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A2021000114

Page: 11/23/18

From: elaine.chatigny@servicecanada.gc.ca
Sent: 2019-12-04 9:39 PM
To: [Tam, Dr Theresa \(PHAC/ASPC\)](#); [Bell, Tammy \(PHAC/ASPC\)](#)
Subject: FW: Follow-up
Attachments: McNabCV_Nov2019.pdf

Hello Theresa and Tammy,
I am so pleased to introduce you to [REDACTED]

[REDACTED] The work she has done will blow you away.

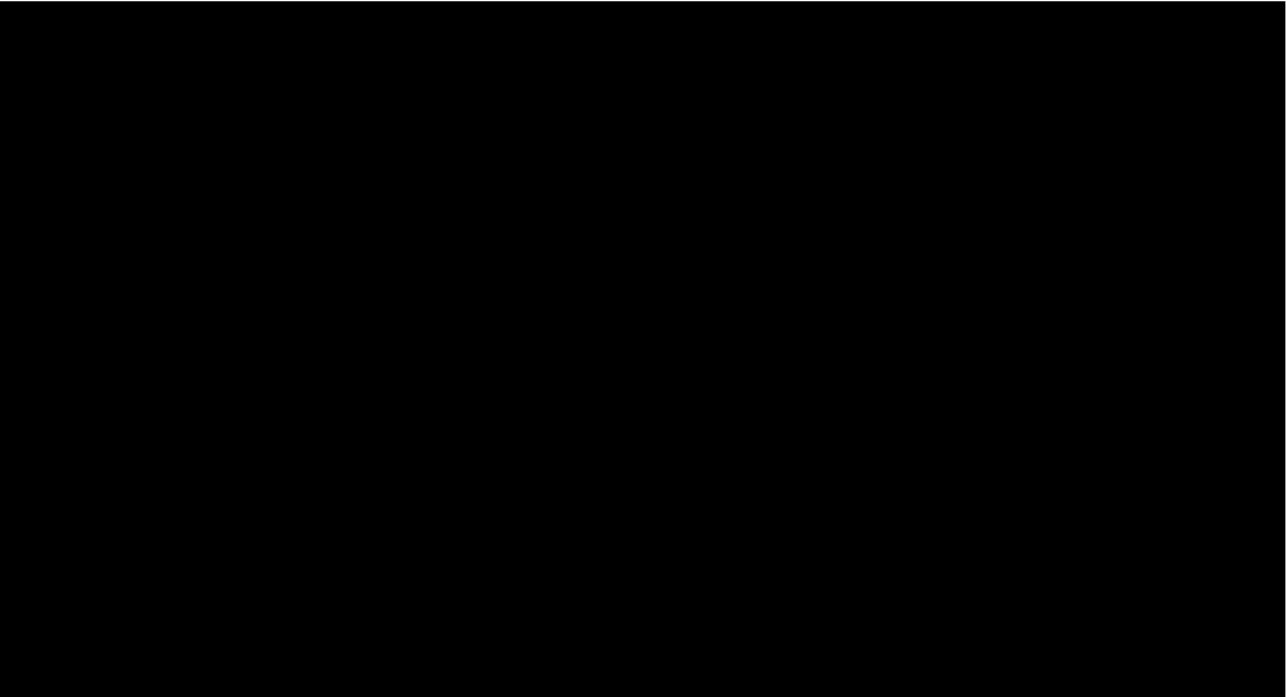
Tammy, look forward to chatting tomorrow morning and I can share some thoughts on how [REDACTED] can help take the CPHOs reports and health equity priorities to the next level.

Best
Élaine

Sent from my Bell Samsung device over Canada's largest network.

----- Original message -----

From: [REDACTED]
Date: 2019-12-04 8:00 PM (GMT-05:00)
To: "Chatigny, Elaine E [QC]" <elaine.chatigny@servicecanada.gc.ca>
Subject: Follow-up



WITHHELD / RETENUE

Is(Are) exempted and/or excluded pursuant to section(s)
est(sont) exemptée(s) et/ou exclus en vertu de(s)(l')article(s)

19(1)

Subject to subsection (2), the head of a government institution shall refuse to disclose any record requested under this Act that contains personal information as defined in section 3 of the Privacy Act

Sous réserve du paragraphe (2), le responsable d'une institution fédérale est tenu de refuser la communication de documents contenant les renseignements personnels visés à l'article 3 de la Loi sur la protection des renseignements personnels

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From: [Tam, Dr Theresa \(PHAC/ASPC\)](#)
Sent: 2019-12-14 11:27 AM
To: [Hartigan, Maureen \(PHAC/ASPC\)](#)
Cc: [Macey, Jeannette \(PHAC/ASPC\)](#)
Subject: Re: Follow-up from Daily - Traceability of produce

Thanks Maureen.

Sent from my iPhone

On Dec 13, 2019, at 13:59, Hartigan, Maureen (PHAC/ASPC) <maureen.hartigan@canada.ca> wrote:

Hi Theresa,

I just wanted to follow-up on our conversation at Daily earlier this week. I have spoken to our program folks and I think you were referring to the *Safe Food for Canadians Act*. I am not well versed in the details but I understand that the portion of the Act that improves the traceability of fresh produce will come into effect this January. I am told that CFIA is planning a communication to the industry in the next week or so and I have asked if we can see about getting a copy of the communique, which we will share with you.

Have a great rest of your day.

Maureen

~~~~~

Maureen Hartigan

Senior Advisor to the Vice President | Conseiller principal du vice-président  
Infectious Disease Prevention and Control Branch | Direction générale de la  
prévention et du contrôle des maladies infectieuses  
Public Health Agency of Canada | Agence de la santé publique du Canada  
Tel: 613-797-5082

**From:** [Killen, Marita \(PHAC/ASPC\)](#)  
**Sent:** 2019-12-23 11:07 AM  
**To:** [Tam, Dr Theresa \(PHAC/ASPC\)](#)  
**Cc:** [Johnstone, Marnie \(PHAC/ASPC\)](#)  
**Subject:** FW: For Approval: ML | NACI EVD Vaccine Interim Statement  
**Attachments:** Reuters: Half a million Ebola vaccine doses to be stockpiled for emergency use; IDPC\_ML\_NACI EVD Vaccine Interim Statement\_2019-12-21\_1119.docx

---

Hi TT,

Have you seen a docket with the NACI Ebola Vaccine statement in it? I think these lines are ok, but they are premised on the fact that you're ok with the statement and PHAC's resulting guidance.

Thanks,  
Marita

---

**From:** Ministerial Services / Services Ministériels (HC/SC)  
**Sent:** 2019-12-23 10:50 AM  
**To:** Tam, Dr Theresa (PHAC/ASPC) ; Namiesniowski, Tina (PHAC/ASPC) ; McLeod, Robyn (PHAC/ASPC) ; Johnstone, Marnie (PHAC/ASPC) ; Macey, Jeannette (PHAC/ASPC) ; Mead, Jobina (PHAC/ASPC) ; Killen, Marita (PHAC/ASPC)  
**Cc:** HC.F Comms\_Coordination F.SC ; HC.F SCD DGO / BDG DCS F.SC ; Russo, Laura (HC/SC) ; Hollington, Jennifer (HC/SC) ; HC.F CPAB ADMO Advisors F.SC ; Payette, Louise (HC/SC) ; MacKenzie, Sara (HC/SC) ; Filippis2, Lisa (HC/SC) ; Demaine, Erika (HC/SC) ; Hinds, Chris (HC/SC)  
**Subject:** For Approval: ML | NACI EVD Vaccine Interim Statement

Good morning,

Please see attached lines for your approval next Monday.

Attached for your information is a Reuters article published about the worldwide stockpile of this vaccine, which may prompt media calls about what Canada is doing.

Thank you!  
Amanda

**Issue Statement:** With ongoing sustained Ebola virus disease activity in the Democratic Republic of the Congo, it is possible that Canada will receive imported cases prior to Ebola vaccine authorization in Canada.

The Public Health Agency of Canada has procured a limited quantity of Merck's pre-market Ebola vaccine, for which the National Advisory Committee on Immunization (NACI) has developed an Interim Statement on use. This will be posted to the [NACI website](#) (January/February 2020 TBD) and provided to relevant stakeholders to support emergency planning activities, in preparation for the unlikely event that a case of Ebola should arrive in Canada. A more fulsome NACI Statement will be developed when the vaccine is expected to be fully authorized for sale in Canada.

While NACI statements do not typically draw media attention, there has been sustained media interest in the Ebola outbreaks in Africa. Also, on December 5, 2019, Reuters published a story about the stockpiling of the Ebola vaccine for emergency use by the global vaccine alliance GAVI. As a result, media may have questions about Canada's emergency stockpile of the vaccine and NACI's recommendation, which differs slightly to that of the World Health Organization. In addition, the posting may prompt media to ask whether Canada is prepared to protect its population.

**Approvals:**

Beth Keeping, Senior Comms Advisor, HPFB Special Access Programme (FYI)  
Linlu Zhao, PHAC NACI (2019-10-31)  
Jocelyne Courtemanche, PHAC CEPR MCM Unit (2019-11-01)  
Guillaume Poliquin, NML (2019-10-31)  
Erin Henry, Director, PHAC IPPPD (2019-11-05)  
Lee Lior, Director, Office of Emergency Preparedness, HSIB (2019-11-01)  
Elizabeth Gooding, Director, Office of Emergency Response, HSIB (2019-11-01)  
Nicolas Palanque, Director, OIA (FYI)  
Erin Henry, A/DG, PHAC CIRID (2019-11-12)  
Cindy Evans, DG, CEPR (2019-11-15)  
Steven Guercio, A/SDG, NML (FYI)  
Michael Pearson, DG, OIA (FYI)  
Chris Hinds, Communications Executive (2019-11-25)  
Lisa Filippis, Communications Executive (FYI)  
Chris Hinds acting for Laura Russo, Director, Strategic Communications (2019-12-05)  
Sara MacKenzie, DG, Strategic Communications (2019-12-08)  
Jennifer Hollington, ADM, CPAB (FYI)  
Kim Elmslie, ADM/VP, IDPC (2019-12-21)  
Sally Thornton, VP, HSIB (2019-12-11)  
DM (pending)  
CPHO/President (pending)  
MO (FYI)  
PCO (FYI)

**Amanda Ing**

Communications Advisor | Conseillère en communications  
Ministerial Services | Services ministériels  
Communications and Public Affairs Branch | Direction générale des affaires publiques et des communications  
[amanda.ing@canada.ca](mailto:amanda.ing@canada.ca) | Tel/Tél : 613-954-3904 | BB: 343-542-1856

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**From:** [Tam, Dr Theresa \(PHAC/ASPC\)](#)  
**Sent:** 2019-12-23 2:58 PM  
**To:** [Killen, Marita \(PHAC/ASPC\)](#)  
**Cc:** [Johnstone, Marnie \(PHAC/ASPC\)](#)  
**Subject:** RE: For Approval: ML | NACI EVD Vaccine Interim Statement  
**Attachments:** TT IDPC\_ML\_NACI EVD Vaccine Interim Statement\_2019-12-21\_1119.docx

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I remember the docket but cannot recall the content!

In any case the recommendation seems fine. We may get a question on why NACI does not recommend vaccination for people before they leave Canada to respond to the EBV outbreak in the DRC.

Mentioning our robust border measures and our limited NESS stockpile may elicit questions on what border measures we have in place and how much vaccine we have in the stockpile so having some answers for reactive responses may be a good idea.

Personally I would rather not single out the border measures (for the lay person this means the specific point in time that someone crosses the international border) without explaining pre-departure (containment at source; medivac protocols) and post arrival measures, in collaboration with international partners (WHO/GOARN, CDC), NGOs (protocols for self monitoring post deployment) and PTs (to ensure safe entry into the health care system that reduces risk of spread). To simplify things I have changed the answer to Q2

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**Sent:** 2019-12-23 10:50 AM  
**To:** Tam, Dr Theresa (PHAC/ASPC); [REDACTED] Namiesniowski, Tina (PHAC/ASPC) <[tina.namiesniowski@canada.ca](mailto:tina.namiesniowski@canada.ca)>; McLeod, Robyn (PHAC/ASPC) <[robyn.mcleod@canada.ca](mailto:robyn.mcleod@canada.ca)>; Johnstone, Marnie (PHAC/ASPC) <[marnie.johnstone@canada.ca](mailto:marnie.johnstone@canada.ca)>; Macey, Jeannette (PHAC/ASPC) <[jeannette.macey@canada.ca](mailto:jeannette.macey@canada.ca)>; Mead, Jobina (PHAC/ASPC) <[jobina.mead@canada.ca](mailto:jobina.mead@canada.ca)>; Killen, Marita (PHAC/ASPC) <[marita.killen@canada.ca](mailto:marita.killen@canada.ca)>  
**Cc:** HC.F Comms\_Coordination F.SC <[Comms\\_Coordination@canada.ca](mailto:Comms_Coordination@canada.ca)>; HC.F SCD DGO / BDG DCS F.SC <[hc.scddgobdgdcs.sc@canada.ca](mailto:hc.scddgobdgdcs.sc@canada.ca)>; Russo, Laura (HC/SC) <[laura.russo@canada.ca](mailto:laura.russo@canada.ca)>; Hollington, Jennifer (HC/SC) <[jennifer.hollington@canada.ca](mailto:jennifer.hollington@canada.ca)>; HC.F CPAB ADMO Advisors F.SC

<CPAB\_ADMO\_Advisors@canada.ca>; Payette, Louise (HC/SC) <louise.payette@canada.ca>; MacKenzie, Sara (HC/SC) <sara.mackenzie@canada.ca>; Filipps2, Lisa (HC/SC) <lisa.filipps2@canada.ca>; Demaine, Erika (HC/SC) <erika.demaine@canada.ca>; Hinds, Chris (HC/SC) <chris.hinds@canada.ca>

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DM (pending)

CPHO/President (pending)

MO (FYI)

PCO (FYI)

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Ministerial Services | Services ministériels

Communications and Public Affairs Branch | Direction générale des affaires publiques et des communications

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## Media Lines

### National Advisory Committee on Immunization Interim Statement on the Use of the rVSV-ZEBOV Vaccine for the Prevention of Ebola Virus Disease

**Issue Statement:** With ongoing and sustained Ebola virus disease activity in the Democratic Republic of the Congo, it is possible that Canada could have an imported case or cases prior to an Ebola vaccine being authorized in Canada.

The Public Health Agency of Canada has procured a limited quantity of Merck's pre-market Ebola vaccine to support emergency planning activities and in preparation for the unlikely event that a case of Ebola should arrive in Canada. The National Advisory Committee on Immunization (NACI) has developed an Interim Statement on its use and will be posted to the [NACI website](#) in early 2020 (date TBC). A more fulsome NACI Statement will be developed when the vaccine is expected to be fully authorized for sale in Canada.

While NACI statements do not typically draw media attention, there has been sustained media interest in the Ebola outbreaks in Africa. Also, on December 5, 2019, Reuters published a story about the stockpiling of the Ebola vaccine for emergency use by the global vaccine alliance GAVI. As a result, media may have questions about Canada's emergency stockpile of the vaccine and NACI's recommendation, which differs slightly to that of the World Health Organization (see Q2). In addition, the posting may prompt media to ask whether Canada is prepared to protect its population.

NOTE: Previously approved content is highlighted in yellow.

#### Key Messages:

- To prepare for an unlikely case of Ebola in Canada, the Public Health Agency of Canada has acquired a limited supply of Merck's pre-market rVSV-ZEBOV Ebola vaccine.
- The National Advisory Committee on Immunization's (NACI) *Interim Statement on the Use of the rVSV-ZEBOV Vaccine for the Prevention of Ebola Virus Disease* provides interim guidance on the optimal use of this pre-market vaccine in Canada.
- NACI recommends vaccinating those who have had unprotected direct contact with infected bodily fluids of someone with Ebola, and specifies that due to the potential harm of the disease, vaccination may be considered even in segments of the population that have not been well-studied in clinical trials (such as infants, children, and pregnant women).
- NACI's recommendation is based on the fact that an outbreak in Canada is unlikely, that there is a limited quantity of vaccine, and that the vaccine has not yet been authorized for sale in Canada.





## Questions and Answers:

### **Q1. What is the purpose of this NACI Interim Statement?**

The purpose of this statement is to provide interim guidance to healthcare practitioners in Canada on the use of the pre-market Ebola vaccine stockpiled in the National Emergency Strategic Stockpile (NESS) as part of contingency planning for emergency preparedness and response. The National Advisory Committee on Immunization (NACI) reviewed the available evidence on the vaccine's safety, efficacy and effectiveness in developing this guidance.

A more comprehensive NACI statement will be released when the vaccine is fully authorized for sale in Canada. The product was recently approved by the US Food and Drug Administration and we expect licensure sometime in Canada in 2021/22.

### **Q2. How do NACI's recommendations differ from that of the World Health Organization (WHO)?**

The WHO recommends that contacts, as well as contacts of contacts of an Ebola case should be vaccinated. This recommendation is based on the use of this vaccine in an outbreak context in Africa.

NACI recommends vaccinating only the contacts of an Ebola case who have had an unprotected direct contact with infected body fluids. This recommendation takes into consideration that the risk of exposure to an infected and symptomatic Ebola case in Canada is low. Canada has a number of measures in place to help prevent the unlikely importation of the disease into the country and to limit its spread, working in collaboration with international partners including the WHO, provinces and territories and NGOs (e.g. MSF, International Red Cross). If a case of Ebola in Canada were to be found, measures are in place to isolate the case, and a community outbreak in Canada is unlikely. It also reflects the limited quantity of vaccine in the NESS stockpile, and the fact that the vaccine is not yet licensed in Canada.

Given the potential for severe harm from Ebola virus disease, both WHO and NACI recommend that the Ebola vaccine may be considered in populations that have not been well-studied in clinical trials (such as infants, children, and pregnant women).

### **Q3. Are there any reports of side effects from Merck's Ebola vaccine?**

There are reports of some individuals developing minor side effects post vaccination. Symptoms like joint pain or fever are common after any vaccination so it is not unusual or unexpected to see these side effects with the Ebola vaccine.

### **Q4. What is the current status of the clinical trials for Merck's Ebola vaccine?**



A number of clinical trials investigating Merck's Ebola vaccine have been completed to date and others are ongoing. NACI's *Interim Statement* summarizes the findings of published clinical trials up to March 2019. Please contact MERCK for the current status of ongoing clinical trials.

#### **Q5. Can you explain what a clinical trial process entails?**

A clinical trial process typically has four phases, after an initial preclinical phase, where the vaccine first undergoes laboratory and animal testing.

During Phase 1, the vaccine is tested in small scale trials (20-80 people) to assess whether it is safe in humans and what immune response it evokes at different dosages. These trials are often done in healthy volunteers from developed countries before testing in healthy volunteers in developing countries.

During Phase 2, clinical trials are larger (over 100 people) and look mainly to assess the safety, side effects and immune response in different population groups.

During Phase 3, clinical trials are large scale (hundreds) and involve different sites to evaluate efficacy under natural disease conditions. If the vaccine is shown to be safe and effective under these conditions over a defined period of time, the manufacturer can apply to regulatory authorities for a licence to market the product for human use.

The clinical trial process concludes in Phase 4 after the vaccine has been licensed and introduced into use. Post-market surveillance begins which aims to detect rare side effects and study the vaccine's long term effectiveness.

On average, it takes 10 years of research and development before a vaccine is considered for approval by Health Canada.

#### **Supplemental Messages:**

##### **Current Situation [CPHO approved 2019-07-18]**

- The Public Health Agency of Canada (PHAC), in collaboration with international partners, has been closely monitoring the Ebola outbreak in the Democratic Republic of the Congo.
- The risk of Ebola to Canada and to Canadians remains low.
- The Government of Canada has a number of systems in place to identify and prevent the spread of serious infectious diseases into Canada.
- The Government of Canada continues to work very closely with its provincial and territorial counterparts to ensure our country is as prepared as possible in the unlikely event a case of Ebola occurs in Canada.



## **Declaration of a Public Health Emergency of International Concern (PHEIC) [CPHO approved 2019-07-18]**

- The World Health Organization (WHO) provides ongoing updates on the outbreak of Ebola Virus Disease and on July 17, 2019, the WHO Director General declared the outbreak a Public Health Emergency of International Concern (PHEIC).
- On October 18, 2019, the PHEIC declaration was re-visited and a decision was made to retain it. Revised Temporary Recommendations issued by the WHO Director General included the need to sustain political commitment and strengthen preparedness activities in the region.
- This declaration is based on the advice of an emergency committee and relates to the high risk for spread of Ebola in DRC and the region. The WHO has assessed that the risk for spread of Ebola outside the region remains low.
- The WHO continues to advise against any restrictions on travel or trade, which could actually hamper the fight to contain the spread of Ebola.

### ***On Canada's response to recommendations for WHO Member States***

- The Government of Canada supports the WHO's recommendations under the PHEIC for Member States.
- As per the WHO's recommendations, Canada has no plans to close its borders to travellers from Ebola-affected countries.

## **Canada's Domestic Preparedness [CPHO approved 2019-07-18]**

- Canada has robust border measures to help prevent the unlikely importation of Ebola into the country.
- Canada is maintaining preparedness to detect, investigate and manage people with Ebola in the unlikely event that a case arrives in Canada.
- Canada has developed infection control guidelines specific to Ebola that have been shared with all provinces and territories.
- PHAC is working with provinces and territories to prepare for the unlikely importation of Ebola into the country, including:
  - formalizing a network of strategically located Ebola Collaborative Care Centres to enhance our ability to respond to a case in Canada;



- providing laboratory diagnostics, point-of care testing and sample handling expertise; and
- providing room and equipment decontamination expertise.

DRAFT

**From:** Malkinson, Agnes (HC/SC) []  
**To:**  
**Subject:** Reuters: Half a million Ebola vaccine doses to be stockpiled for emergency use  
**Date:** Thursday, December 05, 2019 11:42:21

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Distribution group/Groupe de distribution: HC.F PEIA Infectious Diseases / Maladies infectieuses AREP F.SC; HC.F PEIA Pharmaceuticals Biologics and Genetic Therapies / Pharmaceutiques biologiques et therapies genetiques AREP F.SC; HC.F PEIA Travel Health / La sante des voyageurs AREP F.SC

December 5, 2019

### **Half a million Ebola vaccine doses to be stockpiled for emergency use**

Reuters; National Post

LONDON — A stockpile of 500,000 doses of Ebola vaccine for emergency use in outbreaks of the deadly fever is being established by the global vaccine alliance GAVI.

The plan is for poor and middle-income countries to access the \$178 stockpile free of charge, GAVI said on Thursday, while other countries will need to refund the costs.

The stockpiling will start with Merck's newly developed Ervebo vaccine, which won regulatory approval last month.

GAVI is a public-private partnership backed by the Bill & Melinda Gates Foundation, the World Health Organization, the World Bank, UNICEF and others, which arranges bulk buys to reduce vaccine costs for poor countries.

The price paid for the Ebola vaccines will be agreed in a tender process led by the U.N. children's fund UNICEF, GAVI's procurement agency.

Merck's Ervebo is the first Ebola vaccine to successfully complete clinical trials and win a marketing license. It targets the Zaire strain of Ebola – the one that has caused most of the known outbreaks.

It has proven highly effective in clinical trials and in an ongoing epidemic in the Democratic Republic of Congo, where more than 250,000 people have received it since the outbreak started in August 2018.

“The Ebola vaccine has shown extraordinary efficacy in tackling the outbreak in the DRC,” said Seth Berkley, GAVI's chief executive officer. “Now that funding has been approved, we will get to work with manufacturers and our alliance partners to build the stockpile.”

Another seven potential Ebola vaccine candidates – also designed to target the Zaire strain – are in various phases of development, including a two-dose preventative shot from Johnson & Johnson currently being trialed in Congo.

Berkley said the Ebola stockpile could include these vaccines if and when they passed full clinical testing and gained marketing licenses.

Jason Nickerson, a humanitarian affairs expert for the international charity Medecins Sans Frontieres, welcomed GAVI's move, but urged it to allow a “thorough, independent and transparent estimate” of the vaccines' cost of manufacture to “ensure that the price paid is fair and reasonable.”

GAVI also manages emergency stockpiles of meningitis, cholera and yellow fever vaccines. (Reporting by Kate Kelland; Editing by Kevin Liffey and Alison Williams)

<https://nationalpost.com/pmnl/health-pmnl/half-a-million-ebola-vaccine-doses-to-be-stockpiled-for-emergency-use>

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Thank you,

Media Monitoring Team

HC/SC - PHAC/ASPC

Vous recevez ce courriel parce que vous faites partie du groupe de distribution qui apparaît en haut du présent courriel. Si vous désirez que votre nom soit retiré de ce groupe, veuillez répondre à ce courriel et demander que votre nom soit retiré ou envoyer une demande à [HC.media.monitoring-suivi.des.medias.SC@canada.ca](mailto:HC.media.monitoring-suivi.des.medias.SC@canada.ca).

Merci,

L'Équipe de surveillance des médias

HC/SC - PHAC/ASPC

**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-08 10:59 AM  
**To:** Ministerial Services / Services Ministériels (HC/SC)  
**Cc:** Johnstone, Marnie (PHAC/ASPC); Macey, Jeannette (PHAC/ASPC); McLeod, Robyn (PHAC/ASPC); Mead, Jobina (PHAC/ASPC); Namiesniowski, Tina (PHAC/ASPC); Tafaghod, Marzieh (HC/SC); Killen, Marita (PHAC/ASPC); HC.F Comms Coordination F.SC; HC.F SCD DGO / BDG DCS F.SC; Russo, Laura (HC/SC); Hollington, Jennifer (HC/SC); HC.F CPAB ADMO Advisors F.SC; Payette, Louise (HC/SC); Mackenzie, Sara (HC/SC); Coleman, Sara (HC/SC); Hinds, Chris (HC/SC)  
**Subject:** Re: For Approval: PHN | E. coli - Salad Kits

---

Looks fine to me.

For sure, even without a recall there are PH messages that we could communicate.

Sent from my iPhone

On Dec 8, 2019, at 09:17, Ministerial Services / Services Ministériels (HC/SC) <[hc.ministerialservices-servicesministeriels.sc@canada.ca](mailto:hc.ministerialservices-servicesministeriels.sc@canada.ca)> wrote:

Good afternoon,

Please see attached PHN for your approval this morning, if possible.

We are still waiting to hear back from CFIA regarding the recall. We will keep you updated.

Thank you,  
Amanda

**Context:** Attached for your approval is the draft public health notice for a rapidly evolving E. coli O157 outbreak in five eastern provinces that is related to Fresh Express brand salad kits. We anticipate that CFIA may be in a position to issue a recall for a specific product (pending the results of Health Canada's health risk assessment for Fresh Express brand Sunflower Crisp Chopped Salad Kits). PHAC has identified 16 cases of *E. coli* infection that have occurred between November 5 and 22, 2019. Four individuals have been hospitalized. No deaths have been reported. The public health notice will advise Canadians of the outbreak, the CFIA food recall warning (TBD), and what to do to prevent further illnesses. Social media will be issued to support the release of the PHN that will be issued to the newswire and web in coordination with a CFIA food recall warning (TBD). **Please note:** If CFIA is not able to issue a food recall warning this draft will not move forward, but we will regroup as a Portfolio to discuss other possible public health measures and messaging. We will keep you updated as this event evolves.

**Approvals:**

April Hexemer, A/Director, OMD, CFEZID (approved Dec. 7)  
Steven Sterthnal, DG, CFEZID (approved Dec. 7)  
Chris Hinds, Manager, IDPC Comms, PHC, SCD, CPAB (approved Dec. 7)  
Laura Russo, Director, PHC, SCD, CPAB (Dec. 7)  
Sara MacKenzie, DG, SCD, CPAB (Dec 7)  
Kim Elmslie, VP, IDPC (Dec 7)  
Jennifer Hollington, ADM, CPAB (Dec 7)  
CPHO/President  
MO (FYI)  
PCO (FYI)



**Amanda Ing**

Communications Officer | Agente de communications

Ministerial Services | Services ministériels

Communications and Public Affairs Branch | Direction générale des affaires  
publiques et des communications

[amanda.ing@canada.ca](mailto:amanda.ing@canada.ca) | \*NEW/NOUVEAU Tel/Tél : 613-954-3904 | BB: 343-542-  
1856

*Serving Health Canada and the Public Health Agency of Canada |*

*Au service de Santé Canada et de l'Agence de la santé publique du Canada*

***Please note that the Ministerial Services inbox is only checked periodically. Please  
continue to cc [Comms\\_Coordination@canada.ca](mailto:Comms_Coordination@canada.ca) on all approvals and requests.***

***Veillez noter que la boîte de réception des Services Ministériels n'est vérifiée que  
périodiquement. Pour toutes demandes et approbations, veuillez continuer de  
mettre [Comms\\_Coordination@canada.ca](mailto:Comms_Coordination@canada.ca) en cc.***

**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-30 1:41 PM  
**To:** Killen, Marita (PHAC/ASPC)  
**Cc:** McLeod, Robyn (PHAC/ASPC); Johnstone, Marnie (PHAC/ASPC)  
**Subject:** Re: FOR APPROVAL: Tweet to recognize Noni

---

Looks good.

Sent from my iPhone

On Dec 30, 2019, at 12:35, Killen, Marita (PHAC/ASPC) <[marita.killen@canada.ca](mailto:marita.killen@canada.ca)> wrote:

Hi TT,

As you are aware Dr. Noni MacDonald was named an Officer to the Order of Canada "For her contributions to the enhancement of clinical practices in maternal and child health, in Canada and around the world". Please let me know if you're ok with the tweet below to recognize her, and/or if you have any comments.

Thank you!

Marita

**Proposed tweet:**

Congratulations to Dr. Noni MacDonald on her appointment to the #OrderofCanada!

A trailblazer for women in medicine and champion for children, her work on

#immunization has made a positive impact around the world. #VaccinesWork

Marita Killen

Senior Analyst / Analyste Principale

Office of the President and Chief Public Health Officer / Cabinet de la Présidente et de l'Administratrice en chef de la santé publique

Public Health Agency of Canada / Agence de la santé publique du Canada

Tel/tél: 613-796-7357

[marita.killen@canada.ca](mailto:marita.killen@canada.ca)

**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-19 6:52 PM  
**To:** Morrisette, Eric (HC/SC); Namiesniowski, Tina (PHAC/ASPC)  
**Cc:** HC.F CPAB ADMO Advisors F.SC; Hartigan, Maureen (PHAC/ASPC); Russo, Laura (HC/SC); Mackenzie, Sara (HC/SC); Hinds, Chris (HC/SC); HC.F SCD DGO / BDG DCS F.SC; Smith, Cheryl (HC/SC); Payette, Louise (HC/SC); Bousquet, Jean-Philippe (HC/SC); Jarbeau, Tammy (HC/SC); Elmslie, Kim (PHAC/ASPC); Hollington, Jennifer (HC/SC); Mead, Jobina (PHAC/ASPC); Johnstone, Marnie (PHAC/ASPC); Macey, Jeannette (PHAC/ASPC); McLeod, Robyn (PHAC/ASPC); Patrice, France (PHAC/ASPC)  
**Subject:** RE: For CPHO/President Approval: Media request for STAT (Helen Branswell): Ebola vaccine

---

Approved.

Please go ahead with the response to the reporter.

TT

---

**From:** Morrisette, Eric (HC/SC)  
**Sent:** 2019-12-19 6:04 PM  
**To:** Namiesniowski, Tina (PHAC/ASPC) ; Tam, Dr Theresa (PHAC/ASPC)  
**Cc:** HC.F CPAB ADMO Advisors F.SC ; Hartigan, Maureen (PHAC/ASPC) ; Russo, Laura (HC/SC) ; MacKenzie, Sara (HC/SC) ; Hinds, Chris (HC/SC) ; HC.F SCD DGO / BDG DCS F.SC ; Smith, Cheryl (HC/SC) ; Payette, Louise (HC/SC) ; Bousquet, Jean-Philippe (HC/SC) ; Jarbeau, Tammy (HC/SC) ; Elmslie, Kim (PHAC/ASPC) ; Hollington, Jennifer (HC/SC) ; Mead, Jobina (PHAC/ASPC) ; Johnstone, Marnie (PHAC/ASPC) ; Macey, Jeannette (PHAC/ASPC) ; McLeod, Robyn (PHAC/ASPC) ; Patrice, France (PHAC/ASPC)  
**Subject:** For CPHO/President Approval: Media request for STAT (Helen Branswell): Ebola vaccine

Good evening Tina and Dr. Tam,

We have received the following media request from the STAT, a health news website in Boston regarding the Ebola vaccine.

**The response was approved by Dr. Gilmour as well as Jen H. and Kim Elmslie (with consultation with HSIB).**

I'd appreciate your approval at your earliest convenience this evening. The reporter was quite firm with her COB deadline today.

Thanks  
Eric for Tammy

-----

**Reporter / Media:** Helen Branswell / STAT

**Date Received:** Tuesday, Dec 17 / 2:49 PM

**Deadline to Reporter:** Dec 19 / 5 PM (FIRM)

**Impact:** HIGH (1)

**Complexity:** MEDIUM (2)

**Context/Background:**

I'm a reporter with STAT, a health news website in Boston that is affiliated with the Boston Globe newspaper. I'm writing an article on the history of the Ebola vaccine that was developed at NML in Winnipeg and wanted to check a couple of details regarding the sale of the rights to make the vaccine to BioProtection Systems, a division of NewLink Genetics. I need the information by end of day Thursday, Dec. 19, please.

**Questions and responses:**

**Q1. The deal was finalized on May 4, 2010, correct?**

Yes, the licence agreement between the Public Health Agency of Canada (PHAC) and BioProtection Systems Corporation (BPS), now a wholly owned subsidiary of NewLink Genetics Inc., was signed on May 4, 2010. The licence agreement was amended and extended on December 5, 2017, with the scope of rights including a sole licence on Ebola Zaire and a non-exclusive licence for Ebola Sudan. Rights to the other viral hemorrhagic fever viruses were retained by PHAC.

**Q2. How much did the Crown receive for the IP? I believe the agreed price was C\$205,000 per product made using the platform. Is that correct? Was it a one-time payment or an annual payment? What is the royalty rate to be paid to the Crown on vaccine sales?**

The terms of the license agreement entered into by the Government of Canada are confidential. They are standard licensing terms and conditions, and include license fees, milestone and royalty payments on sales, among other benefits flowing back to Canada.

**Q3. I think the Crown was also entitled to royalties for sales of the vaccine, though vaccines sold to African countries and Gavi-eligible countries are exempt. Is that correct?**

Yes, that is correct. These royalties are and can be used to support technology transfer and other innovative research at PHAC.

**Q4. When does the patent on the IP expire? When does the licensing agreement expire.**

The patents will expire on July 28, 2023, while the amended and restated license agreement will expire on July 28, 2033.

**Q5. In 2014 BPS (NewLink) sold the rights to the rVSV-ZEBOV vaccine to Merck for \$50M. Was the Crown entitled to any of the proceeds of the resale of the IP? If yes, how much?**

Yes, the Crown was entitled to and received some of the proceeds of the sub-license to Merck. The terms of the agreement are confidential.

**Q6. In December 2017 the BPS (NewLink) agreement was amended, correct? In the amended agreement, BPS (NewLink) had to pay the Crown C\$475,000. Is that in addition to the C\$205,000 cited in Question # 2? Is it an annual payment or a one-time payment?**

Yes, as noted in Q1, the licence agreement was amended and restated in December 2017. The amendments did not result in additional fees to be paid to the Crown; fees paid were minimum annual royalty payments and milestone payments included in the original agreement.

**Q7. Was the life of the deal extended 10 years in the Dec. 2017 amended deal? To 2033 from 2023?**

Yes, the agreement was extended to 2033 through negotiations and represent a know-how royalty term.

**Q8. Why was the amount owed the Crown increased and the length of the agreement extended?**

As noted, the amount owed to the Crown was not increased, and, the agreement was extended through negotiations with BPS (NewLink Genetics) in consultation with Merck.

**Tasked to: Zoonotic Disease, PHAC**

Dorothea Blandford, Director, IP Management and Business (approved)

Dr. Matthew Gilmour, SDG, NML (approved)

Eric Morrissette, Chief, MR (approved)

Louise Payette, Director, CPAB (approved)

Laura Russo, Director, CPAB (approved)

Kim Elmslie, VP (approved)

Jennifer Hollington, CPAB ADM (approved)

**PresO/CPHO (*pending*)**

-

**Tammy Jarbeau**

Senior Media Relations Advisor | Conseillère principale des relations avec les médias

Serving Health Canada and the Public Health Agency of Canada | Au service de Santé Canada et

de l'Agence de la santé publique du Canada

Government of Canada | Gouvernement du Canada

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PIN: 2C3098D7

(e) [tammy.jarbeau@canada.ca](mailto:tammy.jarbeau@canada.ca)

**From:** [Tam, Dr Theresa \(PHAC/ASPC\)](#)  
**Sent:** 2019-12-19 6:54 PM  
**To:** Gilmour, Matthew (PHAC/ASPC)  
**Subject:** FW: For CPHO/President Approval: Media request for STAT (Helen Branswell): Ebola vaccine

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What is the reporter referring to when they asked whether BPS had to pay the Crown C\$475K ?

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**From:** Morrissette, Eric (HC/SC)  
**Sent:** 2019-12-19 6:04 PM  
**To:** Namiesniowski, Tina (PHAC/ASPC) ; Tam, Dr Theresa (PHAC/ASPC)  
**Cc:** HC.F CPAB ADMO Advisors F.SC ; Hartigan, Maureen (PHAC/ASPC) ; Russo, Laura (HC/SC) ; MacKenzie, Sara (HC/SC) ; Hinds, Chris (HC/SC) ; HC.F SCD DGO / BDG DCS F.SC ; Smith, Cheryl (HC/SC) ; Payette, Louise (HC/SC) ; Bousquet, Jean-Philippe (HC/SC) ; Jarbeau, Tammy (HC/SC) ; Elmslie, Kim (PHAC/ASPC) ; Hollington, Jennifer (HC/SC) ; Mead, Jobina (PHAC/ASPC) ; Johnstone, Marnie (PHAC/ASPC) ; Macey, Jeannette (PHAC/ASPC) ; McLeod, Robyn (PHAC/ASPC) ; Patrice, France (PHAC/ASPC)  
**Subject:** For CPHO/President Approval: Media request for STAT (Helen Branswell): Ebola vaccine

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**Deadline to Reporter:** Dec 19 / 5 PM (FIRM)

**Impact:** HIGH (1)

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vaccine to BioProtection Systems, a division of NewLink Genetics. I need the information by end of day Thursday, Dec. 19, please.

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**Tasked to: Zoonotic Disease, PHAC**

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Dr. Matthew Gilmour, SDG, NML (approved)

Eric Morrissette, Chief, MR (approved)  
Louise Payette, Director, CPAB (approved)  
Laura Russo, Director, CPAB (approved)  
Kim Elmslie, VP (approved)  
Jennifer Hollington, CPAB ADM (approved)  
**PresO/CPHO (pending)**

-

**Tammy Jarbeau**

Senior Media Relations Advisor | Conseillère principale des relations avec les médias  
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Government of Canada | Gouvernement du Canada  
(t) 613-948-8294 (c) 343-999-6334  
PIN: 2C3098D7  
(e) [tammy.jarbeau@canada.ca](mailto:tammy.jarbeau@canada.ca)



**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-20 8:14 AM  
**To:** Namiesniowski, Tina (PHAC/ASPC); Johnstone, Marnie (PHAC/ASPC)  
**Subject:** Fwd: For CPHO/President Approval: Media request for STAT (Helen Branswell): Ebola vaccine

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I approved this last night as the request came after COB

They don't give us any context when they ask for approvals ie the Merck Ebola vaccine got FDA approval. I may have missed this news as I was not in Daily yesterday.

Sent from my iPhone

Begin forwarded message:

**From:** "Morrissette, Eric (HC/SC)" <[eric.morrissette@canada.ca](mailto:eric.morrissette@canada.ca)>  
**Date:** December 20, 2019 at 07:59:19 EST  
**To:** "Namiesniowski, Tina (PHAC/ASPC)" <[tina.namiesniowski@canada.ca](mailto:tina.namiesniowski@canada.ca)>  
**Cc:** "Tam, Dr Theresa (PHAC/ASPC)" [REDACTED] HC.F CPAB ADMO Advisors F.SC <[CPAB\\_ADMO\\_Advisors@canada.ca](mailto:CPAB_ADMO_Advisors@canada.ca)>, "Hartigan, Maureen (PHAC/ASPC)" <[maureen.hartigan@canada.ca](mailto:maureen.hartigan@canada.ca)>, "Russo, Laura (HC/SC)" <[laura.russo@canada.ca](mailto:laura.russo@canada.ca)>, "MacKenzie, Sara (HC/SC)" <[sara.mackenzie@canada.ca](mailto:sara.mackenzie@canada.ca)>, "Hinds, Chris (HC/SC)" <[chris.hinds@canada.ca](mailto:chris.hinds@canada.ca)>, HC.F SCD DGO / BDG DCS F.SC <[hc.scdgdgobdgdcs.sc@canada.ca](mailto:hc.scdgdgobdgdcs.sc@canada.ca)>, "Smith, Cheryl (HC/SC)" <[cheryl.smith@canada.ca](mailto:cheryl.smith@canada.ca)>, "Payette, Louise (HC/SC)" <[louise.payette@canada.ca](mailto:louise.payette@canada.ca)>, "Bousquet, Jean-Philippe (HC/SC)" <[jean-philippe.bousquet@canada.ca](mailto:jean-philippe.bousquet@canada.ca)>, "Jarbeau, Tammy (HC/SC)" <[tammy.jarbeau@canada.ca](mailto:tammy.jarbeau@canada.ca)>, "Elmslie, Kim (PHAC/ASPC)" <[kim.elmslie@canada.ca](mailto:kim.elmslie@canada.ca)>, "Hollington, Jennifer (HC/SC)" <[jennifer.hollington@canada.ca](mailto:jennifer.hollington@canada.ca)>, "Mead, Jobina (PHAC/ASPC)" <[jobina.mead@canada.ca](mailto:jobina.mead@canada.ca)>, "Johnstone, Marnie (PHAC/ASPC)" <[marnie.johnstone@canada.ca](mailto:marnie.johnstone@canada.ca)>, "Macey, Jeannette (PHAC/ASPC)" <[jeannette.macey@canada.ca](mailto:jeannette.macey@canada.ca)>, "McLeod, Robyn (PHAC/ASPC)" <[robyn.mcleod@canada.ca](mailto:robyn.mcleod@canada.ca)>, "Patrice, France (PHAC/ASPC)" <[france.patrice@canada.ca](mailto:france.patrice@canada.ca)>  
**Subject:** RE: For CPHO/President Approval: Media request for STAT (Helen Branswell): Ebola vaccine

Good morning Tina,

Sorry for not responding to your question last night. The response was not ran through legal services or flagged for legal review on our end. The response was shared witht he reported shortly after Dr. Tam approval.

The reporter was thankful for the information amd submitted a follow up. I've included the questions below for your convenience. I'll send a heads up and formal tasking to programs when I get in he office today.

Let me know if you have any questions.

E.

FOLLOW UP QUESTION

Thank you for this and congratulations. The Merck-PHAC vaccine is licensed in the US; FDA announced the approval this evening. You said that the financial terms of the deal were confidential. They are actually publicly available in documents NewLink filed with the Securities and Exchange Commission.

The company's 2011 year end report gives the \$205,000 figure. Its 2017 year end report says that after the December 2017 amendment to the original license agreement the figure owed to the government of Canada was \$475,000. I've attached screenshots. Please excuse the excessive use of highlighting.

Are these figures correct? Were there additional amounts owed to the Canadian government?

Thanks.

Helen

Eric Morrissette  
Media relations | Relations avec les médias  
HC-PHAC | SC-ASPC  
613-957-2985 | 613-219-6556

----- Original message -----

From: "Namiesniowski, Tina (PHAC/ASPC)" <[tina.namiesniowski@canada.ca](mailto:tina.namiesniowski@canada.ca)>  
Date: 2019-12-19 9:13 PM (GMT-05:00)  
To: "Morrissette, Eric (HC/SC)" <[eric.morrissette@canada.ca](mailto:eric.morrissette@canada.ca)>  
Cc: "Tam, Dr Theresa (PHAC/ASPC)" [REDACTED] "HC.F CPAB ADMO  
Advisors F.SC" <[CPAB\\_ADMO\\_Advisors@canada.ca](mailto:CPAB_ADMO_Advisors@canada.ca)>, "Hartigan, Maureen  
(PHAC/ASPC)" <[maureen.hartigan@canada.ca](mailto:maureen.hartigan@canada.ca)>, "Russo, Laura (HC/SC)"  
<[laura.russo@canada.ca](mailto:laura.russo@canada.ca)>, "MacKenzie, Sara (HC/SC)" <[sara.mackenzie@canada.ca](mailto:sara.mackenzie@canada.ca)>,  
"Hinds, Chris (HC/SC)" <[chris.hinds@canada.ca](mailto:chris.hinds@canada.ca)>, "HC.F SCD DGO / BDG DCS F.SC"  
<[hc.scddgobdgdcs.sc@canada.ca](mailto:hc.scddgobdgdcs.sc@canada.ca)>, "Smith, Cheryl (HC/SC)"  
<[cheryl.smith@canada.ca](mailto:cheryl.smith@canada.ca)>, "Payette, Louise (HC/SC)" <[louise.payette@canada.ca](mailto:louise.payette@canada.ca)>,

"Bousquet, Jean-Philippe (HC/SC)" <[jean-philippe.bousquet@canada.ca](mailto:jean-philippe.bousquet@canada.ca)>, "Jarbeau, Tammy (HC/SC)" <[tammy.jarbeau@canada.ca](mailto:tammy.jarbeau@canada.ca)>, "Elmslie, Kim (PHAC/ASPC)" <[kim.elmslie@canada.ca](mailto:kim.elmslie@canada.ca)>, "Hollington, Jennifer (HC/SC)" <[jennifer.hollington@canada.ca](mailto:jennifer.hollington@canada.ca)>, "Mead, Jobina (PHAC/ASPC)" <[jobina.mead@canada.ca](mailto:jobina.mead@canada.ca)>, "Johnstone, Marnie (PHAC/ASPC)" <[marnie.johnstone@canada.ca](mailto:marnie.johnstone@canada.ca)>, "Macey, Jeannette (PHAC/ASPC)" <[jeannette.macey@canada.ca](mailto:jeannette.macey@canada.ca)>, "McLeod, Robyn (PHAC/ASPC)" <[robyn.mcleod@canada.ca](mailto:robyn.mcleod@canada.ca)>, "Patrice, France (PHAC/ASPC)" <[france.patrice@canada.ca](mailto:france.patrice@canada.ca)>

Subject: Re: For CPHO/President Approval: Media request for STAT (Helen Branswell): Ebola vaccine

In principle I'm ok. Has legal signed off??

Sent from my iPhone

On Dec 19, 2019, at 6:03 PM, Morrissette, Eric (HC/SC) <[eric.morrissette@canada.ca](mailto:eric.morrissette@canada.ca)> wrote:

Good evening Tina and Dr. Tam,  
We have received the following media request from the STAT, a health news website in Boston regarding the Ebola vaccine.

**The response was approved by Dr. Gilmour as well as Jen H. and Kim Elmslie (with consultation with HSIB).**

I'd appreciate your approval at your earliest convenience this evening. The reporter was quite firm with her COB deadline today.

Thanks

Eric for Tammy

-----

**Reporter / Media:** Helen Branswell / STAT  
**Date Received:** Tuesday, Dec 17 / 2:49 PM  
**Deadline to Reporter:** Dec 19 / 5 PM (FIRM)  
**Impact:** HIGH (1)  
**Complexity:** MEDIUM (2)  
**Context/Background:**

I'm a reporter with STAT, a health news website in Boston that is affiliated with the Boston Globe newspaper. I'm writing an article on the history of the Ebola vaccine that was developed at NML in Winnipeg and wanted to check a couple of details regarding the sale of the rights to make the vaccine to BioProtection Systems, a division of NewLink Genetics. I need the information by end of day Thursday, Dec. 19, please.

**Questions and responses:**

**Q1. The deal was finalized on May 4, 2010, correct?**

Yes, the licence agreement between the Public Health Agency of Canada (PHAC) and BioProtection

Systems Corporation (BPS), now a wholly owned subsidiary of NewLink Genetics Inc., was signed on May 4, 2010. The licence agreement was amended and extended on December 5, 2017, with the scope of rights including a sole licence on Ebola Zaire and a non-exclusive licence for Ebola Sudan. Rights to the other viral hemorrhagic fever viruses were retained by PHAC.

**Q2. How much did the Crown receive for the IP? I believe the agreed price was C\$205,000 per product made using the platform. Is that correct? Was it a one-time payment or an annual payment? What is the royalty rate to be paid to the Crown on vaccine sales?**

The terms of the license agreement entered into by the Government of Canada are confidential. They are standard licensing terms and conditions, and include license fees, milestone and royalty payments on sales, among other benefits flowing back to Canada.

**Q3. I think the Crown was also entitled to royalties for sales of the vaccine, though vaccines sold to African countries and Gavi-eligible countries are exempt. Is that correct?**

Yes, that is correct. These royalties are and can be used to support technology transfer and other innovative research at PHAC.

**Q4. When does the patent on the IP expire? When does the licensing agreement expire.**

The patents will expire on July 28, 2023, while the amended and restated license agreement will expire on July 28, 2033.

**Q5. In 2014 BPS (NewLink) sold the rights to the rVSV-ZEBOV vaccine to Merck for \$50M. Was the Crown entitled to any of the proceeds of the resale of the IP? If yes, how much?**

Yes, the Crown was entitled to and received some of the proceeds of the sub-license to Merck. The terms of the agreement are confidential.

**Q6. In December 2017 the BPS (NewLink) agreement was amended, correct? In the amended agreement, BPS (NewLink) had to pay the Crown C\$475,000. Is that in addition to the C\$205,000 cited in Question # 2? Is it an annual payment or a one-time payment?**

Yes, as noted in Q1, the licence agreement was amended and restated in December 2017. The amendments did not result in additional fees to be paid to the Crown; fees paid were minimum annual

royalty payments and milestone payments included in the original agreement.

**Q7. Was the life of the deal extended 10 years in the Dec. 2017 amended deal? To 2033 from 2023?**

Yes, the agreement was extended to 2033 through negotiations and represent a know-how royalty term.

**Q8. Why was the amount owed the Crown increased and the length of the agreement extended?**

As noted, the amount owed to the Crown was not increased, and, the agreement was extended through negotiations with BPS (NewLink Genetics) in consultation with Merck.

**Tasked to: Zoonotic Disease, PHAC**

Dorothea Blandford, Director, IP Management and Business (approved)

Dr. Matthew Gilmour, SDG, NML (approved)

Eric Morrissette, Chief, MR (approved)

Louise Payette, Director, CPAB (approved)

Laura Russo, Director, CPAB (approved)

Kim Elmslie, VP (approved)

Jennifer Hollington, CPAB ADM (approved)

**PresO/CPHO (pending)**

**Tammy Jarbeau**

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**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-18 8:20 PM  
**To:** Namiesniowski, Tina (PHAC/ASPC)  
**Subject:** Fwd: For Information: Economic and Fiscal Update 2019 //À titre d'information : Mise à jour économique et budgétaire 2019

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*I noted:*

*The Government will also launch the first phase of a comprehensive review of government spending and tax expenditures, to ensure that resources are efficiently allocated to continue to invest in people and keep the economy strong and growing. This review will result in \$1.5 billion in annual savings, starting in 2020-21.*

Sent from my iPhone

Begin forwarded message:

**From:** "governance / gouvernance (PHAC/ASPC)" <phac.governance-gouvernance.aspc@canada.ca>  
**Date:** December 18, 2019 at 19:38:40 EST  
**To:** PHAC.F EC-Members F.ASPC <phac.ec-members.aspc@canada.ca>, PHAC.F PHAC Policy MembersASPC Membres politique F.ASPC <PHAC\_Policy\_Members-ASPC\_Membres\_politique@canada.ca>, PHAC.F PHAC Ops MembersASPC Membres Ops F.ASPC <PHAC\_Ops\_Members-ASPC\_Membres\_Ops@canada.ca>  
**Subject:** For Information: Economic and Fiscal Update 2019 //À titre d'information : Mise à jour économique et budgétaire 2019

*Sent on behalf of Executive Director, Strategic Policy & Ministerial Services Directorate, OSPP // Envoyé au nom de Directeur exécutif, Direction de la politique stratégique et des services ministérie, BPPS*  
Le français suit.

Further to earlier emails, please find below a brief overview of the [Economic and Fiscal Update 2019](#), which was tabled in Parliament on Monday and which outlines the current state of Canada's economy, and provides an update on the Government's economic and fiscal outlook.

The focus of this year's statement was on providing a high-level overview of the economic health of Canada's finances.

- **Canada's economy is sound and growing at a solid pace.** Economic growth in Canada is on track to average 1.7 per cent in 2019 and 1.6 per cent in 2020—with Canada expected to be the second-fastest-growing economy among the Group of Seven (G7) countries.
- **Canadians are creating good, well-paying jobs.** In the last four years, the hard work of Canadians has helped to create more than one million new jobs—most of them full-time—pushing unemployment rates to historic lows in 2019.
- **Canadians' wages are growing.** For the average Canadian worker, wage growth is outpacing inflation. If current trends continue, 2019 could mark the strongest year of wage growth in close to a decade.
- **Business profits are solid.** Businesses in Canada are now recording higher-than-average after-tax profits—boosting their competitiveness and setting the stage for further investments and the creation of more good, well-paying jobs.
- **Canada's net debt-to-GDP (gross domestic product) ratio remains the lowest in the G7,** keeping our country in an enviable position among our peers. Our relatively low level of debt is a major competitive advantage, which the Government is fully committed to maintaining in an increasingly volatile and unpredictable world.
- **The budgetary deficit reflects investments that help keep the economy strong and growing**—with the deficit projected to be \$26.6 billion in 2019–20, improving to \$11.6 billion by 2024–25.

New spending since Budget 2019 was included as an annex (Table A1.7), and announced the following spending for the Health Portfolio:

- **Addressing the Opioid Crisis and Methamphetamines (\$76M over 2 years):** Funding provided to Health Canada and the Public Health Agency of Canada to help address the opioid crisis and problematic methamphetamine use.
- **Supporting Health Canada's Regulatory Operations (\$35M in 2019-20):** Funding provided to Health Canada to support core regulatory operations related to drugs and medical devices.

- **B.C. Women’s Hospital and Health Centre (\$10M over 5 years):** Funding provided to the Canadian Institutes of Health Research to support national cervical cancer research, as announced on June 4, 2019. This research will focus on studying human papillomavirus (HPV) vaccination and screening methods and work to implement findings at a national level with the goal of improving the health of Canadians.

One other item of note, the update stated that:

*The Government will also launch the first phase of a comprehensive review of government spending and tax expenditures, to ensure that resources are efficiently allocated to continue to invest in people and keep the economy strong and growing. This review will result in \$1.5 billion in annual savings, starting in 2020-21.*

Wording was included in the Minister of Finance’s mandate letter.

While the update focused on the overall state of the economy and government finances, the narrative included details on regional disparities and impacts for measures such as unemployment, housing costs, and various economic sectors. As well, the section detailing the plan to reduce taxes provided examples of how this measure will impact Canadians with examples of everyday Canadian families and the specific amounts they will save. As with Budget 2019, the results of the GBA+ analysis on the tax measure was summarized.

\*\*\*\*\*

Le présent message fait suite aux courriels précédents. Veuillez trouver ci-dessous un résumé de la [Mise à jour économique et budgétaire 2019](#), qui a été déposée au Parlement le lundi. Cette dernière décrit l’état actuel de l’économie du Canada et fournit une mise à jour sur les projections économiques et budgétaires du gouvernement.

L’énoncé de cette année a été axé sur la création d’un aperçu de haut niveau de la santé économique des finances du Canada.

- **L’économie du Canada est saine et poursuit sa croissance à un rythme solide.** La croissance économique du Canada devrait atteindre une moyenne de 1,7 % en 2019 et de 1,6 % en 2020 — le Canada devrait se classer au deuxième rang du Groupe des Sept (G7) au chapitre de la croissance économique.
- **Les Canadiens créent de bons emplois bien rémunérés.** Au cours des quatre dernières années, le travail acharné des Canadiens a permis de créer plus d’un million de nouveaux emplois—la plupart d’entre eux à temps plein—contribuant ainsi à des taux de chômage historiquement bas en 2019.
- **Les salaires des Canadiens sont en croissance.** Pour le travailleur canadien moyen, la vitesse de la croissance des salaires dépasse celle de l’inflation. Si les tendances actuelles se maintiennent, 2019 pourrait s’avérer l’année de la plus forte hausse des salaires en près d’une décennie.
- **Les revenus des entreprises sont solides.** Les entreprises au Canada enregistrent maintenant des revenus après impôt supérieurs à la moyenne, ce qui pousse leur capacité concurrentielle, ouvrant ainsi la voie à des investissements supplémentaires et à la création de bons emplois bien rémunérés supplémentaires.
- **Le ratio de la dette nette au produit intérieur brut (PIB) du Canada est le plus bas par rapport aux pays du G7** et cela confère au Canada une position enviable parmi nos pairs. Notre niveau d’endettement relativement faible représente un avantage concurrentiel important — un avantage que notre gouvernement est pleinement déterminé à maintenir dans un monde de plus en plus instable et imprévisible.
- **Le déficit budgétaire reflète les investissements qui permettent de maintenir la force et la croissance de l’économie**—selon les prévisions, le déficit devrait passer de 26,6 milliards de dollars, en 2019-2020, à 11,6 milliards de dollars, en 2024-2025.

De nouvelles dépenses depuis le budget de 2019 ont été incluses dans une annexe (Tableau A1.7) et on a annoncé les dépenses suivantes pour le portefeuille de la Santé :

- **Lutter contre la crise des opioïdes et des méthamphétamines (76 M\$ sur une période de 2 ans) :** Financement versé à Santé Canada et à l’Agence de la santé publique du Canada pour aider à régler la crise des opioïdes et la consommation problématique de méthamphétamines.
- **Appuyer les activités de réglementation de Santé Canada (35 M\$ en 2019-2020) :** Fonds accordés à Santé Canada afin de soutenir ses principales opérations de réglementation des médicaments et des appareils médicaux.
- **B.C. Women’s Hospital and Health Centre (10 M\$ sur une période de 5 ans) :** Financement versé aux Instituts de recherche en santé du Canada pour appuyer la recherche nationale sur le cancer du col de l’utérus, tel qu’il a été annoncé le 4 juin 2019. Cette recherche sera axée sur l’étude des méthodes de vaccination et de dépistage du virus du papillome humain (VPH) et sur les travaux de mise en œuvre des résultats à l’échelle nationale en vue d’améliorer la santé des Canadiens.

Un autre élément à noter est qu'on avait l'énoncé suivant dans la mise à jour :

*Le gouvernement amorcera également la première phase d'un examen exhaustif de ses dépenses et dépenses fiscales afin de s'assurer de la répartition efficiente de ses ressources pour continuer à investir dans les gens et maintenir la vigueur et la croissance de l'économie. Cet examen se traduira par des économies annuelles de 1,5 milliard de dollars à compter de l'exercice 2020-2021.*

Le libellé a été inclut dans la lettre de mandat du ministre des Finances.

Alors que la mise à jour était axée sur l'état global de l'économie et des finances du gouvernement, dans la narration on a fourni les détails sur les disparités régionales et les incidences relativement aux mesures, p. ex. le chômage, les coûts des logements et les divers secteurs économiques. De plus, la section fournissant les détails relativement au plan de réduction de l'impôt présentait des exemples sur la façon dont cette mesure aura une incidence sur les Canadiens; et ce en fournissant des exemples des familles canadiennes habituelles et en indiquant des montants précis que ces familles économiseront. De façon similaire au budget de 2019, on a fourni un résumé des résultats de l'analyse comparative entre les sexes plus (ACS+) sur la mesure fiscale.



**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-05 8:47 PM  
**To:** CCMOH SECRETARIAT / CMHC  
(PHAC/ASPC); Robinson, Kerry (PHAC/ASPC)  
**Subject:** Fwd: For SAC Co-Chairs and SAC-PSUH  
Liaison approval - Draft CDMH CBN on  
Problematic Substance Use

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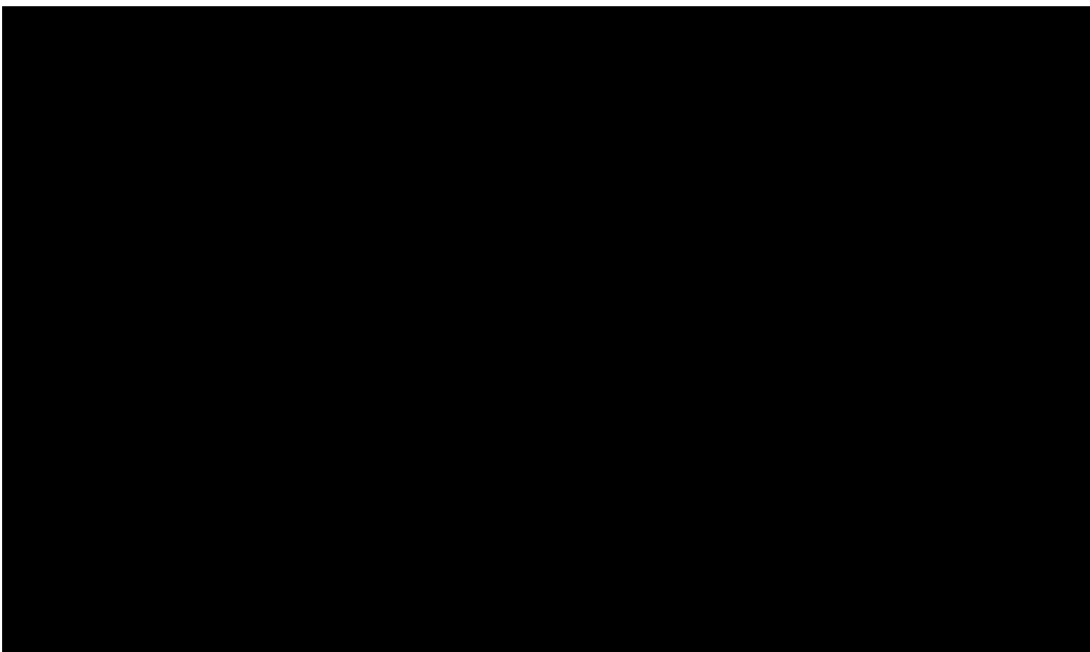
Can I assume that PSUH knows that the CPHO health professional forum has already developed the lexicon in alternative language under the reducing stigma priority?

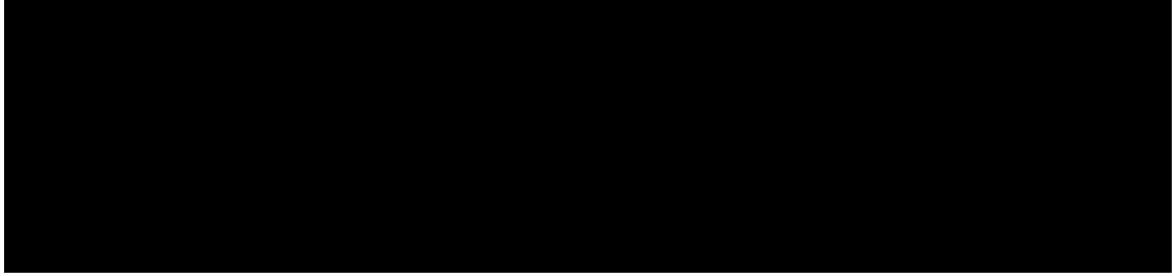
Sent from my iPhone

Begin forwarded message:

**From:** "Tam, Dr Theresa (PHAC/ASPC)" [REDACTED]  
**Date:** December 5, 2019 at 20:37:17 EST  
**To:** [REDACTED]  
**Cc:** [REDACTED] "CCMOH  
SECRETARIAT / CMHC (PHAC/ASPC)" <[phac.ccmoh.secretariat-cmhc.aspc@canada.ca](mailto:phac.ccmoh.secretariat-cmhc.aspc@canada.ca)>, "Auger, Julie (PHAC/ASPC)"  
<[juliea.auger@canada.ca](mailto:juliea.auger@canada.ca)> [REDACTED]  
**Subject: Re: For SAC Co-Chairs and SAC-PSUH Liaison approval -  
Draft CDMH CBN on Problematic Substance Use**

Sorry to have missed the deadline in providing comments.



Sent from my iPhone

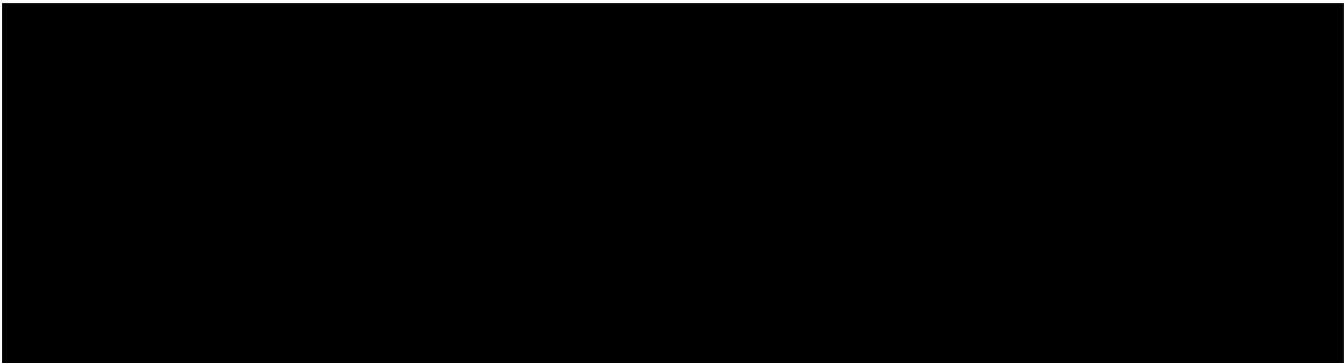
On Dec 5, 2019, at 12:45,  
wrote:



**From:** [REDACTED]  
**Sent:** 2019-12-11 2:48 PM  
**To:** Tam, Dr Theresa (PHAC/ASPC); Ponic, Pamela (PHAC/ASPC); Costen, Eric (HC/SC)  
**Subject:** Fw:  
**Attachments:** LRCUG.WillUsersListen.2020.pdf

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FYI - see attached from some friends/colleagues in the US (who often refer to cannabis as a 'sin commodity') ... what, of course, they are missing, really, is that most of these super-heavy users they are focusing on really are dependent, and need 'treatment' rather than LRCUG prevention ... But rest assured, the LRCUG have evolved into globally recognized and utilized tool. Best regards from Toronto



John Piacentino, MD, MPH  
Andrea H. Okun, DrPH

#### CONTRIBUTORS

R. J. Guerin conceptualized and drafted the editorial and coordinated the project. D. Castillo assisted with data retrieval, clearance, and analysis. D. Castillo, J. Howard, and J. Piacentino helped design, develop, and draft the editorial. K. J. Hendricks conducted the data analysis and assisted with the write-up of results. A. H. Okun assisted with editorial development and review.

#### ACKNOWLEDGMENTS

For their thorough and thoughtful reviews of the editorial, we thank Diane Bush, MPH, Labor Occupational Health

Program, UC Berkeley; Letitia Davis, ScD, Occupational Health Surveillance Program, Massachusetts Department of Public Health; and Kimberly J. Rauscher, ScD, Department of Occupational and Environmental Health Sciences, West Virginia University.

**Note.** The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention.

#### CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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## Lower-Risk Cannabis Use Guidelines: Will Users Listen?

In a highly cited and influential article, Fischer et al. proposed Lower-Risk Cannabis Use Guidelines (LRCUG) in the form of 10 recommendations based on a systematic review of evidence in the literature concerning health harms.<sup>1</sup> They recognize that harms increase with dose, and so counsel against higher potencies (recommendation 3) and higher frequency of use (recommendation 7), and observe that abstinence is the most effective way to avoid risks (recommendation 1), particularly for pregnant women and those with family histories of mental health disorders (recommendation 9). Other recommendations warn against particular practices such as driving while impaired (recommendation 8), using synthetic cannabinoids (recommendation 4), and smoking in general (recommendation 5) and in particular ways such as inhaling deeply (recommendation 6). The remaining two caution that early initiation is associated with worse outcomes (recommendation 2), and combinations of risky behaviors might magnify the risks (recommendation 10).

We agree that cannabis use would be safer if the LRCUG were followed, but they are not. For example, recommendation 7 in Fischer et al. states that “Users should be aware and vigilant to keep their own cannabis use—and that of friends, peers, and fellow users—occasional (e.g., use only 1 day/week, weekend use only, etc.) at most.”<sup>1(p4)</sup> However, adults using 50 or fewer times in the past year (equivalent to 1 day/week) accounted for just 3.6% of the past-year days of cannabis use reported to the 2017 US household survey (0.18 billion out of the 5.07 billion recorded by variable IRMJFY in the Public-Use Data Analysis System available at <https://pdas.samhsa.gov/#>). Broadening the notion of occasional use to 100 times in the past year (a proxy for weekend-only use) increases that share only to 7.3%. Because infrequent users consume less per day of use, their share of consumption is even smaller than their share of use-days. So, approximately 95% of current consumption violates that

recommendation. Most users may follow LRCUG, but because heavy users account for a disproportionate share of consumption, most of the use does not.

Likewise, Fischer et al. warn that “Early initiation of cannabis use (i.e., most clearly that which begins before age 16 years) is associated with multiple subsequent adverse health and social effects.”<sup>1(p4)</sup> Yet 62% of current cannabis users in the United States report initiating by age 16 years, a proportion that rises to 74% among the 5.8 million who report using every day in the last month.

Fischer et al. seem optimistic that LRCUG could become more effective at altering consumption patterns after legalization. We are less sanguine. It is

not as if safer use messages are entirely new. A “start low, go slow” approach is already promoted by Health Canada among other organizations and governments. Yet those messages have not prevented the use patterns just described.

Furthermore, commercial legalization of the sort pursued by Canada and the United States creates organized opposition with a moneyed interest in promoting greater consumption. Even as health authorities urge safer use, industry urges greater and sometimes riskier use. This suggests the need for meta-guidelines such as “If you hear procannabis information, check its source and ask whether the researcher or author has ties to industry.”

For example, Fischer et al. recommend that some populations, including pregnant women, should refrain from using cannabis (recommendation 9), and Colorado requires

#### ABOUT THE AUTHORS

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Correspondence should be sent to Jonathan P. Caulkins, Steyer University Professor, Carnegie Mellon University Heinz College, 4800 Forbes Ave, Pittsburgh, PA 15213 (e-mail: [caulkins@andrew.cmu.edu](mailto:caulkins@andrew.cmu.edu)). Reprints can be ordered at <http://www.ajph.org> by clicking the “Reprints” link.

This editorial was accepted October 4, 2019.

doi: 10.2105/AJPH.2019.305420

packaging to carry a warning about extra risks for women who are pregnant, breastfeeding, or planning on becoming pregnant. However, when Dickson et al. called 400 Colorado cannabis dispensaries, the majority (69%) recommended treating morning sickness with cannabis products.<sup>2</sup> After the study came out, the industry magazine *High Times* published an article entitled “Why I turned to cannabis for morning sickness—and why you shouldn’t judge.” The article’s subtitle was “Is cannabis the new wonder drug?” (<https://hightimes.com/health/turned-cannabis-morning-sickness-shouldnt-judge>).

Attempts to cajole consumers into lower-risk practices have to overcome not only contrary messaging from industry but also changes in price, potency, product form, and availability that may encourage higher-risk use. Fischer et al. warn that “High THC [tetrahydrocannabinol]-content products are generally associated with higher risks”<sup>1(p64)</sup> but legalization has brought sharply higher potency for flower products and a proliferation of edibles, vaping, and dabbing products whose potencies often exceed 60%.<sup>3</sup> Legalization has also brought much lower prices per unit of THC<sup>3,4</sup>; the prevalence and intensity of use tend to rise when price falls.

Likewise, Fischer et al. observe that “The use of both cannabis and alcohol results in multiply increased impairment and risks for driving, and categorically should be avoided.”<sup>1(p64)</sup> However, in the wake of Canada’s legalization,

Anheuser-Busch, Constellation Brands, and Molson-Coors have all invested in or partnered with Canadian cannabis companies (Tilray, Canopy, and Hexo, respectively). These ventures have not yet announced intentions to market THC-bearing alcoholic beverages, but they would be poised to do so if regulations change to permit it.

Another question is whether guidelines for individual users are sufficient, or whether governments also have an obligation to regulate in ways that promote lower-risk patterns of use. The Ottawa Charter emphasizes that health promotion requires support for policy, systems, and environmental solutions, not just a focus on individual behavior change. Legalization forces policymakers to confront thorny issues concerning where and when can cannabis be sold, what products retailers can sell, and where those products can be used.<sup>5</sup> The public health community needs to develop guidelines for how policymakers can answer such questions with regulations that promote lower-risk use.<sup>6</sup>

Government, higher education, and nonprofits also need guidelines for policies to prevent industry from influencing cannabis research. Article 5.3 of the WHO Framework Convention on Tobacco Control states that “Parties shall act to protect these [tobacco control] policies from commercial and other vested interests” ([https://www.who.int/tobacco/wntd/2012/article\\_5\\_3\\_ftcc/en](https://www.who.int/tobacco/wntd/2012/article_5_3_ftcc/en)). Something similar may be needed vis-à-vis cannabis. Harvard and the

Massachusetts Institute of Technology accepted \$9 million to study cannabis’s health benefits from a cannabis industry investor, and Thomas Jefferson University’s troubled Lambert Center has been accused of being too close to the cannabis industry.<sup>7</sup>

More generally, we believe that a more effective population-level way of preventing high-risk use would be keeping for-profit industry out of the business of supplying cannabis altogether; there may be other, safer models of legalization, such as restricting supply to government agencies or not-for-profit organizations.

We close by noting the potential tension that LRCUG can create for abstinence supporters. Some believe that people are going to use cannabis regardless of what the public health community says, so it makes sense to advise how to do so more safely. Others believe that there is no safe level of use and LRCUG may normalize use. For example, when somebody uses cannabis outdoors near a school, that might normalize cannabis use in the eyes of children even if that person were following all of the guidelines of Fischer et al.

Overall, LRCUG can be an important strategy for reducing health risks for those who consume cannabis, and the contribution by Fischer et al. is highly valuable in this regard. However, there remains a gap between publishing 10 abstract recommendations and actual behavior change, and there may be limits

to how effective individual-level guidelines can be. Therefore, the existence of LRCUG should not be seen as obviating the need for other, complementary strategies for discouraging risky use. *AJPH*

Jonathan P. Caulkins, PhD

Michelle L. Kilborn, PhD

#### CONTRIBUTORS

Both authors contributed equally to this article.

#### CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

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**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-20 8:01 AM  
**To:** Rendall, Jennifer (PHAC/ASPC); Bell, Tammy (PHAC/ASPC); Hostrawser, Bonnie (PHAC/ASPC); Mackenzie, Sara (HC/SC); Russo, Laura (HC/SC); Stevenson, Corey (HC/SC)  
**Subject:** Fwd: ?????????? ??????????

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This is what the article about my report looks like in a Chinese newspaper!

Sent from my iPhone

Begin forwarded message:

**From:** TAM [REDACTED]  
**Date:** December 20, 2019 at 02:07:07 EST  
**To:** Theresa Tam [REDACTED]  
**Subject:** 首席醫官譚詠詩建議 醫療制度須消除偏見

<https://www.singtao.ca/3989837/2019-12-19/post-首席醫官譚詠詩建議-醫療制度須消除偏見/>

Sent from my iPhone

**From:** Gilmour, Matthew (PHAC/ASPC)  
**Sent:** 2019-12-19 9:49 PM  
**To:** Tam, Dr Theresa (PHAC/ASPC)  
**Cc:** Blandford, Dorothea (PHAC/ASPC); Guercio, Steven (PHAC/ASPC)  
**Subject:** Fwd: FYI - update on rVSV vaccine licences  
**Attachments:** 2019-03-14 Comparison of rVSV-VHF licenses.docx; ATTO0001.htm

---

Hi again Theresa - please see attached for a summary of the licence terms.

Matt

(via mobile)

Begin forwarded message:

**From:** "Gilmour, Matthew (PHAC/ASPC)" <[matthew.gilmour@canada.ca](mailto:matthew.gilmour@canada.ca)>  
**Date:** March 18, 2019 at 4:23:50 PM CDT  
**To:** "Elmslie, Kim (PHAC/ASPC)" <[kim.elmslie@canada.ca](mailto:kim.elmslie@canada.ca)>, "Hartigan, Maureen (PHAC/ASPC)" <[maureen.hartigan@canada.ca](mailto:maureen.hartigan@canada.ca)>  
**Cc:** "Blandford, Dorothea (PHAC/ASPC)" <[dorothea.blandford@canada.ca](mailto:dorothea.blandford@canada.ca)>, "Strang, Doug (PHAC/ASPC)" <[doug.strang@canada.ca](mailto:doug.strang@canada.ca)>, "Guercio, Steven (PHAC/ASPC)" <[steven.guercio@canada.ca](mailto:steven.guercio@canada.ca)>, "Trumble Waddell, Jan (PHAC/ASPC)" <[jan.trumblewaddell@canada.ca](mailto:jan.trumblewaddell@canada.ca)>, "Cornelisse, Mette (PHAC/ASPC)" <[mette.cornelisse@canada.ca](mailto:mette.cornelisse@canada.ca)>, "Poliquin, Guillaume (PHAC/ASPC)" <[guillaume.poliquin@canada.ca](mailto:guillaume.poliquin@canada.ca)>, "Safronetz, David (PHAC/ASPC)" <[david.safronetz@canada.ca](mailto:david.safronetz@canada.ca)>, "Drebot, Mike (PHAC/ASPC)" <[mike.drebot@canada.ca](mailto:mike.drebot@canada.ca)>  
**Subject:** FYI - update on rVSV vaccine licences

Hi Kim and Maureen,

Attached is a summary of the licence agreements related to PHAC's rVSV vaccine technology that Dorothea and her team (namely Doug Strang) have continued to expertly craft with third party vaccine developers. I'd rate this as important but not urgent, as we feel it's valuable for your information, including if any of these external partners pursue press releases on the licenses (as is common).

Key messages:

- The Office of IP Management & Business Development continues to seek opportunities, and to engage with other organisations to develop vaccines against various viral hemorrhagic fever viruses based on the NML-developed rVSV technology.
- Currently PHAC has four active license agreements, each specific to certain diseases with three vaccine developers (BioProtection Systems Corporation/Merck (Ebola (Zaire) & Ebola (Sudan)); Public Health Vaccines LLP (Marburg and Ebola Sudan); International AIDS Vaccine Initiative (Lassa, Marburg and Ebola (Sudan)); each agreement is tailored to the needs of the vaccine developer and its funding source.
- PHAC receives some financial benefits, including royalties (which are skewed toward sales in developed countries) as well as social benefits (no royalties on sales to developing countries, pricing on sales to PHAC, priority access and rights to improvements for emergency use), and reputation in terms of supporting global public health through the use of socially-responsible licensing and public/non-profit partnerships.

Regards, Matt

**Matthew W. Gilmour, PhD FCCM ARMCCM**

**Scientific Director General**

National Microbiology Laboratory

Public Health Agency of Canada | Government of Canada

[matthew.gilmour@canada.ca](mailto:matthew.gilmour@canada.ca) | Tel: 204-789-2070

Directeur général scientifique

Laboratoire national de microbiologie

Agence de la santé publique du Canada | Gouvernement du Canada

[matthew.gilmour@canada.ca](mailto:matthew.gilmour@canada.ca) | Tél. : 204-789-2070



WITHHELD / RETENUE

Is(Are) exempted and/or excluded pursuant to section(s)  
est(sont) exemptée(s) et/ou exclus en vertu de(s)(l')article(s)

20(1)(c)

Subject to this section, the head of a government institution shall refuse to disclose any record requested under this Act that contains (c) information the disclosure of which could reasonably be expected to result in material financial loss or

Le responsable d'une institution fédérale est tenu, sous réserve des autres dispositions du présent article, de refuser la communication de documents contenant : c) des renseignements dont la divulgation risquerait vraisemblablement de causer des

WITHHELD / RETENUE

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est(son)t exemptée(s) et/ou exclus en vertu de(s)(l')article(s)

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**From:** [Killen, Marita \(PHAC/ASPC\)](#)  
**Sent:** 2019-12-05 2:04 PM  
**To:** [Tam, Dr Theresa \(PHAC/ASPC\)](#); [Macey, Jeannette \(PHAC/ASPC\)](#)  
**Subject:** FYI: Interesting reporting on recent attack on Ebola response workers in DRC

---

[https://www.washingtonpost.com/world/africa/ebola-was-almost-contained-in-congo-a-wave-of-violence-threatens-to-bring-it-roaring-back/2019/12/04/61a35cc8-1543-11ea-80d6-d0ca7007273f\\_story.html](https://www.washingtonpost.com/world/africa/ebola-was-almost-contained-in-congo-a-wave-of-violence-threatens-to-bring-it-roaring-back/2019/12/04/61a35cc8-1543-11ea-80d6-d0ca7007273f_story.html)

### **Ebola was almost contained in Congo. A wave of violence threatens to bring it roaring back.**

By

Max Bearak

Dec. 5, 2019 at 4:00 a.m. EST

GOMA, Congo — The attack began at midnight, the machete-wielding assailants unidentifiable in the pitch black that engulfed the tented encampment.

Their victims were front-line responders to the ongoing Ebola outbreak who had arrived in the remote town of Biakato from across Congo and the world, hoping to cut off the last few chains of the virus's transmission and end an epidemic that has killed more than 2,200 people over the past 16 months.

In the week before the attack on Nov. 28, that victory seemed near: Tallies of new cases had dropped below 10, from a high of more than 100 per week earlier this year.

But a sudden resurgence of violent incidents has dashed that optimism and cast a pall of fear over the response. More than 500 health workers have had to be moved away from the violence, and the World Health Organization now says there is a risk the outbreak could come roaring back.

"We are of course expecting to see new cases that wouldn't have otherwise been transmitted," said Margaret Harris, a WHO spokeswoman. "Our hard work will be saved only by the unbelievably brave people who are still out there despite the threats."

In a region beset by conflict and wary of outsiders, the attack in Biakato was a brutal wake-up call for responders, leaving many to wonder whether MONUSCO, the United Nations peacekeeping force here, can ensure their safety and in turn ensure the progress against the virus is not lost.

On Sunday night in Goma, eastern Congo's largest city, several people who survived the attack recounted the night of terror to the WHO's director general, who had come in to rally his team.

A young woman who specializes in community engagement could barely make her voice audible, her head and arms swathed in bandages covering deep machete wounds. The camp manager showed his sliced-open hand, lacerated as he tore a hole through a corrugated iron fence big enough for him and four others to escape. He described how he ran, terrified in the total darkness, right into a tree, leaving a gash across his face and eyes.

The three policemen who had been guarding the compound attempted to flee, and one was killed. A driver for Congo's Health Ministry was also killed, as was Belinda Kasongo, 30, a logistician for the vaccination team. In addition to the three killed in Biakato, another person was killed in a separate attack in nearby Mangina, and six were injured in both attacks.

A U.N. peacekeeping force stationed in Biakato, with a mandate to use force, did not reach the compound until three hours after the attack began — despite being less than a 10-minute drive away.

“We all got into the same room and hid under the beds so at least we would die together,” said another young woman. “We could hear Belinda scream when they chopped her with the machete outside the room. The attackers did whatever they wanted for hours, as if they knew no one would stop them.”

The U.N.’s top Ebola response official, David Gressly, who oversees MONUSCO’s provision of security for health workers, acknowledged lapses in protection and said emergency meetings were being held this week to expedite the return of teams to areas hit by attacks.

On Monday, the treatment center in Biakato admitted nine suspect cases and two confirmed cases, “but the testing lab is not operating, and surveillance and follow-up are not ensured because of lack of staff,” said Ewenn Chenard, a Doctors Without Borders emergency coordinator. “The reality is that now we don’t have enough medical personnel to provide the required care.”

Eastern Congo is often described as a nightmare setting for an Ebola outbreak. The region has seen near-constant conflict for 25 years, since the perpetrators of the genocide in neighboring Rwanda fled here, bringing huge caches of weapons and triggering ethnically tinged conflicts that eventually engulfed all of Congo in rounds of civil warfare that, despite formally ending in 2003, persist in pockets.

In North Kivu and Ituri provinces, where the Ebola outbreak is centered, locals formed countless militias of various sizes, some protecting just one town, others eventually coming to control larger chunks of provinces. The insecurity has also given groups such as the Allied Democratic Forces, or ADF, a shadowy but well-armed Ugandan separatist group that follows an extremist form of Islam, a place to operate more freely.

While it is not completely certain who carried out the Biakato attack, Gressly said initial evidence pointed to the small cartels that wreak havoc across the region, forcibly taking over parts of lucrative mining, timber and transport industries, and who may now be trying to prolong the Ebola outbreak so as to corner some of the hundreds of millions of dollars it has plowed into the local economy.

“The pattern is attacks where there is ongoing transmission. It is starting to look like a pattern to me,” he said.

The attack in Biakato coincided with an increase in ADF attacks on the nearby towns of Beni and Oicha. The ADF periodically raids towns, killing, pillaging and kidnapping children who eventually become its foot soldiers. They have killed nearly 100 people since the end of October, when the Congolese army began an offensive against them.

In an echo of the doubts some health workers have expressed, residents of Beni have accused MONUSCO of not offering them adequate protection. As the attacks have become more frequent, the town of 250,000 has teetered between rage and fear.

On Nov. 25, protesters stormed and ransacked the MONUSCO compound, sending peacekeepers fleeing and triggering the first wave of departures of health workers from the active transmission zone. The Beni mayor’s office was burned down soon after.

Harris, the WHO spokeswoman, described how the chaos was eventually aimed toward health workers who are commonly seen as affiliated with MONUSCO. A vehicle transporting her to Beni’s

airport had its windows smashed with a brick.

The tension in Beni is not thought to be directly related to the attack in Biakato, but the pressure it has put on MONUSCO has strained its ability to provide logistical and security support to the Ebola response. The U.N.'s heads of safety and security and peacekeeping traveled to eastern Congo this week to assess the deteriorating situation.

"There is no more trust in MONUSCO, no more patience," said Desire Mukanirwa, the Anglican Bishop of Goma. "Now the problem isn't that we don't understand Ebola. It's that people say, 'We are being massacred by the ADF and we don't see MONUSCO. It would be better if they left for good.'"

Gressly, the coordinator of the U.N.'s Ebola response, said that in his view, the current tension in Beni largely boiled down to MONUSCO's failure to coordinate its operations with the Congolese army. The army began an offensive against the ADF on Oct. 30, which Gressly said has sparked the group's retaliatory attacks on civilians.

Discussions between MONUSCO and the army were underway to begin joint planning and operations soon, said Gressly. "We've hit a big bump in the road, but it's one we'll get over relatively quickly if certain issues are addressed."

A Congolese army spokesman did not respond to repeated requests for comment.

Abdou Salam Gueye, the WHO's response manager, said that he is still waiting for MONUSCO to convince him that security for front-line health workers is a top priority. Instead, he said his requests for support have been met with stifling bureaucracy. He said it took him months to persuade MONUSCO to send troops that could use lethal force if needed to Biakato.

"When I visited that camp, I had the thought, 'My God, if something happens here, we will all die.' So, I wrote officially to MONUSCO," Gueye said. "Even after the attacks, we are still begging and screaming, and saying we deserve better than what you've given us."

On Saturday, Gueye's colleagues from the WHO and Congo's Health Ministry gathered at Goma's cathedral for the funeral of Kasongo, the member of the vaccination team who was hacked to death in Biakato. The hall echoed with the sobs of people who knew her. Speech after speech recounted her determination to see the end of the outbreak.

But Gueye and others voiced concern that despite the deaths of Kasongo and at least 10 other Ebola responders over the course of the outbreak, they weren't sure their security was being taken seriously.

"A simple safe room in each compound would cost \$1,000 — I've priced it out and communicated that to MONUSCO. Even just two well-trained, well-armed soldiers could deter these criminals with machetes," said Gueye, worn down by a week of almost no sleep. "That's all it might take, and we still don't even have that."

Max Bearak is The Washington Post's Nairobi bureau chief. Previously, he reported from Afghanistan, Bangladesh, India, Somalia and Washington, D.C., for The Post, following stints in Delhi and Mumbai reporting for the New York Times and others.

Marita Killen  
Senior Analyst / Analyste Principale



Office of the President and Chief Public Health Officer / Cabinet de la Présidente et de  
l'Administratrice en chef de la santé publique  
Public Health Agency of Canada / Agence de la santé publique du Canada  
Tel/tél: 613-796-7357  
[marita.killen@canada.ca](mailto:marita.killen@canada.ca)

**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-05 7:51 PM  
**To:** Tosh, Casey (PHAC/ASPC)  
**Cc:** Theresa Tam [REDACTED]  
Macey, Jeannette (PHAC/ASPC); Killen, Marita (PHAC/ASPC)  
**Subject:** Re: FYI: Auditor General of Ontario findings regarding substance use treatment

---

An interesting read.

Sent from my iPhone

On Dec 5, 2019, at 10:51, Tosh, Casey (PHAC/ASPC) <[casey.tosh@canada.ca](mailto:casey.tosh@canada.ca)> wrote:

Dr. Tam –

As you may already be aware, yesterday the Auditor General of Ontario released her 2019 Annual Report, which included a section on value for money related to substance use treatment. I've included the links to both the summary and news release below. A few key pieces of information worth noting from the report:

- From 2014/15 to 2018/19, spending on substance use treatment programs grew almost 25% to \$212M, and the funds were used to treat over 76,700 clients.
- While the Ministry spent \$134M on its Opioid Strategy between Aug 2017 and Mar 2019, opioid related deaths, ER visits, and hospitalizations continued to increase. In particular, ER visits for substance use conditions increased by almost 40% to nearly 100K visits in 2018/19.
- During this time period, wait times for residential programs have increased from 43 days in 2014/15 to 50 days in 2018/19.
- The only standards that the Ministry has are for withdrawal management. There are no standards for residential or non-residential programs, so there are major differences in how services are delivered (e.g., length of residential treatment ranges from 19 to 175 days).

It continues to be a challenge to find reliable data related to treatment services so this report is helpful in that it provides some further evidence regarding gaps, including that wait times remain long and that service standards are lacking.

Summary:

[http://www.auditor.on.ca/en/content/news/19\\_summaries/2019AR\\_summary\\_v1\\_3.02.pdf](http://www.auditor.on.ca/en/content/news/19_summaries/2019AR_summary_v1_3.02.pdf)

News Release:

[http://www.auditor.on.ca/en/content/news/19\\_newsreleases/2019news\\_v1\\_3.02.pdf](http://www.auditor.on.ca/en/content/news/19_newsreleases/2019news_v1_3.02.pdf)

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Casey Tosh

PHAC Liaison - Opioid Response Team

Liaison de l'ASPC - Équipe d'intervention en matière d'opioïdes

Tel: 613-219-7645

[casey.tosh@canada.ca](mailto:casey.tosh@canada.ca)

**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-13 12:24 PM  
**To:** Killen, Marita (PHAC/ASPC)  
**Cc:** Macey, Jeannette (PHAC/ASPC)  
**Subject:** Re: FYI: NEJM Efficacy of MAbs in current Ebola outbreak (Results of the PALM trial)

---

Thanks Marita.

I think I may be tagged with reviewing the [REDACTED]

Yikes!

Sent from my iPhone

On Dec 13, 2019, at 12:16, Killen, Marita (PHAC/ASPC) <[marita.killen@canada.ca](mailto:marita.killen@canada.ca)> wrote:

Hi Dr. Tam,  
I've attached the research paper, which shows that "both MAb114 and REGN-EB3 were superior to ZMapp in reducing mortality from EVD".  
And here's the link to the editorial which highlights this research. It gives kudos to the researchers for completing this CT in very difficult conditions, as well as for it being a joint effort led by investigators in the DRC in collaboration with international investigators. [https://www.nejm.org/doi/full/10.1056/NEJMe1915350?query=recirc\\_curatedRelated\\_article](https://www.nejm.org/doi/full/10.1056/NEJMe1915350?query=recirc_curatedRelated_article)

Cheers,

Marita

Marita Killen

Senior Analyst / Analyste Principale

Office of the President and Chief Public Health Officer / Cabinet de la Présidente et de l'Administratrice en chef de la santé publique

Public Health Agency of Canada / Agence de la santé publique du Canada

Tel/tél: 613-796-7357

[marita.killen@canada.ca](mailto:marita.killen@canada.ca)

**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-16 9:16 PM  
**To:** Killen, Marita (PHAC/ASPC)  
**Subject:** RE: FYI: Tweets supporting Dr. Plummer

---

Thanks for these.

On balance I like option #2 better, in case someone misinterprets option 1 as an endorsement of the new technique rather than being supportive for a clinical trial.

The quote tweet also seems more focused on Sunnybrook than on Frank.

---

**From:** Killen, Marita (PHAC/ASPC)  
**Sent:** 2019-12-16 8:41 PM  
**To:** Tam, Dr Theresa (PHAC/ASPC)  
**Subject:** Re: FYI: Tweets supporting Dr. Plummer

We are working up a tweet for you. Let me know how you feel about the options below.

Option #1:

Wishing Dr. Frank Plummer well in his recovery journey. Inspired by your courageous decision to share your story. Both your openness and this clinical trial will help others. #EndStigma

Option #2:

Stigma makes it harder for people to get help and support to address substance use disorders. Thank you Dr. Frank Plummer for courageously sharing your story. Wishing you well in your recovery journey. #EndStigma

Could link to this page:

<http://health.sunnybrook.ca/brain/brain-surgery-helped-battle-alcohol-use-disorder/>

or quote tweet one of the sunnybrook tweets:

✓@Sunnybrook

One year after undergoing brain surgery at Sunnybrook to battle alcohol use disorder, the first patient to participate in a ground-breaking North American first trial is speaking out about his experience:

<https://sunnybrook.ca/media/item.asp?c=1&i=2028&f=deep-brain-stimulation-alcohol-use-disorder-frank-plummer...>

Sent from my iPhone

On Dec 16, 2019, at 8:30 PM, Tam, Dr Theresa (PHAC/ASPC) [REDACTED] wrote:

Very nice

---

**From:** Killen, Marita (PHAC/ASPC) <[marita.killen@canada.ca](mailto:marita.killen@canada.ca)>  
**Sent:** 2019-12-16 12:41 PM

**To:** Tam, Dr Theresa (PHAC/ASPC) [REDACTED] Johnstone, Marnie (PHAC/ASPC) <marnie.johnstone@canada.ca>; Macey, Jeannette (PHAC/ASPC) <jeannette.macey@canada.ca>  
**Subject:** FYI: Tweets supporting Dr. Plummer

Nice tweets supporting Frank.

**Jim Woodgett**

@jwoodgett

1. Alcoholism can strike anyone. 2. Alcoholism can be hidden and those affected can be very high functioning. 3. Alcoholism is a disease. 4. Dr. Frank Plummer is a brilliant and brave scientist.

André Picard @picardonhealth

"It's given me my life back," Canadian scientist @DrFrankPlummer undergoes deep brain stimulation to control #alcohol use disorder, by @CTV\_AvisFavaro @AlexandraMaeJ ctv.news/Ghp12aQ via @CTVNews #addiction #cirrhosis #DBS #neuroscience

Show this thread

9:37am · 16 Dec 2019 · Tweetbot for Mac

**Kelly Grant @kellygrant1**

1h

This is

so fascinating. It was especially brave to see Frank Plummer, a Canadian medical-science legend, go public about being the first to try it. Nicely done, @wencyleung

**Tony Clement @TonyclementCPC**

1h

Great

article about my friend Dr Frank Plummer. Courage and success Frank!!:  
 "Deep-brain stimulation gave a renowned scientist with alcoholism his life back" theglobeandmail.com/canada/article...

**Jane Philpott @janephilpott**

5h

Kudos to

one of Canada's most renowned scientists, Dr. Frank Plummer and his wife, Jo, for openly sharing this important story. It will break down stigma and give courage to others.

**University of Manitoba @umanitoba**

18m

The UM

community wishes renowned @UM\_RadyFHS researcher Dr. Frank Plummer all the best on his brave journey to improved health. His unwavering commitment to advancing research is demonstrated even as he battles personal challenges. #umanitoba tgam.ca/38G3osI

Marita Killen  
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de l'Administratrice en chef de la santé publique  
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[marita.killen@canada.ca](mailto:marita.killen@canada.ca)

**From:** [Tam, Dr Theresa \(PHAC/ASPC\)](#)  
**Sent:** 2019-12-18 3:49 PM  
**To:** [Macey, Jeannette \(PHAC/ASPC\)](#); [McLeod, Robyn \(PHAC/ASPC\)](#)  
**Subject:** Fwd: Globe and Mail: E-cigarettes, opioid epidemic among top emerging health issues in Canda: report

---

Please print. Carly may do a deep dive on any one of the topics.

Sent from my iPhone

Begin forwarded message:

**From:** "Media Monitoring / Suivi des Medias (HC/SC)" <[hc.media.monitoring-suivi.des.medias.sc@canada.ca](mailto:hc.media.monitoring-suivi.des.medias.sc@canada.ca)>  
**Date:** December 18, 2019 at 15:39:58 EST  
**Subject: Globe and Mail: E-cigarettes, opioid epidemic among top emerging health issues in Canda: report**

Distribution group/Groupe de distribution: HC.F PEIA Vaping / Vapotage AREP F.SC; HC.F PEIA Ministers Monitoring / Surveillance des medias ministre AREP F.SC; HC.F PEIA Health Care / Soins de sante AREP F.SC; HC.F PEIA Health Promotion / Promotion de la sante AREP F.SC; HC.F PEIA Opioids / Opioides AREP F.SC; HC.F PEIA Chronic Diseases / Maladies chroniques AREP F.SC; HC.F PEIA Infectious Diseases / Maladies infectieuses AREP F.SC; HC.F PEIA Nutrition and Food Safety / Salubrite des aliments AREP F.SC  
December 18, 2019

**E-cigarettes, opioid epidemic among top emerging health issues in Canda: report**  
Globe and Mail, Carly Weeks

*Canada's chief public health officer details how stereotypes, power dynamics and other catalysts help create conditions where people receive unfair treatment and experience higher rates of stress, which can lead to poorer physical and mental health*

Canada's chief public health officer says rising rates of youth vaping represent an "emerging and serious health trend" and that more research is needed to understand the long-term health risks posed by e-cigarettes.

Theresa Tam made the comments in her annual report on the state of public health in Canada, which was released on Wednesday and sent to the new federal Health Minister, Patty Hajdu. In her report, Dr. Tam highlighted the fact e-cigarettes increase the risk of nicotine addiction, which can alter brain development in young people. E-cigarettes also expose people to an array of harmful chemicals, such as formaldehyde, acrolein, as well as heavy metals and other contaminants, Dr. Tam wrote.

But because e-cigarettes are so new, the long-term health risks are not yet known. Some studies have also found that young people who use e-cigarettes are more likely to start smoking traditional tobacco cigarettes. Dr. Tam says more research must be done to determine the extent of the risks.

In addition to vaping, Dr. Tam's report highlighted other important emerging health issues affecting Canadians, such as the rise of measles and other vaccine-preventable diseases, the ongoing opioid-related overdose epidemic, the rise of chronic illnesses, sexually transmitted diseases and antimicrobial resistance.

But the bulk of her report focuses on stigma and how misconceptions and stereotypes are causing many in Canada to die prematurely or not receive adequate health care. The report details how stereotypes, power dynamics and other catalysts

help create conditions where people receive unfair treatment and experience higher rates of stress, which can lead to poorer physical and mental health.

Many First Nations, Inuit and Métis people, for instance, experience ongoing racism, which is linked to poorer health outcomes, the report said. Racist attitudes and stigmatizing behaviour, the report notes, make it more difficult for those individuals to access post-secondary education, earn a good income and increases the risk of hunger, exposure to violence and avoidance of health-care institutions.

Dr. Tam highlighted the fact that stigma can also come from within health-care organizations, through use of words to describe substance users as "addicts" or the belief that new immigrants have infectious diseases, like tuberculosis. The report cites the case of Brian Sinclair, a 45-year-old Indigenous man who died of a treatable illness in a Winnipeg emergency room after being left to wait for 34 hours. His family said they believed underlying racism was one of the factors that led to his death.

The report includes a framework on how health professionals and organizations can start to combat stigma, including through increased education and training to address myths, media campaigns to challenge stereotypes.

Last week, Prime Minister Justin Trudeau asked Ms. Hajdu to create new rules to stop vaping companies from promoting their products to young people, highlighting the growing urgency around the rapid rise of youth vaping in Canada.

Rising rates of youth vaping have already prompted several provinces to introduce new measures to discourage teens from using e-cigarettes. For instance, Nova Scotia will become the first province to ban flavoured e-cigarette liquids as of April 1. A survey conducted by Smoke-Free Nova Scotia, a tobacco advocacy group, found that 96 per cent of 16- to 18-year-olds said they preferred flavoured vape products compared to unflavoured. And 48 per cent of youth ages 16-24 said they would likely stop vaping if flavoured products were not available.

Schools are also struggling with how to respond. This week, media reported that officials at the Grand River Collegiate Institute high school in Kitchener have blocked access to all but one bathroom, after a student who was vaping in a bathroom had to be rushed to the hospital in an ambulance.

<https://www.infomedia.gc.ca/hc-sc/2019/12/18/224799850>

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You are receiving this e-mail because you are subscribed to the distribution group identified at the top of this e-mail message. If you wish to unsubscribe from this group, please reply to this message or send a request to [HC.media.monitoring-suivi.des.medias.SC@canada.ca](mailto:HC.media.monitoring-suivi.des.medias.SC@canada.ca).

Thank you,

Media Monitoring Team

HC/SC - PHAC/ASPC

Vous recevez ce courriel parce que vous faites partie du groupe de distribution qui apparaît en haut du présent courriel. Si vous désirez que votre nom soit retiré de ce groupe, veuillez répondre à ce courriel et demander que votre nom soit retiré ou envoyer une demande à [HC.media.monitoring-suivi.des.medias.SC@canada.ca](mailto:HC.media.monitoring-suivi.des.medias.SC@canada.ca).

Merci,

L'Équipe de surveillance des médias

HC/SC - PHAC/ASPC



**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-03 4:14 PM  
**To:** Rodin, Rachel (PHAC/ASPC)  
**Subject:** Re: Guidelines metric

---

Thanks Rachel. Very helpful. Will also prove de this to Tina.

Sent from my iPhone

> On Dec 3, 2019, at 15:40, Rodin, Rachel (PHAC/ASPC) <rachel.rodin@canada.ca> wrote:  
 >  
 > Hi Theresa,  
 >  
 > Here are a few bullets for you. You may not feel it necessary to list out the standing guideline panels, but it could be useful back-pocket info.  
 >  
 > \* The Public Health Agency of Canada (PHAC) develops guidelines that provide advice to healthcare providers and Canadians through the support of standing guideline panels, and by providing funding or collaborating with external organizations on ad hoc topics.  
 >  
 > \* Across PHAC, current and planned guidance spans over 15 topic areas including travel medicine, immunizations, influenza prevention, problematic substance use, family violence, dementia, suicide prevention, traumatic head injury/concussions, physical activity, cancer prevention, sexual health, healthcare-acquired infections, and tobacco cessation.  
 >  
 > \* The standing guideline panels supported by PHAC regularly develop guidelines in areas such as newborn and maternal health, preventive medicine, and infection prevention/control. The panels that PHAC supports are:  
 > o The Canadian Task Force on Preventive Healthcare  
 > o The National Advisory Committee on Immunization  
 > o The Canadian Guidelines for Sexually Transmitted Infections Expert Advisory Body  
 > o The Healthcare Acquired Infections - Infection Prevention and Control Expert Advisory Body  
 > o The Committee to Advise on Tropical Medicine and Travel  
 > o The Family-Centred Maternity and Newborn Care: National Guidelines oversight committee  
 >  
 > \* In 2018, the Canadian Task Force on Preventive Healthcare released guidelines on screening for breast cancer, visual acuity, and asymptomatic bacteriuria in pregnancy. The former garnered significant attention from media and other stakeholders.  
 >  
 > I hope this helps,  
 > Rachel  
 >  
 > -----Original Message-----  
 > From: Tam, Dr Theresa (PHAC/ASPC) [REDACTED]  
 > Sent: 2019-12-03 12:54 PM  
 > To: Rodin, Rachel (PHAC/ASPC) <rachel.rodin@canada.ca>  
 > Subject: Guidelines metric  
 >  
 > Hi Rachel,  
 >  
 > We are providing the PHAC overview to the new Minister tomorrow.  
 >  
 > If you were to describe to the Minister the significant amount of work the Agency does on guidelines, how

would you do this?

>

> Eg we produced x numbers of guidance in the last year, the range of guidelines we produce covered vaccine guideline, IPC, an examples me of a Task Force guideline.

>

> Do you think you can give me that sound bite easily? If not, it is not a big deal as I can generally provide a sense of the importance of the Agency in guideline development.

>

> TT

>

> Sent from my iPhone

**From:** [Tam, Dr Theresa \(PHAC/ASPC\)](#)  
**Sent:** 2019-12-23 5:35 PM  
**To:** Gallagher, Gerry (PHAC/ASPC)  
**Cc:** [Romano, Anna \(PHAC/ASPC\)](#); [Namiesniowski, Tina \(PHAC/ASPC\)](#); [Johnstone, Marnie \(PHAC/ASPC\)](#); [Mead, Jobina \(PHAC/ASPC\)](#); [Killen, Marita \(PHAC/ASPC\)](#)  
**Subject:** RE: HEADS UP - Re: Process for Reporting new VALI cases

---

Thanks Gerry.

Heads up much appreciated.

TT

---

**From:** Gallagher, Gerry (PHAC/ASPC)  
**Sent:** 2019-12-23 5:21 PM  
**To:** Tam, Dr Theresa (PHAC/ASPC)  
**Cc:** Romano, Anna (PHAC/ASPC) ; Namiesniowski, Tina (PHAC/ASPC) ; Johnstone, Marnie (PHAC/ASPC) ; Mead, Jobina (PHAC/ASPC) ; Killen, Marita (PHAC/ASPC)  
**Subject:** HEADS UP - Re: Process for Reporting new VALI cases

This is a follow up to the email exchange last week on the new process to inform VALI cases. Please see below the heads up of an expected official report of a case from Alberta. Dr. Tam suggested that a heads up would be appreciated so that MinO and communications can get ready of any situations where it is a first case for a jurisdiction.

See details below.

- 1 new confirmed case of vaping-associated lung illness has been TENTATIVELY reported to PHAC from Alberta today. The CMOH-AB expects to officially report this case once case details are available. This would be the first reported case in Alberta.
- Case information has not yet been provided to the CMOH-AB or PHAC.
- Alberta expects to OFFICIALLY report their first case to PHAC by Tues Dec 31<sup>st</sup> in time for the next Government of Canada web update.
- Alberta expects to announce this case in the media on Jan 2, 2020.
- When and if the official report comes, it would bring the total number of confirmed (6) and probable (9) cases of vaping-associated lung illness to 15 reported to PHAC from AB (1), BC (3), ON (4), QC (5), NB (2).

When and if the official report is received by PHAC, we will follow the new case reporting process initiated through the Vaping illness single window email.

I will also send along this information to Jacquie and Jennifer so that they are aware.

Gerry Gallagher  
613 850 2742 (mobile)  
613 954 8629 (office)

On behalf of Anna Romano

Sent from my iPhone

On Dec 20, 2019, at 6:28 PM, Tam, Dr Theresa (PHAC/ASPC)

[REDACTED] wrote:

Thanks Anna.

The overall process is aligned with what we do with infectious diseases. So, I am OK with this.

I think the frequency of reporting to MinO ie once a week, in line with PT reporting cycle is fine.

However, for a "first case" scenario eg report of the first death from VALI in Canada or first case from a jurisdiction that has not reported any cases before, I think sending a heads up to Sr. management and MinO would be appreciated and Comms can get ready. The weekly web posting should continue but the heads up will allow some planning eg Comms.

Tina may have specific views.

TT

---

**From:** Romano, Anna (PHAC/ASPC) <[anna.romano@canada.ca](mailto:anna.romano@canada.ca)>  
**Sent:** 2019-12-20 5:58 PM  
**To:** Tam, Dr Theresa (PHAC/ASPC) [REDACTED]; Namiesniowski, Tina (PHAC/ASPC) <[tina.namiesniowski@canada.ca](mailto:tina.namiesniowski@canada.ca)>  
**Cc:** Johnstone, Marnie (PHAC/ASPC) <[marnie.johnstone@canada.ca](mailto:marnie.johnstone@canada.ca)>; Mead, Jobina (PHAC/ASPC) <[jobina.mead@canada.ca](mailto:jobina.mead@canada.ca)>; Killen, Marita (PHAC/ASPC) <[marita.killen@canada.ca](mailto:marita.killen@canada.ca)>; Gallagher, Gerry (PHAC/ASPC) <[gerry.gallagher@canada.ca](mailto:gerry.gallagher@canada.ca)>  
**Subject:** FW: Process for Reporting new VALI cases

Just to close the loop on the issue of reporting to senior management, MINO and PCO....we have lift off! We finalized everything with HC today.

This is my last vaping related email of 2019!

---

**From:** Romano, Anna (PHAC/ASPC) <[anna.romano@canada.ca](mailto:anna.romano@canada.ca)>  
**Sent:** 2019-12-19 7:28 PM

**To:** Bogden, Jacqueline (HC/SC) <jacqueline.bogden@canada.ca>; Hollington, Jennifer (HC/SC) <jennifer.hollington@canada.ca>  
**Cc:** MacKenzie, Sara (HC/SC) <sara.mackenzie@canada.ca>; Ogunnaike-Cooke, Susanna (PHAC/ASPC) <susanna.ogunnaike-cooke@canada.ca>; Ugnat, Anne-Marie (PHAC/ASPC) <anne-marie.ugnat@canada.ca>; Gallagher, Gerry (PHAC/ASPC) <gerry.gallagher@canada.ca>; Ponc, Pamela (PHAC/ASPC) <pamela.ponc@canada.ca>; Vaping illness-maladie vapotage (PHAC/ASPC) <phac.vapingillness-maladievapotage.aspc@canada.ca>; Hrynuik, Lisa (PHAC/ASPC) <lisa.hrynuik@canada.ca>; Van Loon, James (HC/SC) <james.vanloon@canada.ca>  
**Subject:** Process for Reporting new VALI cases

Jacque and Jen,

As I mentioned on our call last Friday, we would like us to adjust our current process for informing MINO and PCO so that it aligns more closely with how PHAC typically provides real time updates on public health outbreaks and events.

We are proposing that PHAC send the updates to MinO once per week aligned with the PT weekly reporting deadline and in advance of the weekly web update.

The attached **process map** outlines the simplified approach, whereby the case update goes from the VALI single window to the PHAC President, CPHO and DM Lucas, cc's to ADMs and other implicated officials (distribution list included in map).

In a nutshell:

- Tina's office will send the update to the PHAC Departmental Liaison (Isabelle Faustin), who will forward to MinO. Once MinO has been alerted, Isabelle informs the Office of Strategic Policy to alert PCO Social and Strategic Communications (Sara MacKenzie) to alert PCO Comms. Isabelle will provide a heads up to the Vanessa Wen so that DM Lucas remains informed.
- President's Office signals back to the VALI single window when MinO and PCO have been appropriately briefed, and the single window will notify Comms and the CCMOH Secretariat that they have the okay to communicate the new case information externally.

The updates will follow a **standard template** (see attached), including number of new cases reported, by which PTs, case information and media plan, if available. It will also include information on when the web update will occur.

Apologies for sending this only the evening before our regular call. Happy to chat about it in the morning.

Anna

***Anna Romano***

Vice-President | vice présidente

Health Promotion and Chronic Disease Prevention Branch | Direction générale de la promotion de la santé et des maladies chroniques

Public Health Agency of Canada | Agence de la santé publique du Canada

Tel: 613-960-2863

**From:** Kershaw, Tanis (PHAC/ASPC)

**Sent:**

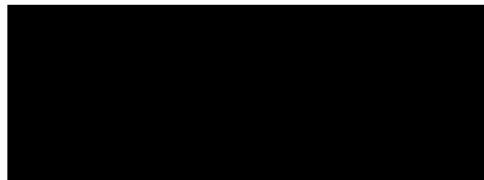
2019-12-17 5:52 PM

**To:** [REDACTED]

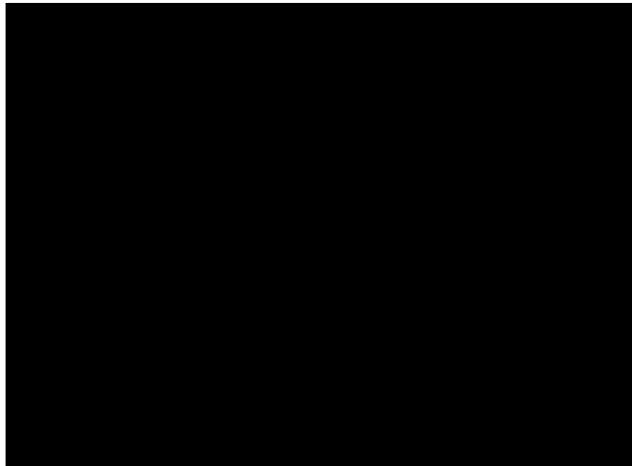
[REDACTED]

Hinds, Chris (HC/SC); Coleman, Sara (HC/SC);  
Vuong2, Jennifer (HC/SC); Tam, Dr Theresa  
(PHAC/ASPC); Samadhin, Mark (PHAC/ASPC);  
Gilmour, Matthew (PHAC/ASPC); Hartigan,  
Maureen (PHAC/ASPC); Sternthal, Steven  
(PHAC/ASPC);

[REDACTED]



Agunos, Agnes  
(PHAC/ASPC); Deckert, Anne (PHAC/ASPC);  
Kadykalo, Stefanie (PHAC/ASPC); Parker, Stephen  
(PHAC/ASPC); Reid-Smith, Richard (PHAC/ASPC);



**Cc:** Enteric Outbreak / Écllosion Entérique  
(PHAC/ASPC)

**Subject:** FW: Heads Up: PHN Update - Salmonella Outbreak  
- Raw Turkey Raw Chicken - December 18

**Attachments:** PHAC\_PHNUpdate\_Turkey\_2019-12-17\_1115-EN.docx

---

Good evening partners,

Please see the message below from PHAC-Communications regarding the updated PHN for the S. Reading investigation planned for release tomorrow, Dec 18.

Thank you,  
Tanis

**Tanis Kershaw**

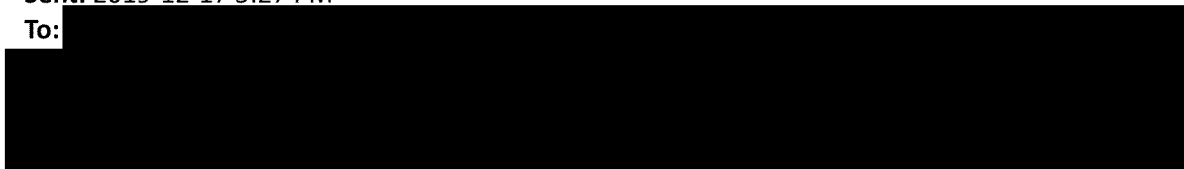
Senior Epidemiologist | Épidémiologiste principale  
Outbreak Management Division | Division de la gestion des éclosions  
Centre for Food-borne, Environmental & Zoonotic Infectious Diseases | Centre des maladies  
infectieuses d'origine alimentaire, environnementale et zoonotique  
Public Health Agency of Canada | Agence de la santé publique du Canada  
370 Speedvale Avenue West, Suite #201, Guelph, ON N1H 7M7  
Email | Courriel: [tanis.kershaw@canada.ca](mailto:tanis.kershaw@canada.ca)  
Telephone | Téléphone 519-826-2373  
Cellular | Cellulaire 519-400-3253  
Facsimile | Télécopieur 519-826-2984  
Government of Canada | Gouvernement du Canada

---

**From:** Coleman, Sara (HC/SC) <[sara.coleman@canada.ca](mailto:sara.coleman@canada.ca)>

**Sent:** 2019-12-17 5:27 PM

**To:**



[REDACTED] Richard2,  
 Marc (CFIA/ACIA) <marc.richard2@canada.ca>; Lake, Kevin (CFIA/ACIA) <kevin.lake@canada.ca>;  
 Dostaler, Sylvie (CFIA/ACIA) <sylvie.dostaler@canada.ca>; Stephen, Laura (HC/SC)  
 <laura.stephen@canada.ca>; Nahum, Marilyne (HC/SC) <marilyne.nahum@canada.ca>;

[REDACTED]

**Cc:** Enteric Outbreak / Éclosion Entérique (PHAC/ASPC) <phac.enteric.outbreak-eclosion.enterique.aspc@canada.ca>; Kershaw, Tanis (PHAC/ASPC) <tanis.kershaw@canada.ca>; Samadhin, Mark (PHAC/ASPC) <mark.samadhin@canada.ca>; Nichols, Theresa (SAC/ISC) <theresa.nichols@canada.ca>; Boldt, Perry (HC/SC) <perry.boldt@canada.ca>; Jones, Shannon (HC/SC) <shannon.jones@canada.ca>; Walker, Denise (HC/SC) <denise.walker@canada.ca>; Kenney, Katie (HC/SC) <katie.kenney@canada.ca>; Morrissette, Eric (HC/SC) <eric.morrissette@canada.ca>; Kehoe, Molly (HC/SC) <molly.kehoe@canada.ca>; Gillis, Lisa (HC/SC) <lisa.gillis@canada.ca>; Paine, Debbie (HC/SC) <debbie.paine@canada.ca>; Vuong2, Jennifer (HC/SC) <jennifer.vuong2@canada.ca>; Maddison, Anna (HC/SC) <anna.maddison@canada.ca>; Lumbu, Maganga (HC/SC) <maganga.lumbu@canada.ca>; Hinds, Chris (HC/SC) <chris.hinds@canada.ca>; Hexemer, April (PHAC/ASPC) <april.hexemer@canada.ca>

**Subject:** Heads Up: PHN Update - Salmonella Outbreak - Raw Turkey Raw Chicken - December 18

Good afternoon.

This is a heads up note to advise the PHAC is planning to issue an updated public health notice for the ongoing outbreak of Salmonella Reading illnesses linked to raw turkey and raw chicken. Please find attached the draft public health notice update planned for release on Wednesday, December 18.

This update highlights that 16 additional illnesses have been reported in the outbreak since our last update on October 1, prior to Thanksgiving. We are sitting at 126 confirmed cases. The public health advice remains unchanged from our previous notices.

Previous PHN updates are available online:

<https://www.canada.ca/en/public-health/services/public-health-notices/2018/outbreak-salmonella-illnesses-raw-turkey-raw-chicken.html>

<https://www.canada.ca/fr/sante-publique/services/avis-sante-publique/2018/eclosions-salmonellose-associees-dinde-crue-poulet-crus.html>

Please share this draft with your investigation leads for their awareness.

The tracked version reflects the changes that have been made since our last update on October 1.

Given the proximity of this release to the holiday season, and the evidence of an ongoing outbreak, this update will be pushed to the newswire and social media messages will be issued on our Healthy Canadians and GovCanHealth channels in an effort to remind Canadians about the importance of safe food handling practices during prime turkey-cooking season. Health Canada will also be issuing general food safety tips for holiday food safety on social media. If you are able to retweet or share these messages, please do.

If you have any questions or concerns, please let me know.



Thank you.  
SC

---

**SARA COLEMAN**

Senior Communications Advisor | Conseillère principale en communications

Infectious Disease Prevention and Control | La prévention et contrôle des maladies infectieuses

Communications and Public Affairs Branch | Direction générale des affaires publiques et des communications

Health Canada - Public Health Agency of Canada | Santé Canada - L'agence de la santé publique du Canada

120 chemin Colonnade Rd, Ottawa, Ontario K1A 0K9

613.882.7511 | [sara.coleman@canada.ca](mailto:sara.coleman@canada.ca) | PIN: 2C31A11D | #foodsafety



<https://www.canada.ca/en/public-health/services/public-health-notices/2018/outbreak-salmonella-illnesses-raw-turkey-raw-chicken.html>

## Public Health Notice — Outbreak of Salmonella illnesses linked to raw turkey and raw chicken

### Advice for consumers on safe food handling practices

Commented [SC1]: For web: This is a subheading to be added under the title of the notice, in smaller font.

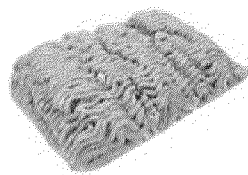
### ~~October 1~~ December 18, 2019 - Update

This public health notice update is being issued to inform Canadians of the investigation findings to date and to share important safe food-handling practices to help prevent further *Salmonella* infections. ~~Sixteen This notice has been updated to include reflects 16 additional 14 illnesses that have been reported added in to the ongoing outbreak investigation. There are now 12610 illnesses under investigation.~~

The Public Health Agency of Canada continues to remind Canadians to always handle raw turkey and raw chicken carefully, and to cook it thoroughly to prevent food-related illnesses like Salmonella. ~~The Public Health Agency of Canada is not advising that consumers avoid eating properly cooked turkey or chicken products, nor is it advising retailers to stop selling raw turkey and raw chicken products.~~ The Canadian Food Inspection Agency has not issued any food recall warnings related to this outbreak.

### On this page

- Why you should take note
- Investigation summary
- Who is most at risk
- What you should do to protect your health
- Symptoms
- What the Government of Canada is doing
- Epidemiological information
- Additional information
- Media contact
- Public inquiries
- Investigation history



### Why should you take note





The Public Health Agency of Canada is collaborating with provincial and territorial public health partners, the Canadian Food Inspection Agency and Health Canada to investigate an outbreak of *Salmonella* infections.

Based on the investigation findings to date, exposure to raw turkey and raw chicken products has been identified as the likely source of the outbreak. Many of the individuals who became sick reported eating different types of turkey and chicken products before their illnesses occurred.

The outbreak appears to be ongoing, as recent illnesses continue to be reported to the Public Health Agency of Canada.

*Salmonella* bacteria are commonly found in raw or undercooked poultry like turkey or chicken. The bacteria are most-often transmitted to people when they improperly handle, eat or cook contaminated foods.

This outbreak is a reminder of the importance of using safe food handling practices if you are preparing, cooking, cleaning or storing raw turkey and raw chicken products. These raw products can have bacteria that can easily be spread around food preparation areas and can make you sick if safe food-handling practices are not properly followed.

Canadians across the country are reminded to always handle raw turkey and raw chicken carefully, and to cook it thoroughly to prevent food-related illnesses like *Salmonella*. The Public Health Agency of Canada is not advising that consumers avoid eating properly cooked turkey or chicken products, nor is it advising retailers to stop selling raw turkey and raw chicken products.

This public health notice update is being issued to inform Canadians of the investigation findings to date and to share important safe food-handling practices to help prevent further *Salmonella* infections. This notice will be updated as the investigation evolves.

## Investigation summary

As of October 1 December 18, 2019, there have been 12610 confirmed cases of *Salmonella* Reading illness investigated in the following provinces and territories: British Columbia (3126), Alberta (4436), Saskatchewan (8), Manitoba (24), Ontario (87), Quebec (21), New Brunswick (1), Prince Edward Island (1), Northwest Territories (1), and Nunavut (6). Individuals became sick between April 2017 and August November 2019. Thirty-eightThirty-two individuals have been hospitalized. One individual has died. Individuals who became ill are between 0 and 96 years of age. The majority of cases (52%) are male. illnesses are equally distributed among males (50%) and females (50%).

The collaborative outbreak investigation was initiated due to an increase of *Salmonella* Reading illnesses that occurred in October and November 2018. Cases

Canada



have continued to be reported since the investigation was initiated. Through the use of a laboratory method called whole genome sequencing, some *Salmonella* illnesses dating back to 2017 were identified to have the same genetic strain as the illnesses that occurred in late 2018. ~~More than half of the~~ ~~The majority of~~ illnesses under investigation occurred between October 2018 and August ~~November~~ 2019.

It is possible that more recent illnesses may be reported in the outbreak because there is a period of time between when a person becomes ill and when the illness is reported to public health officials. ~~For this outbreak, the illness reporting period~~ ~~This period of time is called the case reporting delay.~~ ~~In national *Salmonella* outbreak investigations, the case reporting delay is usually between 5 and 6 weeks.~~

The United States Centers for Disease Control and Prevention (U.S. CDC) previously investigated similar *Salmonella* illnesses in several states that were linked to raw turkey exposure. There were some turkey products recalled in the U.S. that were associated with that outbreak. These products were not imported or distributed in the Canadian marketplace. The U.S. investigation was closed in April 2019.

## Who is most at risk

Anyone can become sick with a *Salmonella* infection, but infants, children, seniors and those with weakened immune systems are at higher risk of serious illness because their immune systems are more fragile.

Most people who become ill from a *Salmonella* infection will recover fully after a few days. It is possible for some people to be infected with the bacteria and to not get sick or show any symptoms, but to still be able to spread the infection to others.

## What should you do to protect your health

Raw turkey and raw chicken products carrying *Salmonella* may look, smell and taste normal, so it's important to always follow safe food-handling tips if you are buying, chilling, thawing, cleaning, cooking and storing any type of raw poultry food products.

**The Public Health Agency of Canada is reminding Canadians to always handle raw turkey and raw chicken carefully, and to cook it thoroughly to prevent food-related illnesses like *Salmonella*.** You can use the following food safety tips to help protect you and your family:

- Always wash your hands before and after you touch raw turkey and raw chicken. Wash with soap and warm water for at least 20 seconds. Use an alcohol-based hand rub if soap and water are not available.

Canada

**Commented [SC2]:** This is language used in our most recent PHN postings so I'm updating it to be consistent here.



- Always cook turkey and chicken products to a safe internal temperature that has been checked using a digital thermometer.
- Turkey and chicken breasts, as well as ground poultry, including turkey and chicken burgers, should always be cooked to an internal temperature of 74°C (165°F) to kill any harmful bacteria. Whole turkey and chicken should be cooked to an internal temperature of 82°C (180°F).
- Leftovers should be reheated to 74°C (165°F). Use a digital food thermometer to check, and place it in the thickest part of the food.
- Thaw frozen raw turkey and raw chicken in the fridge. Thawing raw turkey and raw chicken at room temperature can allow bacteria to grow.
- Never rinse raw turkey or raw chicken before cooking it because the bacteria can spread wherever the water splashes.
- Use a separate plate, cutting board, utensils and kitchen tools when preparing raw turkey and raw chicken.
- Clean everything that has come in contact with raw turkey or raw chicken with a kitchen cleaner or bleach solution and then rinse with water.
  - Kitchen cleaner (follow the instructions on the container)
  - Bleach solution (5 mL household bleach to 750 mL of water)
- Keep raw turkey and raw chicken away from other food while shopping, storing, repackaging, cooking and serving foods.
- If you have been diagnosed with a *Salmonella* infection or any other gastrointestinal illness, do not cook food for other people.
- Do not feed raw ground turkey or raw ground chicken to your pets. Bacteria like *Salmonella* in raw pet food can make your pets sick. Your family also can get sick by handling the raw food or by taking care of your pet.
- For more information, read our [poultry safety fact sheet](#).

## Symptoms

Symptoms of a *Salmonella* infection, called salmonellosis, typically start 6 to 72 hours after exposure to *Salmonella* bacteria from an infected animal or contaminated product.

Symptoms include:

- fever
- chills
- diarrhea
- abdominal cramps
- headache
- nausea
- vomiting



These symptoms usually last for four to seven days. In healthy people, salmonellosis often clears up without treatment. In some cases, severe illness and hospitalization may occur. In some cases, antibiotics may be required. People who are infected with *Salmonella* bacteria can be infectious from several days to several weeks. People who experience symptoms, or who have underlying medical conditions, should contact their health care provider if they suspect they have a *Salmonella* infection.

## What is the Government of Canada doing

The Government of Canada is committed to food safety. The Public Health Agency of Canada leads the human health investigation into an outbreak and is in regular contact with its federal, provincial and territorial partners to monitor the situation and to collaborate on steps to address an outbreak.

Health Canada provides food-related health risk assessments to determine whether the presence of a certain substance or microorganism poses a health risk to consumers.

The Canadian Food Inspection Agency conducts food safety investigations into the possible food source of an outbreak.

The Government of Canada will continue to update Canadians if new information related to these investigations becomes available.

## Epidemiological information

Figure 1 is an epidemiological curve for this outbreak. Outbreak investigators use this information to show when illnesses begin, when they peak, and when they trail off. It can take several weeks from the time a person becomes ill to when the illness is reported and testing confirms a link to the outbreak. Data are available for 12610 cases.

Figure 1: Number of people infected with *Salmonella* Reading

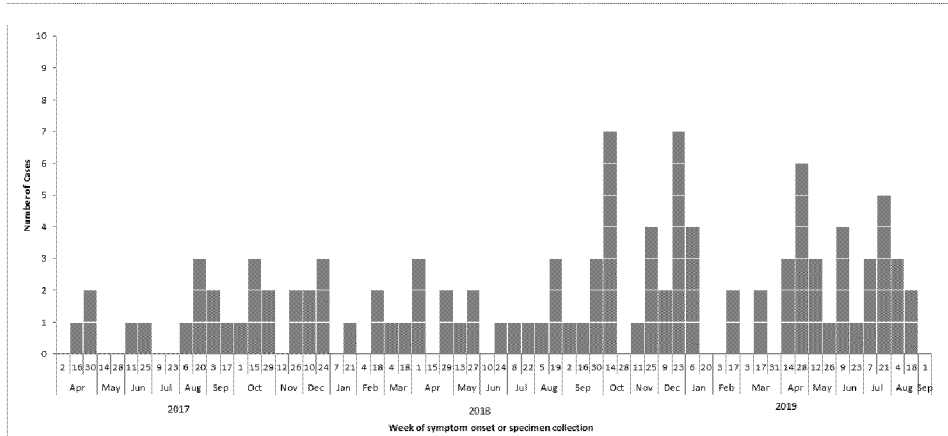
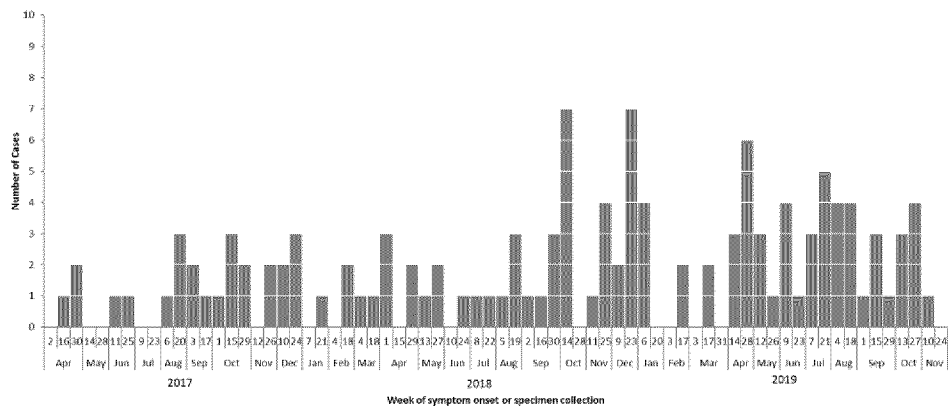


Figure 1: Text description

Table 1 - Number of people confirmed to be infected with *Salmonella* Reading by week of illness onset or specimen collection

| Week of symptom onset or specimen collection | Number of cases |
|----------------------------------------------|-----------------|
| 2017-04-02                                   | 0               |
| 2017-04-16                                   | 1               |



Table 1 - Number of people confirmed to be infected with *Salmonella* Reading by week of illness onset or specimen collection

| Week of symptom onset or specimen collection | Number of cases |
|----------------------------------------------|-----------------|
| 2017-04-30                                   | 2               |
| 2017-05-14                                   | 0               |
| 2017-05-28                                   | 0               |
| 2017-06-11                                   | 1               |
| 2017-06-25                                   | 1               |
| 2017-07-09                                   | 0               |
| 2017-07-23                                   | 0               |
| 2017-08-06                                   | 1               |
| 2017-08-20                                   | 3               |
| 2017-09-03                                   | 2               |
| 2017-09-17                                   | 1               |
| 2017-10-01                                   | 1               |





Table 1 - Number of people confirmed to be infected with *Salmonella* Reading by week of illness onset or specimen collection

| Week of symptom onset or specimen collection | Number of cases |
|----------------------------------------------|-----------------|
| 2017-10-15                                   | 3               |
| 2017-10-29                                   | 2               |
| 2017-11-12                                   | 0               |
| 2017-11-26                                   | 2               |
| 2017-12-10                                   | 2               |
| 2017-12-24                                   | 3               |
| 2018-01-07                                   | 0               |
| 2018-01-21                                   | 1               |
| 2018-02-04                                   | 0               |
| 2018-02-18                                   | 2               |
| 2018-03-04                                   | 1               |
| 2018-03-18                                   | 1               |



Table 1 - Number of people confirmed to be infected with *Salmonella* Reading by week of illness onset or specimen collection

| Week of symptom onset or specimen collection | Number of cases |
|----------------------------------------------|-----------------|
| 2018-04-01                                   | 3               |
| 2018-04-15                                   | 0               |
| 2018-04-29                                   | 2               |
| 2018-05-13                                   | 1               |
| 2018-05-27                                   | 2               |
| 2018-06-10                                   | 0               |
| 2018-06-24                                   | 1               |
| 2018-07-08                                   | 1               |
| 2018-07-22                                   | 1               |
| 2018-08-05                                   | 1               |
| 2018-08-19                                   | 3               |
| 2018-09-02                                   | 1               |



Table 1 - Number of people confirmed to be infected with *Salmonella* Reading by week of illness onset or specimen collection

| Week of symptom onset or specimen collection | Number of cases |
|----------------------------------------------|-----------------|
| 2018-09-16                                   | 1               |
| 2018-09-30                                   | 3               |
| 2018-10-14                                   | 7               |
| 2018-10-28                                   | 0               |
| 2018-11-11                                   | 1               |
| 2018-11-25                                   | 4               |
| 2018-12-09                                   | 2               |
| 2018-12-23                                   | 7               |
| 2019-01-06                                   | 4               |
| 2019-01-20                                   | 0               |
| 2019-02-03                                   | 0               |
| 2019-02-17                                   | 2               |



Table 1 - Number of people confirmed to be infected with *Salmonella* Reading by week of illness onset or specimen collection

| Week of symptom onset or specimen collection | Number of cases |
|----------------------------------------------|-----------------|
| 2019-03-03                                   | 0               |
| 2019-03-17                                   | 2               |
| 2019-03-31                                   | 0               |
| 2019-04-14                                   | 3               |
| 2019-04-28                                   | 6               |
| 2019-05-12                                   | 3               |
| 2019-05-26                                   | 1               |
| 2019-06-09                                   | 4               |
| 2019-06-23                                   | 1               |
| 2019-07-07                                   | 3               |
| 2019-07-21                                   | 5               |
| 2019-08-04                                   | 43              |



Table 1 - Number of people confirmed to be infected with *Salmonella* Reading by week of illness onset or specimen collection

| Week of symptom onset or specimen collection | Number of cases |
|----------------------------------------------|-----------------|
| 2019-08-18                                   | 42              |
| 2019-09-01                                   | 10              |
| 2019-09-15                                   | 3               |
| 2019-09-29                                   | 1               |
| 2019-10-13                                   | 3               |
| 2019-10-27                                   | 4               |
| 2019-11-10                                   | 1               |
| 2019-11-24                                   | 0               |

## Additional information

- [U.S. CDC's Outbreak Investigation Notice](#)
- [Salmonella](#)
- [Poultry Safety](#)
- [General Food Safety Tips](#)
- [Recalls and safety alerts mobile app](#)



## Media contact

Public Health Agency of Canada  
Media Relations  
613-957-2983

## Public inquiries

Call toll-free: 1-866-225-0709  
Email: [info@hc-sc.gc.ca](mailto:info@hc-sc.gc.ca)

## Investigation history

### Public Health Notice Update – October 1, 2019

This update reflects 14 illnesses that have been added to the outbreak investigation. There are now 110 illnesses under investigation. The Public Health Agency of Canada continues to remind Canadians to always handle raw turkey and raw chicken carefully, and to cook it thoroughly to prevent food-related illnesses like Salmonella. The Canadian Food Inspection Agency has not issued any food recall warnings related to this outbreak.

### Investigation summary

As of October 1, 2019, there have been 110 confirmed cases of *Salmonella* Reading illness investigated in the following provinces and territories: British Columbia (26), Alberta (36), Saskatchewan (8), Manitoba (24), Ontario (7), Quebec (1), New Brunswick (1), Northwest Territories (1), and Nunavut (6). Individuals became sick between April 2017 and August 2019. Thirty-two individuals have been hospitalized. One individual has died. Individuals who became ill are between 0 and 96 years of age. The illnesses are equally distributed among males (50%) and females (50%).

The collaborative outbreak investigation was initiated due to an increase of *Salmonella* Reading illnesses that occurred in October and November 2018. Cases have continued to be reported since the investigation was initiated. Through the use of a laboratory method called whole genome sequencing, some *Salmonella* illnesses dating back to 2017 were identified to have the same genetic strain as the illnesses that occurred in late 2018. More than half of the illnesses under investigation occurred between October 2018 and August 2019.

It is possible that more recent illnesses may be reported in the outbreak because there is a period of time between when a person becomes ill and when the illness is

**Commented [SC3]:** For web: Please put the content below in a closed panel using this text as the title of the panel.



reported to public health officials. This period of time is called the case reporting delay. In national *Salmonella* outbreak investigations, the case reporting delay is usually between 5 and 6 weeks.

The United States Centers for Disease Control and Prevention (U.S. CDC) previously investigated similar *Salmonella* illnesses in several states that were linked to raw turkey exposure. There were some turkey products recalled in the U.S. that were associated with that outbreak. These products were not imported or distributed in the Canadian marketplace. The U.S. investigation was closed in April 2019.

Public Health Notice Update - July 30, 2019

Public Health Notice Update - January 31, 2019

Public Health Notice Update - January 8, 2019

Public Health Notice - December 21, 2018

**Commented [SC4]:** For translation: This content is not new. It does not need to be translated. It was previously translated and is available in the most recent update issued on October 1, 2019: <https://www.canada.ca/fr/sante-publique/services/avis-sante-publique/2018/eclosions-salmonellose-associees-dinde-crue-poulet-crus.html>

**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-24 5:39 PM  
**To:** Gallagher, Gerry (PHAC/ASPC)  
**Cc:** Namiesniowski, Tina (PHAC/ASPC); Thornton, Sally (PHAC/ASPC); Romano, Anna (PHAC/ASPC)  
**Subject:** Re: HEADS UP: tentative report of new VALI case in Canada

---

Thanks Gerry

Sent from my iPhone

On Dec 24, 2019, at 14:09, Gallagher, Gerry (PHAC/ASPC) <[gerry.gallagher@canada.ca](mailto:gerry.gallagher@canada.ca)> wrote:

Hello all,

This is to close the loop to confirm that the process that Anna confirmed with Health Canada last week for official notification of probable or confirmed VALI cases has been updated.

We will now also apply the process to include heads up of expected notification for first cases in jurisdictions, as per request by Dr. Tam's request this morning. See below the HEADS UP email sent from the single window this morning.

We will send an updated process map on Friday to reflect this.

Gerry

613 850 2742 (mobile)

613 954 8629 (office)

---

**From:** Vaping illness-maladie vapotage (PHAC/ASPC) <[phac.vapingillness-maladievapotage.aspc@canada.ca](mailto:phac.vapingillness-maladievapotage.aspc@canada.ca)>

**Sent:** 2019-12-24 10:29 AM

**To:** Tam, Dr Theresa (PHAC/ASPC) [REDACTED] Namiesniowski, Tina (PHAC/ASPC) <[tina.namiesniowski@canada.ca](mailto:tina.namiesniowski@canada.ca)>; Lucas, Stephen (HC/SC) <[stephen.lucas@canada.ca](mailto:stephen.lucas@canada.ca)>; Thornton, Sally (PHAC/ASPC) <[sally.thornton@canada.ca](mailto:sally.thornton@canada.ca)>

**Cc:** Romano, Anna (PHAC/ASPC) <[anna.romano@canada.ca](mailto:anna.romano@canada.ca)>; Bogden, Jacqueline (HC/SC) <[jacqueline.bogden@canada.ca](mailto:jacqueline.bogden@canada.ca)>; Hollington, Jennifer (HC/SC) <[jennifer.hollington@canada.ca](mailto:jennifer.hollington@canada.ca)>; Morin, David (HC/SC) <[david.morin@canada.ca](mailto:david.morin@canada.ca)>; Costen, Eric (HC/SC) <[eric.costen@canada.ca](mailto:eric.costen@canada.ca)>; Van Loon, James (HC/SC) <[james.vanloon@canada.ca](mailto:james.vanloon@canada.ca)>; Gallagher, Gerry (PHAC/ASPC) <[gerry.gallagher@canada.ca](mailto:gerry.gallagher@canada.ca)>; Ugnat, Anne-Marie (PHAC/ASPC) <[anne-marie.ugnat@canada.ca](mailto:anne-marie.ugnat@canada.ca)>; Ogunnaike-Cooke, Susanna (PHAC/ASPC) <[susanna.ogunnaike-cooke@canada.ca](mailto:susanna.ogunnaike-cooke@canada.ca)>; Beaton, Dana (HC/SC) <[dana.beaton@canada.ca](mailto:dana.beaton@canada.ca)>; Hrynuik, Lisa (PHAC/ASPC) <[lisa.hrynuik@canada.ca](mailto:lisa.hrynuik@canada.ca)>; MacKenzie, Sara (HC/SC) <[sara.mackenzie@canada.ca](mailto:sara.mackenzie@canada.ca)>; Johnstone, Marnie (PHAC/ASPC) <[marnie.johnstone@canada.ca](mailto:marnie.johnstone@canada.ca)>; Killen, Marita (PHAC/ASPC) <[marita.killen@canada.ca](mailto:marita.killen@canada.ca)>; White, Belinda (HC/SC) <[belinda.white@canada.ca](mailto:belinda.white@canada.ca)>; Boudreau, Michelle (HC/SC) <[michelle.boudreau@canada.ca](mailto:michelle.boudreau@canada.ca)>; Cain, Todd (HC/SC) <[todd.cain@canada.ca](mailto:todd.cain@canada.ca)>; Toews, Jennette (PHAC/ASPC) <[jennette.toews@canada.ca](mailto:jennette.toews@canada.ca)>

**Subject:** HEADS UP: tentative report of new VALI case in Canada  
**HEADS UP – Tentative report of new VALI case in Canada**



- One new confirmed case of vaping-associated lung illness has been TENTATIVELY reported to PHAC from Alberta on Dec 23, 2019. The CMOH-AB expects to officially report this case once case details are available. This would be the first reported case in Alberta.
- Case information has not yet been provided to the CMOH-AB or PHAC.
- Alberta expects to OFFICIALLY report their first case to PHAC by Tues Dec 31<sup>st</sup> in time for the next Government of Canada web update.
- Alberta plans to announce this case to the media on Jan 2, 2020.
- When and if the official report comes, it would bring the total number of cases of vaping-associated lung illness to 15, reported to PHAC from AB (1), BC (3), ON (4), QC (5), and NB (2).

**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-13 5:12 PM  
**To:** Hostrawser, Bonnie (PHAC/ASPC); Macey, Jeannette (PHAC/ASPC)  
**Subject:** Fwd: Health Canada Releases Results of the Canadian Cannabis Survey / Santé Canada publie les résultats de l'Enquête canadienne sur le cannabis

---

Interesting stats

Sent from my iPhone

Begin forwarded message:

**From:** "Bogden, Jacqueline (HC/SC)" <jacqueline.bogden@canada.ca>  
**Date:** December 13, 2019 at 15:04:45 EST  
**To:** "Beresford-Green, Debbie (HC/SC)" <debbie.beresford-green@canada.ca>, "Hoffman, Abby (HC/SC)" <abby.hoffman@canada.ca>, "Hollington, Jennifer (HC/SC)" <jennifer.hollington@canada.ca>, "Ianiro, Robert (HC/SC)" <robert.ianiro@canada.ca>, "Larkin, Randy (HC/SC)" <randy.larkin@canada.ca>, "Sabourin, Pierre (HC/SC)" <pierre.sabourin@canada.ca>, "Trombetti, Stefania (HC/SC)" <stefania.trombetti@canada.ca>, "Costen, Eric (HC/SC)" <eric.costen@canada.ca>, "Saulnier, Marcel (HC/SC)" <marcel.saulnier@canada.ca>, "Weber, Kendal (HC/SC)" <kendal.weber@canada.ca>, "Brander, Peter (HC/SC)" <peter.brander@canada.ca>, "Tam, Dr Theresa (PHAC/ASPC)" <[REDACTED]>, "Romano, Anna (PHAC/ASPC)" <anna.romano@canada.ca>, "Barnes, Colleen (CFIA/ACIA)" <colleen.barnes@canada.ca>, "Bouchard-Steeves, Nicole (CFIA/ACIA)" <nicole.bouchard-steeves@canada.ca>  
**Cc:** "Johnson, Sonia (HC/SC)" <sonia.johnson@canada.ca>, "Laroche, Julie (HC/SC)" <julie.laroche@canada.ca>, "Beaudry, Isabelle (HC/SC)" <isabelle.beaudry@canada.ca>, "Dickson, Samantha M (HC/SC)" <samantham.dickson@canada.ca>, "Routhier, Sonia (HC/SC)" <sonia.routhier@canada.ca>, "Gauthier, Louise E (HC/SC)" <louisee.gauthier@canada.ca>, "Stacey, Heather (HC/SC)" <heather.stacey@canada.ca>, "Wright, Kate (HC/SC)" <kate.wright@canada.ca>, "Morrison, Michelle (HC/SC)" <michelle.morrison@canada.ca>, "Lapenskie, Teena (HC/SC)" <teena.lapenskie@canada.ca>, "Berthel, Lucie (HC/SC)" <lucie.berthel@canada.ca>, "Smith, Terry LP (HC/SC)" <terrylp.smith@canada.ca>, "Kotoulas, Maria (HC/SC)" <maria.kotoulas@canada.ca>, "White3, Samantha (HC/SC)" <samantha.white3@canada.ca>  
**Subject:** Health Canada Releases Results of the Canadian Cannabis Survey / Santé Canada publie les résultats de l'Enquête canadienne sur le cannabis

\*\*\* *Un message français suit* \*\*\*

Dear Colleagues,

I am pleased to inform you that today, Health Canada published the results of its 2019 Canadian Cannabis Survey (CCS), which captures the first set of data following the legalization and strict regulation of cannabis use in Canada. Results of the survey provide a snapshot of Canadians' knowledge, attitudes and behaviours towards cannabis and its use. Data were collected from April to June 2019.

The survey results will help to evaluate the impact of the *Cannabis Act* and to inform policy and program development, and public education and awareness activities. This important research complements data collected through Health Canada's national drug surveillance surveys—the Canadian Tobacco, Alcohol and Drugs Survey and the Canadian Student Tobacco, Alcohol and Drugs Survey.

Key findings show that:

- **More than half of those who use cannabis use it three days a month or less.** There was no increase in daily use following coming into force of the *Cannabis Act*.
- **Smoking remains the most common form of consumption of cannabis but it has declined, while eating cannabis products has increased.** A decline in smoking and an increase in eating cannabis underscores the importance of regulating other forms of cannabis products.
- **Close to a third of those who use cannabis aren't aware of the THC and CBD levels.**  
Information about THC and CBD levels is required on the labelling of cannabis products to ensure Canadians can make informed decisions to protect their health and safety.
- **More than 4 in 10 of those who choose to use cannabis obtain it through either a legal retail storefront or legal online retailer.** The top factors influencing where cannabis is obtained are product quality/safe supply, followed by price and convenience.
- **More than 7 in 10 Canadians feel that they have access to trustworthy information to make informed decisions about cannabis.** Information about the health risks associated with cannabis use is widely available and is reaching Canadians.
- **One quarter (25%) of those who use cannabis drove within two hours of smoking or vaporizing cannabis in their lifetime, and 16% reported driving within four hours of orally ingesting cannabis in their lifetime.** Work needs to continue to ensure Canadians are not driving impaired.

The federal government will continue to conduct research and share the results with Canadians, public health officials, provinces and territories, and other stakeholders.

The highlights report on the CCS can be found at the following link: <https://www.canada.ca/en/health-canada/services/publications/drugs-health-products/canadian-cannabis-survey-2019-summary.html>

I want to thank the Communications and Public Affairs Branch for their tremendous support throughout this project. I also wish to extend sincere congratulations to the team in the Office of Drug Research and Surveillance in the Controlled Substances Directorate, who continue to make the Survey better every year.

Should you have any questions or comments, please contact me or Sonia Johnson, Director and Julie Laroche, Associate Director, at [sonia.johnson@canada.ca](mailto:sonia.johnson@canada.ca) and [julie.laroche@canada.ca](mailto:julie.laroche@canada.ca).

Jacqueline Bogden  
Assistant Deputy Minister  
Controlled Substances and Cannabis Branch  
Health Canada

\*\*\*\*\*

Chers collègues,

C'est avec plaisir que je vous informe que Santé Canada a publié aujourd'hui les résultats de son Enquête canadienne sur le cannabis de 2019, qui recueille le premier ensemble de données à la suite de la légalisation et de la réglementation stricte de la consommation de cannabis au Canada. Les résultats de l'enquête donnent un aperçu des connaissances, des attitudes et des comportements des Canadiens à l'égard du cannabis et de sa consommation. Les données ont été recueillies d'avril à juin 2019.

Les résultats de l'enquête aideront à évaluer l'incidence de la *Loi sur le cannabis* et à éclairer l'élaboration des politiques et des programmes ainsi que les activités d'éducation et de sensibilisation du public. Cette importante recherche complète les données recueillies dans le cadre des enquêtes nationales de surveillance des médicaments de Santé Canada – l'Enquête canadienne sur le tabac, l'alcool et les drogues et l'Enquête canadienne sur le tabac, l'alcool et les drogues chez les élèves.

Les principales conclusions montrent que :

- **Plus de la moitié de ceux qui consomment du cannabis en consomment trois jours par mois ou moins.** Il n'y a pas eu d'augmentation de la consommation quotidienne après l'entrée en vigueur de la *Loi sur le cannabis*.
- **La consommation de cannabis sous forme de cigarette demeure la méthode la plus courante, mais elle a diminué, tandis que la consommation sous forme de produits comestibles a augmenté.** Une diminution de la proportion de consommateurs ayant fumé du cannabis et une augmentation de la consommation dans un aliment soulignent l'importance de réglementer d'autres formes de produits du cannabis.
- **Près d'un tiers de ceux qui consomment du cannabis ne connaissent pas les niveaux de THC et de CBD.** L'information sur les concentrations de THC et de CBD doit figurer sur l'étiquette des produits du cannabis pour que les Canadiens puissent prendre des décisions éclairées afin de protéger leur santé et leur sécurité.
- **Plus de 4 consommateurs sur 10 qui choisissent de consommer du cannabis s'en procurent auprès d'un détaillant légal ou d'un détaillant en ligne légal.** Les principaux facteurs qui influencent l'endroit où le cannabis est obtenu sont la qualité et l'innocuité des produits, suivis du prix et de la commodité.
- **Plus de 7 Canadiens sur 10 estiment qu'ils ont accès à des renseignements fiables pour prendre des décisions éclairées au sujet du cannabis.** L'information sur les risques pour la santé associés à la consommation de cannabis est largement disponible et atteint les Canadiens.
- **Le quart (25 %) des personnes qui consomment du cannabis ont conduit moins de deux heures après avoir fumé ou vapoté du cannabis au cours de leur vie, et 16 % d'entre elles ont rapporté avoir pris le volant dans les quatre heures suivant l'ingestion orale de cannabis au cours de leur vie.** Il y a du travail à faire pour

s'assurer que les Canadiens ne conduisent pas avec les facultés affaiblies.

Le gouvernement fédéral continuera de mener des recherches et de partager les résultats avec les Canadiens, les responsables de la santé publique, les provinces, les territoires et d'autres intervenants.

L'enquête nous aide à mieux comprendre les connaissances, les attitudes et les comportements des Canadiens qui consomment du cannabis à des fins non médicales et médicales, et guide nos programmes et nos politiques, y compris les efforts d'éducation du public. L'enquête de cette année comprend un certain nombre de nouvelles questions et permet de rapporter certains des résultats pour chaque province et pour les territoires combinés.

Vous trouverez le rapport sur les faits saillants de l'Enquête canadienne sur le cannabis au lien suivant :

**<https://www.canada.ca/fr/sante-canada/services/publications/medicaments-et-produits-sante/enquete-canadienne-cannabis-2019-sommaire.html>**

Je tiens à remercier la Direction générale des communications et des affaires publiques de son appui extraordinaire tout au long de ce projet. Je tiens également à féliciter sincèrement l'équipe du Bureau de la recherche et de la surveillance des drogues de la Direction des substances contrôlées, qui continue d'améliorer le sondage chaque année.

Si vous avez des questions ou des commentaires, n'hésitez pas à communiquer avec moi ou à les transmettre à Sonia Johnson, directrice, et à Julie Laroche, directrice adjointe, à [sonia.johnson@canada.ca](mailto:sonia.johnson@canada.ca) et à [julie.laroche@canada.ca](mailto:julie.laroche@canada.ca).

Jacqueline Bogden

Sous-ministre adjointe

Direction générale des substances contrôlées et du cannabis

Santé Canada

**From:** [Tam, Dr Theresa \(PHAC/ASPC\)](#)  
**Sent:** 2019-12-12 5:56 PM  
**To:** [Jennifer Rendall](#); [Macey, Jeannette \(PHAC/ASPC\)](#)  
**Subject:** FW: Health Talks pics  
**Attachments:** DSC\_4047.JPG; DSC\_3798.jpg

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More pics

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**From:** McLeod, Robyn (PHAC/ASPC)  
**Sent:** 2019-12-12 4:02 PM  
**To:** Tam, Dr Theresa (PHAC/ASPC)  
**Subject:** FW: Health Talks pics



WITHHELD / RETENUE

Is(Are) exempted and/or excluded pursuant to section(s)  
est(sont) exemptée(s) et/ou exclus en vertu de(s)(l')article(s)

19(1)

Subject to subsection (2), the head of a government institution shall refuse to disclose any record requested under this Act that contains personal information as defined in section 3 of the Privacy Act

Sous réserve du paragraphe (2), le responsable d'une institution fédérale est tenu de refuser la communication de documents contenant les renseignements personnels visés à l'article 3 de la Loi sur la protection des renseignements personnels



**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-20 4:42 PM  
**To:** [REDACTED]  
**Subject:** RE: Healthcare Management Forum special edition on Pandemics

**Attachments:** Healthcare Mgmt Forum Article 18Dec2019 FINAL.docx

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Hi both

As I went through different versions of the manuscript the focus changed to one of preparing for uncertainty (Disease X) through good planning/preparedness.

I will have a couple of other ideas that have to be built in but thought I would let you both have a quick look at this version to see if you are OK with the general direction.

I am working Monday and Tuesday of next week and will probably work on it over the Christmas break so feel free to send me some advice if you have time.

Have a happy and healthy holiday season.

TT

---

**From:** [REDACTED]  
**Sent:** 2019-08-17 8:22 AM  
**To:** [REDACTED]; Tam, Dr Theresa (PHAC/ASPC)  
**Subject:** RE: Healthcare Management Forum special edition on Pandemics

And it may be of interest to you that we will have an article written by Bonnie Adamson, the former CEO of the London Health Sciences Centre, who was the CEO of the hospital in Toronto who treated the SARS patients all those years ago. It'll be a nice complement to have article about SARS written from two different perspectives.

Best, [REDACTED]

---

**From:** [REDACTED]  
**Sent:** August-17-19 7:00 AM  
**To:** Tam, Dr Theresa (PHAC/ASPC)  
**Cc:** [REDACTED]  
**Subject:** Re: Healthcare Management Forum special edition on Pandemics

I think that would update be a good complement to the other articles, and appropriate to come from you. I agree re writing it for health care leaders, and what they can and should keep in mind.

Some of the lessons from SARS point to the need change institutional practice during an event. ie resist transferring nurses and patients between hospitals, re-organizing staff to work at one institution so as to not transfer patients. Engage PH expertise with their infection control, eg someone should have been monitoring for any patients with fever and symptoms to be isolated and tested. Also scrupulous hand washing and universal precautions etc. And others you may think of as appropriate.

Thanks again for doing this.

[REDACTED]

On Aug 16, 2019, at 9:11 PM, Tam, Dr Theresa (PHAC/ASPC)

[REDACTED] wrote:

Thanks for the comment [REDACTED] I did have Health leaders in mind so will definitely orientate the article towards them and what they can do.

TT

Sent from my iPhone

On Aug 16, 2019, at 19:56, [REDACTED] wrote:

Thanks Theresa. It will be important to include a paragraph to two about what health leaders should do with this information too.

[REDACTED] over to you for comment.

Best,  
[REDACTED]

---

**From:** Tam, Dr Theresa (PHAC/ASPC)

[mailto:[REDACTED]]

**Sent:** August-16-19 7:40 PM

**To:** [REDACTED]

**Cc:** [REDACTED]

**Subject:** RE: Healthcare Management Forum special edition on Pandemics

H [REDACTED]

Just quick check in to see if you think the following scope and outline is what you will be looking for.

Following from the lead in to the 15 years post-SARS commentary\* the plan would be to: modify and pitch at a more global level; target to the health systems/health leadership audience; and be less of a historical perspective/more forward looking to address things like need for real-time data, research and innovation, etc....

**\*Commentary - Fifteen years post-SARS: Key milestones in Canada's public health emergency response**

<https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2018-44/issue-5-may-3-2018/article-1-post-sars-key-milestones.html>

**Proposed outline for the article:**

- Global surveillance/early warning systems
- Alerting front line physicians / health providers (triage/diagnosis/clinical mgmt. vs. surveillance definitions/epi)
  - Intersection with healthcare systems is the catalyst that must be able to minimise/neutralise risk:

- Bringing home things like need to take travel history from everyone who walks through the door/interacts with health system; IPC is key to all exposure prevention (practices/guidance on PPE, triage, prioritising, surge, physical design, flow etc.
- Need for real time reporting (clinical, lab, epi linkages to get the real-time data that informs precision response)
- Surveillance case definition vs clinical management
  - Lab, epi and clinical link – improvements?
- Infection Prevention and Control – IPC debates and workforce protection always feature, can't afford to relax IPC, need to close gaps
  - Ebola ←underscores importance of community engagement/risk comms (ex. Safe burials)
  - Pandemic Flu /SARS – seasonal flu ←ex. SARS no visitors/lock downs, need for public engagement/risk comms)
- Community engagement/risk comms
  - Modern comms (technology, social media, trust, engagement)
  - E.g. Ebola second time around/Social cultural factors; community engagement and trust
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  - Message to CEOs: need to be the credible source, align with other authorities; must maintain local population engagement (critical to know/understand the communities they serve; socio/behavioural science is as important as the biomedical – need to involve this expertise) and build multisectoral systems preparedness (clinical, public health, lab, social services, critical infrastructure, security, HR and people management)
- Opioids
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  - Clinical mgmt. and diagnosis are huge in informing the response – must go hand-in-hand with public health response to inform and adjust with precision
  - Setting up studies/research at the time of a crisis challenging (must have prepared processes, protocols, networks in place); the temptation to manage/treat using empirical approaches when in fact as research may be the only/most appropriate means to answer certain questions so need to plan ahead/prepare system to be able, nimble enough to do research during crises
- Disease X – address here or integrate into the conclusion...
  - systematic preparedness for any event
  - flexible, scalable
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  - everyone know your role and excel at it

- **Conclude with:** need for flexible, scalable response is key to managing any future emergency and adapting to unknowns; know your role and excel at it, connect/engage across sectors to seamlessly link/remove gaps before an emergency

---

**From:** [REDACTED]  
**Sent:** 2019-08-06 12:03 PM  
**To:** Tam, Dr Theresa (PHAC/ASPC) [REDACTED]  
**Cc:** [REDACTED] McLeod, Robyn (PHAC/ASPC) <[robyn.mcleod@canada.ca](mailto:robyn.mcleod@canada.ca)>; Macey, Jeannette (PHAC/ASPC) <[jeannette.macey@canada.ca](mailto:jeannette.macey@canada.ca)>  
**Subject:** RE: Healthcare Management Forum special edition on Pandemics

Hi Theresa,

Hope all is well.

Just checking in on the article. Have you started to write it yet?

Best,

---

**From:** [REDACTED]  
**Sent:** June-03-19 1:11 PM  
**To:** 'Tam, Dr Theresa (PHAC/ASPC)'  
**Cc:** [REDACTED] 'McLeod, Robyn (PHAC/ASPC)'; 'Macey, Jeannette (PHAC/ASPC)'  
**Subject:** RE: Healthcare Management Forum special edition on Pandemics

I fully understand. Thanks Theresa. I'll check back with you again in August. Best [REDACTED]

---

**From:** Tam, Dr Theresa (PHAC/ASPC) [mailto:[REDACTED]]  
**Sent:** June-03-19 12:52 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED] McLeod, Robyn (PHAC/ASPC); Macey, Jeannette (PHAC/ASPC)  
**Subject:** Re: Healthcare Management Forum special edition on Pandemics

Hi [REDACTED]

I have not and will unlikely be getting around to it until late July/August time frame. I did have an initial exchange with [REDACTED] on what he would see being helpful.

It all boils down to managing workload and changing environments!

TT

Sent from my iPhone

On Jun 3, 2019, at 10:09, [REDACTED]  
wrote:

Good morning Theresa,

Just checking back about the article (due January). Have you started to map it out and write yet?

Thanks for the info.  
[REDACTED]

---

**From:** Tam, Dr Theresa (PHAC/ASPC)  
[mailto:[REDACTED]]  
**Sent:** January-09-19 6:58 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED] McLeod, Robyn (PHAC/ASPC); Macey, Jeannette (PHAC/ASPC)  
**Subject:** Re: Healthcare Management Forum special edition on Pandemics

Hi [REDACTED]

I am not sure why but your emails are ending up in the junk mail folder.

Thank you for the additional information. Good to know there is some lead time.

[REDACTED]  
Were you thinking of something like this but updated and tailored more to the readership of the Healthcare Management Forum journal?

**CCDR: Volume 44-5, May 3, 2018: Emergency Response**

<https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2018-44/issue-5-may-3-2018.html>

**Commentary - Fifteen years post-SARS: Key milestones in Canada's public health emergency response, T Tam 1†\***

<https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2018-44/issue-5-may-3-2018/article-1-post-sars-key-milestones.html>

Sent from my iPhone

On Jan 7, 2019, at 3:59 PM, [REDACTED]

[REDACTED] wrote:

Hello folks,

Thanks for keeping us on track [REDACTED]

Theresa, the deadline for articles for peer review is Jan 15, 2020 and the authors' guidelines can be found here (2,500 words and not 2,000 as they indicate):

<https://us.sagepub.com/en-us/nam/journal/healthcare-management-forum#submission-guidelines>

Please let me know if you need any information and I do hope we can work together!

Best,

[REDACTED]

-----Original Message-----

From: [REDACTED]

[mailto:[REDACTED]]

Sent: January-07-19 3:44 PM

To: [REDACTED]

Cc: [REDACTED]

Subject: Healthcare Management Forum special edition on Pandemics

I hope you had a lovely time over the holidays.

I will be [REDACTED] on this planned Journal issue next year.

I was hoping you would be willing to submit an article for this edition.

I was thinking perhaps along the lines of how the lessons from SARS,

pandemic H1 and other events have changed how we plan for and respond to whatever new emerging major outbreaks or pandemics we will face in the future. And what other institutions need pay attention to.

Or if you have another suggestion?

Happy to chat about it whenever works for you.

[REDACTED] can outline timing, logistics etc.

Thanks



**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-22 1:58 PM  
**To:** Macey, Jeannette (PHAC/ASPC)  
**Subject:** Fwd: Healthcare Management Forum special edition on Pandemics

---

**Attachments:** Healthcare Mgmt Forum Article 18Dec2019 FINAL.docx; ATT00001.htm

Sent from my iPhone

Begin forwarded message:

**From:** [REDACTED]  
**Date:** December 22, 2019 at 09:19:18 EST  
**To:** "Tam, Dr Theresa (PHAC/ASPC)" [REDACTED]  
**Cc:** [REDACTED]  
**Subject: Re: Healthcare Management Forum special edition on Pandemics**

I like the direction you are taking this as clearly the risks remain, are uncertain, and we seem to be forgetting the lessons of the recent past. It is ultimately about being able to apply the principles and approaches we have learned, plan for the likely and thus be better able to respond to the unanticipated in a proportional appropriate way.  
All the best over the holidays.  
And a Merry Christmas!  
Memories of the elf hat and Christmas cheer still give me a smile.

[REDACTED]

On Dec 20, 2019, at 4:43 PM, Tam, Dr Theresa (PHAC/ASPC) [REDACTED] wrote:

Hi both  
As I went through different versions of the manuscript the focus changed to one of preparing for uncertainty (Disease X) through good planning/preparedness.  
I will have a couple of other ideas that have to be built in but thought I would let you both have a quick look at this version to see if you are OK with the general direction.  
I am working Monday and Tuesday of next week and will probably work on it over the Christmas break so feel free to send me some advice if you have time.  
Have a happy and healthy holiday season.  
TT

---

**From:** [REDACTED]  
**Sent:** 2019-08-17 8:22 AM



**To:** [REDACTED] Tam, Dr Theresa  
(PHAC/ASPC) [REDACTED]

**Subject:** RE: Healthcare Management Forum special edition on  
Pandemics

And it may be of interest to you that we will have an article written by Bonnie Adamson, the former CEO of the London Health Sciences Centre, who was the CEO of the hospital in Toronto who treated the SARS patients all those years ago. It'll be a nice complement to have article about SARS written from two different perspectives.

Best [REDACTED]

---

**From:** David Jones [mailto:[REDACTED]]

**Sent:** August-17-19 7:00 AM

**To:** Tam, Dr Theresa (PHAC/ASPC)

**Cc:** [REDACTED]

**Subject:** Re: Healthcare Management Forum special edition on  
Pandemics

I think that would update be a good complement to the other articles, and appropriate to come from you. I agree re writing it for health care leaders, and what they can and should keep in mind.

Some of the lessons from SARS point to the need change institutional practice during an event. ie resist transferring nurses and patients between hospitals, re-organizing staff to work at one institution so as to not transfer patients. Engage PH expertise with their infection control, eg someone should have been monitoring for any patients with fever and symptoms to be isolated and tested. Also scrupulous hand washing and universal precautions etc. And others you may think of as appropriate.

Thanks again for doing this.

[REDACTED]

On Aug 16, 2019, at 9:11 PM, Tam, Dr Theresa (PHAC/ASPC)

[REDACTED] wrote:

Thanks for the comment [REDACTED] I did have Health leaders in mind so will definitely orientate the article towards them and what they can do.

TT

Sent from my iPhone

On Aug 16, 2019, at 19:56, [REDACTED]

[REDACTED] wrote:

Thanks Theresa. It will be important to include a paragraph to two about what health leaders should do with this information too.

[REDACTED] over to you for comment.

Best,

[REDACTED]

---

**From:** Tam, Dr Theresa (PHAC/ASPC)  
[mailto: [REDACTED]]  
**Sent:** August-16-19 7:40 PM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** RE: Healthcare Management Forum special edition on Pandemics H [REDACTED]

Just quick check in to see if you think the following scope and outline is what you will be looking for.

Following from the lead in to the 15 years post-SARS commentary\* the plan would be to: modify and pitch at a more global level; target to the health systems/health leadership audience; and be less of a historical perspective/more forward looking to address things like need for real-time data, research and innovation, etc....

**\*Commentary - Fifteen years post-SARS: Key milestones in Canada's public health emergency response**

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**Proposed outline for the article:**

- Global surveillance/early warning systems
- Alerting front line physicians / health providers (triage/diagnosis/clinical mgmt. vs. surveillance definitions/epi)
  - Intersection with healthcare systems is the catalyst that must be able to minimise/neutralise risk:
  - Bringing home things like need to take travel history from everyone who walks through the door/interacts with health system; IPC is key to all exposure prevention (practices/guidance on PPE, triage, prioritising, surge, physical design, flow etc.

- Need for real time reporting  
(clinical, lab, epi linkages to get the real-time data that informs precision response)
- Surveillance case definition vs clinical management
  - Lab, epi and clinical link – improvements?
- Infection Prevention and Control
  - IPC debates and workforce protection always feature, can't afford to relax IPC, need to close gaps
  - Ebola ←underscores importance of community engagement/risk comms (ex. Safe burials)
  - Pandemic Flu /SARS – seasonal flu ←ex. SARS no visitors/lock downs, need for public engagement/risk comms)
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- Opioids

- o No system for collecting timely data
- o Collaboration with different sectors: Justice, public safety
- o Regulatory response: UPHN; SAP Block Release
- Research preparedness
  - o Clinical mgmt. and diagnosis are huge in informing the response – must go hand-in-hand with public health response to inform and adjust with precision
  - o Setting up studies/research at the time of a crisis challenging (must have prepared processes, protocols, networks in place); the temptation to manage/treat using empirical approaches when in fact as research may be the only/most appropriate means to answer certain questions so need to plan ahead/prepare system to be able, nimble enough to do research during crises
- Disease X – address here or integrate into the conclusion...
  - o systematic preparedness for any event
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  - o maintaining best practices
  - o everyone know your role and excel at it
- **Conclude with:** need for flexible, scalable response is key to managing any future emergency and adapting to unknowns; know your role and excel at it, connect/engage across sectors to seamlessly link/remove gaps before an emergency

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**From** [REDACTED]

**Sent:** 2019-08-06 12:03 PM

**To:** Tam, Dr Theresa (PHAC/ASPC)

**Cc:** [REDACTED]

[REDACTED]; McLeod,

Robyn (PHAC/ASPC)  
<[robyn.mcleod@canada.ca](mailto:robyn.mcleod@canada.ca)>; Macey,  
Jeannette (PHAC/ASPC)  
<[jeannette.macey@canada.ca](mailto:jeannette.macey@canada.ca)>

**Subject:** RE: Healthcare Management  
Forum special edition on Pandemics

Hi Theresa,  
Hope all is well.  
Just checking in on the article. Have you  
started to write it yet?

Best,

**From:** [REDACTED]

**Sent:** June-03-19 1:11 PM

**To:** 'Tam, Dr Theresa (PHAC/ASPC)'

**Cc:** [REDACTED] 'McLeod, Robyn  
(PHAC/ASPC)'; 'Macey, Jeannette  
(PHAC/ASPC)'

**Subject:** RE: Healthcare Management  
Forum special edition on Pandemics

I fully understand. Thanks Theresa. I'll  
check back with you again in August.

Best, [REDACTED]

**From:** Tam, Dr Theresa (PHAC/ASPC)  
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**Sent:** June-03-19 12:52 PM

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Hi [REDACTED]

I have not and will unlikely be getting  
around to it until late July/August time  
frame. I did have an initial exchange  
with [REDACTED] on what he would see being  
helpful.

It all boils down to managing workload  
and changing environments!

TT

Sent from my iPhone

On Jun 3, 2019, at 10:09 [REDACTED]

[REDACTED] wrote:

Good morning Theresa,  
Just checking back about the  
article (due January). Have  
you started to map it out and  
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Thanks for the info.

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**From:** Tam, Dr Theresa  
(PHAC/ASPC)

[mailto:[REDACTED]]

**Sent:** January-09-19 6:58  
PM

**To** [REDACTED]

**Cc** [REDACTED] McLeod,  
Robyn (PHAC/ASPC);  
Macey, Jeannette  
(PHAC/ASPC)

**Subject:** Re: Healthcare  
Management Forum special  
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I am not sure why but your  
emails are ending up in the  
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Thank you for the additional  
information. Good to know  
there is some lead time.

I did write a short editorial  
for the CCDR (link below).

Were you thinking of  
something like this but  
updated and tailored more to  
the readership of the  
Healthcare Management  
Forum journal?

**CCDR: Volume 44-5, May  
3, 2018: Emergency**

**Response**

<https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2018-44/issue-5-may-3-2018.html>

**Commentary - Fifteen  
years post-SARS: Key  
milestones in Canada's  
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response, T Tam 1†\***

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Sent from my iPhone

On Jan 7, 2019, at 3:59 PM,

[REDACTED]  
wrote:

Hello folks,

Thanks for  
keeping us on  
track [REDACTED]

Theresa, the  
deadline for  
articles for peer  
review is Jan  
15, 2020 and  
the  
authors'  
guidelines can  
be found here  
(2,500 words  
and not 2,000 as  
they  
indicate):

<https://us.sagepub.com/en-us/nam/journal/healthcare-management-forum#submission-guidelines>

Please let me  
know if you  
need any  
information and  
I do hope we  
can work  
together!

Best,  
[REDACTED]



-----Original

Message-----

From

[mailto:

Sent: January-  
07-19 3:44 PM

To:

Cc:

Subject:

Healthcare  
Management  
Forum special  
edition on  
Pandemics

I hope you had  
a lovely time  
over the  
holidays.

I will be guest  
editor on this  
planned Journal  
issue next year.

I was hoping  
you would be  
willing to  
submit an  
article for this  
edition.

I was thinking  
perhaps along  
the lines of how  
the lessons from  
SARS,  
pandemic H1  
and other events  
have changed  
how we plan for  
and respond to  
whatever new  
emerging major  
outbreaks or  
pandemics we  
will face in the  
future. And  
what other  
institutions



need pay  
attention to.  
Or if you have  
another  
suggestion?  
Happy to chat  
about it  
whenever  
works for you.  
[REDACTED] can  
outline timing,  
logistics etc.  
Thanks



**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-23 6:55 PM  
**To:** Macey, Jeannette (PHAC/ASPC)  
**Subject:** FW: Healthcare Management Forum special edition on Pandemics

---

**From:** [REDACTED]  
**Sent:** 2019-12-23 6:52 PM  
**To:** [REDACTED]; Tam, Dr Theresa (PHAC/ASPC)  
**Subject:** RE: Healthcare Management Forum special edition on Pandemics

Thanks [REDACTED]

Theresa, I don't have anything to add. When it's ready, please send it here for peer review and we'll let our reviewers provide their thoughts:

<https://mc.manuscriptcentral.com/hmf>

Best to you over the holidays and I look forward to the final in the system in January.

[REDACTED]

---

**From:** [REDACTED] [mailto:[REDACTED]]  
**Sent:** December-22-19 9:19 AM  
**To:** Tam, Dr Theresa (PHAC/ASPC)  
**Cc:** [REDACTED]  
**Subject:** Re: Healthcare Management Forum special edition on Pandemics

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[REDACTED] wrote:

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[mailto:[REDACTED]]

**Sent:** August-16-19 7:40 PM

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**Cc:** [REDACTED]

**Subject:** RE: Healthcare Management Forum special edition on Pandemics

H [REDACTED]

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**Proposed outline for the article:**

- Global surveillance/early warning systems
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•

#### Opioids

- No system for collecting timely data
- Collaboration with different sectors: Justice, public safety
- Regulatory response: UPHN; SAP Block Release

•

#### Research

##### preparedness

- Clinical mgmt. and diagnosis are huge in informing the response – must go hand-in-hand with public health response to inform and adjust with precision
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processes, protocols, networks in place); the temptation to manage/treat using empirical approaches when in fact as research may be the only/most appropriate means to answer certain questions so need to plan ahead/prepare system to be able, nimble enough to do research during crises

- 

Disease  
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or  
integrate  
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conclusion...

- systematic preparedness for any event
- flexible, scalable
- maintaining best practices
- everyone know your role and excel at it

- 

**Conclude with:**  
need  
for  
flexible,  
scalable  
response  
is key  
to  
managing  
any  
future  
emergency  
and  
adapting  
to  
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Jeannette (PHAC/ASPC) <[jeannette.macey@canada.ca](mailto:jeannette.macey@canada.ca)>  
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Just checking back about the article (due January). Have you started to map it out and write yet?

Thanks for the info.  
[REDACTED]

---

**From:** Tam, Dr Theresa (PHAC/ASPC)

[mailto:[REDACTED]]

**Sent:** January-09-19 6:58 PM

**To:** [REDACTED]

**Cc:** [REDACTED] McLeod, Robyn  
(PHAC/ASPC); Macey, Jeannette  
(PHAC/ASPC)

**Subject:** Re: Healthcare Management  
Forum special edition on Pandemics

Hi [REDACTED]

I am not sure why but your emails are ending up in the junk mail folder.

Thank you for the additional information. Good to know there is some lead time.

I did write a short editorial for the CCDR (link below). Were you thinking of something like this but updated and tailored more to the readership of the Healthcare Management Forum journal?

**CCDR: Volume 44-5, May 3, 2018:**

**Emergency Response**

<https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2018-44/issue-5-may-3-2018.html>

**Commentary - Fifteen years post-SARS: Key milestones in Canada's**



**public health emergency response, T**  
Tam 1 †\*  
<https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2018-44/issue-5-may-3-2018/article-1-post-sars-key-milestones.html>

Sent from my iPhone

On Jan 7, 2019, at 3:59 PM, [REDACTED] wrote:

Hello folks,

Thanks for keeping us on track [REDACTED]

Theresa, the deadline for articles for peer review is Jan 15, 2020 and the authors' guidelines can be found here (2,500 words and not 2,000 as they indicate):

<https://us.sagepub.com/en-us/nam/journal/healthcare-management-forum#submission-guidelines>

Please let me know if you need any information and I do hope we can work together!

Best,

[REDACTED]

-----Original Message-----

From: [REDACTED]

[mailto: [REDACTED]]  
Sent: January-07-19 3:44  
PM  
To: [REDACTED]  
Cc: [REDACTED]  
Subject: Healthcare  
Management Forum special  
edition on Pandemics

I hope you had a lovely time  
over the holidays.

I will be guest editor on this  
planned Journal issue next  
year.

I was hoping you would be  
willing to submit an article  
for this edition.

I was thinking perhaps along  
the lines of how the lessons  
from SARS,  
pandemic H1 and other  
events have changed how  
we plan for and respond to  
whatever new emerging  
major outbreaks or  
pandemics we will face in  
the

future. And what other  
institutions need pay  
attention to.

Or if you have another  
suggestion?

Happy to chat about it  
whenever works for you.

[REDACTED] can outline timing,  
logistics etc.

Thanks

[REDACTED]

1 **Manuscript Submission: *Healthcare Management Forum***

2 **Title:** Preparing for uncertainty in public health emergencies: What Canadian health leaders can  
3 do now to optimize future emergency responses

4

5 **Author names and affiliations:** Theresa WS Tam, BMBS (UK), FRCPC<sup>1</sup>

6 <sup>1</sup>Chief Public Health Officer of Canada, Public Health Agency of Canada

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8



9 **Corresponding author:** Theresa Tam

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11



12 **Key words:** health leaders, public health, hospital, uncertainty, emergencies, preparedness,  
13 planning, health security

14 **Word count:** 2,617

15

16

17 **Abstract**

18 Planning for uncertainty, such as the emergence of an unknown pathogen, is a critical  
19 component of preparedness for public health emergencies and strengthening health security.  
20 This article highlights principles and best practices to assist healthcare leaders in preparing for  
21 uncertainty, including: using planning assumptions as a starting point; integrating scalability to  
22 ensure response activities can be more easily adapted to suit evolving needs; assessing risk and  
23 capabilities to inform planning for appropriate response measures; and considering overall  
24 flexibility and adaptability of plans, systems, and resources. Health leaders are encouraged to  
25 prepare for the next emergency by developing, enhancing, and exercising resources, building in  
26 flexible and scalable measures to manage uncertainty that integrates lessons learned from past  
27 experiences and utilizes evidence-based best practices. Importantly, preparedness means  
28 investing now to be better prepared for future response.

29

30 **Introduction**

31 Over 15 years have passed since the emergence and containment of Severe Acute Respiratory  
32 Syndrome (SARS), our first “Disease X” of the 21<sup>st</sup> Century. The term “Disease X” is a relatively  
33 recent term coined by the World Health Organization (WHO) to represent uncertainty, as a  
34 critical planning element in preparedness for a serious international epidemic, and specifically  
35 to encourage preparedness activities that account for uncertainty.<sup>1</sup> There are many sources of  
36 uncertainty that can be thought of as variations/deviations from the normal or expected “who,  
37 what, when, where, why, and how” characteristics of an outbreak. The disease could be  
38 causing severe illness in a new or atypical population group as was observed in persons with  
39 obesity during the 2009 H1N1 influenza pandemic.<sup>2</sup> There could be unexpected outcomes of  
40 infection like microcephaly in infants born to mothers infected with the Zika virus during  
41 pregnancy.<sup>3</sup> The initial outbreak could occur at an unpredicted time or in an unexpected  
42 location as was the case with the H1N1 influenza pandemic<sup>4</sup> that started at the end of a typical  
43 influenza season and in North America rather than, as anticipated, in Asia. Moreover, if a  
44 disease emerges due to factors (like globalization, climate change, or changes in travel  
45 patterns) that are outside of the health sector’s control, this can introduce uncertainty in terms

46 of how to effectively prepare and respond. Also, in the event of an unknown pathogen, like  
47 SARS-coronavirus emergence in 2003, the outbreak response will need to run parallel with a  
48 rapid gathering of evidence (clinical, laboratory, epidemiological, etc.) from partners across  
49 many countries.

50

51 The purpose of this article is to identify some basic principles and best practices for dealing with  
52 uncertainty in the context of a public health emergency; to provide some examples of how  
53 these principles in combination with past experience have advanced planning and  
54 preparedness within the health sector in Canada; and to stimulate thinking regarding what  
55 health leaders can do to further improve preparedness across the health sector.

56

### 57 **The Role of Assumptions**

58

59 In terms of preparedness planning, assumptions help establish a “starting point” – a direction  
60 to proceed until a need to adjust the course is identified. For that reason, they are included as  
61 the basis for many preparedness and response plans and could be considered a “basic  
62 principle” or “best practice” when it comes to incorporating flexibility. Assumptions can quickly  
63 refer the user of a guidance document or response plan to established/routine practices that  
64 they are already familiar with, which builds confidence when dealing with unknowns. They also  
65 give outbreak responders an indication of what real-time data to collect or what to watch for to  
66 either validate the planning assumptions or signal that a change in approach is needed. For  
67 example, an assumption used in influenza pandemic planning posits that the novel influenza  
68 virus will be transmitted from person to person in the same way seasonal influenza is  
69 transmitted. Healthcare providers will thus know what infection prevention and control (IPC)  
70 precautions to utilize and how these measures can be scaled up or down if reality proves to be  
71 different from the planning assumption. This example also illustrates another key principle, i.e.  
72 scalability.

73

### 74 **Scalability as a Key Principle**

75

76 In the emergency preparedness and response context, scalability is used to convey the need for  
77 response activities to be dynamic. To manage demands and risks by scaling up (e.g. adding  
78 more resources, increasing the level of personal protective equipment, extending “business  
79 hours”) or scaling down when there is evidence to indicate that specific response actions are no  
80 longer needed to achieve the objectives of the response. A lesson learned from past responses  
81 is that uncertainty and/or risk aversion can lead to overcompensation during a response,  
82 leading to: inappropriate use of limited resources, responder burnout, and/or angst when  
83 trying to de-escalate the response. However, overcompensation can be avoided by ensuring  
84 there is sufficient content in guidance, plans, and emergency exercises to demonstrate how and  
85 when the response will be scaled up or down based on risk assessments and specific data  
86 analyses that build confidence and reduce risk aversion.

87

### 88 **Risk and Capability Assessment**

89

90 Another key principle involves taking a risk management approach to preparedness and  
91 response. Specifically, using risk and capability assessments (i.e. assessment of current  
92 resources available to mitigate and respond to the risk) to not only inform planning and  
93 response measures, but also to identify gaps or enhancements that need to be addressed as a  
94 priority.

95

96 Again, using assumptions is a good starting point. Assumptions can be used to create scenarios  
97 against which risks can be identified and assessed along with the current capability to mitigate  
98 or manage the risk. Suppose the scenario is that a person presents to the emergency  
99 department of a suburban hospital in Canada complaining of nausea, weakness, and fever. To  
100 prepare for uncertainty, one must consider variables in the scenario. For example, if this  
101 person had recently returned from a country with an ongoing Ebola outbreak, would the  
102 existing triage system be sufficient to identify, assess, and rapidly contain a possible Ebola case?  
103 This type of assessment helps identify specific risks, such as not including Ebola in the intake

104 differential diagnosis for ill travellers returning from an outbreak affected area. Furthermore, it  
105 facilitates discussion regarding what capabilities are currently in place to mitigate this risk.

106

107 It is important, however, to identify what might change the risk profile in the scenario. For  
108 example, the Toronto SARS case that triggered the first hospital-based outbreak was initially  
109 missed because the person had no travel history and it was not immediately apparent that they  
110 had been infected through close contact with the actual index case who had the significant  
111 travel history.<sup>5,6</sup> This flagged a gap in our risk mitigation – that the capability to rapidly identify,  
112 and therefore contain, a SARS case that had no travel history was lacking. To close this gap,  
113 triage questions needed to include questions about close contact with an ill traveller, not just a  
114 history of personal travel.

115

116 Unfortunately, not all risks can be accounted for in emergency response planning, so it is  
117 important to consider what unknowns might significantly impact a risk and what planning can  
118 be done to account for them. Emergency planners with expertise in risk and capability  
119 assessment need to work with healthcare leaders to determine how changes to risk levels will  
120 be addressed in real time, when to change course, and whether the capabilities are in place to  
121 deal with the requirements of the “new course.”

122

### 123 **Flexibility and Adaptation**

124

125 To date, public health preparedness efforts have been largely based on previous infectious  
126 disease outbreaks, models, and scenarios. It is important to consider the flexibility and  
127 adaptability of current plans, systems, and resources when preparing for any health emergency;  
128 this is a key principle in “all-hazard” emergency preparedness. The preparedness efforts and  
129 response resources that have been developed and used for infectious disease outbreaks are  
130 now being utilized for other public health threats.<sup>7</sup> Borne out of the SARS and H1N1  
131 experience, new Federal/Provincial/Territorial (FPT) governance structures were established to  
132 oversee the overall public health response.<sup>8</sup> These governance structures, which include the

133 creation of the Chief Public Health Officer of Canada as the national voice for public health,  
134 have in turn been leveraged to respond to non-infectious disease national response, most  
135 recently the national epidemic of opioid-related deaths in Canada, demonstrating the vital  
136 importance of flexibility.

137  
138 Adaptable response systems can quickly establish new inter-sectoral connections to meet  
139 immediate specific response needs while increasing general response capabilities. The use of  
140 infectious disease response foundations and adaptation to the different resources and  
141 stakeholders needed for monitoring and data collection of opioid-related mortality has had  
142 benefits across the system. In particular, a lack of real-time mortality surveillance has been a  
143 long recognized gap in infectious disease emergency response. The urgency and new and  
144 pooled resources mobilised for the opioid response enabled us to address this persistent  
145 challenge through the establishment of a timely surveillance and reporting network with  
146 coroners and medical examiners. Therefore, the stakeholder engagement and resources  
147 implemented for the opioid response has resulted in an overall increase in flexible response  
148 capacity. Utilising sustainable, flexible governance structures and resources ensures the  
149 response system is well exercised and able to adapt to uncertainties, while supporting  
150 readiness for other threats and emergencies, both infectious in nature and not.

151

## 152 **Learning from Past Experience**

153

154 The idea of identifying “lessons learned” after the conclusion of an emergency response is also  
155 a basic principle/best practice. But how do health leaders ensure that the lessons identified are  
156 truly “learned” and that these learnings are not forgotten in the interval and inevitable staff  
157 turnover that occurs between large public health emergencies? The importance of risk  
158 communication, building and maintaining public trust and confidence, and cross health sector  
159 engagement are just a few of the key lessons that have been identified from past emergency  
160 responses.

161



162 The next major public health emergency in Canada will re-affirm the growing role of the  
163 internet and social media in risk communication. It will factor significantly in both the way the  
164 public and health leaders communicate about the event. We have learned that perception is  
165 reality and that being transparent in risk communication is essential. Being forthcoming at the  
166 outset about what we know, what we don't know, and reassuring the public that we will tell  
167 them when we do know something new, are critical risk communication lessons for all health  
168 leaders. Early, frequent communication of uncertainties is vital to building and maintaining  
169 public trust and confidence.

170  
171 Reflecting back on SARS, despite the relatively limited spread of the disease in Canada,  
172 managing uncertainty and fear required a tremendous effort in terms of risk communication,  
173 societal mobilization, and health sector coordination. SARS highlighted the need to support  
174 and maintain cross health sector preparedness so that the overall health response is seamless  
175 and comprehensive. This starts with increasing the number of astute front-line practitioners  
176 who are sensitised and equipped to practice "think, tell, test" – that is, thinking about the  
177 possibility of an emerging pathogen, telling a local medical officer of health / local public health  
178 authorities, and working with clinical colleagues, hospital administrators, public health, and  
179 laboratory partners to ensure early detection and rapid containment of cases through  
180 appropriate and timely testing. Continuing to build and maintain a skilled and engaged  
181 workforce is essential to a robust and flexible response system. Health leaders are in a position  
182 to foster this activity not only through new initiatives but also by ensuring that the lessons  
183 learned from past experiences are passed on through training and exercises to those entering  
184 or taking on new roles within the workforce.

185  
186 Engaging across the health sector on a regular basis in order to re-confirm roles and  
187 responsibilities, conduct joint risk and capability assessments, foster research and provide  
188 updates on the status of preparedness activities, is also key to ensuring health sector  
189 preparedness and maintaining an ongoing state of readiness. There are operational (e.g.  
190 medical evacuation and domestic transportation) and logistical (e.g. supply chain and

191 stockpiling issues) aspects of a response that require cross-sectoral engagement to address,  
192 ideally in advance of an emergency. We have seen the benefit of having contracts in place, for  
193 example for the influenza pandemic vaccine supply during the H1N1 pandemic, and have more  
194 recently contracted to ensure international medical evacuation capacity. We have also seen  
195 the need to be prepared to engage in real-time research in order to ensure the response is as  
196 evidence-based as possible. This has translated into advanced planning by organizations like  
197 the Canadian Institutes of Health Research (CIHR), for example, to foster rapid ethics reviews  
198 during an emergency response. Extending the health sector preparedness to include other  
199 sectors/disciplines (e.g. social services, critical infrastructure, security, human resources, people  
200 management, regulatory, public safety, justice) is critical to a seamless response.

201  
202 Post-SARS, emergency management practices have been adopted more widely and the  
203 healthcare system has been strengthened to close gaps and minimize risks. There is also a  
204 greater recognition of the significant social and economic impacts of public health emergencies  
205 and the importance of mitigating these impacts through mechanisms that enhance capabilities.  
206 Health leaders would be wise to ensure that emergency management, multi-sectoral  
207 coordination, and mutual aid capabilities are well integrated and exercised within their  
208 institutional response planning.

209

### 210 **National Capacity Building for Emergency Preparedness and Response**

211

212 The Public Health Agency of Canada (PHAC), established following SARS as the national  
213 coordinating body for health emergencies, has made significant investments in order to  
214 increase emergency preparedness and response capacity in Canada, build on the lessons  
215 learned from past experiences, and facilitate cross-sector preparedness and resiliency. This  
216 work has been multi-focal, ranging from the production and updating of plans, protocols, and  
217 technical guidance to conducting training, stockpiling vaccines and therapeutics, to running  
218 exercises to test current knowledge and capabilities. Many of these efforts are intended to  
219 increase the level of preparedness across the breadth of the healthcare sector, not just public

220 health, and not just for emergencies originating in Canada. Examples include: supporting the  
221 strengthening of IPC practices and awareness in both healthcare and community settings;  
222 enhancing public health laboratory and border screening capacity; establishing mutual aid and  
223 information sharing agreements;<sup>9</sup> clarifying roles, responsibilities and procedures (e.g. how to  
224 request and receive aid and emergency provisions) during emergencies.<sup>8</sup> Canada has met the  
225 International Health Regulations (IHR) 2005 core capacity requirements<sup>10</sup> and was ranked 5<sup>th</sup> in  
226 the world in the Global Health Security index, assessing global health security and capabilities.<sup>11</sup>  
227 While there is a strong existing system in place, ongoing work is still needed to achieve a state  
228 of flexible and scalable readiness for the next public health emergency.

229

### 230 **The Take-home Message**

231

232 Health leaders need to prepare for uncertainty during an emergency response by developing,  
233 enhancing, and exercising resources – whether it be plans, people or other resources – that can  
234 be flexible, scalable and that are built on lessons learned and evidence-based best practices.

235

236 Health leaders are well poised to see gaps and reflect on persistent challenges and recurring  
237 themes and to look beyond their scope of influence to find creative solutions. Working from  
238 the ground up, health leaders should train staff in emergency management principles, ensure  
239 corporate memory/lessons learned are passed on and build confidence through regular  
240 exercises and drills. Furthermore, staff must be encouraged to contribute to contingency  
241 planning by identifying concerns and repositioning them as uncertainties to be addressed  
242 through contingency planning.

243

244 Although not all health leaders are in a position to allocate resources, especially funding  
245 resources, you are influential. While it can be difficult to convince decision-makers to invest  
246 upstream in non-specific emergency preparedness resources, it is important to present to them  
247 the downstream benefits including risk reduction, medium-long term cost savings, and  
248 operational resilience. Pointing out that this investment of time, energy, and resources can

249 pay-off during normal operations not just during large-scale health emergencies may be one  
250 means of fostering support. Emergency planning can help ensure business continuity whenever  
251 there is an unexpected surge in resource demands (be it human resources, equipment, physical  
252 space, or medical countermeasures) against the backdrop of ever limited, finite supplies.  
253 Finally, recognize that the opportunity to address critical gaps is never more urgent than during  
254 an emergency.

255

256 Every event is an opportunity, given heightened political attention and investment in health  
257 capacity during a crisis. We need to build on these gains to both improve routine practice as  
258 well as better prepare us for future response.

259

260 Given that disease outbreaks and natural disasters impact health responders, individuals, and  
261 communities both physically and mentally, we can strengthen future responses by building in  
262 contingencies to address mental health impacts.

263

264 Throughout this call to action to strengthen health security, I would urge health leaders to  
265 integrate a health equity lens and seek meaningful engagement from the communities they  
266 serve.

267 **Acknowledgments:** The author would like to thank Jill Sciberras, Jeannette Macey, and Teresa  
268 Leung for their assistance in preparing this manuscript.

269 **Declaration of conflicting interests:** The author declares that there is no conflict of interest.

270 **References:**

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25, 2019.

**From:** [Tam, Dr Theresa \(PHAC/ASPC\)](#)  
**Sent:** 2019-12-03 1:27 PM  
**To:** [Bogden, Jacqueline \(HC/SC\)](#)  
**Cc:** [Romano, Anna \(PHAC/ASPC\)](#); [Eric Costen \(eric.costen@canada.ca\)](#)  
**Subject:** helping youth with vaping cessation

---

Hi Jacquie,

Anna may have talked to you about this already.

I am seized with the need to assist youth in vaping cessation/nicotine addiction (the end of the article below mentions this need again). This is perhaps the greatest area of need while you are rapidly trying to get regs completed.

I believe you are working with CPS and experts on lower risk use. However, I was not sure what plans HC (or CIHR) has for vaping cessation guidance or for any other support to front line health professionals.

If there is any help needed from me on this front please let me know. I can certainly ask PT CMOHs or the CPHO Health Professionals Forum whether best practices/guidance exist but don't want to duplicate efforts.

TT

---

**From:** Frate, Nicolas (HC/SC) **On Behalf Of** Media Monitoring / Suivi des Medias (HC/SC)  
**Sent:** 2019-12-03 12:54 PM  
**Subject:** CBC.ca: Are they safe to inhale?: Vaping liquids in Canada contain potentially harmful chemicals, tests show (updated)

Dist: HC.F PEIA Vaping / Vapotage AREP F.SC

December 3, 2019

**Are they safe to inhale?: Vaping liquids in Canada contain potentially harmful chemicals, tests show**

*Pulegone and benzaldehyde could be dangerous to human health when vaped at high levels*

Source: [cbc.ca/health](http://cbc.ca/health), by Adam Miller, Christine Birak

E-cigarette liquids currently on the Canadian market contain potentially harmful chemicals, including a suspected carcinogen banned in food in the U.S.

CBC News independently tested several nicotine vaping liquids at the Western New York Center for Research on Flavored Tobacco Products (CRoFT) in Buffalo, N.Y., last month.

The test results found two chemicals in particular, pulegone and benzaldehyde, that could be dangerous to human health when vaped at high levels.

"We tested some flavours that show high toxicity," said Maciej Goniewicz, a leading e-cigarette researcher and associate professor of oncology at the Roswell Park Comprehensive Cancer Center.

"We found some chemicals that raise concerns, particularly when it comes to inhalation."

Pulegone is typically found in menthol vaping products and cigarettes. It's a suspected carcinogen that was banned by the U.S. Food and Drug Administration (FDA) as a food additive in 2018 and has also been found to cause cancer in lab animals.

The tobacco industry has phased out pulegone in cigarettes because of concerns over potential toxicity to smokers.

"This is an additive that has been banned in food products in the U.S.," Goniewicz said.

"We don't know whether it might also be the case for inhalation with electronic cigarettes, but it definitely raises concern, and we should investigate in more detail."

Potentially harmful flavouring chemicals

A spokesperson for Health Canada said it is studying the potential health effects of pulegone in vaping liquids and could take action if it is found to "pose a danger to human health or safety."

Benzaldehyde, which is typically used in cherry flavours of e-cigarette liquids, has been shown to be a potentially toxic respiratory irritant at high doses.

"We have no clue what [these chemicals] can do to your lungs," said Mathieu Morissette, a researcher at the University Institute of Cardiology and Respiriology of Quebec and an associate professor at Laval University in Quebec City.

"Those flavours were meant to be eaten, not to be inhaled, and basically, that is the main question we have right now: Are they safe to inhale?"

Morissette said that from a research perspective, "it's really a huge puzzle if you want to address the question properly."

'We don't know what will happen with their lungs'

Health Canada says vaping products that contain nicotine are subject to "stringent controls" under the Tobacco and Vaping Products Act and the Canada Consumer Product Safety Act, which also contain marketing restrictions.

While the federal health agency says vaping "produces an aerosol that may contain dozens of chemicals," it only lists four ingredients when describing the contents of vaping vapour.

Companies are not required to put ingredient labels on vaping products in Canada.

"We don't have any regulations on what chemicals are allowed to be used in electronic cigarettes or what chemicals could be banned," Goniewicz said.

"[The industry is] changing so fast ... figuring out what might be added to those products today that was not in the products that we tested five years ago, or even two years ago — that is a true challenge for scientists."

It's estimated there are more than 7,000 different flavouring chemicals in vaping liquids. While many are proven safe to eat, most of them have never been tested to evaluate their effect on lungs.

Goniewicz said the biggest question facing the vaping industry and health officials today is the long-term health consequences of e-cigarettes and liquids.



"People use the products on a daily basis. Kids puff on the device many times a day. They inhale high doses of nicotine. They inhale all those flavourings and additives," he said.

"We don't know what will happen with their lungs, their hearts, with their brains 10 years from now, 20 years from now."

#### Vaping regulations in Canada

Health Canada says it has seized more than 60,000 non-compliant products from vape shops and convenience stores across the country between July and October of this year.

Inspectors visited more than 1,000 locations across the country during that period, and more than three-quarters of the vape shops were found to be selling and promoting products that violate federal law, a Health Canada spokesperson said in a statement.

The most common violations were promoting child-friendly flavours and using testimonials to promote products.

Darryl Tempest, executive director of the Canadian Vaping Association, which represents more than 300 Canadian retail and online vaping businesses, said vaping is safer in regards to the "comparative risk" to cigarettes.

"Vaping is far less harmful," he said. "It's not benign, no one suggested it is. What it is, is a lot less harmful for the 7,000 chemicals that you ingest or that you inhale as you smoke."

Tempest is calling for more marketing restrictions because of the uptick of youth use and said his organization welcomes more regulations from Health Canada.

Morisette said the current regulatory system in place in Canada is "backwards."

"People got access to all of those e-liquids without any clue of what they could do to their lungs," he said. "Now, we have hundreds of thousands of vapers in Canada inhaling things, [and] we don't know what they can do to their lungs and the rest of their bodies."

#### Vaping as a smoking cessation tool

Nicotine is a highly addictive substance, and there is little guidance available to people who want to quit vaping, unlike with smoking.

Health Canada's advice to people about vaping remains the same: If you don't vape, don't start. But the federal health agency also says that replacing cigarette smoking with vaping "will reduce your exposure to harmful chemicals."

"Vaping is less harmful than smoking," Health Canada says on its website. "Switching from tobacco cigarettes to vaping will reduce your exposure to many toxic and cancer-causing chemicals."

Goniewicz said he's heard anecdotally from people who call the smoking cessation phone lines at the Roswell Park cancer centre in Buffalo asking for help to quit vaping.

"Right now, we don't have any approved treatment on how to help them," he said. "I don't really know what to tell them."

<https://www.cbc.ca/news/health/vaping-liquid-tests-1.5381363>

**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-02 4:41 PM  
**To:** [REDACTED]  
**Subject:** HIV

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Trevor Stratton IIGWA stigma and discrimination for indigenous peoples with HIV and TB in the work place. Funded by ILO.

ILO intersectionality between indigenous identity, HIV, TB and gender.  
Social justice is involving those impacted.  
We are all part of multiple communities, bring others in.

Indigenous and Tribal peoples convention 169 with indigenous people at the table negotiating.

Sent from my iPhone

**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-01 12:22 PM  
**To:** Bell, Tammy (PHAC/ASPC); Rendall, Jennifer (PHAC/ASPC); Hostrawser, Bonnie (PHAC/ASPC)  
**Subject:** HIV U=U videos

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These are great, very impactful . The people in the videos deserve as many shout outs as possible. I think individual tweets for each video and each person for their contribution to end stigma would be great.

Sent from my iPhone

**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-23 5:48 PM  
**To:** [REDACTED]@idrc.ca'  
**Subject:** RE: Holiday Greetings - Voeux des Fêtes

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Hi [REDACTED]

I look forward to working with you and IDRC again too.

I just released my latest report on addressing stigma – towards a more inclusive health system. Check it out!

Je vous souhaite d'excellentes fêtes, et bonne année!

Theresa

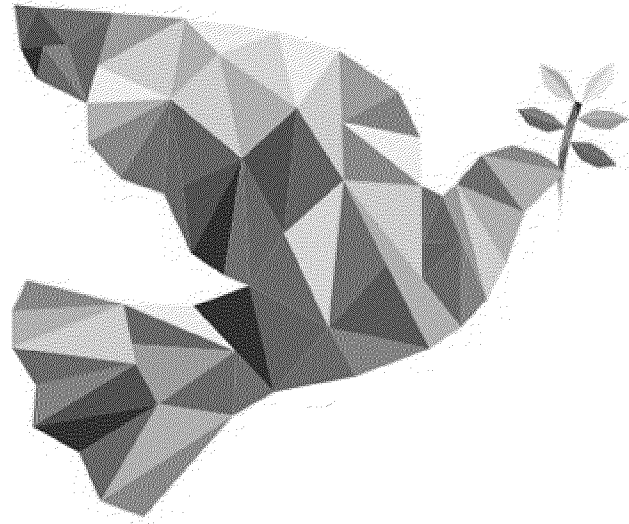
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**From:** [REDACTED]  
**Sent:** 2019-12-23 5:37 PM  
**To:** Tam, Dr Theresa (PHAC/ASPC)  
**Subject:** Holiday Greetings - Voeux des Fêtes

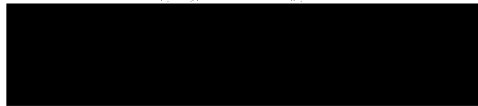
\*\*\* From the desk of [REDACTED] / Message de la part de [REDACTED] \*\*\*

Holiday greetings  
And best wishes for a Happy New Year

Joyeux Temps des Fêtes et meilleurs voeux pour une  
bonne et heureuse année 2020!



We look forward to working with you again in 2020!  
Au plaisir de collaborer avec vous à nouveau en 2020!



**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-01 8:28 PM  
**To:** Namiesniowski, Tina (PHAC/ASPC)  
**Subject:** Re [REDACTED]

[REDACTED]

The event on the hill was freezing but went fine. The event at the NAC was great. The video of 5 persons living with HIV done by us were inspiring and very well received. Great way to reduce stigma.

The quilts commemorating the individuals who died of AIDS were very powerful. There was an art installation with trees that had hanging photos of persons with HIV and quotes from them on what they felt what they first heard about their diagnosis and what U=U means to them.

TT

Sent from my iPhone

> On Dec 1, 2019, at 20:10, Namiesniowski, Tina (PHAC/ASPC) <tina.namiesniowski@canada.ca> wrote:

[REDACTED]

>  
 > How was event. Must have been cold. Y  
 >  
 > Sent from my iPhone  
 >

>> On Dec 1, 2019, at 6:35 PM, Tam, Dr Theresa (PHAC/ASPC) [REDACTED] wrote:

>>  
 >>  
 >>

>> Sent from my iPhone

**From:** Tam, Dr Theresa (PHAC/ASPC)  
**Sent:** 2019-12-04 9:58 AM  
**To:** Namiesniowski, Tina (PHAC/ASPC)  
**Subject:** I am in 16F right now but briefing is on  
15F if BC Building

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Sent from my iPhone

**From:** IANPHI-MainOffice  
**Sent:** 2019-12-13 4:15 AM  
**Cc:** IANPHI-MainOffice; [REDACTED]  
**Subject:** IANPHI 2019 Annual Meeting - PPT Presentations  
& Meeting 2020  
**Attachments:** Group Photo IANPHI 2019.jpg

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Dear IANPHI members and guests,

It was our utmost pleasure to welcome you, jointly with the Ethiopian Public Health Institute, last week at the African Union in Addis Ababa.

Please find [here](#) the presentations used to support the different sessions, and the group photo attached.

We very much look forward seeing you in Rio de Janeiro, for our 2020 Annual meeting, on December 1-4.

We remain available if you need any further information,  
Sincerely,



**The IANPHI Secretariat**

*International Association of National Public Health Institutes*

[www.ianphi.org](http://www.ianphi.org)

[IANPHI-MainOffice@santepubliquefrance.fr](mailto:IANPHI-MainOffice@santepubliquefrance.fr)