Thursday, July 2, 2020
9:00 a.m. – Special Meeting
Council Chambers – 4th Floor with Electronic Participation

Members:  Mayor P. Brown
Regional Councillor P. Vicente – Wards 1 and 5 (Acting Mayor – July)
Regional Councillor R. Santos – Wards 1 and 5
Regional Councillor M. Palleschi – Wards 2 and 6
Regional Councillor M. Medeiros – Wards 3 and 4
Regional Councillor P. Fortini – Wards 7 and 8
Regional Councillor G. Dhillon – Wards 9 and 10
City Councillor D. Whillans – Wards 2 and 6
City Councillor J. Bowman – Wards 3 and 4 (Acting Mayor – August)
City Councillor C. Williams – Wards 7 and 8
City Councillor H. Singh – Wards 9 and 10 (Acting Mayor – September)

For inquiries about this agenda, or to make arrangements for accessibility accommodations for persons attending (some advance notice may be required), please contact:
   Terri Brenton, Legislative Coordinator, Telephone 905.874.2106, TTY 905.874.2130
cityclerksoffice@brampton.ca

Note: Meeting information is also available in alternate formats upon request.

Notice:

In consideration of the current COVID-19 public health orders prohibiting public gatherings of more than 10 people and requirements for physical distancing between persons, in-person attendance at this Council meeting will be limited to Members of Council and essential City staff only.

Members of the public may watch the meeting live from the City of Brampton website at:
https://www.brampton.ca/EN/City-Hall/meetings-agendas/Pages/Welcome.aspx or
http://video.isilive.ca/brampton/live.html

Correspondence related to agenda business to be considered at the meeting may be submitted via email to the City Clerk at cityclerksoffice@brampton.ca up until the start of the meeting.

During the meeting, the public may submit questions regarding decisions made at the meeting via email to the City Clerk at cityclerksoffice@brampton.ca, to be introduced during the Public Question Period section of the meeting.
1. **Call to Order**
   
   Note: The City Clerk will conduct a roll call at the start of the meeting.

2. **Approval of Agenda**

3. **Declarations of Interest under the Municipal Conflict of Interest Act**

4. **Delegations**
   
   4.1. Delegation from Dr. Lawrence Loh, Medical Officer of Health, Region of Peel – Public Health re. **Mandatory Mask Policy**.
   
   See Item 5.1.

5. **Reports**
   
   5.1. Discussion Item at the request of Mayor Brown re: **Mandatory Mask Policy for City of Brampton**.
   
   See Item 4.1.

6. **Correspondence**

7. **Public Question Period**
   
   15 Minute Limit (regarding any decision made at this meeting)
   
   During the meeting, the public may submit questions regarding decisions made at the meeting via email to the City Clerk at cityclerksoffice@brampton.ca, to be introduced during the Public Question Period section of the meeting.

8. **By-laws**

9. **Confirming By-law**
   
   9.1. By-law ___-2020 – To confirm the proceedings of Council at its Special Meeting held on July 2, 2020

10. **Adjournment**

    Next Meetings:
    
    Wednesday, July 8, 2020 – 1:00 p.m.
    Wednesday, August 5, 2020 – 1:00 p.m. (tentative)
Thursday, July 2, 2020
9:00 a.m. – Special Meeting
Council Chambers – 4th Floor with Electronic Participation

Members: Mayor P. Brown
Regional Councillor P. Vicente – Wards 1 and 5 (Acting Mayor – July)
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Regional Councillor P. Fortini – Wards 7 and 8
Regional Councillor G. Dhillon – Wards 9 and 10
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City Councillor H. Singh – Wards 9 and 10 (Acting Mayor – September)

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1. **Call to Order**

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2. **Approval of Agenda**

3. **Declarations of Interest under the Municipal Conflict of Interest Act**

4. **Delegations**

   4.1. Delegation from Dr. Lawrence Loh, Medical Officer of Health, Region of Peel – Public Health re. **Mandatory Mask Policy**.

      See Item 5.1.

5. **Reports**

   5.1. Discussion Item at the request of Mayor Brown re: **Mandatory Mask Policy for City of Brampton**.

      See Item 4.1.

6. **Correspondence**

   6.1. *Correspondence re: Mandatory Mask Policy for City of Brampton:*

      1. Christine Massey, Brampton resident, dated June 30, 2020
      2. Dr. Kulvinder Gill, Brampton, dated July 2, 2020

      To be received

7. **Public Question Period**

   **15 Minute Limit (regarding any decision made at this meeting)**

   During the meeting, the public may submit questions regarding decisions made at the meeting via email to the City Clerk at cityclerksoffice@brampton.ca, to be introduced during the Public Question Period section of the meeting.

8. **By-laws**
9. **Confirming By-law**

9.1. By-law ___ -2020 – To confirm the proceedings of Council at its Special Meeting held on July 2, 2020

10. **Adjournment**

**Next Meetings:**

Wednesday, July 8, 2020 – 1:00 p.m.
Wednesday, August 5, 2020 – 1:00 p.m. (tentative)
From: Christine Massey  
Sent: 2020/06/30 3:57 PM  
To: City Clerks Office <City.ClerksOffice@brampton.ca>  
Subject: [EXTERNAL]AGENDA ITEM re: mandatory mask bylaw

Dear Clerk,

I request that the email below be added to the agenda for the meeting of Council where a mandatory mask bylaw will be debated or voted on.

Best wishes,
Christine

---------- Forwarded message ----------
From: Christine Massey  
Date: Tue, Jun 30, 2020 at 3:37 PM  
Subject: re: MANDATORY MASKS: FOI replies from Health Canada & Region of Peel admit they have no basic COVID19 science

To: paul.vicente@brampton.ca <paul.vicente@brampton.ca>, doug.whillans@brampton.ca

Dear [Clerk Name],

I request that this email be added to the agenda for Council Meeting on [Date].

Best wishes,
Christine

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Attachment details:

- FOI to Health Canada May 14 2020 isolation.jpg
- FOI to Health Canada May 14 2020 isolation clarification.jpg
- FOI final Health Canada covid19 June 24 2020.jpg
- FOI Health Canada covid19 June 23 2020.jpg
- FOI Region covid19 June 11 2020.jpg
- FOI Region covid19 June 12 2020.jpg
- FOI request to U of T re isolation.jpg
- U of T forwards FOI request.jpg
- Sunnybrook needs to consult with outsider.jpg
- Toronto PH admits death counts meaningless.jpg
- PHO admits death counts meaningless.jpg
- a clue.jpg
- VCC covid19 lawsuit announcement.jpg
- Sunnybrook HSC needs consulsations with outsider.pdf
- MasksDon'twork----4.pdf

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Laurie Robinson  
Business Coordinator,  
City Clerk’s Office  
(905) 874-2113  
laurie.robinson@brampton.ca  

The Corporation of the City of Brampton  
2 Wellington Street West  
Brampton, Ontario L6Y 4R1  

Laurie Robinson  
Business Coordinator,  
City Clerk’s Office  
(905) 874-2113  
laurie.robinson@brampton.ca  

The Corporation of the City of Brampton  
2 Wellington Street West  
Brampton, Ontario L6Y 4R1
Dear Brampton Council and Mayor Brown,

(Most of the following information has already been supplied repeatedly to Mayor Brown who (despite his legal training) often behaves as though he were oblivious to Canada's superior laws.)

In regards to your consideration of a possible bylaw making masks "mandatory" on the premise of reducing spread of "COVID-19", be advised of the following facts:

1. Despite:
   - the fact that: a virus that has never been isolated has also never been sequenced or shown scientifically to be the cause of any illness;
   - the fact that: COVID-19 diagnostic "tests" (PCR "tests") are sequence-based;
   - having authorized 45 clinical trials for COVID-19 drugs and vaccines thus far, and;
   - being the sole authorizing authority for COVID-19 testing devices imported or sold in Canada,

Health Canada has seen no need to ensure that "the deadly virus" has actually been isolated from a patient sample, anywhere, ever, by anyone, and has no records indicating that it has been (see their attached FOI responses).

Virus isolation and other basic COVID-19 science is simply an article of faith with Health Canada. The Region of Peel also admits to having no such records (see their attached FOI responses).

2. Researchers from University of Toronto and Sunnybrook Health Sciences Centre claimed months ago to have "isolated SARS-COV-2" (the theoretical COVID-19 virus) as part of a team effort with researchers from McMaster University. (Attached is a "clue" about their claim, for anyone willing to do a little critical thinking.)

Newsletters from the Dalla Lana School of Public Health at University of Toronto are full of descriptions of COVID-19 projects, involving God-knows-how-much public money. University of Toronto (long-time "proud partner" with the vaccine manufacturing company Sanofi Pasteur) has been involved in developing COVID-19 tests and vaccines ($$).

Nevertheless, the University of Toronto forwarded my FOI request to Sunnybrook Health Sciences Centre (see attached). Sunnybrook's response (attached): "...consultations with a person outside the institution are necessary...".
3. Even the COVID-19 believers at Public Health Ontario and the Toronto Public Health admit that their death counts are meaningless.

Public Health Ontario makes the following admission every day in its epidemiological summaries:

Deaths are determined by using the outcome field in iPHIS or Local Systems. Any case marked ‘Fatal’ is included in the deaths data. Deaths are included whether or not COVID-19 was determined to be a contributing or underlying cause of death as indicated in the iPHIS field Type of Death.


Toronto Public Health recently admitted the following on social media (screenshot attached):

Peel Public Health reports "COVID-19 deaths" in the same misleading, fear-inducing, unscientific manner.

4. No one can breathe optimally when wearing a mask. Mandating masks means mandating impaired breathing. Impaired breathing leads to impaired health.

5. The April 2020 review concluding "Masks and respirators do not work" by former physics professor and current researcher with the Ontario Civil Liberties Association, Denis G. Rancourt, is attached.
Many professionals are exposing the unscientific nature of mandatory mask policies. Some of their articles are collected here: [https://vaccinechoicecanada.com/resources/masking-reports-citations/](https://vaccinechoicecanada.com/resources/masking-reports-citations/)

6. **Ontario's nurses won in both 2015 and 2018 when resisting hospitals' "vaccinate or wear a mask" policies.** Arbitrators called those policies “illogical”... "exact opposite of being reasonable.” The ONA president called the policies "symbolic rather than scientifically-based", just as many experts are calling the mask tyranny of the current scamdemic. [https://www.ona.org/news-posts/ona-wins-vaccinate-or-mask-flu-policy/](https://www.ona.org/news-posts/ona-wins-vaccinate-or-mask-flu-policy/)

7. **Canadians have something called "rights" that are codified in the Charter of Rights and Freedoms and international covenants recognized by the Supreme Court.**

8. **The Ontario Civil Liberties Association has asked the World Health Organization to retract their recommendation advising use of face masks in the general population**

   “It is an unjustified authoritarian imposition, and a fundamental indignity, to have the State impose its evaluation of risk on the individual, one which has no basis in science, and which is smaller than a multitude of risks that are both common and often created or condoned by the State.”

9. **Legendary Constitutional lawyer Rocco Galati is addressing the trampling of the public's rights and freedoms and the nation's superior laws by the Canadian government (and others) during the covid-1984 scamdemic.**

   Video: [https://youtube.com/watch?list=PLpvtVIA9SBWKhLuQ2CuLjMTjb4JxIZaDr&v=ghka1b3aPVk&feature=emb_logo](https://youtube.com/watch?list=PLpvtVIA9SBWKhLuQ2CuLjMTjb4JxIZaDr&v=ghka1b3aPVk&feature=emb_logo)
Residents are encouraged to Support the Legal Action: https://vaccinechoicecanada.com/in-the-news/vcc-announces-legal-action/

We recognize that governments may enact laws and pursue policies that limit Constitutional rights and freedoms, but the onus is on the government to prove that the limit is minimal, necessary, finite, and demonstrably justifiable in a free and democratic society. During times of emergency, constitutional rights do not stop being important. They become even more important.

Vaccine Choice Canada has made numerous formal requests of the Government of Canada and the provincial governments to provide evidence that justifies the violations of our Constitutional rights, to no avail. It is time to hold our governments accountable. It is time that our governments release publicly, and honestly, the data, evidence and advice that proves that these violations are minimal, necessary and demonstrably justifiable.

Canadians have lost confidence that the Canadian government is acting responsibly. It is apparent that the imposed interventions and government overstep are far worse than the virus itself, that decisions are being made based on a political or ideological agenda rather than on scientifically supported, evidence-based practices, and that the real epidemic we face is an epidemic of fear and state-sponsored tyranny on a global basis.

Today, Vaccine Choice Canada formally announces its intention to hold the Government of Canada, and other parties yet to be named, accountable in a court of law. Vaccine Choice Canada has a long history and enviable reputation of advocating for and defending the rights and freedoms of Canadians when it comes to public and individual health. While this matter seems to stretch the intended mandate of Vaccine Choice Canada, it is nonetheless inseparable given the centrality of mandatory vaccinations that are publicly proposed by governments without medical or scientific basis. Thus, we recognize the urgent need to defend the rights and freedoms of all Canadians.

10. According to Ontario's regulator of medical doctors (the College of Physicians & Surgeons of Ontario, CPSO): the professional activity of a Medical Officer of Health (including the provision of professional input and advice on public health issues to decision-makers) does not even relate to the practice of medicine. This is the excuse put forth by CPSO to justify their refusal to even investigate misconduct by a Medical Officer of Health.

Facilitated by CPSO's refusal to regulate in the public interest, Medical Officers of Health can, and do, lie to and mislead decision-makers and the public and get away with it. CPSO simply refuses to intervene, even when >100 individuals sign onto a comprehensive complaint regarding blatant falsehoods told by a Medical Officer

11. **I have no intention of being bullied, coerced or shamed into impairing my own health by wearing a mask**, especially over a theoretical virus, unscientific and meaningless PCR "tests" and death counts that even the public health community admits are meaningless.

And anyone who tries to bully my family members or anyone else into wearing a mask will face consequences. That is not an unlawful threat, but a statement of natural law.

The same goes for the Medical Officers and Regional politicians who continue forcing fluoride onto the elderly, sick, immunocompromised, pregnant, babies in the womb, infants and children (even during an alleged "pandemic" and without any understanding or thought to the effects on immune systems) despite the recent (ongoing) U.S. federal fluoride lawsuit wherein the judge has made clear “**there is serious evidence here**” of water fluoridation’s harmful effects on the brain.

Sincerely,
Christine Massey M.Sc.
This is in response to your request made under the Access to Information Act (the Act) for the following information:

All records describing the isolation of a SARS-COV-2 virus, directly from a sample taken from a diseased patient, where the patient sample was not first combined with any other source of genetic material (i.e. monkey kidney cells aka vero cells; liver cancer cells).

Please note that I am using "isolation" in the every-day sense of the word: the act of separating a thing(s) from everything else. I am not requesting records where "isolation of SARS-COV-2" refers instead to:

- the culturing of something, or
- the performance of an amplification test (i.e. a PCR test), or
- the sequencing of something.

To clarify, I am requesting all such records that are in the possession, custody or control of Health Canada (for example: downloaded to a computer, printed in hard copy, etc.).

Having completed a thorough search, we regret to inform you that we were unable to locate any records responsive to your request.
All records describing the isolation of a SARS-COV-2 virus, directly from a sample taken from a diseased patient, where the patient sample was not first combined with any other source of genetic material (i.e. monkey kidney cells aka vero cells; liver cancer cells).

Please note that I am using "isolation" in the everyday sense of the word: the act of separating a thing(s) from everything else. I am not requesting records where "isolation of SARS-COV-2" refers instead to:

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- the performance of an amplification test (i.e. a PCR test), or
- the sequencing of something.

To clarify, I am requesting all such records that are in the possession, custody or control of Health Canada (for example: downloaded to a computer, printed in hard copy, etc.).

Good afternoon,

You will soon receive a final no records response from Health Canada.

Please note that Health Canada's role is not to do pure scientific research and discovery. It is to review evidence provided by sponsors in order to make regulatory decisions to approve products and authorize clinical trials. You may wish to contact the sponsors of clinical trials and/or companies in order to get the information you seek.

Barbara Haase
Senior ATIP Analyst, Access to Information and Privacy
Health Canada / Public Health Agency Canada / Government of Canada
Barbara.haase@canada.ca
Dear Requester,

A search has been conducted and no responsive records were located pertaining to your request under the Municipal Freedom of Information and Protection of Privacy Act.

The official responsible for making this decision is Bart Danko, Manager, Access to Information & Privacy.

You may request the Information and Privacy Commissioner to review this decision within 30 days of the date of this email.

If you have any questions, please contact foi@peelregion.ca.

jc
Good Afternoon,

Thank you for your email. During the current COVID-19 environment we have revised our process to eliminate the use of any personal information where we can as to minimize the associated risks, this includes removing the requesters name and the nature of the request from our email correspondence. We differentiate requests by referencing the file number associated with your request (20-130).

That being said, we can take your email as consent to share this information with you via email.

Request 20-130 was submitted by Christine Massey, by email on May 19, 2020. The $5.00 application was received on May 28, 2020. The description of the request is as follows:

"All records in the possession, custody or control of the Region of Peel (for example: downloaded to a computer, printed in hard copy, etc.) describing the isolation of a SARS-COV-2 virus, directly from a sample taken from a diseased patient, where the patient sample was not first combined with any other source of genetic material (i.e. monkey kidney cells aka vero cells; liver cancer cells).

Please note that I am using "isolation" in the every-day sense of the word: the act of separating a thing(s) from everything else. I am not requesting records where "isolation of SARS-COV-2" refers instead only to:

• the culturing of something, and/or
• the performance of an amplification test (i.e. a PCR test), and/or
• the sequencing of something.

[If any records match the above description of requested records and are currently available to the public elsewhere, please provide enough information about each record so that the public may identify and access each record with certainty (i.e. title, author(s), date, journal, where the public may access it).]

If you have any further questions, please don’t hesitate to contact fci@peelregion.ca

Kind Regards,

Jenna Charlton
Statutory Specialist, Access to Information & Privacy
Region of Peel
10 Peel Centre Drive
Brampton, ON L6T 4B9
905-791-7800 x 5083
May 18, 2019

Rafael Eskenazi, FIPP Director

Freedom of Information and Protection of Privacy Office
University of Toronto
Room 104, McMurrich Building
12 Queen’s Park Crescent W.
Toronto, ON M5S 1A8
416 946-5835
rafael.eskenazi@utoronto.ca

Dear Mr. Eskenazi,

This is a request for General Information, made under the Freedom of Information and Protection of Privacy Act (FIPPA).

Description of Requested Records:

All records in the possession, custody or control of the Dalla Lana School of Public Health or any other department of the University of Toronto (for example: downloaded to a computer, printed in hard copy, etc.) describing the isolation of a SARS-COV-2 virus, directly from a sample taken from a diseased patient, where the patient sample was not first combined with any other source of genetic material (i.e. monkey kidney cells aka vero cells; liver cancer cells).

Please note that I am using "isolation" in the every-day sense of the word: the act of separating a thing(s) from everything else. I am not requesting records where "isolation of SARS-COV-2" refers instead only to:

- the culturing of something, and/or
- the performance of an amplification test (i.e. a PCR test), and/or
- the sequencing of something.

[If any records match the above description of requested records and are currently available to the public elsewhere, please provide enough information about each record so that the public may identify and access each record with certainty (i.e. title, author(s), date, journal, where the public may access it).]
Dear Access to Information and Privacy Coordinator and Ms. Haase,

Thank you for the email and information from Ms. Haase.

My apologies - my phone number has changed to

Since Health Canada plays a key role in COVID-19 activities and products (i.e. approving "37 clinical trials for potential COVID-19 therapies and vaccines" and authorizing dozens of test kits), and the legitimacy of those activities and products hinge very much on evidence and details regarding the existence of "SARS- COV-2", I do not wish for you to close this present file. I am not abandoning my request.

Please recall the postscript that I submitted along with my records request, and note that my request is not limited to records that were authored by Health Canada or pertain to work done by Health Canada. My request includes any sort of record, for example (but not limited to) any published peer-reviewed study that Health Canada has downloaded or printed.

Christine Massey <cmssyc@gmail.com>  Thu, May 14, 11:38 AM  

to atip-aiprp

p.s. To clarify, I am requesting all such records that are in the possession, custody or control of Health Canada (for example: downloaded to a computer, printed in hard copy, etc.).
Description of Requested Records:

All records describing the isolation of a SARS-COV-2 virus, directly from a sample taken from a diseased patient, where the patient sample was not first combined with any other source of genetic material (i.e. monkey kidney cells aka vero cells; liver cancer cells).

Please note that I am using "isolation" in the every-day sense of the word: the act of separating a thing(s) from everything else. I am not requesting records where "isolation of SARS-COV-2" refers instead to:

• the culturing of something, or
• the performance of an amplification test (i.e. a PCR test), or
• the sequencing of something.

[If any records match the above description of requested records and are currently available to the public elsewhere, please provide enough information about each record so that the public may identify and access each record with certainty (i.e. title, author(s), date, journal, where the public may access it).]
Our file: A-2020-000208 / BH

Christine Massey
221 - 93 George St. S
Brampton, Ontario
L6Y 1P4

Dear Christine Massey:

This is in response to your request made under the Access to Information Act (the Act) for the following information:

All records describing the isolation of a SARS-COV-2 virus, directly from a sample taken from a diseased patient, where the patient sample was not first combined with any other source of genetic material (i.e. monkey kidney cells aka vero cells; liver cancer cells).

Please note that I am using "isolation" in the every-day sense of the word: the act of separating a thing(s) from everything else. I am not requesting records where "isolation of SARS-COV-2" refers instead to:

· the culturing of something, or
· the performance of an amplification test (i.e. a PCR test), or
· the sequencing of something.

To clarify, I am requesting all such records that are in the possession, custody or control of Health Canada (for example: downloaded to a computer, printed in hard copy, etc.).

Having completed a thorough search, we regret to inform you that we were unable to locate any records responsive to your request.

Should you have any questions or concerns about the processing of your request, please do not hesitate to contact Barbara Haase, the analyst responsible for this file, either by phone at 613-859-9073, by email at barbara.haase@canada.ca or by fax at 613-941-4541, with reference to our file number cited above.
Please be advised that you are entitled to complain to the Office of the Information Commissioner of Canada concerning the processing of your request within 60 days of the receipt of this notice. In the event you decide to avail yourself of this right, your notice of complaint can be made online at: https://www.oic-ci.gc.ca/en/submitting-complaint or by mail to:

Office of the Information Commissioner of Canada  
30 Victoria Street  
Gatineau, Quebec K1A 1H3

Yours sincerely,

Christine Smith

Team Leader, Access to Information and Privacy  
Health Canada and the Public Health Agency of Canada / Government of Canada  
christinen.smith@canada.ca / Tel: 613-862-6063

Chef d’équipe, Accès à l’information et de la protection des renseignements personnels  
Santé Canada et Agence de la santé publique du Canada / Gouvernement du Canada  
christinen.smith@canada.ca / Tél: 613-862-6063
Masks Don't Work: A review of science relevant to COVID-19 social policy

Technical Report · April 2020
DOI: 10.13140/RG.2.2.14320.40967/1

CITATION
1

READS
287,806

1 author:

D. G. Rancourt
Ontario Civil Liberties Association
143 PUBLICATIONS  4,249 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:

Science reviews relevant to COVID-19 View project
Ab Initio Mossbauer Parameter Calculations (MSc & PhD) View project
Masks Don’t Work
A review of science relevant to COVID-19 social policy

Denis G. Rancourt, PhD
Researcher, Ontario Civil Liberties Association (ocla.ca)

Working report, published at Research Gate
(https://www.researchgate.net/profile/D_Rancourt)

April 2020

Summary / Abstract

Masks and respirators do not work.

There have been extensive randomized controlled trial (RCT) studies, and meta-analysis reviews of RCT studies, which all show that masks and respirators do not work to prevent respiratory influenza-like illnesses, or respiratory illnesses believed to be transmitted by droplets and aerosol particles.

Furthermore, the relevant known physics and biology, which I review, are such that masks and respirators should not work. It would be a paradox if masks and respirators worked, given what we know about viral respiratory diseases: The main transmission path is long-residence-time aerosol particles (< 2.5 μm), which are too fine to be blocked, and the minimum-infective-dose is smaller than one aerosol particle.

The present paper about masks illustrates the degree to which governments, the mainstream media, and institutional propagandists can decide to operate in a science vacuum, or select only incomplete science that serves their interests. Such recklessness is also certainly the case with the current global lockdown of over 1 billion people, an unprecedented experiment in medical and political history.
Review of the Medical Literature

Here are key anchor points to the extensive scientific literature that establishes that wearing surgical masks and respirators (e.g., “N95”) does not reduce the risk of contracting a verified illness:


N95-masked health-care workers (HCW) were significantly more likely to experience headaches. Face mask use in HCW was not demonstrated to provide benefit in terms of cold symptoms or getting colds.

doi:10.1017/S0950268809991658
https://www.cambridge.org/core/journals/epidemiology-and-infection/article/face-masks-to-prevent-transmission-of-influenza-virus-a-systematic-review/64D368496EBDE0AFCC6639CCC9D8BC05

None of the studies reviewed showed a benefit from wearing a mask, in either HCW or community members in households (H). See summary Tables 1 and 2 therein.


“There were 17 eligible studies. ... None of the studies established a conclusive relationship between mask / respirator use and protection against influenza infection.”

https://www.cmaj.ca/content/188/8/567

“We identified 6 clinical studies ... In the meta-analysis of the clinical studies, we found no significant difference between N95 respirators and surgical masks in associated risk of (a) laboratory-confirmed respiratory infection, (b) influenza-like illness, or (c) reported work-place absenteeism.”
https://academic.oup.com/cid/article/65/11/1934/4068747

“Self-reported assessment of clinical outcomes was prone to bias. Evidence of a protective effect of masks or respirators against verified respiratory infection (VRI) was not statistically significant”; as per Fig. 2c therein:

### Table 1

<table>
<thead>
<tr>
<th>Study</th>
<th>rPPE (a%)</th>
<th>Control (a%)</th>
<th>VRI</th>
<th>RR (95% CI)</th>
<th>% weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MacIntyre 2011</td>
<td>N95 13/949</td>
<td>15/481</td>
<td>0.44 (0.21, 0.92)</td>
<td>36.1</td>
<td></td>
</tr>
<tr>
<td>MacIntyre 2015</td>
<td>med 19/580</td>
<td>18/458</td>
<td>0.83 (0.44, 1.57)</td>
<td>36.5</td>
<td></td>
</tr>
<tr>
<td>MacIntyre 2011</td>
<td>med 13/492</td>
<td>15/481</td>
<td>0.85 (0.41, 1.76)</td>
<td>27.4</td>
<td></td>
</tr>
<tr>
<td>Overall (I-squared = 4.6%, p = 0.350)</td>
<td></td>
<td></td>
<td>0.70 (0.47, 1.03)</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

![Graph showing results](image)

https://jamanetwork.com/journals/jama/fullarticle/2749214

“Among 2862 randomized participants, 2371 completed the study and accounted for 5180 HCW-seasons. ... Among outpatient health care personnel, N95 respirators vs medical masks as worn by participants in this trial resulted in no significant difference in the incidence of laboratory-confirmed influenza.”


“A total of six RCTs involving 9 171 participants were included. There were no statistically significant differences in preventing laboratory-confirmed influenza, laboratory-confirmed respiratory viral infections, laboratory-confirmed respiratory infection and influenza-like illness using N95 respirators and surgical masks. Meta-analysis indicated a protective effect of N95 respirators against laboratory-confirmed bacterial colonization (RR = 0.58, 95% CI 0.43-0.78). The
use of N95 respirators compared with surgical masks is not associated with a lower risk of laboratory-confirmed influenza.”

**Conclusion Regarding that Masks Do Not Work**

No RCT study with verified outcome shows a benefit for HCW or community members in households to wearing a mask or respirator. There is no such study. There are no exceptions.

Likewise, no study exists that shows a benefit from a broad policy to wear masks in public (more on this below).

Furthermore, if there were any benefit to wearing a mask, because of the blocking power against droplets and aerosol particles, then there should be more benefit from wearing a respirator (N95) compared to a surgical mask, yet several large meta-analyses, and all the RCT, prove that there is no such relative benefit.

Masks and respirators do not work.

**Precautionary Principle Turned on Its Head with Masks**

In light of the medical research, therefore, it is difficult to understand why public-health authorities are not consistently adamant about this established scientific result, since the distributed psychological, economic and environmental harm from a broad recommendation to wear masks is significant, not to mention the unknown potential harm from concentration and distribution of pathogens on and from used masks. In this case, public authorities would be turning the precautionary principle on its head (see below).

**Physics and Biology of Viral Respiratory Disease and of Why Masks Do Not Work**

In order to understand why masks cannot possibly work, we must review established knowledge about viral respiratory diseases, the mechanism of seasonal variation of excess deaths from pneumonia and influenza, the aerosol mechanism of infectious disease transmission, the physics and chemistry of aerosols, and the mechanism of the so-called minimum-infective-dose.

In addition to pandemics that can occur anytime, in the temperate latitudes there is an extra burden of respiratory-disease mortality that is seasonal, and that is caused by viruses. For
example, see the review of influenza by Paules and Subbarao (2017). This has been known for a long time, and the seasonal pattern is exceedingly regular.

For example, see Figure 1 of Viboud (2010), which has “Weekly time series of the ratio of deaths from pneumonia and influenza to all deaths, based on the 122 cities surveillance in the US (blue line). The red line represents the expected baseline ratio in the absence of influenza activity,” here:

![122 cities weekly P&I mortality data](image)

The seasonality of the phenomenon was largely not understood until a decade ago. Until recently, it was debated whether the pattern arose primarily because of seasonal change in virulence of the pathogens, or because of seasonal change in susceptibility of the host (such as from dry air causing tissue irritation, or diminished daylight causing vitamin deficiency or hormonal stress). For example, see Dowell (2001).

In a landmark study, Shaman et al. (2010) showed that the seasonal pattern of extra respiratory-disease mortality can be explained quantitatively on the sole basis of absolute humidity, and its direct controlling impact on transmission of airborne pathogens.

Lowen et al. (2007) demonstrated the phenomenon of humidity-dependent airborne-virus virulence in actual disease transmission between guinea pigs, and discussed potential underlying mechanisms for the measured controlling effect of humidity.
The underlying mechanism is that the pathogen-laden aerosol particles or droplets are neutralized within a half-life that monotonically and significantly decreases with increasing ambient humidity. This is based on the seminal work of Harper (1961). Harper experimentally showed that viral-pathogen-carrying droplets were inactivated within shorter and shorter times, as ambient humidity was increased.

Harper argued that the viruses themselves were made inoperative by the humidity (“viable decay”), however, he admitted that the effect could be from humidity-enhanced physical removal or sedimentation of the droplets (“physical loss”): “Aerosol viabilities reported in this paper are based on the ratio of virus titre to radioactive count in suspension and cloud samples, and can be criticized on the ground that test and tracer materials were not physically identical.”

The latter (“physical loss”) seems more plausible to me, since humidity would have a universal physical effect of causing particle / droplet growth and sedimentation, and all tested viral pathogens have essentially the same humidity-driven “decay”. Furthermore, it is difficult to understand how a virion (of all virus types) in a droplet would be molecularly or structurally attacked or damaged by an increase in ambient humidity. A “virion” is the complete, infective form of a virus outside a host cell, with a core of RNA or DNA and a capsid. The actual mechanism of such humidity-driven intra-droplet “viable decay” of a virion has not been explained or studied.

In any case, the explanation and model of Shaman et al. (2010) is not dependant on the particular mechanism of the humidity-driven decay of virions in aerosol / droplets. Shaman’s quantitatively demonstrated model of seasonal regional viral epidemiology is valid for either mechanism (or combination of mechanisms), whether “viable decay” or “physical loss”.

The breakthrough achieved by Shaman et al. is not merely some academic point. Rather, it has profound health-policy implications, which have been entirely ignored or overlooked in the current coronavirus pandemic.

In particular, Shaman’s work necessarily implies that, rather than being a fixed number (dependent solely on the spatial-temporal structure of social interactions in a completely susceptible population, and on the viral strain), the epidemic’s basic reproduction number \( R_0 \) is highly or predominantly dependent on ambient absolute humidity.

For a definition of \( R_0 \), see HealthKnowlege-UK (2020): \( R_0 \) is “the average number of secondary infections produced by a typical case of an infection in a population where everyone is susceptible.” The average \( R_0 \) for influenza is said to be 1.28 (1.19–1.37); see the comprehensive review by Biggerstaff et al. (2014).

In fact, Shaman et al. showed that \( R_0 \) must be understood to seasonally vary between humid-summer values of just larger than “1” and dry-winter values typically as large as “4” (for example, see their Table 2). In other words, the seasonal infectious viral respiratory diseases that plague temperate latitudes every year go from being intrinsically mildly contagious to
virulently contagious, due simply to the bio-physical mode of transmission controlled by atmospheric humidity, irrespective of any other consideration.

Therefore, all the epidemiological mathematical modelling of the benefits of mediating policies (such as social distancing), which assumes humidity-independent R0 values, has a large likelihood of being of little value, on this basis alone. For studies about modelling and regarding mediation effects on the effective reproduction number, see Coburn (2009) and Tracht (2010).

To put it simply, the “second wave” of an epidemic is not a consequence of human sin regarding mask wearing and hand shaking. Rather, the “second wave” is an inescapable consequence of an air-dryness-driven many-fold increase in disease contagiousness, in a population that has not yet attained immunity.

If my view of the mechanism is correct (i.e., “physical loss”), then Shaman’s work further necessarily implies that the dryness-driven high transmissibility (large R0) arises from small aerosol particles fluidly suspended in the air; as opposed to large droplets that are quickly gravitationally removed from the air.

Such small aerosol particles fluidly suspended in air, of biological origin, are of every variety and are everywhere, including down to virion-sizes (Despres, 2012). It is not entirely unlikely that viruses can thereby be physically transported over inter-continental distances (e.g., Hammond, 1989).

More to the point, indoor airborne virus concentrations have been shown to exist (in day-care facilities, health centres, and onboard airplanes) primarily as aerosol particles of diameters smaller than 2.5 μm, such as in the work of Yang et al. (2011):

“Half of the 16 samples were positive, and their total virus concentrations ranged from 5800 to 37 000 genome copies m⁻³. On average, 64 per cent of the viral genome copies were associated with fine particles smaller than 2.5 μm, which can remain suspended for hours. Modelling of virus concentrations indoors suggested a source strength of $1.6 \pm 1.2 \times 10^5$ genome copies m⁻³ air h⁻¹ and a deposition flux onto surfaces of $13 \pm 7$ genome copies m⁻² h⁻¹ by Brownian motion. Over 1 hour, the inhalation dose was estimated to be $30 \pm 18$ median tissue culture infectious dose (TCID₅₀), adequate to induce infection. These results provide quantitative support for the idea that the aerosol route could be an important mode of influenza transmission.”

Such small particles (< 2.5 μm) are part of air fluidity, are not subject to gravitational sedimentation, and would not be stopped by long-range inertial impact. This means that the slightest (even momentary) facial misfit of a mask or respirator renders the design filtration norm of the mask or respirator entirely irrelevant. In any case, the filtration material itself of
N95 (average pore size \( \sim 0.3 \text{–} 0.5 \, \mu m \)) does not block virion penetration, not to mention surgical masks. For example, see Balazy et al. (2006).

Mask stoppage efficiency and host inhalation are only half of the equation, however, because the minimal infective dose (MID) must also be considered. For example, if a large number of pathogen-laden particles must be delivered to the lung within a certain time for the illness to take hold, then partial blocking by any mask or cloth can be enough to make a significant difference.

On the other hand, if the MID is amply surpassed by the virions carried in a single aerosol particle able to evade mask-capture, then the mask is of no practical utility, which is the case.

Yezli and Otter (2011), in their review of the MID, point out relevant features:

- Most respiratory viruses are as infective in humans as in tissue culture having optimal laboratory susceptibility.
- It is believed that a single virion can be enough to induce illness in the host.
- The 50%-probability MID (“TCID\(_{50}\)” ) has variably been found to be in the range 100–1000 virions.
- There are typically \( 10^3 \text{–} 10^7 \) virions per aerolized influenza droplet with diameter 1 \( \mu m \) – 10 \( \mu m \).
- The 50%-probability MID easily fits into a single (one) aerolized droplet.

For further background:

- A classic description of dose-response assessment is provided by Haas (1993).
- Zwart et al. (2009) provided the first laboratory proof, in a virus-insect system, that the action of a single virion can be sufficient to cause disease.
- Baccam et al. (2006) calculated from empirical data that, with influenza A in humans, “we estimate that after a delay of \( \sim 6 \) h, infected cells begin producing influenza virus and continue to do so for \( \sim 5 \) h. The average lifetime of infected cells is \( \sim 11 \) h, and the half-life of free infectious virus is \( \sim 3 \) h. We calculated the [in-body] basic reproductive number, \( R_0 \), which indicated that a single infected cell could produce \( \sim 22 \) new productive infections.”
- Brooke et al. (2013) showed that, contrary to prior modeling assumptions, although not all influenza-A-infected cells in the human body produce infectious progeny (virions), nonetheless, 90% of infected cell are significantly impacted, rather than simply surviving unharmed.

All of this to say that: if anything gets through (and it always does, irrespective of the mask), then you are going to be infected. Masks cannot possibly work. It is not surprising, therefore, that no bias-free study has ever found a benefit from wearing a mask or respirator in this application.
Therefore, the studies that show partial stopping power of masks, or that show that masks can capture many large droplets produced by a sneezing or coughing mask-wearer, in light of the above-described features of the problem, are irrelevant. For example, such studies as these: Leung (2020), Davies (2013), Lai (2012), and Sande (2008).

**Why There Can Never Be an Empirical Test of a Nation-Wide Mask-Wearing Policy**

As mentioned above, no study exists that shows a benefit from a broad policy to wear masks in public. There is good reason for this. It would be impossible to obtain unambiguous and bias-free results:

- Any benefit from mask-wearing would have to be a small effect, since undetected in controlled experiments, which would be swamped by the larger effects, notably the large effect from changing atmospheric humidity.
- Mask compliance and mask adjustment habits would be unknown.
- Mask-wearing is associated (correlated) with several other health behaviours; see Wada (2012).
- The results would not be transferable, because of differing cultural habits.
- Compliance is achieved by fear, and individuals can habituate to fear-based propaganda, and can have disparate basic responses.
- Monitoring and compliance measurement are near-impossible, and subject to large errors.
- Self-reporting (such as in surveys) is notoriously biased, because individuals have the self-interested belief that their efforts are useful.
- Progression of the epidemic is not verified with reliable tests on large population samples, and generally relies on non-representative hospital visits or admissions.
- Several different pathogens (viruses and strains of viruses) causing respiratory illness generally act together, in the same population and/or in individuals, and are not resolved, while having different epidemiological characteristics.

**Unknown Aspects of Mask Wearing**

Many potential harms may arise from broad public policies to wear masks, and the following unanswered questions arise:

- Do used and loaded masks become sources of enhanced transmission, for the wearer and others?
• Do masks become collectors and retainers of pathogens that the mask wearer would otherwise avoid when breathing without a mask?
• Are large droplets captured by a mask atomized or aerolized into breathable components? Can virions escape an evaporating droplet stuck to a mask fiber?
• What are the dangers of bacterial growth on a used and loaded mask?
• How do pathogen-laden droplets interact with environmental dust and aerosols captured on the mask?
• What are long-term health effects on HCW, such as headaches, arising from impeded breathing?
• Are there negative social consequences to a masked society?
• Are there negative psychological consequences to wearing a mask, as a fear-based behavioural modification?
• What are the environmental consequences of mask manufacturing and disposal?
• Do the masks shed fibres or substances that are harmful when inhaled?

Conclusion

By making mask-wearing recommendations and policies for the general public, or by expressly condoning the practice, governments have both ignored the scientific evidence and done the opposite of following the precautionary principle.

In absence of knowledge, governments should not make policies that have a hypothetical potential to cause harm. The government has an onus barrier before it instigates a broad social-engineering intervention, or allows corporations to exploit fear-based sentiments.

Furthermore, individuals should know that there is no known benefit arising from wearing a mask in a viral respiratory illness epidemic, and that scientific studies have shown that any benefit must be residually small, compared to other and determinative factors.

Otherwise, what is the point of publicly funded science?

The present paper about masks illustrates the degree to which governments, the mainstream media, and institutional propagandists can decide to operate in a science vacuum, or select only incomplete science that serves their interests. Such recklessness is also certainly the case with the current global lockdown of over 1 billion people, an unprecedented experiment in medical and political history.
Endnotes:

https://jvi.asm.org/content/80/15/7590


https://doi.org/10.1186/1471-2334-14-480

Brooke, C. B. et al. (2013) “Most Influenza A Virions Fail To Express At Least One Essential Viral Protein”, *Journal of Virology* Feb 2013, 87 (6) 3155-3162; DOI: 10.1128/JVI.02284-12  
https://jvi.asm.org/content/87/6/3155

https://doi.org/10.1186/1741-7015-7-30

http://journals.cambridge.org/abstract_S1935789313000438

Despres, V. R. et al. (2012) “Primary biological aerosol particles in the atmosphere: a review”, *Tellus B: Chemical and Physical Meteorology*, 64:1, 15598, DOI: 10.3402/tellusb.v64i0.15598  
https://doi.org/10.3402/tellusb.v64i0.15598

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2631809/

https://doi.org/10.1093/clinids/11.3.494

https://www.healthknowledge.org.uk/public-health-textbook/research-methods/1a-epidemiology/epidemic-theory


https://doi.org/10.1038/s41591-020-0843-2

https://doi.org/10.1371/journal.ppat.0030151

http://dx.doi.org/10.1016/S0140-6736(17)30129-0

doi:10.1371/journal.pone.0002618
https://doi.org/10.1371/journal.pone.0002618

https://doi.org/10.1371/journal.pbio.1000316

doi:10.1371/journal.pone.0009018
https://doi.org/10.1371/journal.pone.0009018

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2843747/

https://doi.org/10.1186/1471-2458-12-1065

https://doi.org/10.1007/s12560-011-9056-7

http://doi.org/10.1098/rspb.2009.0064
Deaths are determined by using the outcome field in iPHIS or Local Systems. Any case marked ‘Fatal’ is included in the deaths data. Deaths are included whether or not COVID-19 was determined to be a contributing or underlying cause of death as indicated in the iPHIS field Type of Death.
Notice of Time Extension

June 17, 2020

Request Number 2020-0004

Christine Massey
#221 – 93 George St. S.
Brampton, ON L6Y 1P4

Dear Ms. Massey:

I am contacting you regarding your access request under the Freedom of Information and Protection of Privacy Act (the Act) as submitted to the University of Toronto on May 18, 2020. On June 2, 2020, the University transferred the request to Sunnybrook Health Sciences Centre (Sunnybrook) after determining that Sunnybrook had a greater interest in the responsive records.

If you have not already submitted $5.00 application fee to the University of Toronto, I ask that it be provided to Sunnybrook immediately.

To confirm, you requested access to the following:

All records in the possession, custody or control of the Dalla Lana School of Public Health or any other department of the University of Toronto (for example: downloaded to a computer, printed in hard copy, etc.) describing the isolation of a SARS-COV-2 virus, directly from a sample taken from a diseased patient, where the patient sample was not first combined with any other source of genetic material (i.e. monkey kidney cells aka vero cells; liver cancer cells).

Please note that I am using "isolation" in the every-day sense of the word: the act of separating a thing(s) from everything else. I am not requesting records where "isolation of SARS-COV-2" refers instead only to:

- the culturing of something, and/or
- the performance of an amplification test (i.e. a PCR test), and/or
- the sequencing of something.

[If any records match the above description of requested records and are currently available to the public elsewhere, please provide enough information about each record so that the public may identify and access each record with certainty (i.e. title, author(s), date, journal, where the public may access it).]
A request under the Act usually must be answered within 30 calendar days, however section 27 (enclosed) allows for time extensions under certain circumstances. The time limit for answering your request has been extended for an additional 30 days to July 17, 2020. Because consultations with a person outside the institution are necessary to comply with the request, Sunnybrook cannot reasonably be completed within the time limit. You may request that our decision to extend the time limit be reviewed by the Information and Privacy Commissioner. The Commissioner can be reached at:

Information and Privacy Commissioner/Ontario
2 Bloor Street East, Suite 1400
Toronto, Ontario M4W 1A8
Canada

Please note that you have 30 days from the receipt of this letter to request a review from the Commissioner.

Please contact me at 416-480-6100, ext. 85046 if you have any questions. We would appreciate you using the Request number FOI -2020-0004 assigned to your request in any further correspondence.

Sincerely,

Jeff Cutler
Privacy and FOI Coordinator
Freedom of Information and Protection of Privacy Act, R.S.O. 1990

Extension of time

27 (1) A head may extend the time limit set out in section 26 for a period of time that is reasonable in the circumstances, where,

(a) the request is for a large number of records or necessitates a search through a large number of records and meeting the time limit would unreasonably interfere with the operations of the institution; or

(b) consultations with a person outside the institution are necessary to comply with the request and cannot reasonably be completed within the time limit.

Notice of extension

(2) Where a head extends the time limit under subsection (1), the head shall give the person who made the request written notice of the extension setting out,

(a) the length of the extension;

(b) the reason for the extension; and

(c) that the person who made the request may ask the Commissioner to review the extension.
A request under the Act usually must be answered within 30 calendar days, however section 27 (enclosed) allows for time extensions under certain circumstances. The time limit for answering your request has been extended for an additional 30 days to July 17, 2020. Because consultations with a person outside the institution are necessary to comply with the request, Sunnybrook cannot reasonably be completed within the time limit. You may request that our decision to extend the time limit be reviewed by the Information and Privacy Commissioner. The Commissioner can be reached at:

Information and Privacy Commissioner/Ontario
2 Bloor Street East, Suite 1400
@TOPublicHealth I'd like to understand why you are instructing the media to record any death as a COVID death even if the death was caused by unrelated conditions/reasons according to doctors.

Toronto Public Health

Individuals who have died with COVID-19, but not as a result of COVID-19 are included in the case counts for COVID-19 deaths in Toronto.
Dear Christine Massey,

Please be advised that your request (set out in your May 18, 2020 email below) made under the Freedom of Information and Protection of Privacy Act (FIPPA) has been transferred to Sunnybrook Health Sciences Centre (Sunnybrook) pursuant to FIPPA section 25(2) because the University considers that Sunnybrook has a greater interest in any responsive records.

The contact person at Sunnybrook is Jeffrey Cutler. His information is as follows:

Privacy and Freedom of Information Coordinator
Sunnybrook Health Sciences Centre
jeffrey.cutler@sunnybrook.ca

If you have any questions or require further clarification, please do not hesitate to contact me by phone (647-227-3418) or email (lindsay.mills@utoronto.ca).

Thank you,
Lindsay Mills

Lindsay G. Mills
Coordinator
Freedom of Information and Protection of Privacy Office
University of Toronto
We recognize that governments may enact laws and pursue policies that limit Constitutional rights and freedoms, but the onus is on the government to prove that the limit is minimal, necessary, finite, and demonstrably justifiable in a free and democratic society. During times of emergency, constitutional rights do not stop being important. They become even more important.

Vaccine Choice Canada has made numerous formal requests of the Government of Canada and the provincial governments to provide evidence that justifies the violations of our Constitutional rights, to no avail. It is time to hold our governments accountable. It is time that our governments release publicly, and honestly, the data, evidence and advice that proves that these violations are minimal, necessary and demonstrably justifiable.

Canadians have lost confidence that the Canadian government is acting responsibly. It is apparent that the imposed interventions and government overstep are far worse than the virus itself, that decisions are being made based on a political or ideological agenda rather than on scientifically supported, evidence-based practices, and that the real epidemic we face is an epidemic of fear and state sponsored tyranny on a global basis.

Today, Vaccine Choice Canada formally announces its intention to hold the Government of Canada, and other parties yet to be named, accountable in a court of law. Vaccine Choice Canada has a long history and enviable reputation of advocating for and defending the rights and freedoms of Canadians when it comes to public and individual health. While this matter seems to stretch the intended mandate of Vaccine Choice Canada, it is nonetheless inseparable given the centrality of mandatory vaccinations that are publicly proposed by governments without medical or scientific basis. Thus, we recognize the urgent need to defend the rights and freedoms of all Canadians.
Dear Mayor Patrick Brown and City of Brampton Councillors:

I write to you today with concerns regarding the City of Brampton’s plans to make cloth masks mandatory for members of the general public. I have previously delegated to Brampton City Council. I am a frontline physician practicing in Brampton and a long-time advocate for the citizens of Brampton, our province and our country to access quality and timely healthcare. My undergraduate training was in Microbiology, my postgraduate training was in Immunology and my medical research was in Virology at the Public Health Agency of Canada’s only Level 4 National Microbiology Laboratory focusing on HIV-1 vaccine development.

My concerns centre around the lack of published scientific evidence to support the use of cloth masks in reducing transmission of SARS-CoV-2, the virus that causes COVID-19 disease. Based on statements made at the press conference on June 30, 2020 with all of the Peel Mayors and the Interim Peel Medical Officer of Health, the policy is politically-driven rather than science-driven. Mayor Brown had claimed it is “data driven” but then explicitly stated he had asked the public if this was necessary and people “believe” that it is “the right thing to do” and that “residents are asking for it.” While Dr. Loh had indicated that the Peel Region was doing “public surveys”.

The World Health Organization (WHO) advises against mandatory masks for the public. On June 5, 2020, the WHO published “Advice on the use of masks in the context of COVID-19” stating: “There is no direct evidence (from studies on COVID-19 and in healthy people in the community) on the effectiveness of universal masking of healthy people in the community to prevent infection with respiratory viruses, including COVID-19.” And the WHO further stated: “The following potential harms and risks should be carefully taken into account when adopting this approach of targeted continuous medical mask use, including: self-contamination due to the manipulation of the mask by contaminated hands; potential self-contamination that can occur if medical masks are not changed when wet, soiled or damaged; possible development of facial skin lesions, irritant dermatitis or worsening acne, when used frequently for long hours; masks may be uncomfortable to wear; false sense of security, leading to potentially less adherence to well recognized preventive measures such as physical distancing and hand hygiene; risk of droplet transmission and of splashes to the eyes, if mask wearing is not combined with eye protection; disadvantages for or difficulty wearing them by specific vulnerable populations such as those with mental health disorders, developmental disabilities, the deaf and hard of hearing community, and children; and difficulty wearing them in hot and humid environments.”

The Government of Canada’s Public Health Agency has also not recommended mandatory masks for the general public. THE PHA of Canada has expressed concerns regarding limitation of cloth masks: “Homemade masks are not medical devices and are not regulated like medical masks and respirators: they have not been tested to recognized standards; the fabrics are not the same as used in surgical masks or respirators; and the edges are not designed to form a seal around the nose and mouth. These types of masks may not be effective in blocking virus particles that may be transmitted by coughing, sneezing or certain medical procedures. They do not provide complete protection from virus particles because of a potential loose fit and the materials used. Some commercially available masks have exhalation valves that make the mask more breathable for the person wearing it, but these valves also allow infectious respiratory droplets to spread outside the mask. Masks with exhalation valves are not recommended, because they don’t protect others from COVID-19 and don’t limit the spread of the virus. Medical masks, including surgical, medical procedure face masks and respirators (like N95 masks), must be kept for health care workers and others providing direct care to COVID-19 patients.”

Similarly, the United States’ Centres for Disease Control and Prevention does not recommend mandatory masks for the general public. Dr. Anthony Fauci has stated: “When you are in the middle of an outbreak, wearing a mask might make people a little bit better and it might even block a droplet, but it is not providing the perfect protection that people think that it is. And often there are unintended consequences: people keep fiddling with the mask and they keep touching their face. When you think masks, you should think of healthcare providers needing them and people who are ill.” Dr. Chris Mackie, the Medical Officer
of Health and CEO for the Middlesex London Health Unit in Ontario echoed this sentiment last week: “So make them feel safe by wearing low-grade masks that don’t make a difference? That may be popular, but it’s not good public health policy.”

On June 24, 2020, the Annals of Internal Medicine published a review entitled: Masks for Prevention of Respiratory Virus Infections, Including SARS-CoV-2, in Health Care and Community Settings. It examined “Multiple electronic databases, including the World Health Organization COVID-19 database and medRxiv preprint server (2003 through 14 April 2020; surveillance through 2 June 2020), and reference lists. Randomized trials of masks and risk for respiratory virus infection, including severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and observational studies of mask use and coronavirus infection risk were included. 39 studies (18 randomized controlled trials and 21 observational studies; 33,867 participants) were included.” It concluded that evidence on mask effectiveness for respiratory infection prevention is strong in the healthcare setting but not in the community setting. The summary table is below:

<table>
<thead>
<tr>
<th>Comparison (Intervention A vs. Intervention B)</th>
<th>SARS-CoV-2 Infection*</th>
<th>SARS-CoV-1 or MERS-CoV Infection*</th>
<th>Influenza, ILL and Other URI (Excluding Pandemic Coronavirus)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community setting</td>
<td></td>
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<tr>
<td>Mask (type not specified) vs. no mask (k = 3 observational studies)</td>
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<tr>
<td>N95 vs. surgical mask in household contacts</td>
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<tr>
<td>N95 vs. no mask in household contacts (k = 1 RCT)</td>
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<tr>
<td>Surgical mask vs. no mask in household with an index case and other community settings (k = 5)</td>
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<tr>
<td>Health care setting – moderate or tighter risk (isolation)</td>
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<tr>
<td>Any mask vs. no mask (k = 12 observational studies)</td>
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<tr>
<td>N95 vs. no mask (k = 8 observational studies)</td>
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<tr>
<td>Surgical mask vs. no mask (k = 6 observational studies)</td>
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<tr>
<td>N95 mask vs. no mask (k = 1 observational study)</td>
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<tr>
<td>Mask (type not specified) vs. no mask (k = 5 observational studies)</td>
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<tr>
<td>N95 mask vs. no mask (k = 3 observational studies)</td>
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<td>Consistent/always mask use vs. nonmasked mask (k = 5 observational studies)</td>
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<td>N95 vs. surgical mask (k = 14 RCT) and 3 observational studies (k = 6, 49, 73)</td>
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<td>N95 vs. surgical mask vs. cloth mask (k = 3) (observation studies) (k = 6, 49, 73)</td>
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<td>Surgical mask vs. cloth mask (k = 1 RCT) (28)</td>
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<td>Health care setting – lower risk (isolation)</td>
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On June 27, 2020, The Lancet published a systemic review and meta-analysis of 172 observational studies across 16 countries and six continents, with no randomised controlled trials and 44 relevant comparative studies in health-care and non-health-care settings entitled: Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. It concluded that there was only “low certainty” for face coverings worn by members of the public.

Peel Public Health’s sampling study in May had found that 87% of COVID-19 cases in the Peel Region were in healthcare workers (of them 53% were in long-term care homes and retirement homes) and 82% of the COVID-19 cases in a healthcare setting were linked to an outbreak. Correctional and detention centre workers made up the second largest occupation after healthcare, at 23% of cases that were non-healthcare workers. With the vast majority of Brampton’s cases occurring in institutions, the focus must be on adequate personal protective equipment in these occupational settings, rapid and accessible testing, effective and timely contact tracing and a mandatory 14-day self-isolation in an independent patient facility.

The original intent of the lockdown was to ensure that our existing healthcare resources would not be overwhelmed. This was achieved and yet we are still in lockdown as the goal posts keep arbitrarily changing without regards to the tsunami of neglected non-COVID-19 patients whose healthcare needs have been deemed “non-essential”, including cancer patients, chronic disease patients and patients requiring surgery. The public discussion around COVID-19 positive cases in Brampton has only focused on known reported daily cases without any context of how many of these cases are asymptomatic, pre-symptomatic or symptomatic given that the province has recently expanded testing to anyone wanting to be tested. At least 85,957 COVID-19 tests have been completed among Peel residents since January 2020; among individuals tested between June 7, 2020 and June 13, 2020, approximately 1.4% had an initial positive test result for SARS-CoV-2. There has been a lack of public acknowledgement that recent cases are resulting in significantly fewer hospitalizations, ICU admissions and deaths. These observations have been observed globally and virologists in Italy have recently published a study which found that COVID-19 patients had a significantly lower viral load in May than they did in April. Of note, coronaviruses are a large family of RNA viruses, including the common cold coronavirus. Previous coronavirus outbreaks have dissipated on their own naturally without a vaccine. It has been 17 years since SARS and 8 years since MERS; no vaccine exists for either of these. A normal vaccine development cycle is 10-15 years, and the shortest vaccine development cycle on record is four years for mumps. No human coronavirus vaccine exists. RNA viruses have very high mutation rates compared to DNA viruses. Most viruses evolve to become less virulent to try to increase its survival through transmission. It is likely that SARS-CoV-2 will also naturally
dissipate on its own. Scientists in both the United States and Thailand found an ORF7a SARS-CoV-2 deletion which mirrors the nucleotide mutation that had weakened SARS-CoV-1 and had slowed the 2003 SARS pandemic. Further experimental validation is needed before concluding clinical significance, but such reported mutational changes may help to explain the lower virulence being observed clinically around the world.

Public Health agencies in Ontario and Canada are greatly underestimating the percentage of the population that was COVID-19 positive, not captured with testing and now has immunity. Recent studies have shown that approximately 50% of the population likely has pre-existing cross-protective coronavirus immunity to SARS-CoV-2 from previous exposure to the common cold coronaviruses; this helps to explain the large portion of COVID-19 cases who clinically have had no or mild symptoms. There are two basic arms of the immune system: the humoral B-cells that produce antibodies and the cellular T-cells. Studies have shown that B-cells are not critical to recover from COVID-19 and strong T-cell responses bode well for long-term immunity. Public health sero-surveillance surveys detecting IgG antibodies only capture humoral B-cell immunity. Public health is currently not doing any population testing to detect T-cell immunity which would accurately capture the percentage of the population that had COVID-19 and has developed immunity to COVID-19 with memory T-cells. Therefore, there is a gross underestimation of existing immunity to COVID-19 within the population.

Any mandatory city by-law would require enforcement. How much additional municipal tax dollars would then be allocated to this instead of being directed to strengthen existing public health measures that are known to be effective? And if there is no enforcement, then is it really mandated? Or is it a strong recommendation, which Brampton already has. When Brampton and Toronto had issued $880-$1000 fines for being in outdoor parks and gathering in parking lots during the lockdown, it had eroded public trust in public health. It had also raised significant concerns regarding health equity: Millions of dollars in COVID-19 fines disproportionately hurting Black, Indigenous, marginalized groups: report. Of note, despite the millions of dollars in tickets issued recently, the risk of COVID-19 transmission is known to be significantly lower outdoors. Toronto Public Health reported “no evidence” of increased COVID-19 cases linked to thousands descending on Trinity Bellwoods on May 23, 2020 or the thousands descending onto Toronto beaches the on June 22, 2020. Mandatory masks in public would also create significant social and psychological stigma for those unable to wear masks due to non-visible disabilities and chronic disease co-morbidities, and could lead to public targeting of these vulnerable groups.

It is deeply troubling that the debate surrounding masks has become politicized. Strong public health policy must always have its foundation in strong published scientific evidence. There is a significant difference between recommending an action versus mandating an action in the absence of published scientific evidence. Good public health policy requires strong scientific evidence and public trust. In the absence of evidence, mandating such measures risks erosion of existing public trust in public health and may adversely result in an unwillingness to escalate existing public health measures if required in the future or an unwillingness to exercise existing scientifically-proven methods known to reduce COVID-19 transmission: such as proper hand washing (for at least 20 minutes with warm water and soap or within alcohol hand sanitizer containing at least 60% ethanol or 70% isopropanol); cough and sneeze etiquette; avoiding touching your face; staying home if sick; and 14-day self-isolation of known COVID-19 positive cases.

There is a significant difference between strongly recommending versus mandating cloth masks for the general public in the absence of published scientific evidence. At this crucial juncture in the COVID-19 pandemic, it is vital to ensure that all proposed public health policies are based upon robust science, respect health equity and aid to strengthen public trust. I hope that instead, the Brampton City Council and Peel Public Health follow the lead of other jurisdictions to focus on strengthening existing public health measures, creating independent patient facilities for 14-day self-isolation, ensuring equitable access to adequate PPE for frontline healthcare workers both in healthcare institutions and community clinics, ensuring patient access to generic medications shown to have efficacy as pre-exposure prophylaxis and as early post-exposure treatment, implementing testing to detect T-cell immunity and implementing sewage surveillance for early detection of outbreaks.

Thank you for your kind attention. I would be happy to meet to further discuss Brampton’s response to COVID-19.

Sincerely,

Dr. Kulvinder Gill, MD, FRCPC