

Exton, Adam (HC/SC)

From: Bélair, Thierry (HC/SC)
Sent: 2020-05-08 9:07 AM
To: Morrissette, Eric (HC/SC); Maddison, Anna (HC/SC); Pascuzzo, Matt (HC/SC); Davidson, Cole (HC/SC)
Cc: Wen, Vanessa (HC/SC); Earley, Jaimie (HC/SC); Payette, Louise (HC/SC); MacKnight, Aisling (HC/SC); Hollington, Jennifer (HC/SC); HC.F CPAB ADMO Advisors F.SC; Mohamed, Natalie (HC/SC)
Subject: RE: For MO FYI: Globe and Mail (Robyn Doolittle) - Understanding of COVID-19

Merci. Here are suggested edits.

Questions:

Q1. When did COVID-19 first cross the NML's radar (I realize early on it wasn't called this) and what happened at that point?

Q2. When did things kick in to gear for you in terms of testing? Apparently you were great and very helpful with researchers - so tell me about why they think that!

Q3. When did you first get a physical sample of the virus? Was it from Sunnybrook? What date exactly?

The Public Health Agency of Canada (PHAC) first learned about an “undiagnosed pneumonia” in China on **December 31, 2019**, following information picked up overnight and shared through its Global Public Health Information Network.

On **January 2, 2020**, a written message about the situation was sent by Canada's Chief Public Health Officer to provincial and territorial colleagues across the country. Similarly, PHAC's National Microbiology Laboratory (NML) sent an alert to a network of federal and provincial public health laboratories on January 2, 2020.

With respect to laboratory preparedness, PHAC's NML convened a meeting on **January 7, 2020** with directors of the provincial public health laboratories across Canada to discuss pandemic preparedness and review guidance documents in light of the unfolding situation in Wuhan, China.

Initial discussion included preparations needed to establish federal, provincial and territorial testing capabilities and the process for submitting samples to the NML if the virus were to be imported into Canada through returning travellers.

On **January 26, 2020** the NML received the first “presumptive positive” specimen from our partners at Public Health Ontario from a returning traveller suspected of having COVID-19. Scientists from the NML tested the specimen and confirmed Canada's first case of COVID-19 on **January 27, 2020**.

Usually laboratories already have highly characterized samples of the virus they are trying to detect so that they are confident that their tests can accurately detect cases. Although it is possible to rapidly develop new tests based upon the genome sequence of the virus—given that this was a novel virus—we did not yet have samples of SARS-CoV-2 when these first cases arrived in Canada. Therefore, the lab instead gained confidence in the results by using a multitude of tests to investigate these early specimens, including tests designed in both Canada and Germany. We also performed genetic sequencing on the early specimens to provide the final confirmation that these early cases were truly positive for COVID-19.

Once the first few cases were confirmed, laboratory extractions from the specimens were sent to provincial public health laboratories across Canada so that they too could offer testing in their labs with high confidence that the results were accurate. It was during these early days that the NML confirmed that all cases and presumptive positives underwent additional testing at NML. Soon after, by working with the Vaccine and Infectious Disease Organization and the Sunnybrook Hospital (where the first case was admitted), the SARS-CoV-2 virus was cultured from patient specimens in appropriate biocontainment settings (containment level 3 labs) so that labs had ample material to study the virus, and importantly, to proceed with quality assurance processes. Using these materials or by studying local cases, provincial laboratories conducted extensive studies on how well their tests were performing, and they then started issuing confirmed cases directly, without needing further tests done at the NML.

With the availability of tests to detect cases of COVID-19, and with testing capacity expanding across Canada, it was important that a national testing strategy be developed in collaboration with provincial and territorial health authorities. This strategy continues to be refined today, not only as more testing capacity is brought forward, but as the pandemic continues to evolve in response to Canada's public health efforts. Beyond detecting new cases of COVID-19, this testing strategy will aim to identify and end chains of transmission, as well as prevent transmission in and among high-risk settings and populations.

Q4. When did the NML develop its own test - a) starting to work on it b) actually finished it?

The NML established an assay (test) based on peer-reviewed published targets endorsed by the World Health Organization (Corman et al., 2020). This assay was first tested at the NML on **January 26, 2020**. The assays that are now currently in routine use are based on the Corman et al. assays.

In the early days, there were several other assays under consideration and use, either designed or modified by the NML. Some of these tests were used for initial detection of the virus in specimens, and some were used to confirm these initial results. These assays were modified from existing coronavirus tests we had at the NML, and all were designed against the genome sequence of the novel coronavirus released in January by China. This is described in a [paper](#) (see 'diagnostic testing'), which includes the dates for the first patient (thus the first use of the tests).

The reliance on this larger initial suite of tests was then refined towards those based on the Corman et al. assay, to both streamline the testing process but also to support expansion of testing to additional sites. A validated, streamlined testing approach allows individual labs to issue confirmed results without needing additional testing at a reference lab like NML.

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The NML employs manual and automated testing protocols depending on the volume of incoming samples.

Q6. At what point did public health take notice of the situation in Wuhan? For example, was it on December 31, when ProMed posted about it on the site? Or perhaps a bulletin issued by GPHIN to the department? In essence: When did this hit the Canadian government's radar and what happened after that?

The Public Health Agency of Canada (PHAC) first learned about an "undiagnosed pneumonia" in China on **December 31, 2019**, and highlighted it in the Daily GPHIN report.

By **January 2, 2020**, Dr. Theresa Tam, Canada's Chief Public Health Officer, had communicated with provincial and territorial Chief Medical Officers of Health about the observation of cases of pneumonia of an unknown source.

PHAC officially activated the Health Portfolio Operations Centre in **mid-January** to ensure effective planning and coordination of the Agency's response efforts, in collaboration with international and federal, provincial and territorial partners. The [Federal/Provincial/Territorial Response Plan for Biological Events](#) and the Federal/Provincial/Territorial Special Advisory Committee on COVID-19 was activated on **January 28, 2020** to ensure a coordinated response across Canada.

Q7. Could you send me a link to the agency's first public notice/bulletin/memo/news release that concerned COVID-19 - even if it wasn't called that at the time?

The first [Travel Health Notice](#) was issued on **January 7, 2020**.

Q8. Was there an earlier notice that was distributed by email or on some other digital news sharing site to a limited audience? What types of people and could you tell me about its contents?

In addition to the **December 31st** GPHIN notice, the attached Public Health Alert was issued on **January 9, 2020** on the Canadian Network for Public Health Intelligence, an extranet for communication with public health partners.

Q9. Can you give me a sense of how screening and testing guidelines changed as the news worsened. What were they on Jan 1 2020, for example, and when they did they change after that? And after that? And after that? For example: initially only screening/testing people with fever, respiratory symptoms who had travelled to

Wuhan, then it expanded to Hubei, then China, then China and Iran, etc. all the way to today. I know this will be a bit of work, but I'm trying to see if all the provinces had different guidelines.

Regarding screening measures at the border, enhanced measures were implemented on **January 22, 2020** to identify and screen travellers from Wuhan, China arriving at airports with direct flights from China (Vancouver, Toronto and Montreal). Information materials (e.g., handouts, on-screen messaging) were also made available on **January 22, 2020** at key airports to inform travellers entering Canada of their obligation to disclose to a Canada Border Services Agency (CBSA) Border Services Officer if they were experiencing symptoms such as fever, cough or difficulty breathing and advising them where they could find more information on the novel coronavirus from the Government of Canada. These materials were adjusted accordingly as the enhanced screening measures evolved. PHAC increased quarantine officer and public health officer presence at key airports to partner with CBSA Border Services Officers to screen ill passengers and to provide information to healthy travellers.

As the virus spread internationally, these measures were expanded to seven more airports, and on **March 6, 2020** to all land, rail and ferry points of entry. Screening measures were further expanded to identify symptomatic travellers from areas where there was an outbreak of COVID-19, including the Province of Hubei, China, as well as Iran and Italy.

On **March 13, 2020** the Government of Canada issued an official global travel advisory to avoid non-essential travel outside Canada and all travellers entering Canada, regardless of their point of departure, were screened for symptoms of COVID-19 and asked to voluntarily self-isolate for 14 days upon entering Canada, whether or not they had symptoms.

The Government of Canada began limiting international flights to four international airports (Montreal, Toronto, Calgary and Vancouver) and, as of **March 18, 2020**, air operators were required under the *Aeronautics Act* to conduct basic health assessments of all air travellers boarding flights to Canada based on guidance provided by PHAC. In the event the traveller presents with COVID-19 symptoms, the air operator is required to refuse to board the passenger for a period of 14 days.

On **March 18, 2020** the Government of Canada implemented an Emergency Order that temporarily closed the country's international borders to prohibit foreign nationals from any country other than the U.S. from entering Canada. On **March 20, 2020**, a similar temporary Emergency Order was issued to prohibit entry into Canada from the U.S., which came into force on **March 21, 2020**.

On **March 25, 2020**, the Government of Canada implemented an Emergency Order for Mandatory Isolation requiring all travellers entering Canada to isolate (if they had symptoms of COVID-19) or quarantine (if they did not have symptoms).

On **March 26, 2020**, the Government of Canada replaced existing Emergency Orders to prohibit all foreign nationals from entering Canada, with certain exemptions including air crew, diplomats and those providing essential services.

Effective **April 15, 2020**, the Government of Canada issued a new Emergency Order for Mandatory Isolation requiring all travellers entering Canada to isolate (if they had symptoms of COVID-19) or quarantine (if they did not have symptoms) upon entry into Canada and to wear a non-medical mask or face covering while in transit to their place of quarantine or isolation. In addition, all travellers subject to the order could not quarantine or isolate in a place where they would be in contact with people who are vulnerable, such as adults aged 65 years or over and people with pre-existing medical conditions, or where they are unable to access necessities of life, such as food and medication.

New measures came into effect on **April 20, 2020** requiring all air passengers to wear a non-medical mask or face covering that covers their mouth and nose during travel.

On **April 22, 2020** the temporary Emergency Order prohibiting foreign nationals arriving from the United States to enter Canada was renewed for 30 days.

Q10. I'm trying to understand how Canadian experts communicate. Was public health reaching out to our experts? Or do our experts work in public health? Do we rely on WHO?

The Government of Canada has created the infrastructure to respond to the public health threats of the virus, and is well prepared to act—in collaboration with provincial and territorial governments and international partners—to minimize the health, economic, and social impacts of this rapidly evolving public health issue.

PHAC officials are routinely in touch with key domestic and international partners. In the case of COVID-19, using existing mechanisms, such as federal, provincial and territorial public health tables, and in working with appropriate stakeholders, the Government of Canada has developed important [guidance documents](#) to help Canada implement public health measures across jurisdictions in efforts to flatten the curve.

Canada's response is based on plans and guidance related to pandemic preparedness, with the following guiding principles:

- **Collaboration** - all levels of government and stakeholders need to work in partnership to produce an effective and coordinated response.
- **Evidence-informed decision-making** - decisions should be based on the best available evidence.
- **Proportionality** - the response to a pandemic should be appropriate to the level of the threat.
- **Flexibility** - actions taken should be tailored to the situation and evolve as new information becomes available.
- **A precautionary approach** - timely and reasonable preventive action should be proportional to the threat and informed by evidence to the extent possible.
- **Use of established practices and systems** - well-practised strategies and processes can be rapidly ramped up to manage a pandemic.
- **Ethical decision-making** - ethical principles and societal values should be explicit and embedded in all decision-making.

These principles build on lessons learned from past events, particularly the Severe Acute Respiratory Syndrome outbreak in 2003, which led to dedicated legislation, plans, infrastructure, and resources to help ensure that the country would be well prepared to detect and respond to a pandemic outbreak.

Among our key international partners are the World Health Organization (WHO) and its regional office, the Pan American Health Organization. Canada continues to support the WHO in its efforts to help countries respond to the virus and has put in place public health measures in line with its guidance.

Canada has engaged with international country partners—some of whom are ahead of us in terms of the epidemiological curve—through various means since the novel coronavirus emerged. This international engagement has also enabled us to learn from others' experiences, expertise and best practices, and inform our domestic response. Existing engagement mechanisms, such as the Global Health Security Initiative, the Group of 7 and the Group of 20, have facilitated such information sharing. Canada also engages with other longstanding and ad hoc multilateral groups, such as the Asia-Pacific Economic Cooperation, the Organization of American States and others, both at the ministerial and officials level, as well as international NGOs, such as Médecins Sans Frontières.

Q11. What intelligence or modelling was PHAC and Dr. Tam operating with in early March when the messaging to Canadians was still that the risk is low. I want to try and illustrate how information was changing fast and people were switching gears.

In March, the the public health risk assessments evolved, based on the risk of COVID-19 to Canadians in Canada at that time. The risk to the public within Canada went from assessed as low, as there was no evidence that COVID-19 was circulating within the Canadian population; to low for the general population, and moderate for the elderly and those with underlying medical conditions; to high for the full population, because of the appearance of community spread of COVID-19 within the Canadian population.

From: Morrissette, Eric (HC/SC) <eric.morrissette@canada.ca>

Sent: 2020-05-07 5:26 PM

To: Maddison, Anna (HC/SC) <anna.maddison@canada.ca>; Bélair, Thierry (HC/SC) <thierry.belair@canada.ca>; Pascuzzo, Matt (HC/SC) <matt.pascuzzo@canada.ca>; Davidson, Cole (HC/SC) <cole.davidson@canada.ca>

Cc: Wen, Vanessa (HC/SC) <vanessa.wen@canada.ca>; Earley, Jaimie (HC/SC) <jaimie.earley@canada.ca>; Payette, Louise (HC/SC) <louise.payette@canada.ca>; MacKnight, Aisling (HC/SC) <aisling.macknight@canada.ca>; Hollington, Jennifer (HC/SC) <jennifer.hollington@canada.ca>; HC.F CPAB ADMO Advisors F.SC <CPAB_ADMO_Advisors@canada.ca>; Mohamed, Natalie (HC/SC) <natalie.mohamed@canada.ca>

Subject: RE: For MO FYI: Globe and Mail (Robyn Doolittle) - Understanding of COVID-19

Hi Thierry – just doing one last follow up for this today. Let me know if this is good to go.

If this comes by 6, I'll send to the reporter – if not I'm looping in my colleague Nat who's late night. Otherwise we'll close tomorrow.

Eric Morrissette

☎ 613.957-2985 | 📠 613-219-6556

✉ eric.morrissette@canada.ca

From: Morrissette, Eric (HC/SC)

Sent: 2020-05-07 1:09 PM

To: Maddison, Anna (HC/SC) <anna.maddison@canada.ca>; Bélair, Thierry (HC/SC) <thierry.belair@canada.ca>; Pascuzzo, Matt (HC/SC) <matt.pascuzzo@canada.ca>; Davidson, Cole (HC/SC) <cole.davidson@canada.ca>

Cc: Wen, Vanessa (HC/SC) <vanessa.wen@canada.ca>; Earley, Jaimie (HC/SC) <jaimie.earley@canada.ca>; Payette, Louise (HC/SC) <louise.payette@canada.ca>; MacKnight, Aisling (HC/SC) <aisling.macknight@canada.ca>; Hollington, Jennifer (HC/SC) <jennifer.hollington@canada.ca>; HC.F CPAB ADMO Advisors F.SC <CPAB_ADMO_Advisors@canada.ca>

Subject: RE: For MO FYI: Globe and Mail (Robyn Doolittle) - Understanding of COVID-19

Hi Thierry,

I understand that Anna and Louise followed up with you yesterday on this. Can you please get back to us today? I am sorry to put pressure on this one but the response has been with you for review for 7 days today and the reporter has already followed up multiple times and is getting pretty impatient.

Adding Jennifer and ADMO for awareness.

Thanks

Eric

Eric Morrissette

☎ 613.957-2985 | 📠 613-219-6556

✉ eric.morrissette@canada.ca

From: Maddison, Anna (HC/SC) <anna.maddison@canada.ca>

Sent: 2020-05-06 9:58 AM

To: Bélair, Thierry (HC/SC) <thierry.belair@canada.ca>; Pascuzzo, Matt (HC/SC) <matt.pascuzzo@canada.ca>; Davidson, Cole (HC/SC) <cole.davidson@canada.ca>

Cc: Morrissette, Eric (HC/SC) <eric.morrissette@canada.ca>; Wen, Vanessa (HC/SC) <vanessa.wen@canada.ca>; Earley, Jaimie (HC/SC) <jaimie.earley@canada.ca>; Payette, Louise (HC/SC) <louise.payette@canada.ca>; MacKnight, Aisling (HC/SC)

<aisling.macknight@canada.ca>

Subject: RE: For MO FYI: Globe and Mail (Robyn Doolittle) - Understanding of COVID-19

Hi again Thierry, Matt and Cole,

I'm following up again on the below. Can you please advise whether we can proceed? We had renegotiated the reporter's deadline and she has been pretty flexible, but is following up and becoming a bit impatient.

Could you please get back to me as soon as possible?

Thanks so much,
Anna

Anna Maddison
(t) 613-948-7970
(c) 613-462-6617

From: Maddison, Anna (HC/SC)

Sent: 2020-05-04 10:48 AM

To: Bélair, Thierry (HC/SC) <thierry.belair@canada.ca>; Pascuzzo, Matt (HC/SC) <matt.pascuzzo@canada.ca>; Davidson, Cole (HC/SC) <cole.davidson@canada.ca>

Cc: Morrissette, Eric (HC/SC) <eric.morrissette@canada.ca>; Wen, Vanessa (HC/SC) <vanessa.wen@canada.ca>; Earley, Jaimie (HC/SC) <jaimie.earley@canada.ca>; Payette, Louise (HC/SC) <louise.payette@canada.ca>; MacKnight, Aisling (HC/SC) <aisling.macknight@canada.ca>

Subject: RE: For MO FYI: Globe and Mail (Robyn Doolittle) - Understanding of COVID-19

Hi Thierry, Matt and Cole –

Just following up on the media response below. We're hoping to provide the response to the reporter today. Could you please confirm we're ok to proceed?

Thank you,
Anna

Anna Maddison
(t) 613-948-7970
(c) 613-462-6617

From: Gagnon, Andre (HC/SC) <andre.gagnon@canada.ca>

Sent: 2020-05-01 7:06 PM

To: Bélair, Thierry (HC/SC) <thierry.belair@canada.ca>; Pascuzzo, Matt (HC/SC) <matt.pascuzzo@canada.ca>; Davidson, Cole (HC/SC) <cole.davidson@canada.ca>

Cc: Morrissette, Eric (HC/SC) <eric.morrissette@canada.ca>; Wen, Vanessa (HC/SC) <vanessa.wen@canada.ca>; Earley, Jaimie (HC/SC) <jaimie.earley@canada.ca>;

Payette, Louise (HC/SC) <louise.payette@canada.ca>; MacKnight, Aisling (HC/SC) <aisling.macknight@canada.ca>

Subject: RE: For MO FYI: Globe and Mail (Robyn Doolittle) - Understanding of COVID-19

Just following up on this request.
Thank you!

André Gagnon
(bb) 613-462-2571

From: Payette, Louise (HC/SC) <louise.payette@canada.ca>

Sent: 2020-05-01 4:59 PM

To: Maddison, Anna (HC/SC) <anna.maddison@canada.ca>; Bélair, Thierry (HC/SC) <thierry.belair@canada.ca>; Pascuzzo, Matt (HC/SC) <matt.pascuzzo@canada.ca>; Davidson, Cole (HC/SC) <cole.davidson@canada.ca>

Cc: Morrissette, Eric (HC/SC) <eric.morrissette@canada.ca>; Wen, Vanessa (HC/SC) <vanessa.wen@canada.ca>; Earley, Jaimie (HC/SC) <jaimie.earley@canada.ca>; Gagnon, Andre (HC/SC) <andre.gagnon@canada.ca>

Subject: RE: For MO FYI: Globe and Mail (Robyn Doolittle) - Understanding of COVID-19

Just a note that PCO came back with no comments. We are holding until further notice from you. Thank you.

Louise Payette
Phone : 613-957-2987
Cell : 613-462-2059

From: Payette, Louise (HC/SC)

Sent: 2020-05-01 4:41 PM

To: Maddison, Anna (HC/SC) <anna.maddison@canada.ca>; Bélair, Thierry (HC/SC) <thierry.belair@canada.ca>; Pascuzzo, Matt (HC/SC) <matt.pascuzzo@canada.ca>; Davidson, Cole (HC/SC) <cole.davidson@canada.ca>

Cc: Morrissette, Eric (HC/SC) <eric.morrissette@canada.ca>; Wen, Vanessa (HC/SC) <vanessa.wen@canada.ca>; Earley, Jaimie (HC/SC) <jaimie.earley@canada.ca>

Subject: RE: For MO FYI: Globe and Mail (Robyn Doolittle) - Understanding of COVID-19

OK if you sent to PCO, but please hold until MO gets back to us. Thank you.

Louise Payette
Phone : 613-957-2987
Cell : 613-462-2059

From: Maddison, Anna (HC/SC) <anna.maddison@canada.ca>
Sent: 2020-05-01 4:24 PM
To: Bélair, Thierry (HC/SC) <thierry.belair@canada.ca>; Pascuzzo, Matt (HC/SC) <matt.pascuzzo@canada.ca>; Davidson, Cole (HC/SC) <cole.davidson@canada.ca>
Cc: Payette, Louise (HC/SC) <louise.payette@canada.ca>; Morrissette, Eric (HC/SC) <eric.morrissette@canada.ca>; Wen, Vanessa (HC/SC) <vanessa.wen@canada.ca>
Subject: For MO FYI: Globe and Mail (Robyn Doolittle) - Understanding of COVID-19

Hello,

Please see below Pres/CPHO-approved media response for MO information. We will also share with PCO for review before sending to the reporter.

Thanks,
Anna

Media / Reporter: Globe and Mail / Robyn Doolittle

Date Received: April 20

Deadline to reporter: April 29, 5 pm

Impact: HIGH (1)

Complexity: MEDIUM (2)

Email from reporter:

“A colleague and I are working on a story about how the medical/scientific community's understanding of COVID-19 grew, evolved and changed in those first few months before social distancing. I've been reaching out to experts in hospitals and in academia to understand what was happening on their end, but I'd love to learn more about what was happening on the public health side. What I'm trying to nail down for my piece is how the different public health agencies in Canada were responding to the crisis and also where everyone was getting information.”

Questions:

Q1. When did COVID-19 first cross the NML's radar (I realize early on it wasn't called this) and what happened at that point?

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The evening of December 30, 2019, PHAC’s [Global Public Health Intelligence Network \(GPHIN\)](#) system uploaded an article called “[China probes mystery pneumonia outbreak amid SARS fears](#)” published by the Agence France-Presse.

The following morning, December 31, 2019, the GPHIN analysts conducting their daily review recognized the potential importance of this issue and highlighted it in the Daily GPHIN report, which was distributed that day to Canadian public health practitioners at the federal, provincial and territorial levels. The report included the following summary:

International Events of Interest

China - China probes mystery pneumonia outbreak amid SARS fears (Media)

Authorities are investigating an outbreak of viral pneumonia in central China amid online speculation that it might be linked to SARS, the flu-like virus that killed hundreds of people a decade ago. There were 27 cases of "viral pneumonia of unknown origin" reported in Wuhan, in central Hubei province, the city's health commission said in a statement. Seven patients were in a critical condition.

By January 2, 2020, Dr. Theresa Tam, Canada's Chief Public Health Officer, had communicated with provincial and territorial Chief Medical Officers of Health about the observation of cases of pneumonia of an unknown source.

PHAC officially activated the Health Portfolio Operations Centre in mid-January to ensure effective planning and coordination of the Agency's response efforts, in collaboration with international and federal, provincial and territorial partners. The [Federal/Provincial/Territorial Response Plan for Biological Events](#) and the Federal/Provincial/Territorial Special Advisory Committee on COVID-19 was activated on January 28, 2020 to ensure a coordinated response across Canada.

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In addition to the December 31st GPHIN notice, the attached Public Health Alert was issued on January 9, 2020 on the Canadian Network for Public Health Intelligence, an extranet for communication with public health partners.

Q9. Can you give me a sense of how screening and testing guidelines changed as the news worsened. What were they on Jan 1 2020, for example, and when they did they change after that? And after that? And after that? For example: initially only screening/testing people with fever, respiratory symptoms who had travelled to Wuhan, then it expanded to Hubei, then China, then China and Iran, etc. all the way to today. I know this will be a bit of work, but I'm trying to see if all the provinces had different guidelines.

PHAC is working with provincial and territorial colleagues to monitor the situation and plan for all possible scenarios based on evidence. We want to have the most accurate picture of what is happening in our communities. While testing in Canada is focused on people who present with symptoms consistent with COVID-19, Canada's testing strategies continue to evolve as the outbreak of COVID-19 spreads. For questions about provincial and territorial testing criteria, please contact the appropriate public health authority in that jurisdiction.

Regarding screening measures at the border, enhanced measures were implemented on January 22, 2020 to identify and screen travellers from Wuhan, China arriving at airports with direct flights from China (Vancouver, Toronto and Montreal). Information materials (e.g., handouts, on-screen messaging) were also made available on January 22, 2020 at key airports to inform travellers entering Canada of their obligation to disclose to a Canada Border Services Agency (CBSA) Border Services Officer if they were experiencing symptoms such as fever, cough or difficulty breathing and advising them where they could find more information on the novel coronavirus from the Government of Canada. These materials were adjusted accordingly as the enhanced screening measures evolved. PHAC increased quarantine officer and public health officer presence at key airports to partner with CBSA Border Services Officers to screen ill passengers and to provide information to healthy travellers.

As the virus spread internationally, these measures were expanded to seven more airports, and on March 6, 2020 to all land, rail and ferry points of entry. Screening measures were further expanded to identify symptomatic travellers from areas where there was an outbreak of COVID-19, including the Province of Hubei, China, as well as Iran and Italy.

On March 13, 2020 the Government of Canada issued an official global travel advisory to avoid non-essential travel outside Canada and all travellers entering Canada, regardless of their point of departure, were screened for symptoms of COVID-19 and asked to voluntarily self-isolate for 14 days upon entering Canada, whether or not they had symptoms.

The Government of Canada began limiting international flights to four international airports (Montreal, Toronto, Calgary and Vancouver) and, as of March 18, 2020, air operators were required under the *Aeronautics Act* to conduct basic health

assessments of all air travellers boarding flights to Canada based on guidance provided by PHAC. In the event the traveller presents with COVID-19 symptoms, the air operator is required to refuse to board the passenger for a period of 14 days.

On March 18, 2020 the Government of Canada implemented an Emergency Order that temporarily closed the country's international borders to prohibit foreign nationals from any country other than the U.S. from entering Canada. On March 20, 2020, a similar temporary Emergency Order was issued to prohibit entry into Canada from the U.S., which came into force on March 21, 2020.

On March 25, 2020, the Government of Canada implemented an Emergency Order for Mandatory Isolation requiring all travellers entering Canada to isolate (if they had symptoms of COVID-19) or quarantine (if they did not have symptoms).

On March 26, 2020, the Government of Canada replaced existing Emergency Orders to prohibit all foreign nationals from entering Canada, with certain exemptions including air crew, diplomats and those providing essential services.

Effective April 15, 2020, the Government of Canada issued a new Emergency Order for Mandatory Isolation requiring all travellers entering Canada to isolate (if they had symptoms of COVID-19) or quarantine (if they did not have symptoms) upon entry into Canada and to wear a non-medical mask or face covering while in transit to their place of quarantine or isolation. In addition, all travellers subject to the order could not quarantine or isolate in a place where they would be in contact with people who are vulnerable, such as adults aged 65 years or over and people with pre-existing medical conditions, or where they are unable to access necessities of life, such as food and medication.

New measures came into effect on April 20, 2020 requiring all air passengers to wear a non-medical mask or face covering that covers their mouth and nose during travel.

On April 22, 2020 the temporary Emergency Order prohibiting foreign nationals arriving from the United States to enter Canada was renewed for 30 days.

Q10. I'm trying to understand how Canadian experts communicate. Was public health reaching out to our experts? Or do our experts work in public health? Do we rely on WHO?

The Government of Canada has created the infrastructure to respond to the public health threats of the virus, and is well prepared to act—in collaboration with provincial and territorial governments and international partners—to minimize the health, economic, and social impacts of this rapidly evolving public health issue.

PHAC officials are routinely in touch with key domestic and international partners. In the case of COVID-19, using existing mechanisms, such as federal, provincial and territorial public health tables, and in working with appropriate stakeholders, the Government of Canada has developed important [guidance documents](#) to help Canada implement public health measures across jurisdictions in efforts to flatten the curve.

Canada's response is based on plans and guidance related to pandemic preparedness, with the following guiding principles:

- **Collaboration** - all levels of government and stakeholders need to work in partnership to produce an effective and coordinated response.
- **Evidence-informed decision-making** - decisions should be based on the best available evidence.
- **Proportionality** - the response to a pandemic should be appropriate to the level of the threat.
- **Flexibility** - actions taken should be tailored to the situation and evolve as new information becomes available.
- **A precautionary approach** - timely and reasonable preventive action should be proportional to the threat and informed by evidence to the extent possible.
- **Use of established practices and systems** - well-practised strategies and processes can be rapidly ramped up to manage a pandemic.
- **Ethical decision-making** - ethical principles and societal values should be explicit and embedded in all decision-making.

These principles build on lessons learned from past events, particularly the Severe Acute Respiratory Syndrome outbreak in 2003, which led to dedicated legislation, plans, infrastructure, and resources to help ensure that the country would be well prepared to detect and respond to a pandemic outbreak.

Among our key international partners are the World Health Organization (WHO) and its regional office, the Pan American

Health Organization. Canada continues to support the WHO in its efforts to help countries respond to the virus and has put in place public health measures in line with its guidance.

Canada has engaged with international country partners—some of whom are ahead of us in terms of the epidemiological curve—through various means since the novel coronavirus emerged. This international engagement has also enabled us to learn from others' experiences, expertise and best practices, and inform our domestic response. Existing engagement mechanisms, such as the Global Health Security Initiative, the Group of 7 and the Group of 20, have facilitated such information sharing. Canada also engages with other longstanding and ad hoc multilateral groups, such as the Asia-Pacific Economic Cooperation, the Organization of American States and others, both at the ministerial and officials level, as well as international NGOs, such as Médecins Sans Frontières.

Q11. What intelligence or modelling was PHAC and Dr. Tam operating with in early March when the messaging to Canadians was still that the risk is low. I want to try and illustrate how information was changing fast and people were switching gears.

The public health risk assessments were based on the risk of COVID-19 to Canadians in Canada at that time. Before March 5, 2020, the risk to the public within Canada was assessed as low, as there was no evidence that COVID-19 was circulating within the Canadian population. On March 5, 2020 an updated risk assessment was reported that measured the current risk as low for the general population, and moderate for the elderly and those with underlying medical conditions.

The appearance of community spread of COVID-19 within the Canadian population prompted an increase in the risk level. The current public health risk assessment for the virus within Canada, in place since March 16, 2020, is considered high for the full population.

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