

Information Sharing, *then and now* Lessons Learned from SARS



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IM Conference – Breaking Down Barriers
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Overview

- What is public health?
- SARS: recognition, outbreak
- Rapidly emerging communication and data sharing challenges
- Pre-existing response structure, successes
- Challenges and lessons learned



What is Public Health?

- Concerns the health of the community as a whole (vs. individual patient health)
- The science and practice of protecting and improving the health of a community, through preventative medicine, health education, control of communicable disease, application of sanitary measures, and monitoring of environmental hazards

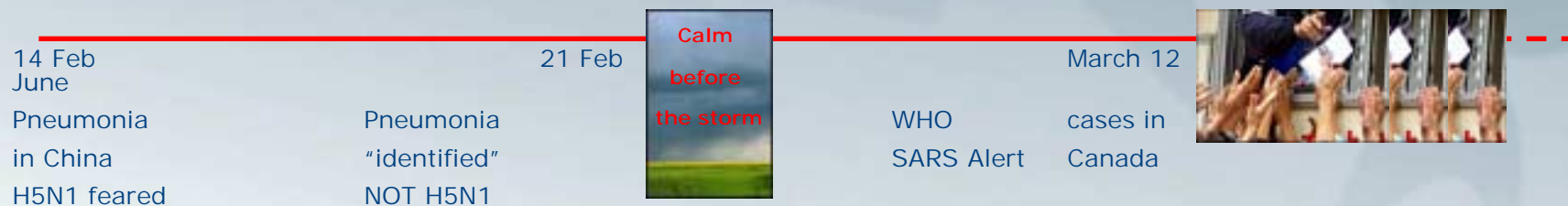


Public Health: routine practices vs. emergency response

- Best practices (surveillance, reporting) under routine conditions
- In emergencies:
 - Established systems may be overwhelmed
 - Increased demands for different and more detailed information (technical, public, political)
 - Deployment of new people and tools



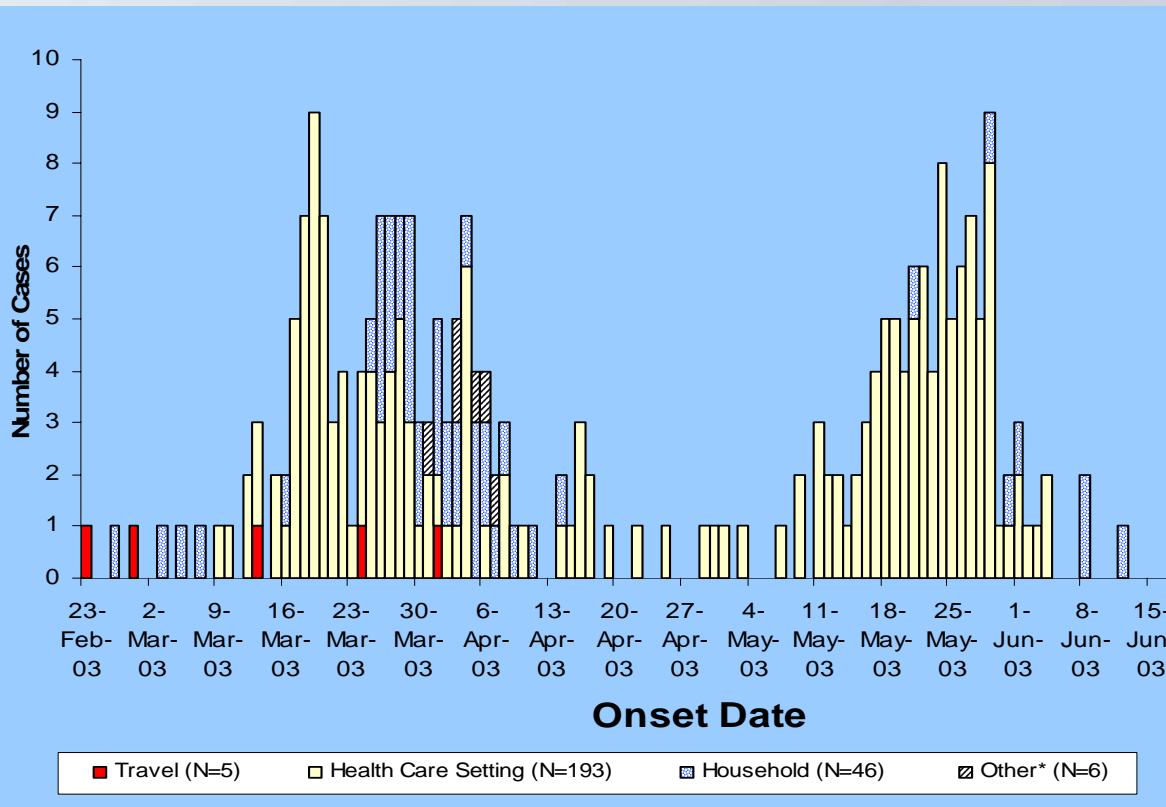
SARS: recognition to outbreak



- **14 –21 February:** *FluWatch* advisory re: outbreak of severe pneumonia in Guangdong, China and H5N1 avian influenza in Hong Kong
- **12 March:** WHO global alert re: SARS
- **13 March:** Health Canada advised of cases of severe atypical pneumonia in Ontario and BC
- **14 March:** First "National SARS teleconference"
- **March-June:** multiple daily teleconferences (Intergovernmental, FPT, working groups etc.)



SARS 2003 outbreak



~ 14 weeks Mar-Jun
 < 500 cases (44 fatal)
 (256 probable/ 187 suspect)
 98% in Ontario



SARS: communications! e-mail

SARS@hc-sc.gc.ca

The screenshot shows a Lotus Notes email client window titled "SARS - Surveillance - Lotus Notes". The interface includes a menu bar (File, Edit, View, Create, Actions, Help), a toolbar with various icons, and a navigation pane on the left showing folders like "Mail", "Inbox", "Drafts", "Sent", "All Documents", "Trash", "Discussion Threads", "Rules", "Stationery", "admin", "blood safety", "core del & report l", "Clinical", "Contact tracing (tp", "Infection Control", "Lab", "PH measures", and "Surveillance". The "Surveillance" folder is selected, showing a list of emails with columns for "Who", "Date", "Size", and "Subject".

Who	Date	Size	Subject
Sierowda, Lee	2003-04-15	46,246	RE
Gillian Lins	2003-04-15	1,728	Apr
Johnsto	2003-04-15	2,447	RE
SARS	2003-04-15	7,151	Re
Sec_admin	2003-04-16	538,648	Sur
Sierowda, Lee	2003-04-16	85,100	
William Bowie, MD	2003-04-16	3,593	cor
Gillian Lins	2003-04-17	1,663	Apr
SARS	2003-04-18	4,233	Re
Gillian Lins	2003-04-18	2,141	Apr
Gillian Lins	2003-04-22	203,594	RE
Sec_admin	2003-04-22	198,342	Sur
Jeannette Macey	2003-04-23	5,320	Urg
Sierowda, Lee	2003-04-23	87,152	
Gillian Lins	2003-04-23	4,915	Car
SARS	2003-04-24	69,498	Info
L. Felix	2003-04-24	3,104	RE
Gillian Lins	2003-04-24	51,886	UR
Gillian Lins	2003-04-24	16,109	Car
SARS	2003-04-24	4,792	Re
SARS	2003-04-24	6,737	Re
Jeannette Macey	2003-04-24	128,712	Re
Susan	2003-04-25	2,383	sur
Sec_admin	2003-04-25	289,822	Apr
Gillian Lins	2003-04-25	2,432	Col
Gillian Lins	2003-04-25	7,160	Re
Shelley Deeks	2003-04-25	58,391	Urg
Paul Gully	2003-04-26	39,790	Re
Sec_admin	2003-04-28	110,795	Sur
SARS	2003-04-28	8,440	Re
SARS	2003-04-30	3,848	Re
Lee, Robert	2003-05-03	25,970	Re

- Over 6,000 e-mails received March-June
 - Rapid inundation
 - 50-75 e-mails sent and received daily over 4 month period
 - Central e-mail address managed by admin staff



SARS: communications website

The screenshot shows the SARS website interface. At the top, there are logos for Health Canada and Santé Canada, and the word 'Canada'. The main heading is 'Severe Acute Respiratory Syndrome (SARS)'. On the left, there is a navigation menu with 'SARS' in large letters, followed by 'General Information' and 'For Health Professionals'. Below these are links for 'Canadian Numbers on SARS with Canada and International Summary', 'Epidemiological Curve', 'Archive Reports: SARS Cases, Canada and International', 'Airline Resource Centre', 'Preliminary Epidemiological Findings', 'SARS Case Definitions', and 'Laboratory Testing'. The main content area has several sections, each with a red border: 'Canadian Numbers on SARS with Canada and International Summary' (with a link to 'SARS Situation Update and Continuing National Summary (5 September 2003)' and 'Archive Reports: 18 June 2003 - 3 September 2003'), 'Epidemiological Curve' (with a link to 'SARS Outbreak: February 23 to July 2, 2003'), 'Archive Reports: Severe Acute Respiratory Syndrome (SARS) Cases, Canada and International' (with a link to '18 March 2003 to 26 June 2003'), 'Preliminary Epidemiological Findings' (with a link to 'SARS Epidemiologic Summaries: April 26, 2003'), 'SARS Case Definitions' (with a link to 'SARS Case Definitions (Update - 8 July 2003)'), and 'Laboratory Testing' (with a link to 'Recommended Laboratory Investigation of SARS (20 March 2003)').

www.sars.gc.ca

- Single reference for information, tools and guidelines
 - for health professionals
 - for public and media



Successes

- Early drafts of the national pandemic influenza response were tested and applied to another emerging infectious disease (unknown aetiology)
- National Pandemic Working Groups applied to SARS
 - Surveillance and epidemiology
 - Laboratory testing
 - Public health measures
 - Vaccines
 - Antivirals
 - Communication
 - Clinical measures



Successes

- Rapid knowledge generation and translation through existing networks for influenza and new partnerships
 - international and national laboratory networks
 - epidemiology and clinical care networks forged
- Use of admin support, central e-mail account and website to manage high demand for information



Issues, what issues?



Lessons Learned: Coordination

- Clear command structure required
 - jurisdictions without well-developed pandemic plans had to create structures immediately to deal with health emergency
- Dedicated team leadership is essential
- Need to strengthen human resource planning and surge capacity in emergency plans
- Advance Planning Group needed



Lessons Learned: Communication

- Pre-established national communications networks worked
 - Need for international communications network
- Establish information sharing processes that permit optimal use of all participants' time
- Human resources needed to translate science (particularly epidemiology) into public information
- Potential for information to become politicized



Lessons Learned: Information sharing

- Pre-establish information sharing networks, agreements and protocols before an emergency

Disseminating information from the national level

- Who to include
- What information is needed; what is & is not wanted
- When is information expected (cut-offs for updates)
- How should different types of information be shared (sensitive vs. non-sensitive, data/information/case definitions/recommendations)

Receiving information from jurisdictions/partners

- Who is responsible for reporting
- What, when and how should information be reported



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