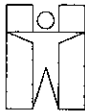





	<p data-bbox="379 510 1158 633">An overview of public health system in Hong Kong</p>  <p data-bbox="593 840 946 943">Dr Margaret CHAN Director of Health</p> <p data-bbox="1035 918 1161 947">7 July 2003</p> <p data-bbox="1177 967 1190 983">1</p>

	<p data-bbox="405 1279 1075 1339">Presentation overview</p>
	<ul data-bbox="405 1420 1102 1720" style="list-style-type: none">■ Public health system in Hong Kong■ Interface issues with Hospital Authority■ Experience of SARS: public health measures <p data-bbox="1177 1870 1190 1886">2</p>

	<h2 style="text-align: center;">Hong Kong</h2>
	<ul style="list-style-type: none"> ■ South-eastern tip of China ■ About 1100 square kilometers ■ Population in 2002: 6.8 Million ■ Median age : 37.5 <p style="text-align: right;">3</p>

	<h2 style="text-align: center;">Challenges for public health</h2>
	<ul style="list-style-type: none"> ■ Changes in trends of disease <ul style="list-style-type: none"> – Double burden of communicable and non-communicable diseases ■ Emerging and re-emerging infections ■ Ageing population <ul style="list-style-type: none"> – Over 65 year old: 2002 11.6% <li style="padding-left: 100px;">2031 24.3% (projected) ■ Globalization ■ Advances in medical and information technology <p style="text-align: right;">4</p>

Health Care System in Hong Kong

Dual Health Care System

Public Sector

Private Sector



5

Public Health Sector

Health, Welfare and Food
Bureau

Department
of Health

1989

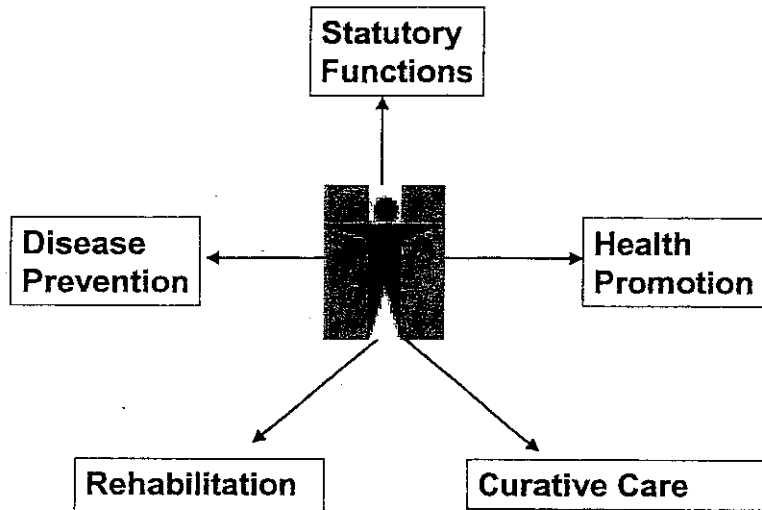
Hospital
Authority

1990



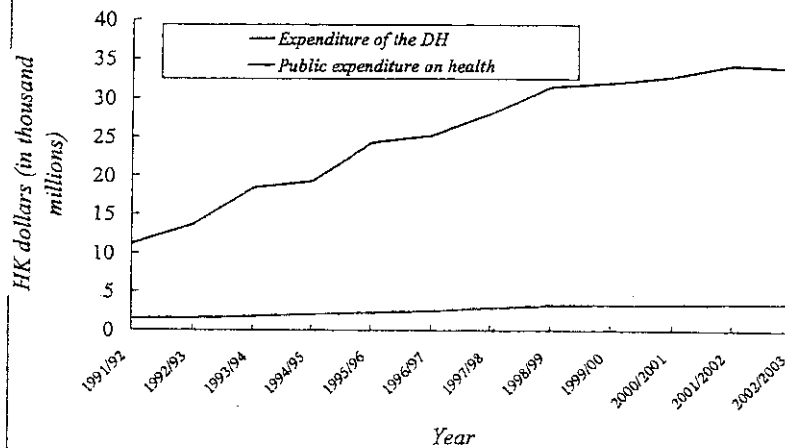
6

Current programme areas



Expenditure on Health

Public Expenditure on Health and
Expenditure of the Department of Health
1991/92- 2002/03

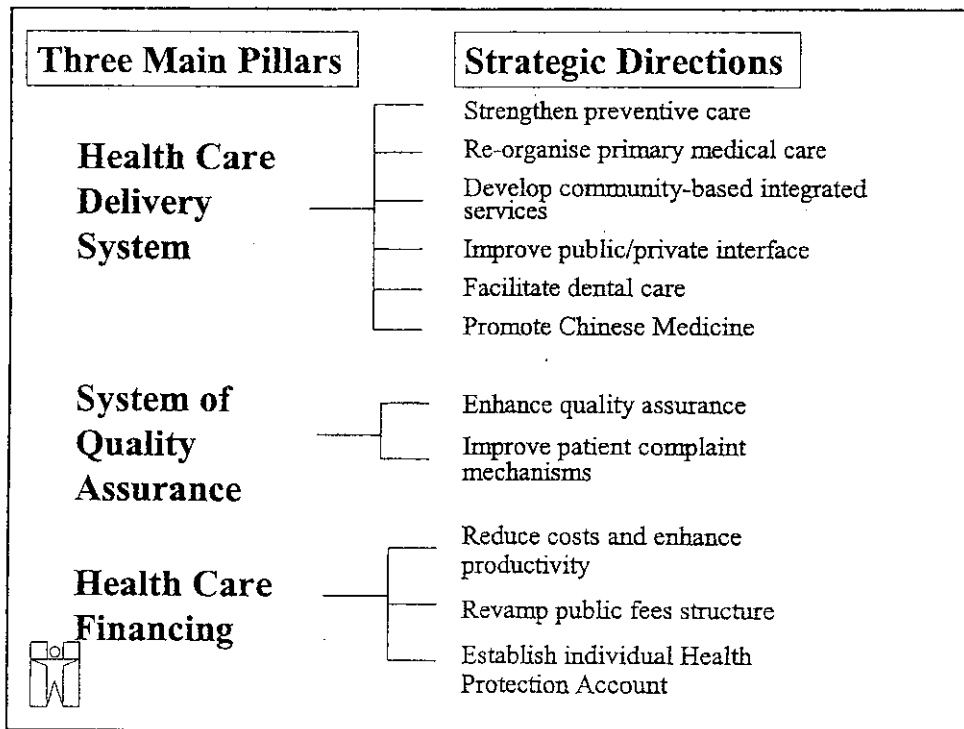


Health Care Reform: Principles

- No one denied medical treatment because of lack of means
- Every citizen has access to quality and affordable health care
- A system of shared responsibility between the government and residents
- Those who can afford should pay



9



Redefined Core roles of DH

■ Reference to:

- overseas experience
- local & global disease epidemiology
- public expectations
- views of legislature

■ Redefined public health roles:

1. Regulatory
2. Advisory
3. Health Advocacy and Promotion
4. Disease Prevention and Control




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Regulatory

- preventing the importation of quarantinable diseases and their spread in Hong Kong;
- ensuring the safety, quality and efficacy of pharmaceutical products;
- promoting/protecting the health of radiation workers and minimizing public exposure to radiation hazard;
- providing secretariat support to registration of health personnel;
- licensing health care institutions except HA hospitals;



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	<h2 style="text-align: center;">Advisory</h2>
	<ul style="list-style-type: none"> ■ Health advice in support of health policy formulation ■ Advising other sectors on issues having potential health impact ■ Preparing regular health status reports ■ Developing Public Health Information System to support advisory role <p style="text-align: right;">13</p>

	<h2 style="text-align: center;">Health Advocacy & Promotion</h2>
	<ul style="list-style-type: none"> ■ Establishing Tobacco Control Office (2001) ■ Re-organising Central Health Education Unit (2002) ■ Implementing new health promotion programmes <ul style="list-style-type: none"> – Parenting – Adolescent Health – Men's Health <p style="text-align: right;">14</p>

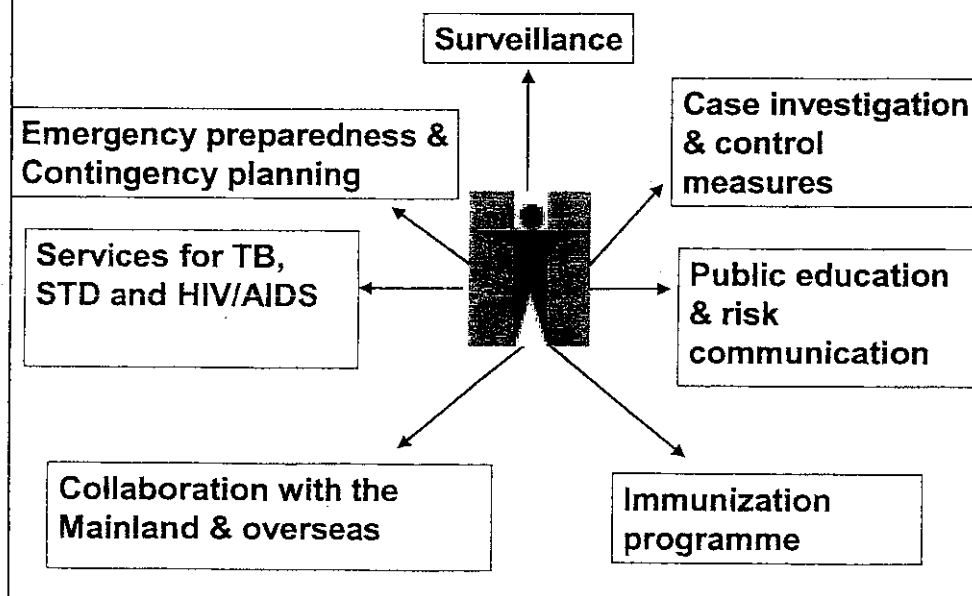
Disease Prevention & Control

- Strengthening the existing preventive services on both CD and NCD
 - Surveillance
 - Emergency preparedness & outbreak response
- Public Health Laboratory Service providing state-of-art techniques to support surveillance and disease control
- New initiatives:
 - Set up a working group to establish a territory-wide Antibiotic Resistance Surveillance System
 - Extend the Woman Health Service
 - Launch a Cervical Cancer Screening Programme
 - Launched a Men's Health Programme



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Role of DH in prevention & control of infectious diseases



Communicable disease surveillance in Hong Kong

– Objectives:

- Facilitate early case investigation, isolation and treatment, contact tracing and outbreak control
- Monitor trend for formulating prevention strategies and health resource allocation
- Give health advice based on findings
- Disseminate information to public and professionals to increase awareness



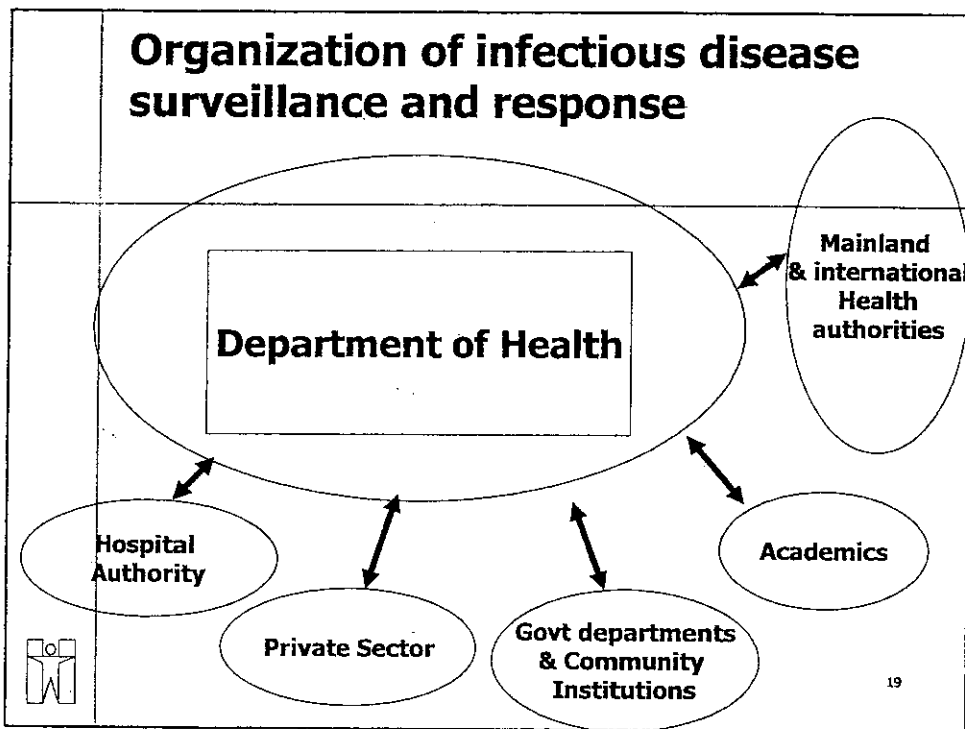
17

Communicable disease surveillance components


1. Statutory notification
2. Sentinel surveillance
e.g. influenza-like illness, hand-foot mouth disease
3. Laboratory surveillance
e.g. seroprevalence, influenza, acute flaccid paralysis (polio)
4. Voluntary reporting of diseases of public health significance e.g. HIV, STI, Japanese Encephalitis
5. Outbreak reporting
e.g. schools, elderly homes
6. Active case findings
7. Other surveillance systems
e.g. vectors, animals, and food




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	<h2>Case investigation & control</h2>
	<ul style="list-style-type: none"> ■ Case investigations initiated within 24 hours of receiving disease notification ■ Activities: <ul style="list-style-type: none"> – Active case finding – Contact tracing – Chemoprophylaxis – Source tracking & elimination e.g. depopulation of chicken – Vector control – Epidemiological/environmental studies
	20

	<h2 style="text-align: center;">Emergency preparedness & contingency planning</h2>
	<ul style="list-style-type: none"> ■ Formulated contingency plans: <ul style="list-style-type: none"> – Bioterrorism attacks, pandemic influenza outbreak, dengue fever outbreak.... ■ Coordination & leadership of various advisory, interdepartmental or interbureaux committees <ul style="list-style-type: none"> – Immunisation, dengue fever, avian influenza.....

21

	<h2 style="text-align: center;">Public education & risk communication</h2>
	<ul style="list-style-type: none"> ■ Health promotion & risk communication target at different sectors/groups, via various channels and settings ■ Port Health Office: <ul style="list-style-type: none"> – Focus on promotion of travel health among tourists & Tourism Industry – Enforce relevant sections of Cap 141 and the International Health Regulation – Operate Travel Health Centres

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International & regional collaboration

- Mainland:
 - Regular exchange of infectious diseases with some South China cities: Shenzhen, Zhuhai, Hainan and Macao
- WHO:
 - Regular exchange of e.g. polio, influenza, rabies...
- Good communication network with other international health authorities



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The interfaces with hospital (1)

- DH interface with hospitals on 4 major fronts
- First front: Director of Health
 - A member of the HA Board of Directors
 - Licensing authority of private hospitals
 - DH conducts regular inspections



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The interfaces with hospital (2)

- Second Front: Primary health care
 - DH & HA liaise to provide comprehensive care via referral system
 - Shared programmes in place
- Third Front: advisory committees
 - Both DH and HA are mutually represented
- Fourth Front: prevention and control of communicable diseases
 - Hospitals are a major partner of notifications, isolation and treatment



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Interface issues with Communicable Diseases

- Infectious disease case investigations and contact tracing:
 - Regional Office of DH receives notifications of suspected /confirmed infectious disease from HA clinicians or laboratory
 - Initiate investigation and contact tracing within 24 hours
 - Refer suspected cases to HA for prompt isolation and treatment



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Interface issues with Communicable Diseases

■ Surveillance

- HA hospitals and laboratories constitute part of the comprehensive infectious disease surveillance systems

■ Laboratory surveillance

- Public Health Laboratory of DH provides diagnostic microbiological services for some HA hospitals
- Collaborates with hospitals to maintain laboratory surveillance for influenza, salmonella, etc.
- Serves as reference laboratory for influenza, acute flaccid paralysis, malaria & receive hospital specimens for such diagnosis
- Referral of patients for other diseases—MCHCs, SHS, GOPCs.




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Assessment

- Current collaboration and interfacing worked well
- Sensitive surveillance system on influenza-like illness detected novel human strains- A(H5N1) in 1997 & A(H9N2) in 1999
- Prevented potential pandemic spread of avian influenza



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	<h1 style="text-align: center;">SARS Outbreak</h1> <p style="text-align: right;">29</p>

	<h2 style="text-align: center;">Surveillance for AP (SARS)</h2>
	<ul style="list-style-type: none"> ■ Early February 2003 ■ 11 February 2003 ■ 19 February 2003 ■ 12 March 2003 <ul style="list-style-type: none"> ■ Rumours and media reports on a mysterious pneumonia outbreak in Guangdong ■ Department of Health and Hospital Authority jointly implemented a surveillance system on severe community-acquired pneumonia ■ Two cases of influenza A H5N1 infection in a nine-year-old boy and his father after visited southern China. WHO was alerted ■ DH alerted WHO of PWH outbreak of atypical pneumonia <p style="text-align: right;">30</p>

Problems encountered at the outset

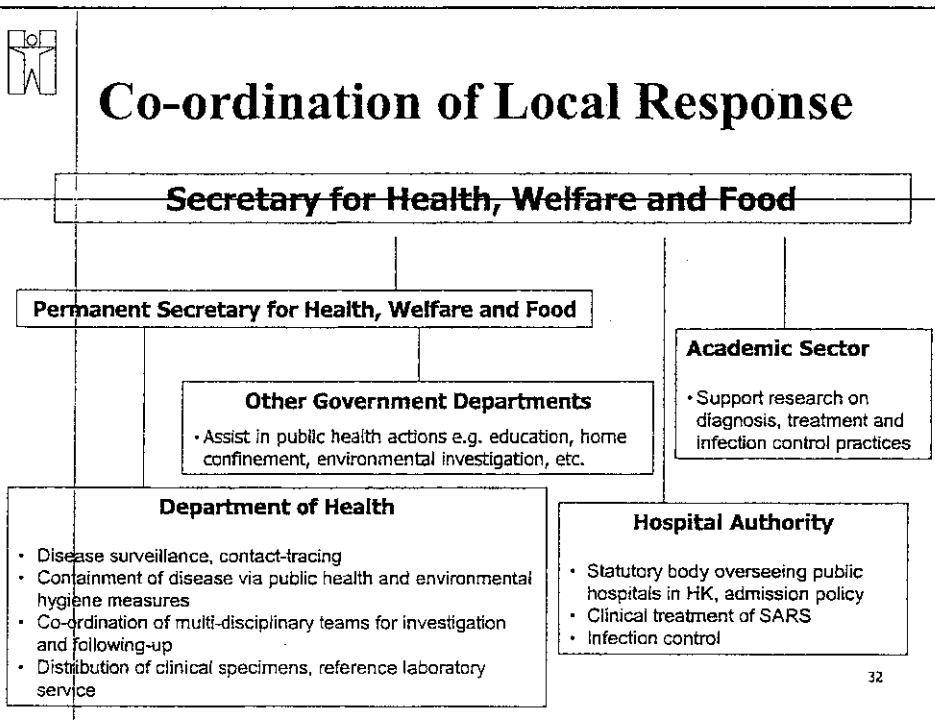
- medical community had no knowledge and low awareness of the disease
- lack of a good case definition
- no diagnostic test
- capacity problem in health care system

Results

- over diagnosis → abortive work and adding stress to the health care system
- under diagnosis, delayed contact tracing → cases and contacts slipped through the net



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Public Health Interventions

■ Surveillance and case detection

- Surveillance
- Notification
- Epidemiological investigation
- Contact tracing
- Medical surveillance

Disease prevention and control

- Isolation of case
- Quarantine of close contacts
- Infection control
- Border control
- Multidisciplinary response team

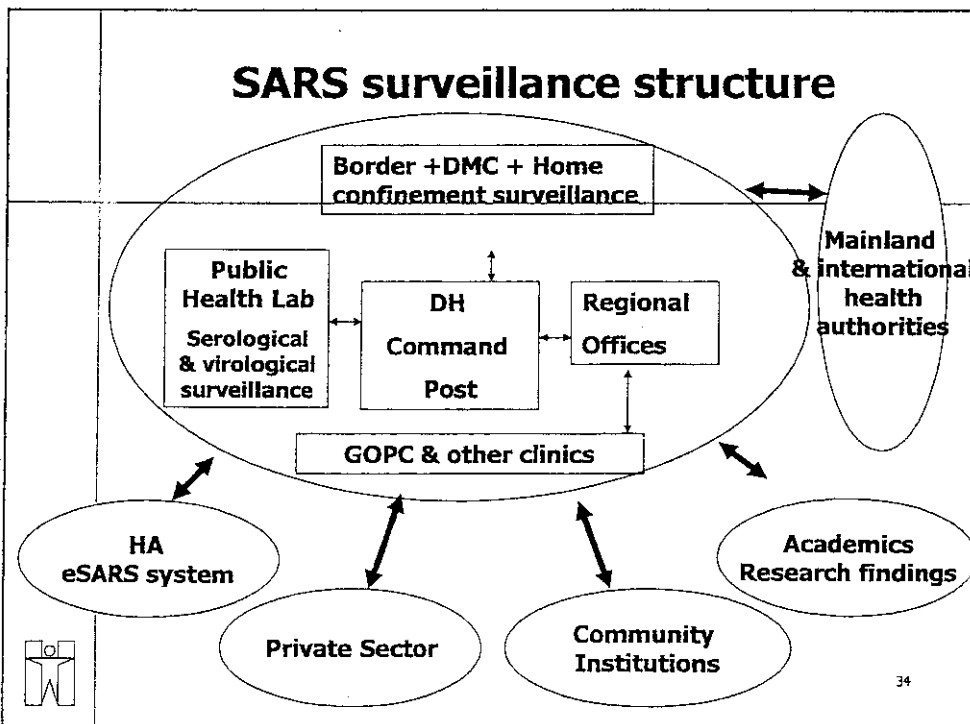
Community involvement

- Risk communication
- Public education
- Setting specific measures/advice

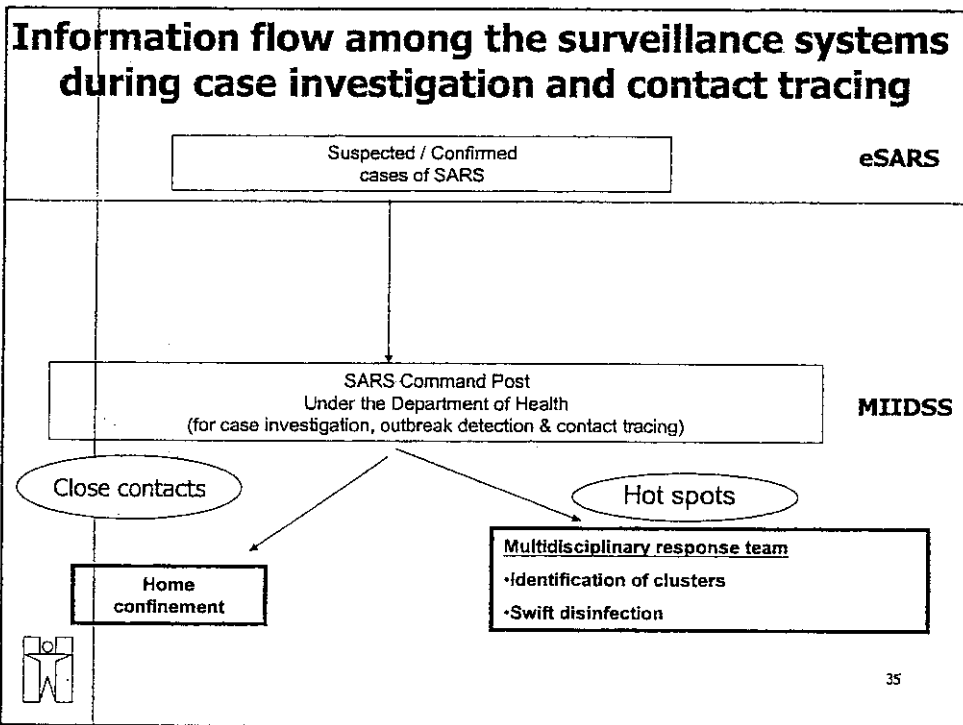


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SARS surveillance structure



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SARS surveillance (1)

- DH Command Post :
 - Designated team to centralise and collate all SARS data to get full picture
 - Analyze epidemiologic data, identify linkages and clusters, pick up unusual trends
 - Coordinate contact tracing and disease control activities

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SARS surveillance (2)

- E-SARS system operated by Hospital Authority:
 - extracted clinical and laboratory information of the public hospital SARS patients
 - A **real-time** surveillance programme allowing public health officers to access online for immediate case investigation and contract tracing



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SARS surveillance (3)

- MIIDSS (Major Incident Investigation and Disaster Support System):
 - Developed by the Hong Kong Police Force
 - Link events, places and people to detect case clusters for immediate action



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SARS surveillance (4)

- SARS-CCIS (Case and Contact Information System)
 - Centralised information system integrating information from all the above surveillance systems
 - Provided a centralised database for all cases and contacts for tracking and analysis



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Designated Medical Centres (DMC)

- Four DMCs
- Medical monitoring for contacts of SARS cases for ten days after last contact
 - temperature check
 - Check symptoms
 - CXR
- Suspected cases referred to hospitals
- Proactive good personal hygiene: wear mask and stay home except when visiting DMC



40

Home confinement scheme

- To facilitate early detection and treatment of the household contacts of SARS patients and to contain the spread of the disease in the community
- Confined at home for 10 days
- As of 23 June, a total of 1262 persons from 493 households have been confined.
- From Home Confinement Scheme:
 - 34 out of 1262 confined contacts confirmed to be probable cases of SARS i.e. 2.7%



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Multidisciplinary response team

- Led by DH & comprises Buildings Dept, Housing Dept, the Police Force & FEHD
- Ensure swift & comprehensive investigation work to be conducted
- Move in for investigation, contact tracing, health advice, disinfection & cleansing for any buildings with ≥ 1 probable SARS case detected



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Port Health Measures

- Health declaration
 - Departing and arriving passengers and crews via the HKIA
 - All arrivals at other control points
- Temperature checking
- Medical posts on site
- “Stop list” implemented at immigration control points
 - Close contacts of confirmed & suspected SARS patients are barred from leaving Hong Kong during the isolation period.



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Health Awareness Programme

- To further ensure no export or import of cases
- To restore confidence of travelers and foreign businessmen
 - Measures target at
 - Travelers: in-bound and out-bound
 - Hotel operators and staff
 - Tour operators and guides



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Public education

Education campaigns held

- > in various places (e.g. housing estates, public transport operators, schools kindergartens, childcare centers, travelers, food premises)
- > for various target groups (e.g. the travelers, medical practitioners and the general public)
- > through various means (e.g. TV/radio messages, newspaper supplements, health talks, website, posters/pamphlets, hotline)

Key Messages:

- > Personal and environmental hygiene (including disinfection method)
- > Non-discrimination towards people under quarantine

Publicize list of names of building blocks where SARS patients resided on DH website to ensure disinfection by all residents



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International Collaboration

- Inviting WHO technical support
 - Epidemiology studies
 - Environmental studies
- Sharing of data and findings with WHO, CDC and other countries
 - Daily country summary
 - Weekly line listing of cases
- Participation in international conferences and research



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Collaboration with the Mainland

- Regular expert group meetings with Guangdong and Macao health authorities to share data and experience with SARS
- Agreed on:
 - strengthening the network of information flow on infectious diseases
 - enhancing information interflow on infection control in hospitals, data analysis on epidemic situation and clinical treatment
 - enhancing cooperation on scientific research and set up mutual visit programme



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Challenges in SARS containment

- Still many unknowns about SARS
- Laboratory diagnosis
 - Crucial to laboratory surveillance
 - Lacks reliable rapid diagnostics
- Sustainability of alertness
- Prompt and efficient information flow between care providers and public health authority
- Globalisation and travel



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Lessons learned (1)

Local

- political commitment to enhance capacity of the health system on surveillance and response to infectious diseases
- mechanism to mobilise resources to provide 'surge' capacity to the health system during major outbreak
- overcoming institutional barriers for public good
- central coordination in outbreak response involving the health and other sectors
- organisational framework for timely decision making and effective implementation of policies
- continue collaboration with regional and international partners



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Lessons learned (2)

Regional

- strengthen disease surveillance network and information exchange system
- prompt reporting of outbreak of infectious diseases
- cross-border cooperation in communication and disease control
- collaboration on scientific research



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Lessons learned (3)

International

- WHO to continue to provide leadership in coordinating global response to SARS
- WHO to assist Member States to build capacity in disease surveillance
- WHO to update case definition of SARS and to coordinate research and development of reliable quick diagnostics, treatment and vaccine, and understanding of the coronavirus



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WHO Assessment

HK's contribution to the global effort

- Reporting: open and transparent reporting of H5N1 on 19 Feb that led to intensified global surveillance for respiratory disease
- Reporting: open and transparent reporting in early March of health worker infection, leading to global alert on 12 March
- Information: new cases and deaths reported regularly to WHO
- Science: coronavirus first isolated and identified, early PCR and antibody tests developed, environmental factors involved in transmission identified, studies on animal reservoir in collaboration with Guangdong scientists conducted
- Outbreak control: prompt reaction once outbreak had been identified, with effective case identification, contact tracing, isolation/infection control, surveillance and quarantine despite environmental transmission at Amoy Gardens



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WHO Assessment

What HK will contribute to the effort over coming months

- Continued case identification through surveillance
 - necessary to determine whether infection is endemic and seasonal, or whether it has disappeared from human populations
- Continued collaboration with China, particularly Guangdong Province in studies to identify animal reservoir and risk factors for transmission to humans
 - necessary to manage the risk and prevent future outbreaks
- Continued participation in major WHO networks of global surveillance for influenza and other infectious diseases
 - identify next major emergence of new influenza strain



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Thank you



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