SARS: Understanding and Learning from an Epidemic of Fear

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Brief Chronology of Epidemic

News of SARS first broke in mid Feb 2003 with report of cases atypical pneumonia in Guangdong China since Nov 2002

Cases reported in
- Hong Kong in late February 2003
- Vietnam in late February
- Singapore & Toronto in March
- Other countries beginning in April
Brief Chronology of Epidemic

- WHO declared SARS contained on 5 July
- Total probable cases: 8,096 (as of 31 July)
- Confirmed death toll: 774
- Most severely affected areas:
  - China: 5,327 cases. 349 dead
  - Hong Kong: 1,755 cases. 299 dead
  - Taiwan: 346 cases. 37 dead
  - Canada: 251 cases. 43 dead
  - Singapore: 238 cases. 33 dead
## Important Features of the Epidemic

- Sudden onset
- Uncertain mode of transmission
- Fatality rate (overall 9.6%)
- Social impact
  - (e.g., discrimination, effects on social activity, quarantine)
- Economic impact
  - (e.g., travel advisories, avoidance of affected areas, health care costs)
SARS as an epidemic of fear

- Medical impact got lion’s share of attention but the actual number of deaths was small compared to many other diseases.
- Social and economic impact was enormous:
  - Reports of paranoia and panic
  - Disruption of social activity
  - Travel advisories
  - Quarantine
  - Economic losses estimated at US$11 billion (FEER)
Lay Understanding of Health Threats

- Self-regulation model of response to health threats
  - People as active processors of information about threats
  - Interpretation of and response to health threats occurs on both objective and emotional levels
  - Coping is a result of how people cognitively and emotionally represent health threats
Perceiving SARS

Internet studies during the SARS epidemic led to several conclusions:

- Respondents had a fairly realistic understanding of SARS.
- There was no evidence of overestimating the seriousness of SARS.
- Worry and coping emerged as key variables.

Sources: Bishop (2003), Puterman et al. (2009)
SARS and Worry

Worry was significantly related to:
- Perceived likelihood of getting or dying from SARS
- Perceived ways of getting SARS
- Actions taken to avoid getting SARS
- Avoidance of people

Key question is how people coped with their worries
Two types of coping emerged as particularly important:
- Wishful thinking (e.g., wishing SARS would simply go away)
- Empathic responding (e.g., trying to understand other people’s concerns about SARS)
SARS and Coping

- Wishful thinking was associated with avoiding other people but not with taking health precautions
- Empathic responding was associated with taking health precautions but not with avoiding other people
Learning from the SARS Experience

- Fear is a two-edged sword
- Central question is how to manage the fear and harness that fear for the common good
SARS in Singapore

- On 1 March 2003 a young woman was warded with a mysterious viral condition.
- From that first case 22 others were infected before she was isolated on 6 March.
- Initially SARS was confined to hospitals, initially Tan Tock Seng Hospital, but later Singapore General Hospital and all but one other public hospital.
On 8 April a vegetable wholesaler who had visited his brother with SARS at SGH was warded at National University Hospital and on 12 April. Post-mortem showed he had SARS.

This resulted in the closure of a major wholesale centre where this man worked.

Contract tracing was done with roughly 2000 individuals who had potential contact with the man, resulting in 1200 home quarantine orders.
SARS in Singapore

- Closure of the wholesale centre was a major event reported in media that increased public fears, as did several false alarms.
- At one point schools were closed
- People tended to avoid public gatherings
Public campaigns were launched to help people understand the disease.

By the time Singapore was declared SARS free on 31 May 2003, 238 cases had been identified with 33 deaths.
Observations on Singapore’s Response to SARS

From early on the response to SARS was a concerted effort to contain the virus including:

- Contact tracing
- Strict infection control measures at health care facilities
- Home quarantine orders
- Thermal imaging at entry points
Observations on Singapore’s Response to SARS

Concerted efforts were made to bring about attitudinal and behavioral changes among the general public including:

- Massive media campaigns
- Mandatory temperature taking in schools and workplaces
- Measures taken to prepare for possible outbreak
- Efforts to calm public fears
- Mobilization of community volunteers
- Efforts to address stigma experienced by health care worker
Observations on Singapore’s Response to SARS

Key themes throughout were:
- Singapore at war
“Every single Singaporean is a soldier in the fight against SARS. We have armed every household with a thermometer. That’s a weapon. We involved them in this fight against a common enemy. If we succeed in controlling the problem, out of all this, we are going to see a stronger Singapore because we are all in this fight together.”

PM Goh Chok Tong, 10 May 2003
Observations on Singapore’s Response to SARS

Key themes throughout were:
- Singapore at war
- Triumph over adversity
- Social responsibility
- Sacrifice
- Government paternalism
Methods Used to Get Citizen Cooperation

☆ Legal measures
  - Amendment of Infectious Disease Act allow government to quarantine contacts of suspected SARS cases with fines for non-compliance

☆ School and workplace measures
  - Mandatory temperature taking and reporting
  - Closing of schools
  - Strongly urging people to stay away from school or work if they are feeling unwell
Methods Used to Get Citizen Cooperation

- Massive media campaign
  - Constant stream of stories in media on SARS crisis
    - Information about current situation
    - Statements by government officials and health authorities
    - Human interest stories emphasizing desirable and undesirable behavior
    - Stories highlighting the sacrifices and discrimination faced by health care workers and lauding their efforts
Methods Used to Get Citizen Cooperation

- Publication and distribution of SARS information materials to all households
- Campaigns in schools on proper hygiene and infection control measures
- Advertising spots with local celebrities emphasizing responsible behavior
- Practical support for those under home quarantine orders
Learning from an Epidemic of Fear

Key factors in effective response:

- Preparedness
  - Specific
  - Non-specific
- Singleness of purpose
- Decisive leadership
- Credibility
- Accurate information
- Appropriate reassurance
- Effective communication channels
- Partnership with the public
Contact Information

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