

# Hotel M Cluster of SARS

## Introduction

- March 12: DH notified WHO of PWH cluster
- WHO issued global alert

## Introduction

- March 19: DH announced 7 SARS cases associated with Hotel M
  - All stayed or visited 9/F between Feb 12 – March 2
- Presently: 16 probable and suspect SARS cases associated with Hotel M

## Patient A – Guangzhou visitor

- Arrived in Hong Kong on 21 Feb
- Stayed in room [REDACTED] during 21-22 Feb
- Ill since 15 Feb
- Admitted to KWH on 22 Feb
- Died on 4 March

## Patients B,C,D – Singapore

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- 2 pairs of visitors from Singapore
- 1 pair stayed in room [REDACTED] 20-25 Feb
- Another pair stayed in room [REDACTED], 21-25 Feb
- Three developed illness on 24 & 25 Feb
- Returned to Singapore on 25 Feb

## Patient E – Canadian resident

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- Stayed in room [REDACTED] during 18-22 Feb
- Returned to Canada on 23 Feb
- Date of onset around 23 Feb; died subsequently
- Index case in Toronto cluster

## Patient F - local resident

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- Visited friend in room [REDACTED] during 18-23 Feb
- Developed illness on 24 Feb
- Index patient of PWH cluster

## Patient G – Canadian resident

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- Stayed in room [REDACTED] during 12 Feb – 2 March
- Developed illness on 27 Feb
- Admitted to St Paul's Hospital on 2 March
- Index case for St Pauls' Hospital cluster

## Immediate measures (1)

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- DH visited Hotel M on 19 March
- Hotel environment inspected
  - General hygiene satisfactory
  - No recent breakdown in electricity, ventilation systems and lift services
- Staff sickness record checked
  - No upsurge noted
  - Questionnaire survey on hotel staff – none had symptoms of SARS

## Immediate measures (2)

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- Hotel M informed in-house guests
- 9/F evacuated
- Hotel M instructed to carry out disinfection under DH guidance
- Obtained guest lists
- Health talk to hotel staff
- Announced findings in a press conference

## Follow up actions

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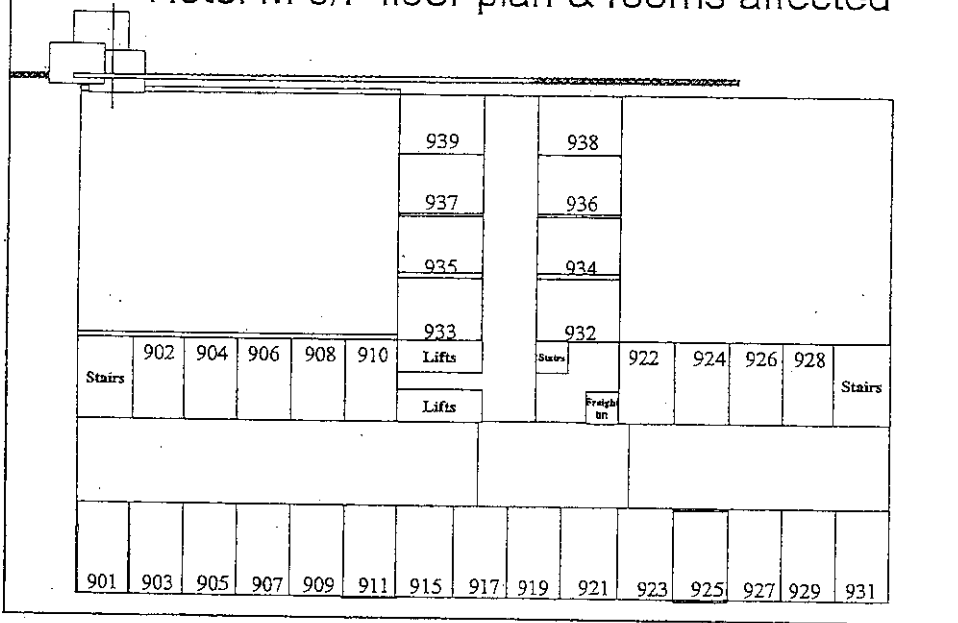
- 22 March: provided list to Consulates
  - Residents who stayed at 9/F during 21-22 Feb
  
- 24&26 March: provided list to Consulates
  - Residents who had stayed at any floor, any time during 18 Feb – 3 Mar
  - 1730 people from 43 countries

## Further Case Finding

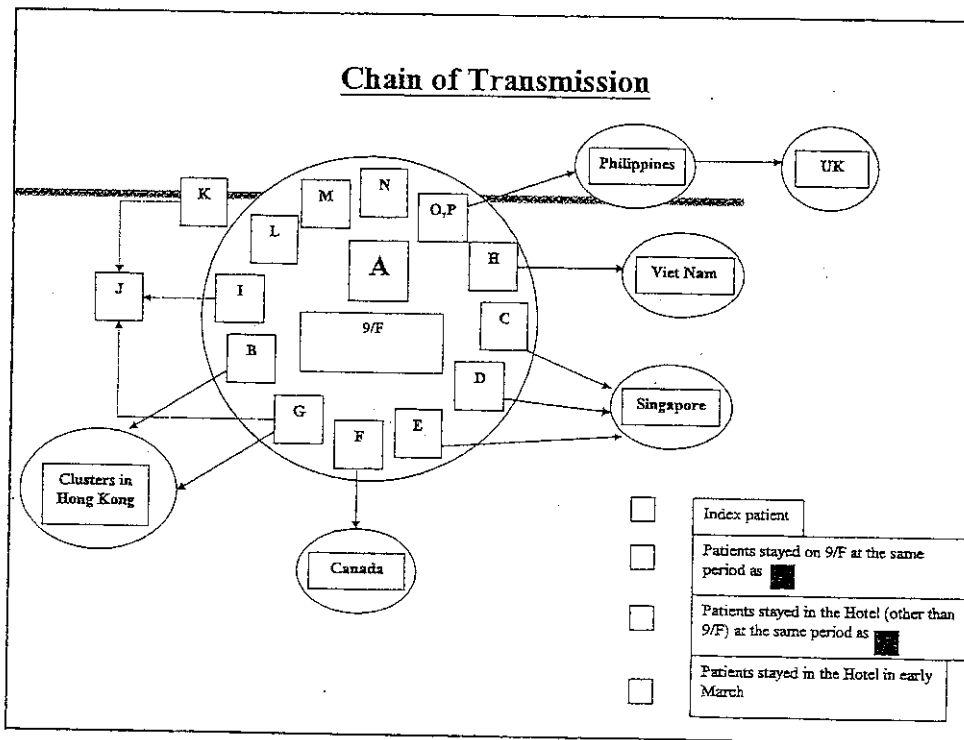
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- Liaised with WHO, Consulates, and overseas health authorities
  
- Identified additional 9 suspect/probable cases
  
- USA, Mainland, WHO/Phillipines

## Hotel M 9/F floor plan & rooms affected



## Chain of Transmission



## Investigating Mode of Transmission

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- Housekeeping and cleansing staff interviewed
- DH and Environmental Protection Department conducted joint investigation
  - Sewer system functioning
  - Design of air flow system meets requirements

## WHO Environmental Health Team

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- A WHO team from Health Canada and DH conducted joint investigation on 2, 5 and 10 May 2003
- Inspected general environmental condition, sewerage system and air conditioning system
- Collected environmental samples
- Conducted air flow tests



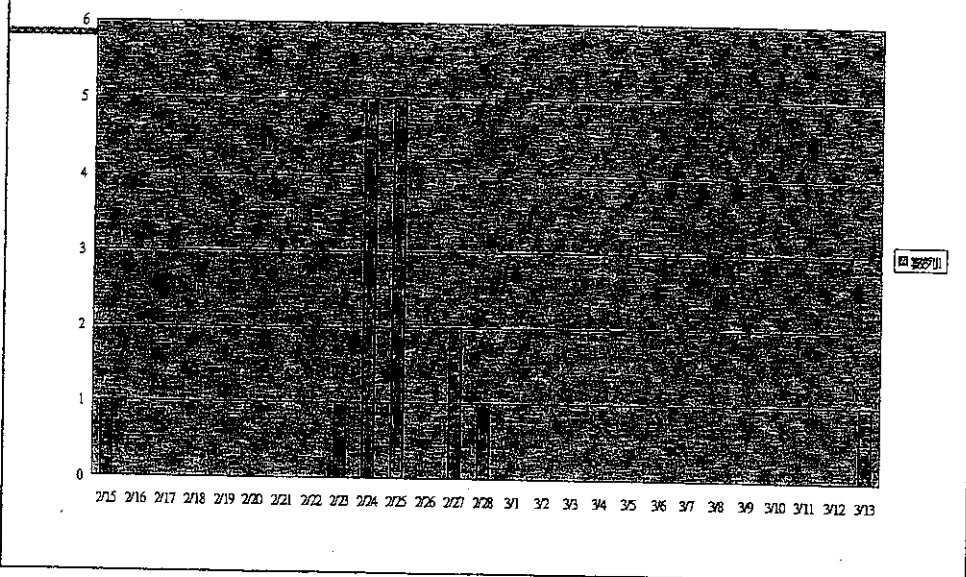


## Significance of Hotel M outbreak

- First super-spreading event found outside hospital setting
- Implications on international travel
- Importance of international collaboration
  - HK sounded alert →
  - Other countries provided clues to identify source →
  - HK provided data for case tracking in other countries

The End

Epidemic curve for the Outbreak related to Hotel M



## Patients I, J and K

- Reported by U.S. Centers for Disease Control and Prevention
- Patient I came from the U.S.
  - stayed in room [REDACTED], Hotel M during 19-22 Feb and moved to room [REDACTED] during 24 Feb – 2 March
  - Became ill on 24 Feb
  - Admitted to hospital in US for treatment

## Further Case Finding

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- Patient H – an American visitor
- Stayed in room [REDACTED], Hotel M during 19-23 Feb
- Went to Hanoi on 23 Feb and developed illness there
- Returned to Hong Kong for treatment on 6 March
- He died subsequently
- Some healthcare workers in Hanoi developed pneumonia

## Patients J and K

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- Patient J
  - Visitor from U.S.
  - Stayed in room [REDACTED], Hotel M on 1 March and moved to 14/F on 2-6 March
  - Developed illness on 13 March
- Patient K
  - Visitor from Canada
  - Stayed on 14/F, Hotel M during 20-24 Feb and 3-6 March
  - Developed illness on 28 Feb

## Patients L and M

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- Reported by Guangdong Health Authority
- Stayed in room [REDACTED], Hotel M during 19-22 Feb
- They developed illness on 24 & 25 Feb
- Travelled to Guangzhou on 1 March
- Admitted for treatment on 6 March

## Patient N

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- This case was identified by local active case finding
- Patient N was Patient A's nephew
- Visitor from Mainland China
- Stayed in room [REDACTED] during 21-24 Feb
- He developed illness on 25 Feb

## Patient O and P

- These two cases were notified by WHO
- The couple from U.K. stayed in room [REDACTED], Hotel M during 18-23 Feb
- They left Hong Kong and travelled to the Philippines on 23 Feb
- They developed illness on 25 & 27 Feb
- Admitted and treated in the Philippines
- Returned to U.K. on 14 March
- Blood tests in U.K. were positive for antibodies against SARS coronavirus.

## Actions taken by DH

- DH returned to Hotel M on 20 March for inspection
  - Cleansing and disinfection
- DH held a health talk and meeting with District Council members and residents of Kowloon City
- DH again visited Hotel M on 22 March
  - environmental hygiene satisfactory
  - Advised 9/F could be re-opened to the public

