Canada's strategy for emerging diseases



What is Canada's system to detect emerging diseases in Canada or worldwide? Once an outbreak is detected, what kind of communication strategy would best get the information out to public health officials, infection control specialist, emergency departments, and ultimately to frontline healthcare workers such as registered nurses?

One of the main reasons that Canada has become well prepared and equipped to face the challenges of emerging disease outbreaks is its previous experience with the well-known severe acute respiratory syndrome (SARS) in 2003 (Public Health Agency of Canada, 2012).

The chaos due to the country's lack of expertise and readiness during the outbreak of SARS made the Public Health Agency of Canada (the Agency) in 2004 (Public Health Agency of Canada, 2012) develop a dependable system for its citizens to rely on. The reviews published in the 2003 Naylor report evaluated the nation's performance during the SARS outbreak, and the proactive activities of the Agency have definitely promoted the renewal of our Public Health sector.

The public health system in Canada is collaborative. It means that government at all levels have participated collaboratively. Local, provincial and territorial governments utilize a 'bottom up' approach to handle the disease, track its prevalence and investigate different sources and treatments available (Public Health Agency of Canada, 2012). Once the magnitude of the situation is beyond their control, the federal government steps in. A key role of the Agency is to regularly study trends of those

infectious diseases locally and globally, aside from solving issues that have existed already (Public Health Agency of Canada, 2012).

An academic approach to detect emerging diseases in Canada is through the way of public health research. The collaborative research endeavor includes the following disciplines: epidemiology, biostatistics, mathematics, medical microbiology, clinical medicine, laboratory science, health systems research, social sciences, and health policy (Health Canada, 2003). This endeavor involves a number of stages: identification, characterization, response, monitoring and post-event phases (Health Canada, 2003). Each of these stages contribute to build a profile for a disease, ranging from the causative agent, its mode of transmission, diagnostic tests, appropriate treatment, precaution measures, and future recommendations when it reoccurs (Health Canada, 2003).

In the later portion of the 1990s, the Government of Canada together with the World Health Organization (WHO) created the Global Public Health Intelligence Network (GPHIN), a system that promptly detects signs of health threats all over the world (Government of Canada, 2017). It warns both governmental and non-governmental public health communities of disease outbreaks and other broader health issues by scanning reports that are available on the internet (Health Canada, 2003).

In 2014, WHO started to create a guideline, which outlined the best strategies to introduce the dangers of an outbreak to the public. This document is based on opinions from specialists and lessons learned from previous experiences during disease outbreaks, especially from the SARS

epidemic (WHO, 2017). Nowadays, information can be broadcasted by various platforms, approaches, and means, such as internet, world wide web and social media (WHO, 2017). The message must be clear and complete, communicating even the fact that there are still aspects of the conditions that remain unknown (WHO, 2017). It is also important to involve key persons in a community who will serve as liaisons and engage the people in a collaborative movement (WHO, 2017). These individuals should be locally trusted so that they can easily connect to the people in their own areas.

References

- Government of Canada. (2017). About GPHIN. Retrieved on January
 29, 2018 from https://gphin. canada. ca/cepr/aboutgphin-rmispenbref.
 jsp? language= en CA
- Health Canada. (2003). Learning from SARS: Renewal of public health
 in Canada. Retrieved on January 26, 2018 from https://www.canada.
 ca/content/dam/phac-aspc/migration/phac-aspc/publicat/sars-sras/pdf/sars-e. pdf
- Public Health Agency of Canada. (2012). Responding to an infectious disease outbreak: Progress between SARS and pandemic influenza
 H1N1. Retrieved on January 26, 2018 from http://www.phac-aspc.gc.
 ca/ep-mu/rido-iemi/index-eng.php#th
- World Health Organization. (2017). Communicating risk in public health emergencies: A WHO guideline for emergency risk communication
 (ERC) policy and practice. Retrieved on February 1, 2018 from
 http://apps. who. int/iris/bitstream/10665/259807/2/9789241550208-eng. pdf? ua= 1

RESPONSE

Thank you for the good read, Natasha. Indeed, a lot of flaws can be listed from the situation that was given and therefore, there was much investigation that had to be done on your part as the Minister of Health.

In addition to examining the reason the memo was missed, my concern would also be finding out why it was not translated immediately in the first place. As explained in both the Naylor Report of 2003 and the Government of Canada website, the Global Public Health Intelligence Network (GPHIN) is supposed to be a reliable warning system, created in partnership between the World Health Organization and Health Canada in the late 1990s, that recognizes the importance of prompt action (Health Canada, 2003; Government of Canada, 2017). Moreover, the GPHIN has a vast range in public health information because it tracks anything from infectious disease outbreaks, food and water contamination, to chemical and radioactive threats (Government of Canada, 2017).

It makes me wonder, did the network then choose to belittle the report because the members thought nothing more of the flu, or was it because mainland China seemed like a long way from Canada anyway. In hindsight, the GPHIN appeared to have not been as 'global' as their name claims to be. Regardless of the reason for the unfortunate gap, it caused a great deal of havoc and did not help to quickly address the epidemic of the time.

References:

- Government of Canada. (2017). About GPHIN. Retrieved on January
 29, 2018 from https://gphin. canada. ca/cepr/aboutgphin-rmispenbref.
 jsp? language= en_CA
- Health Canada. (2003). Learning from SARS: Renewal of public health
 in Canada. Retrieved on January 26, 2018 from https://www.canada.
 ca/content/dam/phac-aspc/migration/phac-aspc/publicat/sars-sras/pdf/
 sars-e. pdf