possible resurgence of SARS later in the year, we propose to increase the approved commitment by \$500 million from \$200 million to \$700 million. At Enclosure is the build up on the estimated funding requirements for the fight against SARS. As SARS has now come under control, we have asked HA and DH to critically assess their resources requirements in the fight against SARS for August 2003 and beyond. Depending on need, we may need to seek Members' approval to further increase the commitment. As with other commitments, any funds surplus to requirement will be returned to the Centre.

22. Subject to Members' approval, we shall provide supplementary provision to fund this commitment as and when required.

Recurrent Cost

23. The activities supported by the commitment are on a one-off basis, and will not generate additional recurrent expenditure.

ADMINISTRATION OF THE COMMITMENT

24. The commitment is administered by HWFB. Government departments and HA in need of additional funding support to cope with the workload/activities associated with the fight against SARS need to file an application with HWFB. They will be required to fully justify their funding requirements in their applications which will be vigorously scrutinised by HWFB. SHWF will approve the applications having regard to their relevance to the scope of the commitment and their relative priority. HWFB will keep the Legislative Council Panel on Health Services posted on applications approved on a regular basis.

BACKGROUND INFORMATION

25. The Chief Executive announced on 23 April 2003 that as part of a package of measures of a total cost of \$11.8 billion to reduce the impact of the SARS outbreak on various sectors, \$1.5 billion would be earmarked for medical research and enhancing public health as longer-term measures to control the disease, and providing assistance and professional training to health care workers. We intend to use \$500 million of the earmarked \$1.5 billion to increase the commitment for the fight against SARS.

26. Of the \$172.5 million provision approved by SHWF, \$118.1 million was allocated to HA for meeting its additional expenditure incurred up to end April 2003 for recruiting additional staff; procuring drugs, medical equipment and protective gears; conducting rapid diagnostic tests and other laboratory tests; stepping up cleansing and disinfection work; and for carrying out facility improvement works at the Prince of Wales Hospital. Another \$10 million was allocated to HA for enhancing its outreach support to all elderly care homes to reduce the admission of elders into hospitals. A sum of \$33 million was allocated to DH for installation of infrared thermal temperature screening devices and equipment, procurement of protective gears, and implementing the port health, quarantine and infection control measures. A total of \$11.4 million was allocated to the Constitutional Affairs Bureau, Government Supplies Department and ISD to cope with various activities relating to the fight against SARS, including arranging a chartered flight to bring home a quarantined Hong Kong tour group from Chinese Taipei, procuring various daily necessities for use in isolation camps and temporary quarters for frontline medical staff, and carrying out publicity programmes to raise public awareness on the prevention of SARS.

27. We informed the Legislative Council Panel on Health Services on 12 June 2003 that in the light of the committed funding requirements as well as estimated funding requirements of HA and DH in the coming months, we intend to seek the Finance Committee's approval to increase the funding for the commitment against the fight of SARS. Members have taken note of our intention.

Health, Welfare and Food Bureau
July 2003

**Build-up on Estimated Funding Requirements
for the Fight against SARS**

	\$ Million
Port health measures	19.7
Home confinement and isolation arrangements	7.7
Protective gears	171.4
Facilities improvement	46.6
Recruitment of additional staff	62.9
Drugs and diagnostic services	20.7
Medical equipment	71.8
Temporary accommodation for health care staff	22.6
Public health education	5
Miscellaneous	37.05
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Sub-total	465.45
Provision for making necessary preparations for possible resurgence of SARS later in the year	25
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Total	490.45 (say, 500)