Lessons from SARS

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September 30, 2003

-Not views of YCH

-Remarkable job by staff at YCH

-Not about finding fault or assigning blame

-- its about learning from mistakes – first step is to identify those mistakes

-Not critical of front-line public health

-Personal experience with SARS

-March 15 – scepticism – first case at YCH

-March 27

-March 29-April6

-April 7-13

-April 14 – decided to speak out

-April 23 – CMAJ and Globe and Mail

3 Questions

1. What happened?
2. What could have been done better?
3. What should have been done better?

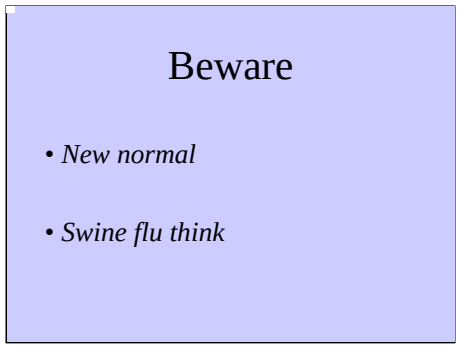
What happened?

-what do we know about SARS

-What worked and what didn’t

What could have been done better

What should have been done better?

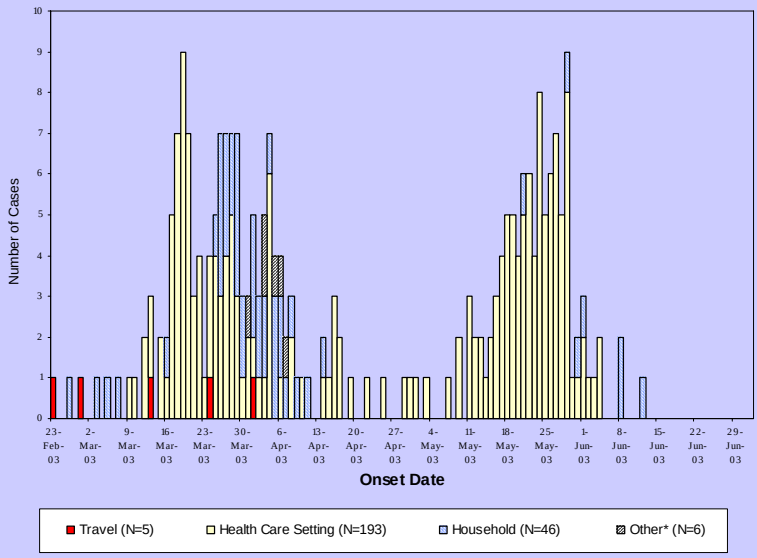


-Be skeptical of the new normal – Toronto perspective can be a distortion because it hard for us to appreciate how atypical our experience has been – from a world perspective SARS was a very unusual event – from an individual city's perspective it was a very rare event – resist temptation to over-engioeer

-Will SARS come back? – probably not – in any case, in China with lots of warning for Toronto

-Swine flu think – two influenza pandemics in 1957 and 1968 – experts persuaded themselves that influenza pandemics occurred every ten years – by mid-70's high degree of expectation – insufficiently critical when new swine flu strain appeared in US – likewise – perception that a new pandemic illness is imminent – this expectation clouded our judgement – believing is seeing

Epidemic Curve of a SARS Outbreak in Canada, February 23 to 2 July, 2003
(N=250*)



*Excludes 1 for whom onset date is unknown

Epi curve – probable cases – de facto Toronto outbreak

Probable cases only

3 reasons – true burden of disease, clearer pattern, international standard

-2 key epidemiological observations

-1. Health care outbreak – SARS not highly infective

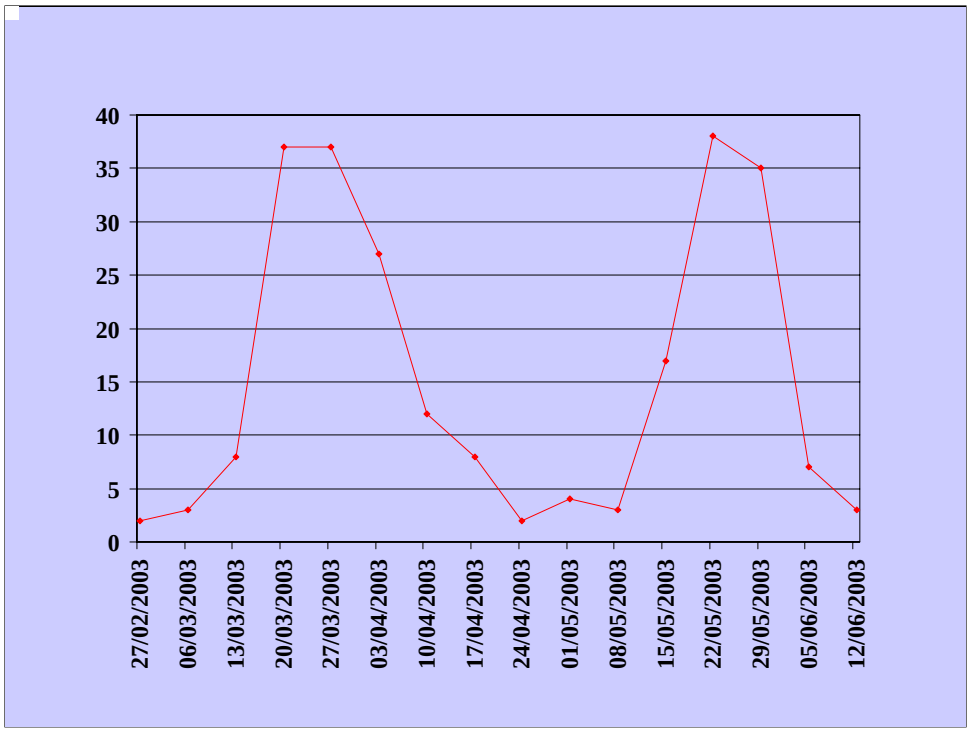
-Why –

-droplet spread – requires close prolonged contact – TB

-SARS patients only infectious when very ill

-Hospital procedures spread SARS - biPaP

-2. Classic bell curve –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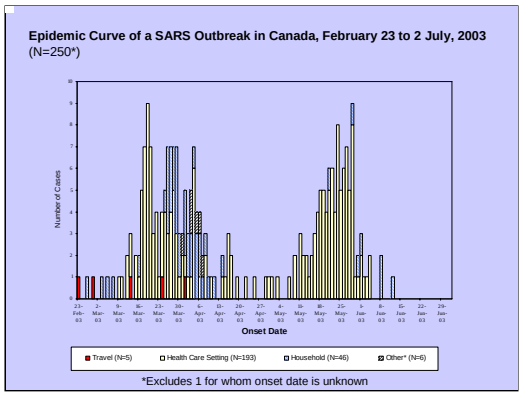


-peak of new cases March 23-25 in SARS 1 and May 28 in SARS 2 – peak of transmissions 1 incubation period earlier – March 16-19 for SARS 1 and May 22 for SARS

-Rapid control – typical of all SARS outbreaks

-March 14- recognition of outbreak

-March 26 – provincial emergency

-March 28 – shut down hospital system

-March – April – daily press conferences

-April 19 – full page newspaper ads

-April 21 – YCH reopens with pneumonia protocol

-April 23 – WHO travel adbvisory

-Late April – Mederski concerns about NYGH

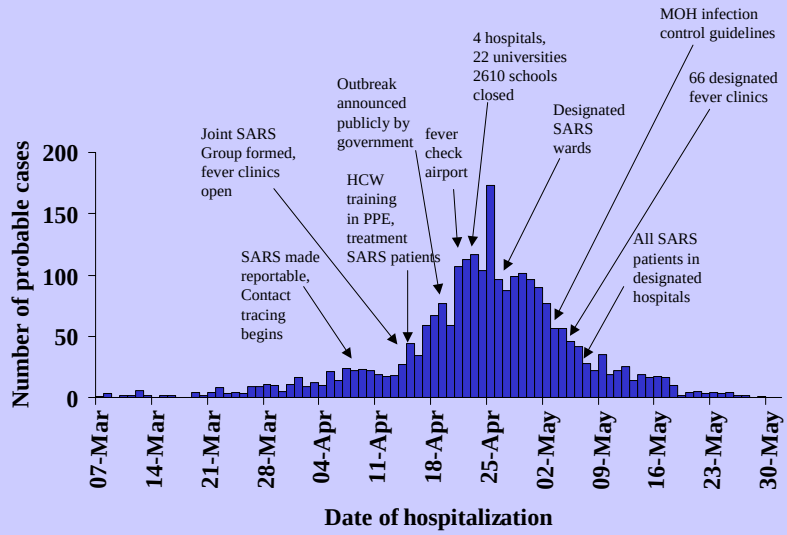
-May 9 – “outbreak over”

-May 12 – “preposterous”

-May 22 – SARS 2

-June 16 – surveillance plan

Timeline of major control efforts



1. – slow to learn – swine flu think-Failure to adopt a learning culture – too busy doing, not evenough effort on data collection and analysis and thinking
2. Interventions – hospital shutdown,

mass quarantine- costs – human, public health, panic

airport scanners- marginal utility – fed intolerance

3. Public communications – presenting cumulative case counts, combining probable and suspect cases, emphasizing deaths created impression of a large and growing outbreak
4. Surveillance is core activity of public health -

3 Questions

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What happened?

-2 connected hospital-centred outbreaks – SARS is virulent but not very infectious

Controlled by basic infection-control measures – nurse in private room, wear masks, handwashing etc

What could have been done better

•Faster action initially

•Evidence/experience based practice

What should have been done better?

- learning culture

-Evidence-based communications

-Surveillance

-Fewer politics

Recommendation

Strengthen strategic capacity of public health

- Better resources at provincial/national level
- Include hospital infection control expertise
- Arms-length from political process
- Clearer lines of authority

Strengthen Strategic Capacity

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•Include hospital infection control expertise

•Arms-length from political process

•Clearer lines of authority