

'No Silver Bullet Solution': Scientific Complexities and Canada's COVID-19 Public Health Messages

Kate Graham & Victoria Fernandez; Supervisor: Dr. Christina Holmes

BASc Health, St. Francis Xavier University, Nova Scotia, Canada

Abstract

Technological solutions are entwined through many of the discussions related to hope for a return to normal within public discussions of COVID-19. We analyzed the public health briefings from Ontario and Nova Scotia during the first wave of the COVID-19 pandemic in order to explore how the scientific facts and processes related to diagnostic testing, vaccines, and public health guidelines are discussed. Hope and technoscience thread throughout the interactions between journalist and health officials in the health press briefings. However, public health officials had to navigate discussion with those who have different levels of scientific knowledge in order to balance scientific reality and caution, while attempting not to crush hope for a return to normal via a technological silver bullet.

Public Health and Technoscience

- Chief Medical Officers represent the **face of public health**.
 - What do they tell the public about technoscience and COVID-19?
 - And what were journalists interested in asking about?
- The briefings tend to focus on the facts and figures of the pandemic. Interactions combined **scientific realism** and **hope**.
- Health officials do not mention the idea of a '**new normal**' or engage in speculations of the future, except when journalists' questions bring this up.
- Dialogue focused on the need for people to stay home, wash their hands, socially distance, and follow **public health recommendations**.
- While each province did this in their own style, the message was broadly the same: control the virus to return to some version of the **status quo**.
- The majority of the time spent in these briefings in Nova Scotia and Ontario focused on case updates (new cases, current cases, the state of those cases, and deaths).
- Considerable time was also spent focusing on recommendations for public behaviour and current public health measures (for example, wash hands, social distance, stay home, what was closed and schedules for re-opening, and so on).
- Most of the questions asked by journalists revolved around when the pandemic would peak, when restrictions would be lifted, and when '**we would get back to normal**.'
- There was **less concern for the pandemic itself** and **more concern around when life would get back to normal** for individuals and businesses: public transport, bars, getting a cup of coffee with a friend, and other daily activities.

"Dr. Yaffe, the Premier talked about seeing a glimmer of light. [...] can you be specific about where that hope seems to come from?"

– Reporter

"Well, I mean, I am very hopeful as well but also, you know, with an abundance of caution and not assuming anything – because we have to keep working at the physical distancing and all the measures that we have in place. [...] Generally, speaking, the number of new cases each day has been going down slightly [...]"

– Dr. Yaffe

Ontario Public Health Briefing, 13 April 2020: 6:52

Methods

- We collected the public health briefings from Ontario (approximately 60 hours of footage) and Nova Scotia (approximately 40 hours of footage) during the first wave of the pandemic from March 2020 to April 2020.
- We used an ethnographic lens to direct our attention towards how journalists and health officials interact within this data source.
- We thematically coded these public health briefings for discussions of technoscience, including vaccines, COVID-19 testing, and contact tracing.
- All briefings were publicly available on YouTube.

Vaccines, Scientific Complexity, and Hope

- Vaccines are one of the key concerns raised repeatedly in relation to a return to normal, with the virus no longer considered a threat.
- Questions bring up the response that 'we're not there yet' and focus on **the long-time window required for vaccine development**.
- In Nova Scotia, vaccines were not mentioned in the period under study but they did come up under questions about how we '**return to normal**' during the 22 July 2020 return-to-school briefing.
- We include the quote to show the beginnings of a public health questioning of how useful vaccines may be in the future in an evolving conversation between public health and the media.

"At the end of the day, is it the vaccine that is going to make it go back to a more normal situation?"

– Reporter

"That's a big question. There is a lot that we don't know about this virus and there's a lot that we don't know about the vaccine. And you know a lot of people look to the vaccine as a solution, but if you talk to a number of action experts, you know, we look at influenza vaccine. That is modestly effective. [...] I think you've got to be cautious and not put all our eggs ... that a vaccine is going to solve everything."

– Dr. Strang

Nova Scotia Public Health Briefing, 22 July 2020: 34:02

- Questions reported in the Canadian media focus on when Canadians will have access to vaccines and not on how we will track how well they work and for which populations.
- Health officials in these situations often **do not directly confront hope** for easier, more accurate testing, treatments, and vaccines.
- Their role in such interactions is to try to bring the discussion back to the basics of their media message for the public.
- The lack of journalistic engagement with scientific indeterminacies, decreases the possibility for conversations that might permit more **realistic expectations** for the public and therefore the possibility of improving conditions that worsen the pandemic.
- While this approach is successful in avoiding mass panic, would a more brutal honesty about scientific complexities and the need for change build better resilience in the long run?

Science and COVID-19

- Technoscientific complexity tended to creep into the briefings in response to journalists' questions about the future and technological advances, such as the advent of rapid or at-home diagnostic tests, or progress on vaccines.
- When health officials are asked about **diagnostic tests** or **vaccines**, they would weave together responses that provided **scientific realism** and **hope**.
- How do we maintain public hope while improving understanding of scientific complexities?
- How do Public Health officials translate scientific knowledge to provide the general public with the information that they need to understand the seriousness of this pandemic, and the importance of following public health guidelines?

Testing Reliability and Scientific Complexity

- Diagnostic testing, particularly for a new test, is not a straightforward process.
- Dr. Strang demonstrates this in his response to a journalist's question about what a '**presumed case**' means:

"There are medical reasons why somebody may test negative. If they're very early on in the disease they may have what we call a very low viral load, so not a lot of virus in your upper airway – the nose and throat – where we take the swab from. The other reason is that if people have a disease deep in their lungs, they may well not actually have the virus in their nose and throat [...] there's potential for a negative test and that is the reason [...] that anybody with a suspicion of respiratory disease related to COVID gets put on and is maintained on appropriate precautions even if their initial test came back."

–Dr. Strang

Nova Scotia Public Health Briefing, 8 April 2020, 32:11

- These complexities and indeterminacies extend also to the ability to test for **antibodies** that might show an individual has immunity to COVID-19.
- Dr. Williams demonstrates this in a response to a journalist's question about immunity to COVID-19 and '**immunity passports**' for international travel:

"There are some serological tests out there now, unfortunately they're not as sensitive as we'd like them to be. [...] some of these tests out there could give you some false pretense and then you get infected and you wonder what went wrong. So again, if you're going to test you gotta make sure you can rely upon it and that you're sure that the person does have immunity and then to give him some sense of confidence. [...] I don't want to get into too much technology here, but there's immune globulins of different types [...] We want to make sure the testing is good, the testing is available, and the interpretation of the testing is evidence based and proven."

–Dr. Williams

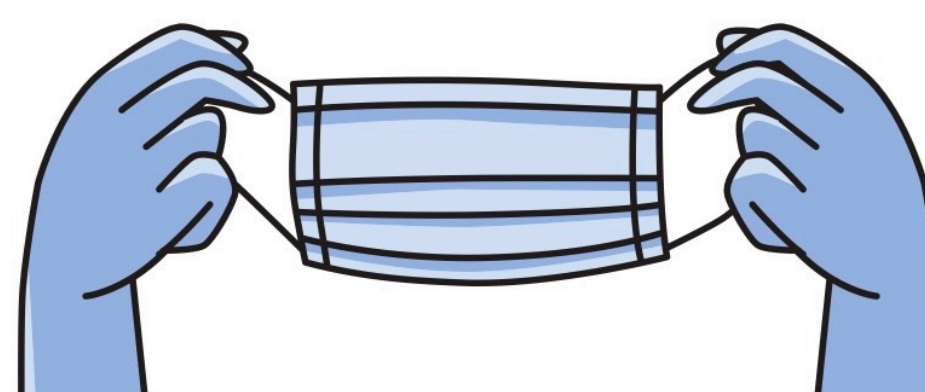
Ontario Public Health Briefing, 25 April 2020: 12:36

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- For further information and references, please see the forthcoming article "*No Silver Bullet Solution*" *Cruel Optimism and Canada's COVID-19 Public Health Messages* in *Anthropologica* 63 (2021) via the provided QR code or for an advanced copy, please contact cholmes@stfx.ca.
- For more information regarding Dr. Holmes' research, please see: <https://christinaholmes.ca/blog-2/>



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Where Are We Now?

- The science underlying COVID-19 is complicated, and this is rarely given any attention by journalists, and therefore not communicated to the public.
- Public health officials warned us this would be a **slow-moving process**, one year later we are just now beginning **vaccine roll-out**.
- As the public starts to receive vaccines, it is important now more than ever to **remain diligent** in following public health guidelines.