

## Contact tracing in the control of SARS



### Aim of contact tracing

- Identify individuals who had close contact with SARS case; advise them about personal isolation and observation for symptoms
- Facilitate early diagnosis and treatment
- Prevent disease spread in the community

## Approach

- Graduated enhancement in keeping with new knowledge
  - Enhanced mechanism
  - Enhanced medical surveillance



## Before SARS: SCAP

- SCAP – severe community acquired pneumonia
- Set up notification system of SCAP with hospitals in Feb 2003
- Contact tracing conducted by DH on all reported SCAP cases

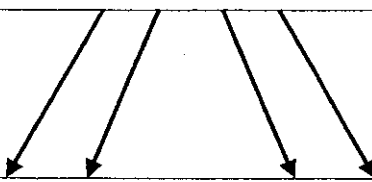


## Definition of SARS contacts

- Before March 31
  - Close contacts
    - Family contacts, selected contacts at workplace or school based on risk assessment
  - Social contacts
    - Contacts other than above
- Since March 31
  - Close contacts
    - Those who have lived with, cared for, or handled respiratory secretions of SARS patients (WHO definition)
  - Social contacts
    - Other contacts who do not satisfy the above

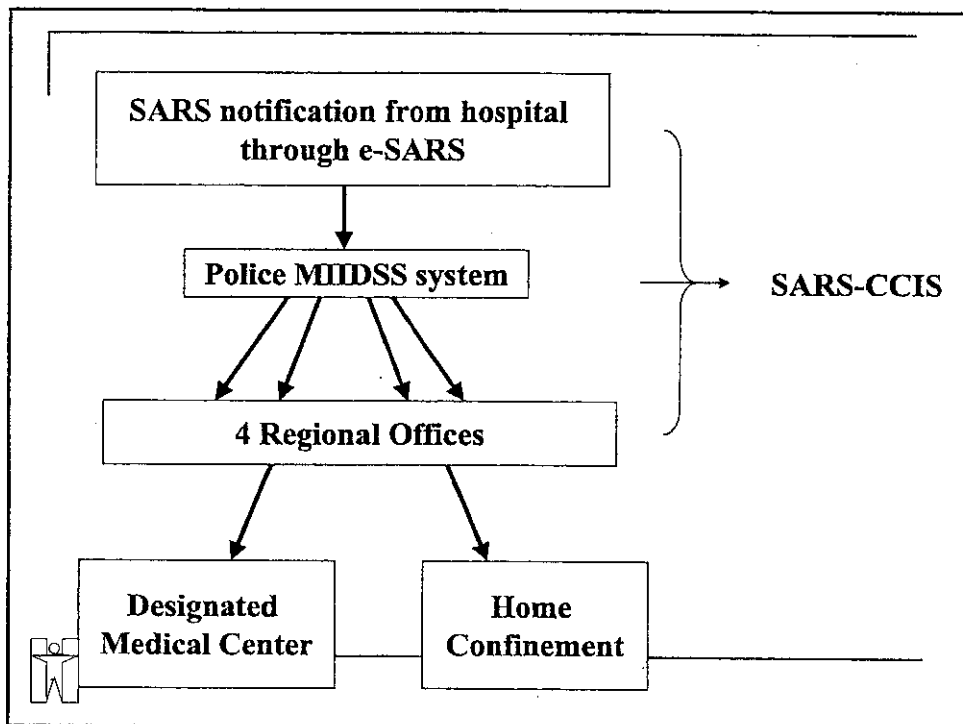


**SARS notification from hospital**



**4 Regional Health Offices**





## Regional Office

- Conduct telephone medical surveillance to close contacts
- Advise on personal hygiene and isolation
- Advised close contacts not to go to school/work

## Designated Medical Centers (DMC)

- **March 31**
  - Four DMC set up on March 31
  - Close contacts and symptomatic social contacts: daily attendance for 10 days
  - Medical monitoring and referral to hospital
  
- **April 10 and onwards**
  - Close contact of SARS other than family contacts; symptomatic social contacts



## Home confinement scheme

- **April 10**
  - Household contacts of probable SARS case under home confinement for 10 days
  - Medical monitoring by visiting health team
  - Compliance check by Police
  - Removal to holiday camps for non-compliant confinees
  
- **April 25 and onwards**
  - Home confinement extended to family contacts of suspect SARS cases



## Special targets

- Hospital contacts
  - Visitors exposed to SARS patients
  - Non-SARS patients exposed to SARS patients during hospitalization
- Elderly homes
  - Medical surveillance of residents
  - Advice on infection control



## Challenges

- Large number of cases and rapidity of outbreak progression
- Traditional systems of notification and flow of information could not keep pace
- Case definition → overdiagnosis and underdiagnosis
- Difficulty in getting contact information from cases



## Outcome of contact tracing

- Over 26000 persons close and social contacts traced, 279 developed SARS
  - 1.1% of all contacts
  - 95% were close contacts
  
- Reduced greatly the reproduction number of the SARS outbreak in Hong Kong (*Riley et al. Science 2003 June 20;300(5627):1961-6*)



## Summary

- Graduated enhancement in keeping with knowledge about SARS
  
- New systems developed to enhance information flow and medical surveillance
  
- Largest contact tracing exercise ever, contributing to the effective control of SARS