

Viewpoint: SARS, AIDS, and Public Health



SARS can drive home some critical lessons about public health that many developing countries have paid dearly to learn. (IDRC Photo: Peter Bennett)

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Christina Zarowsky

For most of the past century, the spread of mysterious, frightening infectious diseases is something that's occurred mostly in poorer parts of the planet.

No longer. Enter Severe Acute Respiratory Syndrome (SARS), which has affected both China and Canada simultaneously. Tragic as it has been, Canada's experience of SARS has a potentially positive outgrowth. It can drive home some critical lessons about public health that many developing countries have paid dearly to learn.

For a start, SARS has brought home how completely we rely on the uninterrupted rhythm of our interdependent society — from family and cultural events, to transportation systems bringing us to work and tourists to us, to the smooth workings of a complex economy. And, of course, a health care system with enough trained people, enough resources, and enough built-in reserves to absorb most of the biological costs of this disease.

While health care is something of a national religion in Canada, it's taken "Sudden Acute Recognition Syndrome", as we might call it, to remind us how much we depend on the decidedly un-hip and usually invisible web of public health. If the fatal mismanagement of the water supply in Walkerton¹, Ontario, Canada was one wake-up call, SARS is another.

But SARS is clearly not just a medical problem. Health Canada has reported less than 350 probable or suspected cases of SARS in the country, and the mortality rate is less than that of many other infectious diseases. What SARS also highlights is the extent to which the health of the public influences the health of the polity and the economy. Many commentators have recognized, with considerable frustration, that "facts are facts, but perception is reality". The medical evidence is only a small, though essential, piece of the puzzle. SARS echoes many of the lessons painfully learned in the course of the AIDS pandemic, particularly as it continues to unfold in poor countries. Some of these lessons are about the complex interactions among biology, culture, and

power. Others are about what it takes to recognize and effectively act on these interactions. So, with apologies to the American late night television talk show host, David Letterman, here's a top ten list of what SARS can teach us:

- 1.** Germs are blissfully indifferent to geopolitical and social boundaries. We ignore at our peril the medical and public health consequences of globalization, climate change, and the reality that desperate people do desperate things. Let's not forget that SARS likely had an ecological origin: it is believed that the disease made a cross-species jump because of particular farming practices. It then spread rapidly thanks to modern transport systems that are so vital to the global economy. And once they are transplanted, these new diseases are highly adaptable to local social conditions. While AIDS was first observed in the gay community in North America, it flourished in Africa. Recent research suggests dirty needles — a by-product of an under-funded health system — helped spread AIDS in Africa. Poverty and powerlessness, especially among women, have also made it difficult to stop unsafe sexual practices.
- 2.** You can't deal with an epidemic unless you have the human, technical, and financial resources to notice and act on what begin as tiny blips on the epidemiological radar screen. Most of the time there aren't any blips, and it's business as usual on both public health and health care fronts. This is great news: most of the time we don't use our insurance.
- 3.** You can't create capacity from scratch in a hurry, and you can't create it at all unless you pay attention to the human condition, including politics. Moreover, it's not cheap: several weeks into the crisis, Ontario had already spent CAN\$30 million on SARS control, and researchers are calling for an immediate CAN\$100 million investment in research. Most of us do not think such expenditures are a sign of fiscal imprudence.
- 4.** Germs are smart. There's no resting on the laurels of past research and past accomplishments.
- 5.** Germs don't make you sick unless they get into you. Since humans cannot survive without interacting with the world, we can't understand or change how germs make us sick unless we understand and change how we interact with the world — including each other.
- 6.** The ways we interact with each other and the world are complex but not random. Germs figure this out. So can we. Biologists and other natural scientists are good at learning about nature, including germs. Clinical scientists are good at learning about how germs affect people, and what we can do about it. Public health and social scientists are good at learning about how we interact with the world, including each other. We can't control this health problem without all of the research pieces.
- 7.** One of the strongest non-random patterns is that rich and powerful people are healthier than poor and powerless people. They get sick less often because their physical and social environments are more protective, and when they do get sick they can more easily get treated. Fortunately, this pattern has been obscured to a great extent in Canada — because we have deliberately worked to counteract it. But most conditions (and especially diseases like AIDS, malaria, and TB) clearly reveal this pattern both within countries and between countries. In Africa, AIDS is often referred to as "Acute Income Deficiency Syndrome".
- 8.** Research and evidence alone don't change anything. All of us — governments, citizens, employers, activists, experts, non-experts — have to use the knowledge.

9. We all live in the same world. The "taxpayers' dollars" we contribute to research or programs on health systems, SARS, or AIDS (here or in Africa) might be generated by the African students studying at our universities, the Asian traders supplying our markets, or the South American tourists exploring our natural and cultural heritage.

10. Most of the time we don't see the light; we feel the heat. (AIDS might also refer to "Acute Indifference to Death Somewhere else".) But sometimes we manage to learn from the failures and successes of others, and even to correct our own mistakes.

Christina Zarowsky, M.D., Ph.D., is team leader of the Governance, Equity, and Health Program of the Interantional Development Research Centre (IDRC).

For more information:

Governance, Equity, and Health, IDRC, 250 Albert Street, PO Box 8500, Ottawa, Ontario, Canada K1G 3H9; Phone: (613) 236-6163; Fax: (613) 567-7748; Email: health@idrc.ca; Web site: http://archive.idrc.ca/research/geh_e.html

(1) **Walkerton: In May and June 2000, many residents of this Ontario, Canada town became ill as a result of E. coli bacteria contamination of the town's water supply. The catastrophe was front page news for many months as hundreds of people were affected: many are still suffering and a few have died. An inquiry was carried out to determine the causes of contamination. For more details, consult: www.walkertoninquiry.com.**