# City of Hamilton

# BOARD OF HEALTH ADDENDUM

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|---|---|
| **Meeting #:** | 20-004 |
| **Date:** | July 10, 2020 |
| **Time:** | 9:30 a.m. |
| **Location:** | Due to the COVID-19 and the Closure of City Hall<br>All electronic meetings can be viewed at:<br>City's Website: https://www.hamilton.ca/council-committee/council-committee-meetings/meetings-and-agendas<br>City's YouTube Channel: https://www.youtube.com/user/InsideCityofHamilton or Cable 14 |

Loren Kolar, Legislative Coordinator (905) 546-2424 ext. 2604

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## 5. COMMUNICATIONS

*5.5 Correspondence respecting Face Coverings in Enclosed Public Spaces (BOH20014) (City Wide)

Recommendation: Be received and referred to the consideration of Item 10.5, respecting Face Coverings in Enclosed Public Spaces (BOH20014) (City Wide).

*5.5.a Correspondence from J. Hickey and D. Rancourt, Ontario Civil Liberties Association, respecting Mandatory Face Mask Policies

*5.5.b Correspondence from M. Saskin, respecting Mandatory Face Mask Policies

*5.5.c Correspondence from J. Mullin, respecting Mandatory Face Mask Policies

*5.5.d Correspondence from A. Simic, respecting Mandatory Face Mask Policies

*5.5.e Correspondence from K. Morrison, respecting Mandatory Face Mask Policies

*5.5.f Correspondence from S. Covelli, respecting Mandatory Face Mask Policies

*5.5.g Correspondence from K. Pontes, respecting Mandatory Face Mask Policies

*5.5.h Correspondence from J. Brown, respecting Mandatory Face Mask Policies

*5.5.i Correspondence from A. Michaluk, respecting Mandatory Face Mask Policies

*5.5.j Correspondence from J. Newton, respecting Mandatory Face Mask Policies

*5.5.k Correspondence from C. Siena, respecting Mandatory Face Mask Policies

*5.5.l Correspondence from C. R. Gent, respecting Mandatory Face Mask Policies

*5.5.m Correspondence from E. King, respecting Mandatory Face Mask Policies

*5.5.n Correspondence from A. Newton, respecting Mandatory Face Mask Policies

*5.5.o Correspondence from C. Act, respecting Mandatory Face Mask Policies

*5.5.p Correspondence from E. Davis, respecting Mandatory Face Mask Policies

*5.5.q Correspondence from D. Morgan, respecting Mandatory Face Mask Policies

*5.5.r Correspondence from L. Moore, respecting Mandatory Face Mask Policies

*5.5.s Correspondence from N. Devcic, respecting Mandatory Face Mask Policies

## 10. DISCUSSION ITEMS

10.4 Interim Plan to Resource and Structure Public Health Services During COVID-19 (BOH20013) (City Wide)

*10.4.a Staff Report

*10.5 Face Coverings in Enclosed Public Spaces (BOH20014) (City Wide)

Ontario
Civil Liberties
Association

"The OCLA takes a vigorous and highly principled approach to defending free speech rights, which is an approach that is sorely needed in Canada today."
—John Carpay,
President,
Justice Centre for
Constitutional Freedoms

"I am very pleased to learn of the Ontario Civil Liberties Association, and wish it the greatest success in its work, which could not be more timely and urgent as elementary civil rights, including freedom of speech, are under attack in much of the world, not excluding the more free and democratic societies."
—Noam Chomsky,
Institute Professor, MIT

"Freedom of expression is our most fundamental and most precious freedom. It has been under attack in Canada for years. The Ontario Civil Liberties Association has taken a position on freedom of expression that is both courageous and principled. The OCLA now stands alone and its position should be supported by all Canadians who cherish democracy and freedom."
—Robert Martin,
Professor of Law,
Emeritus,
Western University

ocla.ca

July 2, 2020 By Email

Mr. Fred Eisenberger
Mayor of Hamilton
mayor@hamilton.ca

CC: Members of Hamilton City Council; Made public

**RE: Mandatory face mask policies have no scientific basis, violate civil liberties, and must be rejected**

Mr. Eisenberger:

The Ontario Civil Liberties Association (OCLA) has recently learned of your intention to impose mandatory face masks in your municipality or that you have already done so.[1]

We urge you not to adopt any policy that imposes face masks on the general public and to retract any such recommendation or advisory, because:

- There is no reliable scientific evidence that face masks have any effect in preventing transmission of viral respiratory illnesses.
- The use of face masks in the general population entails many potential health risks.
- Arbitrarily applying state power by imposing such unjust and baseless laws violates civil rights and personal dignity and harms the very fabric of society.

These grave concerns are explained in detail in our 21 June 2020 letter to Dr. Tedros Adhanom Ghebreyesus, Director General of the World Health Organization (WHO), which was sent to all MPs and all Ontario MPPs, and which has been shared and discussed widely online and in the media.[2] The English version is attached for your convenience.

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[1] Global News, "Discussions underway in Hamilton, Ont., to make masks mandatory at enclosed public spaces", 30 June 2020: https://globalnews.ca/news/7126247/hamilton-masks-mandatory/.

[2] OCLA letter to the WHO Director General re: "WHO advising the use of face masks in the general population to prevent COVID-19 transmission", 21 June 2020: http://ocla.ca/wp-content/uploads/2020/06/2020-06-21-Letter-OCLA-to-WHO-DG.pdf. Une traduction en français de la lettre est disponible ici : https://lesakerfrancophone.fr/re-loms-conseille-lutilisation-de-masques-dans-la-population-generale-pour-prevenir-la-transmission-de-covid-19.

We ask you not to adopt any mandatory mask policies in Hamilton, and to immediately repeal any such policies that have already been implemented.

Please provide us with your response so that we can inform our members and the public.

Sincerely,

Joseph Hickey, PhD
Executive Director
Ontario Civil Liberties Association (OCLA) http://ocla.ca
613-252-6148 (c)
joseph.hickey@ocla.ca

Encl.: OCLA's 21 June 2020 letter to WHO

Ontario
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—Robert Martin,
Professor of Law,
Emeritus,
Western University

ocla.ca

June 21, 2020 By Email

**Dr Tedros Adhanom Ghebreyesus**
Director General
World Health Organization
WHO Headquarters in Geneva
Avenue Appia 20
1211 Geneva
**c/o New York Office:** whonewyork@who.int

CC: weu@who.int, afrgocom@who.int, phedoc@who.int, senkoroh@ga.afro.who.int, guerrere@paho.org, she@emro.who.int, eurohealthycities@who.int, yoosufa@searo.who.int, ogawah@wpro.who.int, mercados@wkc.who.int, mediainquiries@who.int

**RE: WHO advising the use of masks in the general population to prevent COVID-19 transmission**

Director General:

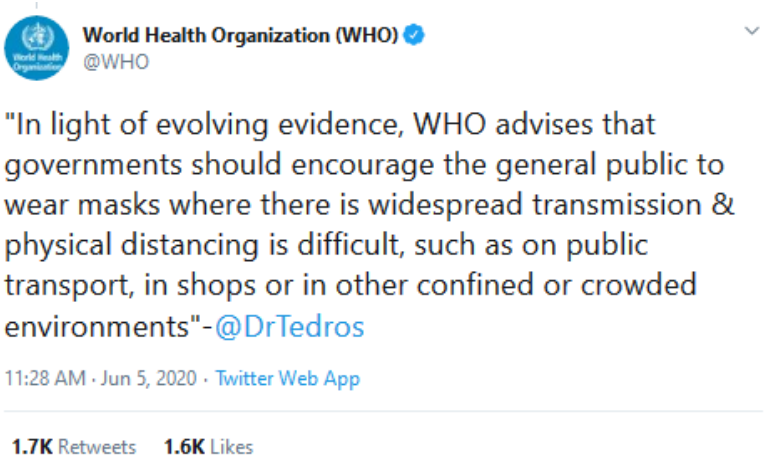
The Ontario Civil Liberties Association (OCLA) requests that the WHO retract its recommendation to decision makers advising the use of face masks in the general population ("the WHO recommendation").

The said WHO recommendation is detailed in the WHO's "interim guidance" document entitled "Advice on the use of masks in the context of COVID-19", which is dated 5 June 2020:

WHO Reference Number: WHO/2019-nCov/IPC_Masks/2020.4

The document is presently published on this page:
https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks

You have personally promoted the WHO recommendation on twitter:




We believe that the WHO recommendation is harmful to public health, and harmful to the very fabric of society. The recommendation is used by governments as a ready-made justification to impose mask use in the general population. The resulting legislative dictates and policies of coercion broadly violate civil, political and human rights. We ask that your ill-conceived recommendation be retracted immediately.

The context is one where: [1]

- Viral respiratory diseases, based on rapid mutations, have co-evolved with powerful, complex, and adaptive immune systems of breathing animals for some 300 million years and with human ancestors for some 5 million years, in the absence of vaccines.
- There was no statistically significant increase in winter-burden all-cause mortality in 2019-2020, compared to the last many decades of reliable data for Northern mid-latitude nations.
- A sharp peak in all-cause mortality by week occurred synchronously in several jurisdictions, across continents and oceans, immediately following the WHO declaration of the pandemic.
- The said peak can be attributed to government preparedness response to COVID-19, impacting immune-vulnerable institutionalized persons in those jurisdictions.

In your document, you state (at p. 6):

> At the present time, the widespread use of masks by healthy people in the community setting is not yet supported by high quality or direct scientific

[1] Rancourt, DG (2020) “All-cause mortality during COVID-19: No plague and a likely signature of mass homicide by government response”, *ResearchGate*, 2 June 2020, DOI: 10.13140/RG.2.2.24350.77125 ; Rancourt, DG (2020) “Mortalité toutes causes confondues pendant la COVID-19 : Pas de fléau et une signature probable d’homicide de masse par la réponse du gouvernement”, *Le Saker Francophone*, 2 juin 2020, https://lesakerfrancophone.fr/mortalite-toutes-causes-confondues-pendant-la-covid-19

> evidence and there are potential benefits and harms to consider (see below).

Even this introductory statement of yours has two problems.

First, it contains the palpable bias that “there must be benefits”.

Second, more importantly, you fail to mention that several randomized controlled trials with verified outcomes (infections) were specifically designed to detect a benefit, and did not find any measurable benefit, for any viral respiratory disease. This includes the many randomized controlled trials that find no difference between open-sided surgical masks and respirators. [2]

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[2] ● Xiao, J et al. (2020) "Nonpharmaceutical Measures for Pandemic Influenza in Nonhealthcare Settings—Personal Protective and Environmental Measures", *Emerg Infect Dis.* 5 May 2020;26(5):967-975. https://dx.doi.org/10.3201/eid2605.190994
["Although mechanistic studies support the potential effect of hand hygiene or face masks, evidence from 14 randomized controlled trials of these measures did not support a substantial effect on transmission of laboratory-confirmed influenza. We similarly found limited evidence on the effectiveness of improved hygiene and environmental cleaning."]
● Rancourt, DG (2020) “Masks Don’t Work: a Review of Science Relevant to Covid-19 Social Policy”, *ResearchGate*, 11 April 2020, now at *viXra*: https://vixra.org/abs/2006.0044
● Long, Y et al. (2020) “Effectiveness of N95 respirators versus surgical masks against influenza: A systematic review and meta-analysis”, *J Evid Based Med.* 2020; 1- 9. https://doi.org/10.1111/jebm.12381
["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 influenzalike illness using N95 respirators and surgical masks. Meta-analysis indicated a protective effect of N95 respirators against laboratory-confirmed bacterial colonization."]
● Bartoszko, JJ et al. (2020) "Medical masks vs N95 respirators for preventing COVID-19 in healthcare workers: A systematic review and meta-analysis of randomized trials", *Influenza Other Respir Viruses*, 2020;14(4):365-373, https://doi.org/10.1111/irv.12745
["Four RCTs were meta-analyzed adjusting for clustering. Compared with N95 respirators; the use of medical masks did not increase laboratory-confirmed viral (including coronaviruses) respiratory infection or clinical respiratory illness."]
● Radonovich, LJ et al. (2019) “N95 Respirators vs Medical Masks for Preventing Influenza Among Health Care Personnel: A Randomized Clinical Trial”, *JAMA*. 2019; 322(9): 824–833. doi:10.1001/jama.2019.11645, 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.”]
● Offeddu, V et al. (2017) “Effectiveness of Masks and Respirators Against Respiratory Infections in Healthcare Workers: A Systematic Review and Meta-Analysis”, *Clinical Infectious Diseases*, Volume 65, Issue 11, 1 December 2017, Pages 1934–1942, https://doi.org/10.1093/cid/cix681
[“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 their Figure 2c]
● Smith, JD et al. (2016) “Effectiveness of N95 respirators versus surgical masks in protecting health care workers from acute respiratory infection: a systematic review and meta-analysis”, *CMAJ*, Mar 2016, cmaj.150835; DOI: 10.1503/cmaj.150835, https://www.cmaj.ca/content/188/8/567

You failed to mention that such results set a probabilistic upper limit on mask effectiveness, and you failed to calculate this upper limit. Instead, you repeat the misleading notion that reliable evidence has "not yet" been found to confirm your adopted bias.

In other words, if masks were even moderately effective at reducing the risk of infection, then a benefit would have been statistically detected in one or more of the many reliable trials that have already been made.

More fundamentally, a major problem with your document is that you wrongly rely on substandard scientific reports as constituting usable "evidence". With public policy, especially health policy having draconian consequences, there must be a standards threshold below which a given report cannot be used as an indicator of reality. The reason that science requires randomized controlled trials with verified outcomes is precisely because other study designs are susceptible to bias.

The context of a new disease and of a publicized pandemic is one in which all reporting (media, political, and scientific) is susceptible to large bias. The mechanisms of the biases are well known and anticipated, such as: political posturing, partisan conflicts, career advancement, publication-record padding, "discovery" recognition, public-interest and public-support mining, institutional and personal reputational enhancement, funding opportunities, corporate interests, and so on.

Group bias is not an uncommon phenomenon. Large numbers of bias-susceptible studies that agree are of little value. Any study that does not apply the established scientific tools

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["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."]

● bin-Reza, F et al. (2012) "The use of masks and respirators to prevent transmission of influenza: a systematic review of the scientific evidence", *Influenza and Other Respiratory Viruses* 6(4), 257–267, https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1750-2659.2011.00307.x
["There were 17 eligible studies. … None of the studies established a conclusive relationship between mask/respirator use and protection against influenza infection."]

● Cowling, B et al. (2010) "Face masks to prevent transmission of influenza virus: A systematic review", *Epidemiology and Infection*, 138(4), 449-456. 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.]

● Jacobs, JL et al. (2009) "Use of surgical face masks to reduce the incidence of the common cold among health care workers in Japan: A randomized controlled trial", *American Journal of Infection Control*, Volume 37, Issue 5, 417 - 419, https://www.ncbi.nlm.nih.gov/pubmed/19216002
[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.]

for avoiding observational bias should be presumed to be biased, in any draconian policy context.

That is why the WHO cannot collect and rely on potentially biased studies to make recommendations that can have devastating effects (see below) on the lives of literally billions. Rather, the WHO must apply a stringent standards threshold, and accept only randomized controlled trials with verified outcomes. In this application, the mere fact that several such quality studies have not ever confirmed the positive effects reported in bias-susceptible reports should be a red flag.

For example, two amply promoted recent studies that do not satisfy the standards threshold, and that, in our opinion, have a palpable risk of large bias are the following.

The study of Renyi Zhang et al.:

> "Identifying airborne transmission as the dominant route for the spread of COVID-19" by Zhang, Renyi et al., *Proceedings of the National Academy of Sciences*, 11 June 2020, 202009637; DOI: 10.1073/pnas.2009637117,

which was not used in your document, presumably because it was published later.

The Zhang study applies concocted linear extrapolations of non-linear epidemiological curves to conclude that mask-imposition policies must have worked. The work appears to be squarely contradicted by Sajadi et al. who rigorously showed that the COVID-19 outbreaks of high-transmission centers were restricted to a narrow band of latitude, temperature and absolute humidity, irrespective of any considerations of social-distancing impositions, including masks, as would be expected for known viral respiratory diseases.[3]

And, the study of DK Chu et al.:

> "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" by Chu, DK et al., *Lancet*, 1 June 2020, S0140673620311429, https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31142-9/,

which is your reference 42.

The Chu study was funded by the WHO. It contains no randomized controlled trials, but rather uses a hodgepodge of data about associations of ill-defined factors. DK Chu et al.'s own appraisal of "certainty" regarding their conclusion about masks is "LOW" meaning "our confidence in the effect estimate is limited; the true effect could be

[3] Sajadi, MM et al. (2020) "Temperature, Humidity, and Latitude Analysis to Estimate Potential Spread and Seasonality of Coronavirus Disease 2019 (COVID-19)", *JAMA*, Netw Open. 11 June 2020; 3(6): e2011834. doi:10.1001/jamanetworkopen.2020.11834

substantially different from the estimate of the effect" (their Table 2), yet such a result is a basis for your recommendation to governments.

In your document, having made the recommendation for the use of masks in the general population (your Table 2), you go on to describe "benefits" and "harms" of such applications.

Under the **"Potential benefits/advantages"** section (p. 7), you incorrectly claim that "likely advantages" include "reduced potential exposure risk from infected persons before they develop symptoms". How this can be a "likely" advantage, in a total absence of reliable data, is beyond comprehension.

Your other "likely advantages" include:

- reduced potential stigmatization of individuals wearing masks to prevent infecting others …;
- making people feel they can play a role in contributing to stopping spread of the virus;
- reminding people to be compliant with other measures (e.g., hand hygiene, not touching nose and mouth) …;
- potential social and economic benefits. Amidst the global shortage of surgical masks and PPE, encouraging the public to create their own fabric masks may promote individual enterprise and community integration. Moreover, the production of non-medical masks may offer a source of income for those able to manufacture masks within their communities. Fabric masks can also be a form of cultural expression, encouraging public acceptance of protection measures in general…

Your document next has the section entitled **"Potential harms/disadvantages"**, in which you state:

> The likely disadvantages of the use of mask by healthy people in the general public include:
> - potential increased risk of self-contamination due to the manipulation of a face mask and subsequently touching eyes with contaminated hands;
> - potential self-contamination that can occur if non-medical masks are not changed when wet or soiled. This can create favourable conditions for microorganism to amplify;
> - potential headache and/or breathing difficulties, depending on type of mask used;
> - potential development of facial skin lesions, irritant dermatitis or worsening acne, when used frequently for long hours;
> - difficulty with communicating clearly;
> - …

- waste management issues; improper mask disposal leading to increased litter in public places, risk of contamination to street cleaners and environment hazard; …

On their face, the harms that you describe are more severe than the benefits. Therefore, we are all the more perplexed by your recommendation, which has no basis in reliable scientific results.

You are correct to point out that masks are collectors and concentrators of pathogen-laden substances and materials, in close proximity to the mouth, nose and eyes, such that one might expect contact transmission to occur by way of the said concentration.

A day of collecting pathogens on the mask by inhalation, accompanied by mask touching, and followed by mask removal and disposal or storage, indeed does not sound like a good idea. Can the general public realistically be expected to learn and follow medical protocols of mask safety? Most reliable trials have been made with professional health-care workers, and found no measurable benefit of masks. Would masks make things worse in a general population? We don't know, but virtually the entire public health establishment including the WHO used to think so.

Furthermore, you have omitted important foreseeable harms, which include the following.

1. On the medical side, directly attributable to masks, unanswered questions include: Are large droplets captured by a mask atomized or aerosolized into breathable components? Do virions escape an evaporating droplet stuck to a mask fiber? How do pathogen-laden droplets interact with environmental dust and aerosols captured on the mask, including in polluted environments? Do new, used and cleaned or recycled masks shed fibres or substances that are harmful? What are long-term health effects of constrained and modified breathing from prolonged mask use, both with health care workers and the general public?

2. Does imposed or socially coerced mask use induce or contribute to a psychological state of fear and stress, in part or most of the targeted population? Psychological stress is proven to be a factor that can measurably depress the immune system and induce diseases, including: immune response dysfunction, depression, cardiovascular disease and cancer. [4]

3. There is a body of reliable scientific work establishing that a dominant path of transmission of viral respiratory diseases is the smallest size fraction of aerosol particles, that these particles are suspended in the fluid air under conditions of low absolute humidity, that this is the reason for winter seasonality of these diseases, and that transmission occurs indoors (homes, hospitals, shopping centers, day-care centers, airplanes, …) where high densities of the aerosol particles are

[4] Cohen, S, Janicki-Deverts, D, Miller, GE (2007) "Psychological Stress and Disease", *JAMA*. 2007; 298(14):1685–1687. doi:10.1001/jama.298.14.1685

suspended in the air in the winters of mid-latitude regions. Therefore, policies of imposed (ineffective) mask wearing provide a cover for corporations and governments to evade their duty of care, which would be to effectively manage the indoor air environments such as not to constitute centres of transmission.

4. The WHO recommendation in-effect is “propaganda by policy” that promotes the undemonstrated view that global central planning can significantly and safely mitigate seasonal and pandemic viral respiratory diseases, which have been with us since breathing animals walked on earth, and which co-adapt with our complex immune system. This, in a context where science posturing is malleable, there are billions to be made every season from vaccine sales, vaccine harm liability has been socialized, and reparation for vaccine injury has been made increasingly difficult to access. And, what are the long-term effects of constant large-scale interference with the human immune response to viral respiratory diseases? One cannot fail to notice that your focus is on limiting transmission between healthy individuals and universal artificial immunity programs, rather than on integrated study of immune vulnerability and its determining factors, focusing on those actually at risk.

5. Are there detrimental effects on society itself, and the quality and depth of social connection and cohesion, in a society that is masked and distanced? Does the nuclear family or the lone individual become dangerously isolated from the social environment? Our primary schools have been made into nightmares. The promoted distancing is a social experiment of dystopia on a global scale, across cultures and peoples, planned to become routine.

6. When State power is applied in an absence of a valid scientific basis, and with little parliamentary debate, it constitutes arbitrarily applied power. Imposing masks is such a coercive power. What are the long-term societal consequences of habituation to arbitrarily applied State power? The recent scientific study of Hickey and Davidsen (2019) provides a theoretical foundation that such habituation is part of a progressive degradation towards a totalitarian state, depending on the degree of authoritarianism (whether individual contestation is effective) and the degree of violence (magnitude of the penalty for disobeying). [5]

7. Of great concern to the Ontario Civil Liberties Association are the direct and pernicious violations of civil rights and personal dignity, which forced masking embodies. These violations are multi-faceted.

i. In a free and democratic society, the individual has a presumed right to make their own evaluation of personal risk when acting in the world. Individuals evaluate risk, as a deeply personal matter that integrates experience, knowledge, personality, and culture, when they decide to walk outside, ride a

[5] Hickey, J, Davidsen, J (2019) “Self-organization and time-stability of social hierarchies”, *PLoS ONE* 14(1): e0211403. https://doi.org/10.1371/journal.pone.0211403

car, train, bus or bicycle, take a particular route, eat a particular food, take a particular medication, accept a particular treatment, wear or not wear a particular garment, express or not express any image of themselves, have particular social interactions, adopt a work or pastime, and so on.

ii. 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.

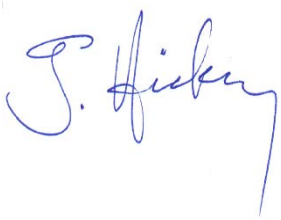
iii. In a free and democratic society, corporations and institutions cannot impose individual behaviours that are irrelevant to the nature of the individual's dealings with the corporations or institutions, whether the individual is a consumer or a client of a service. These bodies cannot impose dress codes or visible symbols of compliance or membership on consumers, and thus discriminate or deny services.

Our association receives complaints and requests for help, such that we are acutely aware of the harm caused by the WHO's recommendations that are actuated by municipal, provincial and federal governments in Canada, despite our warnings. [6]

The WHO's pronouncements, unfortunately, have a disproportionate influence on our easily corralled governments. [7]

In view of the above, we conclude that your recent reversal on masks is, at best, reckless and irresponsible. Please retract the recommendation immediately. If not, we would appreciate your explanations that we can communicate to our members and the public.

Sincerely,



**JOSEPH HICKEY**, B.Sc., M.Sc., Ph.D.
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[6] Rancourt, DG (2020) "Criticism of Government Response to COVID-19 in Canada", 18 April 2020, Ontario Civil Rights Association, OCLA Report 2020-1, http://ocla.ca/ocla-research-report-2020-1/

[7] "Mandatory mask laws are spreading in Canada: Mostly targeted at transportation so far, but calls are growing for more widespread application", by Emily Chung, *CBC News*, 17 June 2020. https://www.cbc.ca/news/health/mandatory-masks-1.5615728

**From:** Marnie Saskin
**To:** Kolar, Loren
**Subject:** Re: Mandatory mask vote this Friday
**Date:** July 8, 2020 9:09:02 AM

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Hi there,

I just heard about the Hamilton public health board vote regarding making masks mandatory indoors - please know you have a resounding "yes!" of support from this Hamiltonian and her family.

Multiple small business owner friends of mine are desperately needing official back-up from the city to enforce their indoor mask policy. Please take the responsibility for this off their shoulders - they are struggling as it is. No one should have to decide between losing customers and keeping themselves and their staff safe (and the rest of their customers!).

Much thanks,

Marnie Saskin
[redacted]
Hamilton

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: The problems with masks
**Date:** July 8, 2020 2:10:28 PM

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**From:** Jane Mullin [redacted]
**Sent:** Wednesday, July 8, 2020 2:08 PM
**To:** clerk@hamilton.ca
**Subject:** The problems with masks

Hi there
I am very concerned about my rights regarding wearing a mask.
If someone wants to wear a mask, then they have a right to do so, but likewise, I should have the right to choose not to wear a mask and still receive service in any establishment.

I'm trying to figure out how masks keep us safe when we never used them before 2020 for any viruses.

Copied from an OSHA certified individual:

So Masks?
I am OSHA 10&30 certified. I know some of you are too. I don't really know WHY OSHA hasn't come forward and stopped the nonsense BUT
I wanna cover 3 things
• N95 masks and P95 masks with exhale ports
• surgical masks
• filter or cloth masks

Okay so upon further inspection OSHA says some masks are okay and not okay in certain situations.
If you're working with fumes and aerosol chemicals and you give your employees the wrong masks and they get sick you can be sued.
• N95 masks and ported P95: are designed for CONTAMINATED environments. That means when you exhale through N95 the design is that you are exhaling into contamination. The exhale from P95 (ported) masks are vented to breath straight out without filtration. They don't filter the air on the way out. They don't need to.
Conclusion: if you're in Stewart's and the guy with Covid has P95 mask his covid breath is unfiltered being exhaled into Stewart's (because it was designed for already contaminated environments, it's not filtering your air on the way out)

• Surgical Mask: these masks were designed and approved for STERILE environments. The amount of particles and contaminants in the outside and indoor environments where people are CLOGG these masks very Very quickly. The moisture from your breath combined with the clogged mask with render it "useless" IF you come in contact with Covid and your mask traps it You become a walking virus dispenser. Everytime you put your mask on you are breathing the germs from EVERYWHERE you went. They should be changed or thrown out every "20-30 minutes in a non sterile environment"

Cloth masks: today three people pointed to their masks as the walked by me entering Lowe's. They said "ya gotta wear your mask BRO" I said very clearly "those masks don't work bro, in fact they MAKE you sicker" the "pshh'd" me.

By now hopefully you all know CLOTH masks do not filter anything. You mean the American flag one my aunt made? Yes. The one with sunflowers that looks so cute? Yes. The bandanna, the cut up t-shirt, the scarf ALL of them offer NO FILTERING whatsoever. As you exhale you are ridding your lungs of contaminants and carbon dioxide. Cloth masks trap this carbon dioxide the best. It actually risks health. The moisture caught in these masks can become mildew ridden over night. Dry coughing, enhanced allergies, sore throat are all symptoms of a micro-mold in your mask.

Ultimate Answer: Ported P95 blows the virus into the air from a contaminated person and N95 holes are larger than the coronavirus and does not block particles that small. And most importantly, the CDC admits that asymptomatic transmission is a "low probability" anyway.

The surgical mask is not designed for the outside world and will not filter the virus upon inhaling through it. It's filtration works on the exhale. (Like a vacuum bag it only works one way)

Cloth masks are WORSE than none.

The CDC wants us to keep wearing masks. The masks don't work.

*Occupational Safety & Health Administration sited.
The top American organization for safety.
They regulate and educate asbestos workers, surgical rooms, you name it.
If your mask gives you security wear it, just know it is a false sense of security.

If stores stopped enforcing it no one would continue this nonsense.

If work requires you to wear a mask, OSHA requires that your employer verifies you are receiving the minimum of 19.5% oxygen level by law! Are your oxygen levels being monitored while at work? Are you experiencing dizziness and headaches? This is a written law NOT a recommendation! I guarantee if employees started citing law and demanding their employers follow the law then the masks would go away!

There are also some other reasons why people cannot wear a facemask:
Good reasons include
- had been raped/assaulted & had mouth covered,
- had been attacked by someone masked,
- suffers panic attacks,
- other PTSD triggers
- has physical health issue.

Thank you

Jane Mullin - Canadian Founder and Blue Diamond Wellness Advocate
[redacted]

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: Mandatory masks
**Date:** July 8, 2020 2:12:06 PM

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**From:** Anita Simic [redacted]
**Sent:** Wednesday, July 8, 2020 2:09 PM
**To:** clerk@hamilton.ca
**Subject:** Mandatory masks

Hi
I have concern that wearing the mask is harmful. There are evidence to back that up.
Both Sick Children hospital in Toronto and WHO say that there are no benefits, only harm of wearing them
Best Regards
Anita Simic

5.5(e)

Kyle Morrison
[redacted]
July 8th, 2020

Hamilton Board of Health
City of Hamilton

Dear Hamilton Board of Health:

I am writing you today to express my dismay at the prospect of mandatory masks for those indoors in Hamilton.

In terms of reasonability, while a mask requirement may have been reasonable when there were a growing number of covid-19 cases, currently there are many days when Hamilton reports zero new cases.

In addition, according to Hamilton's covid-19 map, there are huge swaths of the city with zero confirmed cases in total!

Many people do not believe this a medical issue as "The Board" has not recommended that people cover their faces with a Class 1 or Class 2 medical device as a scarf, napkin or other random, non-medical, unverified and untested clothing items meet the projected requirement.

Do zero cases of covid-19 in areas justify the mandating of non-medical, untested and unverified masks?

Is this a reasonable restriction of rights or freedoms? I think the objective viewpoint would clearly be "no". If this board recommends mandatory face coverings, it will not be due to objective data, it will be due to politics – and politics should not be associated with the board of health.

Thank you for your time, thank you for listening to this viewpoint and I hope Hamilton makes a decision that is based in data as there are currently zero peer-reviewed studies that suggest scarves protect people from Covid-19.

Regards,

Kyle Morrison

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: Mandatory Masks
**Date:** July 8, 2020 2:39:54 PM

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From: Stephanie Covelli [redacted]
Sent: Wednesday, July 8, 2020 2:39 PM
To: clerk@hamilton.ca
Subject: Re: Mandatory Masks

Hi there
I am very concerned about my rights regarding wearing a mask.
If someone wants to wear a mask, then they have a right to do so, but likewise, I should have the right to choose not to wear a mask and still receive service in any establishment.

I'm trying to figure out how masks keep us safe when we never used them before 2020 for any viruses.
Copied from an OSHA certified individual:

So Masks?
I am OSHA 10&30 certified. I know some of you are too. I don't really know WHY OSHA hasn't come forward and stopped the nonsense BUT
I wanna cover 3 things
• N95 masks and P95 masks with exhale ports
• surgical masks
• filter or cloth masks
Okay so upon further inspection OSHA says some masks are okay and not okay in certain situations.
If you're working with fumes and aerosol chemicals and you give your employees the wrong masks and they get sick you can be sued.
• N95 masks and ported P95: are designed for CONTAMINATED environments. That means when you exhale through N95 the design is that you are exhaling into contamination. The exhale from P95 (ported) masks are vented to breath straight out without filtration. They don't filter the air on the way out. They don't need to.
Conclusion: if you're in Stewart's and the guy with Covid has P95 mask his covid breath is unfiltered being exhaled into Stewart's (because it was designed for already contaminated environments, it's not filtering your air on the way out)

• Surgical Mask: these masks were designed and approved for STERILE environments. The amount of particles and contaminants in the outside and indoor environments where people are CLOGG these masks very Very quickly. The moisture from your breath combined with the clogged mask with render it "useless" IF you come in contact with Covid and your mask traps it You become a walking virus dispenser. Everytime you put your mask on you are breathing the germs from EVERYWHERE you went. They should be changed or thrown out every "20-30 minutes in a non sterile environment"

Cloth masks: today three people pointed to their masks as the walked by me entering Lowe's. They said "ya gotta wear your mask BRO" I said very clearly "those masks don't work bro, in fact they MAKE you sicker" the "pshh'd" me.

By now hopefully you all know CLOTH masks do not filter anything. You mean the American flag one my aunt made? Yes. The one with sunflowers that looks so cute? Yes. The bandanna, the cut up t-shirt, the scarf ALL of them offer NO FILTERING whatsoever. As you exhale you are ridding your lungs of contaminants and carbon dioxide. Cloth masks trap this carbon dioxide the best. It actually risks health. The moisture caught in these masks can become mildew ridden over night. Dry coughing, enhanced allergies, sore throat are all symptoms of a micro-mold in your mask.

Ultimate Answer: Ported P95 blows the virus into the air from a contaminated person and N95 holes are larger than the coronavirus and does not block particles that small. And most importantly, the CDC admits that asymptomatic transmission is a "low probability" anyway.

The surgical mask is not designed for the outside world and will not filter the virus upon inhaling through it. It's filtration works on the exhale. (Like a vacuum bag it only works one way)

Cloth masks are WORSE than none.

The CDC wants us to keep wearing masks. The masks don't work.

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They regulate and educate asbestos workers, surgical rooms, you name it.
If your mask gives you security wear it, just know it is a false sense of security.

If stores stopped enforcing it no one would continue this nonsense.

If work requires you to wear a mask, OSHA requires that your employer verifies you are receiving the minimum of 19.5% oxygen level by law! Are your oxygen levels being monitored while at work? Are you experiencing dizziness and headaches? This is a written law NOT a recommendation! I guarantee if employees started citing law and demanding their employers follow the law then the masks would go away!

There are also some other reasons why people cannot wear a facemask:
Good reasons include
- had been raped/assaulted & had mouth covered,
- had been attacked by someone masked,
- suffers panic attacks,
- other PTSD triggers
- has physical health issue.

Thank you

Stephanie Covelli

I share Scentsy, bringing LIGHT and LOVE in your home

Stefy Smells
Star Consultant
Independent Scentsy Consultant

[redacted]

[redacted] my iPhone

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: Concerns about Mask Mandate Hamilton
**Date:** July 8, 2020 2:46:03 PM

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**From:** [redacted]
**Sent:** Wednesday, July 8, 2020 2:45 PM
**To:** clerk@hamilton.ca
**Subject:** Concerns about Mask Mandate Hamilton

Good Afternoon,

This email is for all the individuals participating in this weeks meeting with regards discussions of mandating the usage of masks in public facilities in Hamilton.

I am extremely concerned about an citizens human rights with regards to wearing a mask. It is individual citizens right to decide whether or not of the usage of a wearing a mask for his/her safety.
Other precautionary measurements such as hand sanitizing stations, disposable gloves, social distances mark for sufficient safety precautions.

With this statement, this also mean that any citizens has the right to receive service or enter into any establishment with the right to refuse mask usage.

Many citizens with health/breathing conditions cannot use masks as well.

This leads into the question, prior to this "pandemic" masks were never mandated for any of the other serious "viruses" exposes in Canada.

There is no evidence that has been proven that this is an effective strategy.

Attached below is Copied statement from a Certified OSHA individual.

So Masks?

I am OSHA 10&30 certified. I know some of you are too. I don't really know WHY OSHA hasn't come forward and stopped the nonsense BUT
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Ultimate Answer: Ported P95 blows the virus into the air from a contaminated person and N95 holes are larger than the coronavirus and does not block particles that small. And most importantly, the CDC admits that asymptomatic transmission is a "low probability" anyway.

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There are also some other reasons why people cannot wear a facemask:
Good reasons include
- had been raped/assaulted & had mouth covered,
- had been attacked by someone masked,
- suffers panic attacks,
- other PTSD triggers
- has physical health issue.

Much information to review. Discussion are of a matter of human right and proven evidence. This should be at the forefront of the meeting discussion.

Regards,

A concerned citizen,

Kelly Pontes

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: Please do not mandate wearing a mask in Hmailton
**Date:** July 8, 2020 3:59:48 PM

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**From:** Jackie Brown [redacted]
**Sent:** Wednesday, July 8, 2020 3:42 PM
**To:** clerk@hamilton.ca
**Subject:** Please do not mandate wearing a mask in Hmailton

Excellent presentation on masks. If you know the identity of this person, please do not disclose it. Here it is:

There is no reliable scientific evidence to suggest that wearing masks will prevent the spread of infection in the general population. There is not one single randomized control trial that demonstrates a scientific benefit to mandatory masking. The WHO statement on masks states that the widespread use of masks by healthy people in the community setting is not supported by high quality or direct scientific evidence.

Multiple randomized controlled trials did not find any measurable benefit for any viral respiratory disease. If masks were even moderately effective at reducing the risk of infection, then a benefit would have been statistically detected in one or more of the many reliable trials that have already been conducted.

There are, however, multiple documented risks and harms associated with mask wearing, including but not limited to the fact that:

• self-contamination can occur by touching and reusing contaminated masks
• potential breathing difficulties due to hypoxia (decreased oxygenation) and hypercapnia (elevated carbon dioxide) directly contribute to a depressed immune system and further risk of infection with any number of environmental pathogens
• masks create a false sense of security, leading to potentially less adherence to other preventive measures such as hand hygiene

The hope is that masks stop some respiratory droplets from getting out — and may stop them from contaminating surfaces and people.
However, Colin Furness, a UofT epidemiologist, and professor cautions that there are no comprehensive studies on the efficacy of cloth masks, saying they "aren't a guarantee of anything."
Asked whether masks stop viral particles from getting in, Dr. Isaac Bogoch, an infectious disease specialist and researcher at Toronto General Hospital, says that masks "might slightly

reduce one's risk [of exposure], but I can't look you in the eye and tell you if it does or by how much."

If people are wearing masks for extended periods of time, a bacterial biofilm can build up on the outside layer of the mask. Epidemiologist Furness says that "If Canadians are wearing a cloth mask all day, you'll see a noticeable spike in bacterial lung infections in a month or so".

Section 7 of the Canadian Charter of Rights and Freedoms states that "Everyone has the right to life, liberty, and security of the person, and the right not to be deprived thereof except in accordance with the principles of fundamental justice." The local rate of community transmission in our Region simply does not warrant a publicly mandated, Region-wide order. A policy cannot be enacted in order to "prevent confusion" from other Regions, or as a public relations strategy to mitigate fear.

The Canadian Constitution Foundation has concerns about the constitutionality of mandatory mask orders that are too broad and violate Charter guaranteed rights to liberty, stating that: Mandatory mask orders must provide a medical exemption for people who cannot wear a mask because of physical or mental disability. The Centre for Disease Control states that anyone who has trouble breathing while wearing a mask should not wear one. Survivors of physical and sexual trauma are reporting tremendous panic with the use of masks, and racial overtones to slavery cannot be ignored. Any potential order must make it clear that citizens are not required to share the reason for their exemption with anyone else, and no business can compel them to do so. Those individuals who cannot wear a mask must be protected from the censure of social opinion.

Placing the onus on businesses to enforce any potential order with the threat of a massive fine is discriminatory and will cause them to ignore stated exemptions, further violating an individual's rights and freedoms.

Further, I would assert that children under the age of 19 should not be compelled to wear a mask in public. That assertion is based on research from the Hospital for Sick Children, which has tested over six thousand five hundred children for COVID since March. Based on their research, Sick Kids' recommendation is that children under 19 years of age should not be compelled to wear masks.

There is a very real and present risk of harm that is being created here. Citizens are jogging or biking in 35 degree temperatures while wearing a mask, creating grave danger. Driving while wearing a mask may contribute to a hypoxic state and altered level of consciousness, with the risk of causing car accidents. Public health MUST be educating the public more appropriately.

I will close by asking whether there are detrimental effects on the quality and depth of social connection and cohesion in a society that is masked and distanced.

The Ontario Civil Liberties Association asks whether imposed or socially coerced mask-use induces or contributes to a psychological state of fear and stress in the population. Psychological stress is proven to be a factor that can measurably depress the immune system and further induce disease.

It is a fundamental human right to freedom of choice to act in the world, including the personal freedom to evaluate risk. When State power is applied in the absence of valid scientific basis, it constitutes arbitrarily applied and coercive power.

Mask policies are creating significant public strife. Divisiveness and discrimination are rampant, and are affecting the well being of our community. Our community has the opportunity to designate masks as Recommended, as opposed to Required.

“It is clear that masks serve symbolic roles. They are talismans that increase a perceived but unvalidated sense of safety. We are all subject to fear and anxiety, especially during times of crisis. One might argue that fear and anxiety are better countered with data and education than with a marginally beneficial mask.”

Thank you.

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: Mandatory masks add barrier for deaf community
**Date:** July 8, 2020 4:07:39 PM

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**From:** a michaluk [redacted]
**Sent:** Wednesday, July 8, 2020 4:05 PM
**To:** Office of the Mayor; Wilson, Maureen; Nann, Nrinder; Farr, Jason; Merulla, Sam; Collins, Chad; Jackson, Tom; Pauls, Esther; Ward 8 Office; Clark, Brad; Pearson, Maria; Johnson, Brenda; Ferguson, Lloyd; VanderBeek, Arlene; Whitehead, Terry; Partridge, Judi; Public Health Services; Human Rights, Access and Equity Office; info@ontariodeaffoundation.com; info@chs.ca; Richardson, Dr. Elizabeth; clerk@hamilton.ca
**Subject:** Mandatory masks add barrier for deaf community

**The Accessibility for Ontarians with Disabilities, 2005 defines a disability as:**

> any degree of physical disability, infirmity, malformation or disfigurement that is caused by bodily injury, birth defect or illness and, without limiting the generality of the foregoing, includes diabetes mellitus, epilepsy, a brain injury, any degree of paralysis, amputation, lack of physical co-ordination, blindness or visual impediment, **deafness or hearing impediment,** muteness or speech impediment, or physical reliance on a guide dog or other animal or on a wheelchair or other remedial appliance or device,

Hello folks,

To accompany some of your Covid stats:
Approximately 357, 000 Canadians are deaf and 3.21 **million** who have hearing loss. And about 1 out of every 25 Canadians have impaired hearing. Anybody you know in your family that struggles to hear? How about yourself? What changes do you think will occur as you age if they haven't already? And how do you think those who rely on lip reading and facial cues are faring these days with the masks??

My brother is profoundly deaf, so I'll fill you in. The masks are a disaster for him and many others with hearing loss. I, of course understand why they are necessary but mandatory?! As of this writing, 91% of Hamilton's cases have been resolved. We are not Toronto, nor are we Kingston. Can't we make our own decisions and not be 'influenced' by others as if we were back in highschool?

And correct me if I'm wrong but very little mention of this aspect of mask wearing has occurred on a public scale.

Dr. Elizabeth, is this not part of health that you are ‘officer’ of?!

Yes, we are all in this together, as humans on a planet who should all have a sensible say in what is happening. Yet instead, by choosing to put one health issue above others, we are putting at risk people’s ability to communicate. They need groceries and hospital care and have appointments just as we do. To try and control all aspects of Covid’s trajectory at the expense of millions of people’s mental/physical health including the seniors you are trying to protect, is a head scratcher. My parents are two of the ‘most vulnerable citizens at risk’ and I cannot emphasize enough how much they are struggling over worry for their son. And these concerns will in their own way, ‘overwhelm’ the health care system.

Please offer more compassion around this issue! Lip reading is a miraculous thing outside of a pandemic but if masks are made mandatory in public spaces what do you think these folk’s day to day will look like??

And as I suggested to the mayor and his office, and to Paul Johnson (whom responded with no response), practice with someone. Have someone wear a mask, put on some noise reducing headphones (still not the same) and see how much you hear.

Let me know how it goes.

Andrea Michaluk
Hamilton

ATTN: Masks may curb COVID, but add barrier for deaf community.
Mask-wearing makes communication near impossible for those who rely on lipreading to communicate.
https://www.healthing.ca/opinion/masks-curb-covid-but-add-another-barrier-for-deaf-community/

Invisible disability': Masks making it harder to communicate, deaf and hard of hearing say

> https://www.cbc.ca/news/canada/toronto/masks-and-barriers-communicating-deaf-and-hard-of-hearing-1.5579166

“The trouble is you think you have time" - Buddha

--
sent from my iPoof

RE: from Hamilton City Website

> *"It is important we continue to mitigate the spread of the virus by adhering to all of the Public Health measures we have in place. The Board of Health report recommending a mandatory face covering be worn in public indoor spaces will help our efforts in protecting the community from further spread. With Stage 3 of the province's reopening plan on the horizon, this additional measure will help avoid mass spread of the virus and ensure that we can keep moving forward."*
>
> *-Mayor Fred Eisenberger*

**From:** Jesse Newton
**To:** clerk@hamilton.ca
**Cc:** Amy; Kolar, Loren
**Subject** ATTN: Board of Health RE: Mandatory masks concerns
**Date:** July 8, 2020 4:54:46 PM

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Dear Chair and Members of the Hamilton Board of Health.

Thank you for serving us! I'm Hamilton born and raised, having lived in about six wards, currently residing in Ward 11.

I'm writing to express **my concern over making masks mandatory for indoor public places.** I am not opposed to people voluntarily choosing to wear them. My concerns in brief are:

- Decreasing case and death counts even in Stage 2 - what's the rationale? There are currently 0 (!) COVID patients at St. Joseph's and 0 (!) COVID patients at Hamilton Health Sciences. There appear to be about 66 active (non-hospitalized) cases in Hamilton at present.
- Masks can compromise the immune system - they reduce oxygen intake and increase CO2 intake (as would be expected). There are supposed "debunking" articles out there, but you can easily find videos showing people measuring real-time CO2 levels inside their mask, which are far above OHSA safety levels of 2000 ppm (US) or approaching sometimes exceeding 5000 ppm (Canada).
- Division and safety risks to those who can't wear a mask. Certain residents are already showing signs of aggression to others who don't voluntarily wear masks, imagine how this will increase. Will people not able to wear masks be required to explain themselves over and over? Provide documentation? I don't want to sound crazy, but this is approaching similarity to 1930s Jews in Germany being required to bear the Star of David.
- Cyclists should NOT be allowed to wear a mask while operating a bike. Early today we saw a cyclist wearing a mask in 35 deg C heat (with no one around for a whole block). This seems like an accident waiting to happen, a danger to himself and others.

**Questions:**

- What's the rationale? Again, our count is decreasing, there are no current hospitalizations. Initially I thought this was about ensuring hospital capacity?
- What's the endgame - how long will this go on for? The Mayor's office noted until a vaccine becomes available. Will vaccines become mandatory?

I look forward to hearing from you. Thank you for your service to our City.

Jesse Newton & Family
Ward 11 resident
[redacted]

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: Masks
**Date:** July 8, 2020 5:40:44 PM

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From: Maria Cristina Siena [redacted]
Sent: Wednesday, July 8, 2020 5:27 PM
To: clerk@hamilton.ca
Subject: Masks

Four months ago, I was one of the first people to wear PPE to the grocery store although the World Health Organization had said that masks were not effective. I wore an N95 mask and maximum protection gloves. Since elected officials were recommending only one shopping trip each week and since I was shopping not only for myself and my family, I was also shopping for someone elderly, my shopping trip took several hours. I realized right away that wearing a mask wasn't good for me because it made me feel very sick. I had headaches and I had trouble breathing when wearing my mask. I was careful with my PPE as I had learned how to disinfect a mask for reuse. I've noticed that many people wearing masks nowadays do not wear the proper masks that offer protection from the coronavirus. Only N95 masks do so. Most people do not know how to wear masks, they don't cover up their nose or their mouth or they'll pull their mask off and then put it on again or let it hang under their chin. Touching a mask is not safe yet most people do that constantly. Most people don't know how to disinfect masks as there is no proper education by elected officials on how to do so safely. Most people do not know how to discard masks as there is no proper education by elected officials on how to do so safely. I have learned that wearing a mask does more harm than good and actually weakens the immune system. Given both what I experienced while wearing a mask and my medical history, I would hope that elected officials will not mandate masks in my city.

Thanks for listening to my story.

Cristina Siena

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: Mandatory Mask Debate - PLEASE Consider Against This
**Date:** July 8, 2020 5:41:09 PM

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**From:** Claudia Rey Gent [redacted]
**Sent:** Wednesday, July 8, 2020 4:46 PM
**Subject:** Mandatory Mask Debate - PLEASE Consider Against This

I understand that City of Hamilton council members are considering passing a new bylaw requiring mandatory masks in all indoor public areas as per the advice of the Hamilton Health Unit.

If this had been presented and implemented back in March, and imposed during the build up and peak period in "the curve", it would have been more acceptable and made practical sense. Now that the curve has flattened to the point of "flat line", and case numbers are currently at two for the city and the county combined, it seems we are closing the barn door after the horse has already escaped.

Let's ignore the actual, negligible statistics and assume the virus is as virulent and contagious as your health director is purporting. If this is the case, then every mask being worn becomes potentially contaminated in very little time, whether being worn in solitude or among a store full of shoppers. By virtue of the fact every breath potentially draws in contaminated, infectious particles against the front of a mask, and every exhale potentially pushes contaminated,
infectious particles against the face side of the mask, this potentially, and quickly becomes the most contaminated item any one of us can have on our person, or hanging from the rear view mirror awaiting the next point of use.
There is no reliable scientific evidence to suggest that wearing masks will prevent the spread of infection in the general population. There is not one single randomized control trial that demonstrates a scientific benefit to mandatory masking. The WHO statement on masks states that the widespread use of masks by healthy people in the community setting is not supported by high quality or direct scientific evidence.

Multiple randomized controlled trials did not find any measurable benefit for any viral respiratory disease. If masks were even moderately effective at reducing the risk of infection, then a benefit would have been statistically detected in one or more of the many reliable trials that have already been conducted.

So here's what I expect your council to fulfill as commitment of their concern for the health of the general public…

1) Every public indoor area (all stores included) hand out appropriate, new face masks, provided for free by the City of Hamilton , no exceptions. This will be the ONLY way the general public can be assured contamination is not being transferred from store to store, home to store, store to home, car to store, store to car, car to home, home to car, etc., etc..

2) Every public indoor area (all stores included) must have a medical grade disposal unit located at the exit, and, every patron must dispose of their masks upon leaving. Every time! Once again, this will eliminate the transfer of contaminates from store to store, store to car (rear view mirror decor), car to store, car to home, home to car, etc., etc.. This disposal bin and monitoring of mask disposal must be provided free by the City of Hamilton and not become incumbent on the merchant.
3) Failing to provide this level of service and concern for the general well being of City of Hamilton citizens renders the mandatory mask bylaw null and void. Setting all collateral health consequences aside as a result of mask wearing, requesting citizens to participate in an invalid campaign to minimize spread of a contagion during a "crisis" is fraudulent in nature, and inviting cause for liability suits against city and council.
*Furthermore, please consider that there is no reliable scientific evidence to suggest that wearing masks will prevent the spread of infection in the general population. There is not one single randomized control trial that demonstrates a scientific benefit to mandatory masking. The WHO statement on masks states that the widespread use of masks by healthy people in the community setting is not supported by high quality or direct scientific evidence.*
There are, however, multiple documented risks and harms associated with mask wearing, including but not limited to the fact that:

- self-contamination can occur by touching and reusing contaminated masks
- potential breathing difficulties due to hypoxia (decreased oxygenation) and hypercapnia (elevated carbon dioxide) directly contribute to a depressed immune system and further risk of infection with any number of environmental pathogens
- masks create a false sense of security, leading to potentially less adherence to other preventive measures such as hand hygiene

Your consideration on this matter is duly required.
Respectfully,

Claudia Rey Gent
Dundas, ON

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: No Mandatory Masks!
**Date:** July 9, 2020 8:52:17 AM

---

**From:** Erica King [redacted]
**Sent:** Thursday, July 9, 2020 1:29 AM
**To:** clerk@hamilton.ca
**Subject:** No Mandatory Masks!

My name is Erica King, I live in hamilton and have been in nursing for 14 years.
I Do Not agree with Mandatory masks. My family and I are not putting our health at risk by wearing
Masks that are proven to NOT BE EFFECTIVE TO STOP ANY DROPLET OR AIRBORNE VIRUSES.
We will not participate in wearing masks. We are saying NO TO MANDATORY MASKS AND HAVING OUR RIGHTS TAKEN AWAY BY YOU FORCING US TO DO THIS.

Erica King
[redacted]

5.5(n)

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: ATTN: Board of Health RE: Mandatory Masks
**Date:** July 9, 2020 8:54:47 AM
**Attachments:** image.png
image.png
image.png
covid-19-daily-epi-summary-report.pdf
Rancourt-Masks-dont-work-review-science-re-COVID19-policy.pdf

---

**From:** Amy Newton [redacted]
**Sent:** Wednesday, July 8, 2020 10:06 PM
**To:** clerk@hamilton.ca
**Subject:** ATTN: Board of Health RE: Mandatory Masks

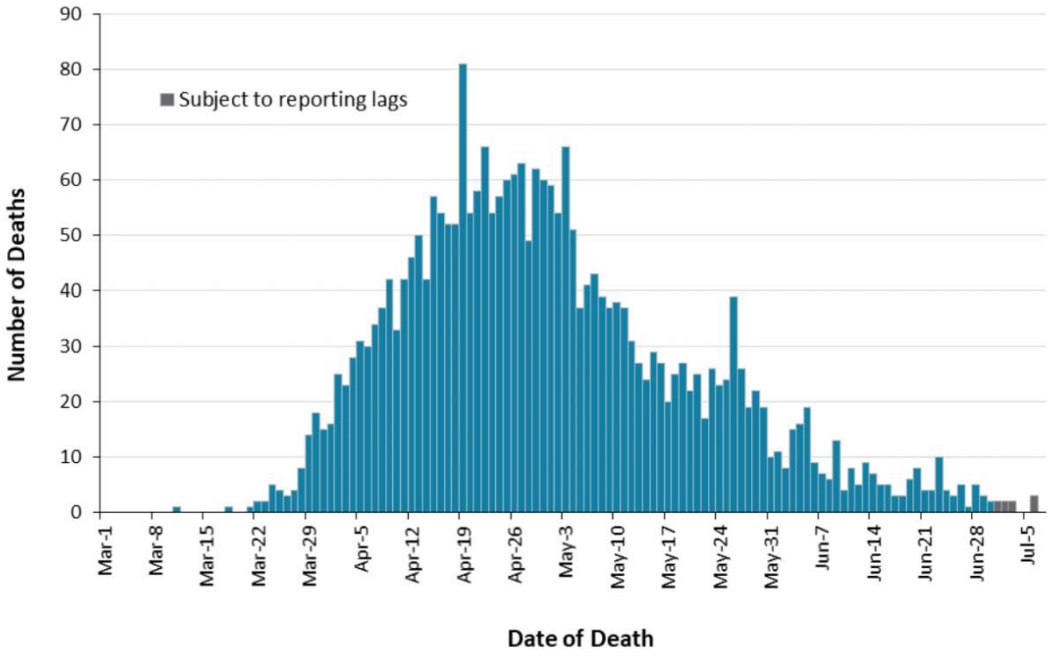
Dear Chair and Members of Board of Health,

I am a resident of Glanbrook and would like to express to you concern about the proposal to adopt mandatory mask requirements in Hamilton. I will make this point form out of respect for everyone's time.

**1. The current data in Hamilton and Ontario don't appear to support mandating masks at this time.** According to the attached report today from Ontario Public Health, it would seem that cases and severity (deaths) have gone down without this mandate. The original goal was to flatten the curve and that has been accomplished at this time. I have attached the full report but embedded this image here as well:

## Severity

**Figure 4. Confirmed deaths among COVID-19 cases by date of death: Ontario, March 1, 2020 to July 7, 2020**




**Note:** Cases without a death date are not included in the figure.

**Data Source**: iPHIS plus

**2. Our hospitals are both reporting the great news this week that they currently have zero covid positive cases.** This has been accomplished without mask mandates.

HHS https://www.hamiltonhealthsciences.ca/covid19


St. Joe's https://www.stjoes.ca/coronavirus

▼ COVID-19 Cases at St. Joe's

*Updated July 8th at 2:38 p.m.*

| | |
|---|---|
| Number of COVID-19 patients St. Joseph's Healthcare Hamilton is currently caring for in hospital | 0 |

**Click here for more information on the status of cases in Hamilton.**

---

**3. I am concerned that mandating masks will further polarize our city and discriminate against those who cannot wear masks due to valid health concerns.** Our community already has a high uptake in mask usage and those who cannot or chose not to wear masks don't seem to be getting in the way of our great work of flattening the curve. So why now?

**4. I came across this interesting "work in progress" report by Denis Rancourt of Ottawa** (attached: Masks Don't Work). I know the title is a bit off-putting but I do think the information contained within is worth consideration.

Finally, as a quick personal story, my mom works at a grocery store and found that after her 5-8 hour shifts of wearing a mask, she had headaches, pale skin, dark circles around her eyes and generally feeling unwell. As a normally healthy person, she was alarmed by this and has

decided that it is not good for her overall health to be wearing a face covering for long periods of time. **My concern is that we are trying to prevent a respiratory illness and mandating face coverings in the absence of good safety studies may be counter-productive to that goal.**

I do appreciate your time and consideration.

Respectfully,

Amy Newton
[redacted]

Public Health Ontario | Santé publique Ontario

# Daily Epidemiologic Summary

## COVID-19 in Ontario: January 15, 2020 to July 7, 2020

This report includes the most current information available from iPHIS and other local case management systems (iPHIS plus) as of **July 7, 2020**.

Please visit the interactive Ontario COVID-19 Data Tool to explore recent COVID-19 data by public health unit, age group, sex, and trends over time.

A weekly summary report is available with additional information to complement the daily report.

This **daily** report provides an epidemiologic summary of recent COVID-19 activity in Ontario. The change in cases is determined by taking the cumulative difference between the current day and the previous day.

## Highlights

- There are a total of 36,178 confirmed cases of COVID-19 in Ontario reported to date.
- Compared to the previous day, this represents:
    - An increase of 118 confirmed cases (percent change of +5.4%)
    - An increase of 9 deaths (percent change of +350.0%)
    - An increase of 202 resolved cases (percent change of +14.1%)

In this document, the term 'change in cases' refers to cases publicly reported by the province for a given day. Data corrections or updates can result in case records being removed and or updated from past reports and may result in subset totals for updated case counts (i.e., age group, gender) differing from the overall updated case counts.

The term public health unit reported date in this document refers to the date local public health units were first notified of the case.

# Case Characteristics

**Table 1a. Summary of recent cases of COVID-19: Ontario**

| | Change in cases July 6 | Change in cases July 7 | Percentage change July 7 compared to July 6 | Cumulative case count as of July 7 |
|---|---|---|---|---|
| Number of cases | 112 | 118 | +5.4% | 36,178 |
| Number of deaths | 2 | 9 | +350.0% | 2,700 |
| Number resolved | 177 | 202 | +14.1% | 31,805 |

**Note:** The number of cases publicly reported by the province each day may not align with case counts reported to public health on a given day; public health unit reported date refers to the date local public health was first notified of the case.

**Data Source**: iPHIS plus

**Table 1b. Summary of recent cases of COVID-19 by age group and gender: Ontario**

| | Change in cases July 6 | Change in cases July 7 | Cumulative case count as of July 7 |
|---|---|---|---|
| Gender: Male | 66 | 49 | 16,624 |
| Gender: Female | 48 | 67 | 19,272 |
| Ages: 19 and under | 14 | 13 | 1,800 |
| Ages: 20-39 | 44 | 34 | 10,618 |
| Ages: 40-59 | 33 | 35 | 10,995 |
| Ages: 60-79 | 14 | 15 | 6,810 |
| Ages: 80 and over | 7 | 21 | 5,946 |

**Note:** Not all cases have a reported age or gender reported. Data corrections or updates can result in case records being removed and or updated from past reports and may result in subset totals (i.e., age group, gender) differing from past publicly reported case counts.

**Data Source**: iPHIS plus

**Table 2. Summary of recent cases of COVID-19 in long-term care homes: Ontario**

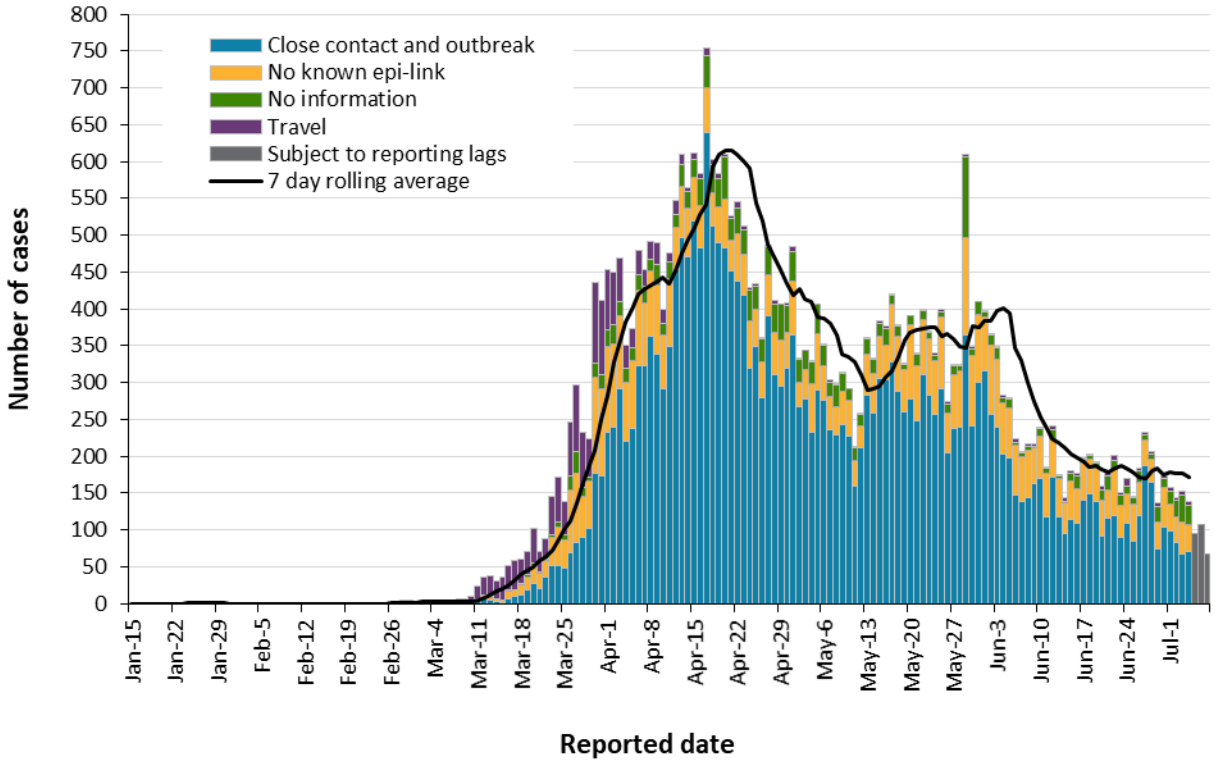
| Long-term care home cases | Change in cases July 6 | Change in cases July 7 | Cumulative case count as of July 7 |
|---|---|---|---|
| Residents | 2 | 5 | 5,521 |
| Health care workers | 1 | 16 | 2,343 |
| Deaths among residents | 0 | 5 | 1,722 |
| Deaths among health care workers | 0 | 0 | 7 |

**Note:** Information for how long-term care home residents and health care workers are identified is available in the technical notes. The change in cases in these categories may represent existing case records that have been updated.

**Data Source**: iPHIS plus

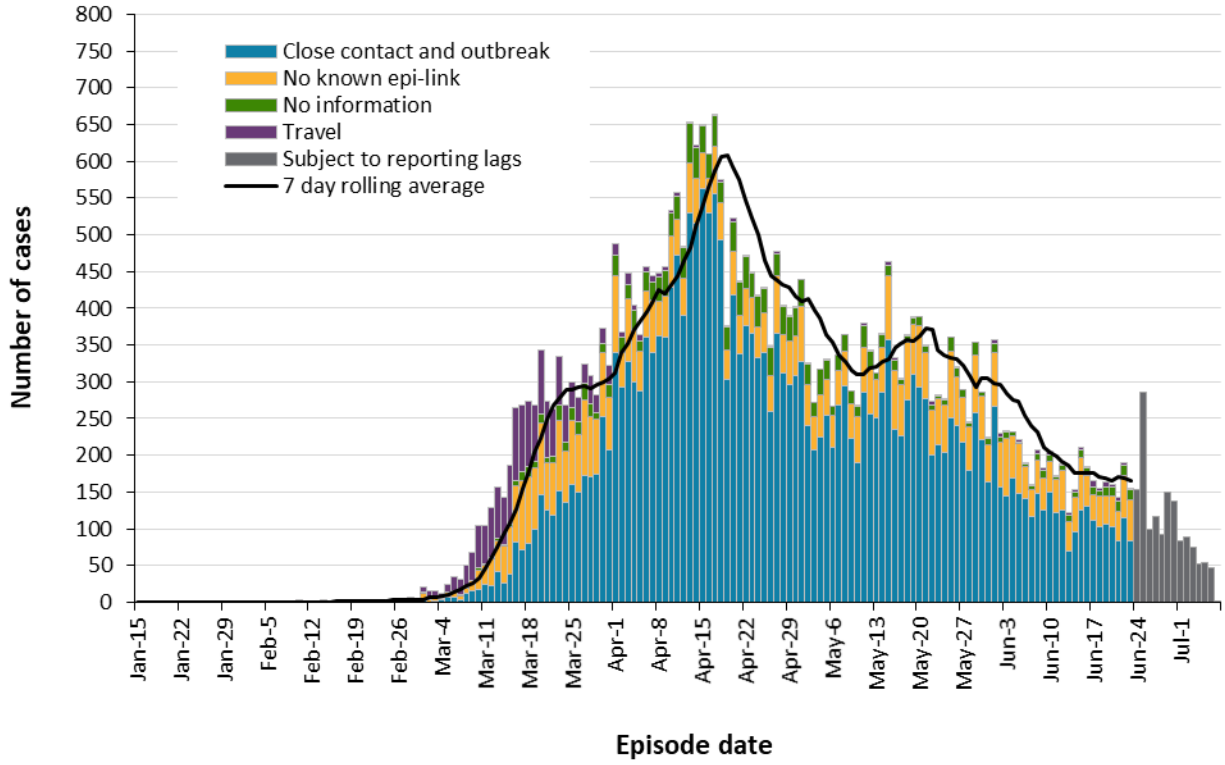
# Time

**Figure 1. Confirmed cases of COVID-19 by likely acquisition and public health unit reported date: Ontario, January 15, 2020 to July 7, 2020**




**Data Source**: iPHIS plus

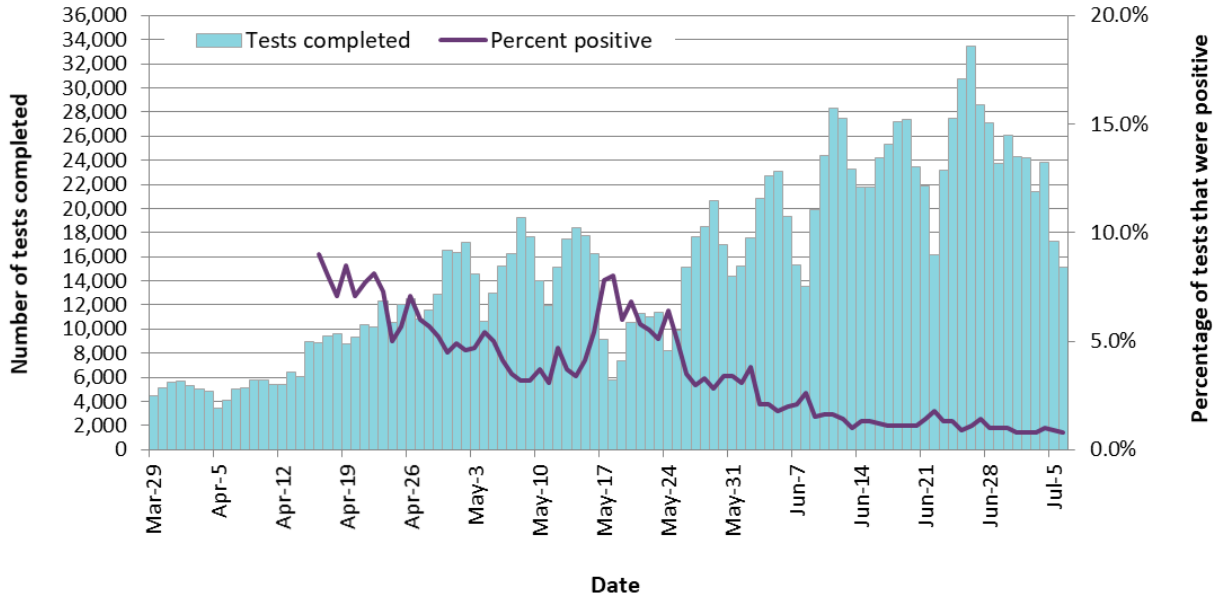
**Figure 2. Confirmed cases of COVID-19 by likely acquisition and approximation of symptom onset date: Ontario, January 15, 2020 to July 7, 2020**




**Note:** Not all cases may have an episode date and those without one are not included in the figure. Episode date is defined and available in the technical notes.

**Data Source**: iPHIS plus

**Figure 3. Number of COVID-19 tests completed and percent positivity: Ontario, March 29, 2020 to July 6, 2020**

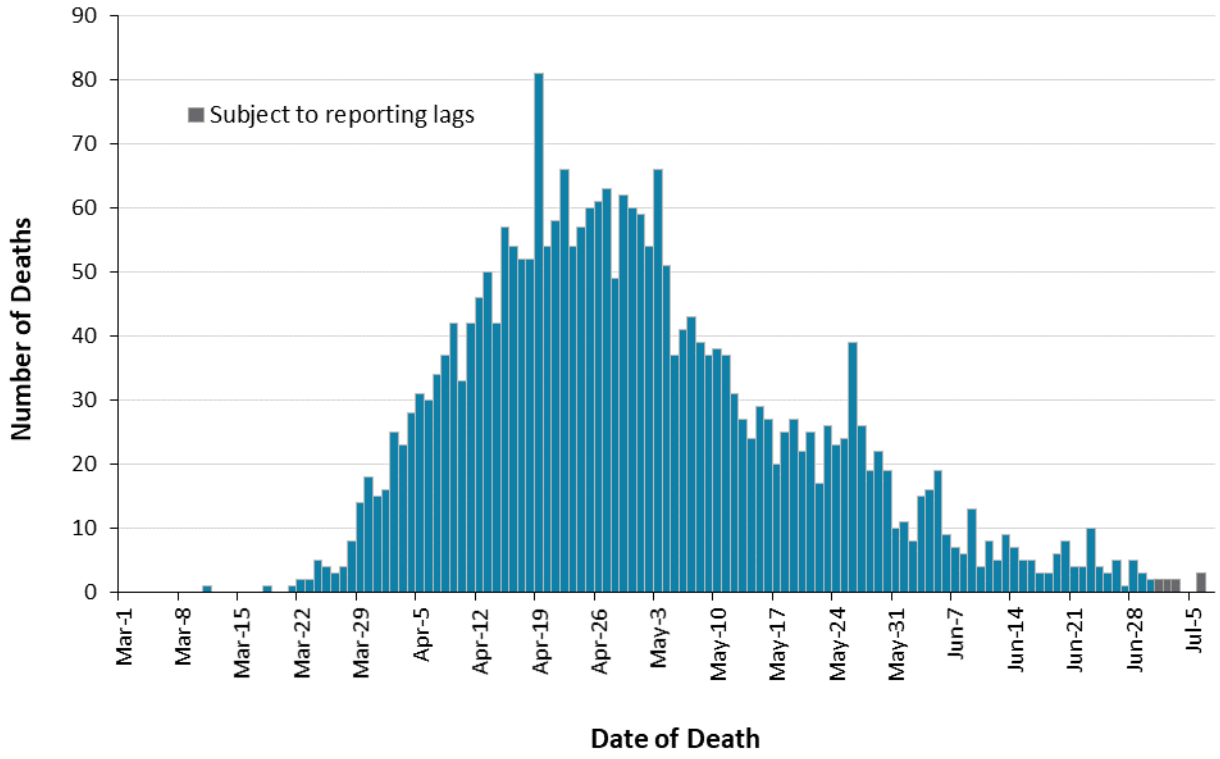



**Note:** The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.

**Data Source:** The Provincial COVID-19 Diagnostics Network, data reported by member microbiology laboratories.

# Severity

**Figure 4. Confirmed deaths among COVID-19 cases by date of death: Ontario, March 1, 2020 to July 7, 2020**




**Note:** Cases without a death date are not included in the figure.

**Data Source**: iPHIS plus

**Table 3. Confirmed cases of COVID-19 by severity: Ontario**

| | Cumulative case count as of July 7 | Percentage of all cases |
|---|---|---|
| Cumulative deaths reported (please note there may be a reporting delay for deaths) | 2,700 | 7.5% |
| Deaths reported in ages: 19 and under | 1 | 0.1% |
| Deaths reported in ages: 20-39 | 11 | 0.1% |
| Deaths reported in ages: 40-59 | 109 | 1.0% |
| Deaths reported in ages: 60-79 | 718 | 10.5% |
| Deaths reported in ages: 80 and over | 1,861 | 31.3% |
| Ever in ICU | 965 | 2.7% |
| Ever hospitalized | 4,452 | 12.3% |

**Data Source**: iPHIS plus

# Geography

**Table 4. Summary of recent cases of COVID-19 by public health unit and region: Ontario**

| Public Health Unit Name | Change in cases July 6 | Change in cases July 7 | Cumulative case count | Cumulative rate per 100,000 population |
|---|---|---|---|---|
| Northwestern Health Unit | 0 | 2 | 41 | 46.8 |
| Thunder Bay District Health Unit | 0 | 0 | 93 | 62.0 |
| **TOTAL NORTH WEST** | 0 | 2 | 134 | 56.4 |
| Algoma Public Health | 0 | 0 | 24 | 21.0 |
| North Bay Parry Sound District Health Unit | 0 | 0 | 35 | 27.0 |
| Porcupine Health Unit | 0 | 0 | 67 | 80.3 |
| Public Health Sudbury & Districts | 0 | 0 | 67 | 33.7 |
| Timiskaming Health Unit | 0 | 0 | 18 | 55.1 |
| **TOTAL NORTH EAST** | 0 | 0 | 211 | 37.7 |
| Ottawa Public Health | 0 | 6 | 2,123 | 201.3 |
| Eastern Ontario Health Unit | 0 | 0 | 166 | 79.5 |
| Hastings Prince Edward Public Health | 0 | 0 | 44 | 26.1 |
| Kingston, Frontenac and Lennox & Addington Public Health | 0 | 0 | 104 | 48.9 |
| Leeds, Grenville & Lanark District Health Unit | 0 | 0 | 354 | 204.4 |
| Renfrew County and District Health Unit | 0 | 0 | 29 | 26.7 |
| **TOTAL EASTERN** | 0 | 6 | 2,820 | 146.4 |

| Public Health Unit Name | Change in cases July 6 | Change in cases July 7 | Cumulative case count | Cumulative rate per 100,000 population |
|---|---|---|---|---|
| Durham Region Health Department | 6 | 3 | 1,724 | 242.0 |
| Haliburton, Kawartha, Pine Ridge District Health Unit | 0 | 1 | 201 | 106.4 |
| Peel Public Health | 39 | 27 | 6,027 | 375.3 |
| Peterborough Public Health | 0 | 0 | 95 | 64.2 |
| Simcoe Muskoka District Health Unit | 0 | 2 | 607 | 101.2 |
| York Region Public Health | 10 | 13 | 3,082 | 251.4 |
| **TOTAL CENTRAL EAST** | 55 | 46 | 11,736 | 261.9 |
| Toronto Public Health | 30 | 50 | 13,511 | 433.0 |
| **TOTAL TORONTO** | 30 | 50 | 13,511 | 433.0 |
| Chatham-Kent Public Health | 1 | 0 | 162 | 152.4 |
| Grey Bruce Health Unit | 0 | 0 | 107 | 63.0 |
| Huron Perth Public Health | -1 | 0 | 59 | 42.2 |
| Lambton Public Health | 0 | 0 | 286 | 218.4 |
| Middlesex-London Health Unit | 0 | 1 | 631 | 124.3 |
| Southwestern Public Health | 0 | 1 | 85 | 40.2 |
| Windsor-Essex County Health Unit | 9 | 4 | 1,675 | 394.3 |
| **TOTAL SOUTH WEST** | 9 | 6 | 3,005 | 177.7 |
| Brant County Health Unit | 0 | 0 | 133 | 85.7 |
| City of Hamilton Public Health Services | 3 | -1 | 847 | 143.0 |

| Public Health Unit Name | Change in cases July 6 | Change in cases July 7 | Cumulative case count | Cumulative rate per 100,000 population |
|---|---|---|---|---|
| Haldimand-Norfolk Health Unit | 0 | 1 | 431 | 377.8 |
| Halton Region Public Health | 9 | 1 | 781 | 126.2 |
| Niagara Region Public Health | 2 | 3 | 763 | 161.5 |
| Region of Waterloo Public Health and Emergency Services | 3 | 3 | 1,313 | 224.7 |
| Wellington-Dufferin-Guelph Public Health | 1 | 1 | 493 | 158.1 |
| **TOTAL CENTRAL WEST** | 18 | 8 | 4,761 | 167.1 |
| **TOTAL ONTARIO** | **112** | **118** | **36,178** | **243.4** |

**Note:** Health units with data corrections or updates could result in records being removed from totals resulting in negative counts.

**Data Source**: iPHIS plus

# Outbreaks

**Table 5. Summary of recent confirmed COVID-19 outbreaks reported in long-term care homes, retirement homes and hospitals by status: Ontario**

| Institution type | Change in outbreaks July 6 | Change in outbreaks July 7 | Number of ongoing outbreaks | Cumulative number of outbreaks reported |
|---|---|---|---|---|
| Long-term care homes | 3 | -1 | 44 | 370 |
| Retirement homes | 0 | 1 | 15 | 154 |
| Hospitals | 0 | 0 | 6 | 94 |

**Note:** Ongoing outbreaks includes all outbreaks that are 'Open' in iPHIS without a 'Declared Over Date' recorded.

**Data Source**: iPHIS

# Technical Notes

## Data Sources

- The data for this report were based on:
    - Information extracted from the Ontario Ministry of Health (Ministry) integrated Public Health Information System (iPHIS) database, as of **July 7, 2020 at 4 p.m.**
    - Information successfully uploaded to the Ministry from Local Systems: Toronto Public Health (Coronavirus Rapid Entry System) CORES, The Ottawa Public Health COVID-19 Ottawa Database (The COD) and Middlesex-London COVID-19 Case and Contact Management Tool (CCMtool) as of **July 7, 2020 at 2 p.m.**
- iPHIS and iPHIS plus (which includes iPHIS, CORES, The COD and COVID-19 CCMtool) are dynamic disease reporting systems, which allow ongoing updates to data previously entered. As a result, data extracted from iPHIS and the Local Systems represent a snapshot at the time of extraction and may differ from previous or subsequent reports.
- Ontario population projection data for 2020 were sourced from Ministry, IntelliHEALTH Ontario. Data were extracted on November 26, 2019.
- COVID-19 test data were based on information from The Provincial COVID-19 Diagnostics Network, reported by member microbiology laboratories.

## Data Caveats:

- The data only represent cases reported to public health units and recorded in iPHIS plus. As a result, all counts will be subject to varying degrees of underreporting due to a variety of factors, such as disease awareness and medical care seeking behaviours, which may depend on severity of illness, clinical practice, changes in laboratory testing, and reporting behaviours.
- Lags in iPHIS plus data entry due to weekend staffing may result in lower case counts than would otherwise be recorded.
- Only cases meeting the confirmed case classification as listed in the MOH COVID-19 case definition are included in the report counts from iPHIS plus.
- The number of tests performed does not reflect the number of specimens or persons tested. More than one test may be performed per specimen or per person. As such, the percentage of tests that were positive does not necessarily translate to the number of specimens or persons testing positive.
- Reported date is the date the case was reported to the public health unit.
- Case episode date is based on an estimate of the best date of disease onset. This date is calculated based on either the date of symptom onset, specimen collection/test date, or the date reported to the public health unit.

- Resolved cases are determined only for COVID-19 cases that have not died. Cases that have died are considered fatal and not resolved. The following cases are classified as resolved:
    - Cases that are reported as 'recovered' in iPHIS
    - Cases that are not hospitalized and are 14 days past their episode date
    - Cases that are currently hospitalized (no hospital end date entered) and have a status of 'closed' in iPHIS (indicating public health unit follow-up is complete) and are 14 days past their symptom onset date or specimen collection date
- Hospitalization includes all cases for which a hospital admission date was reported at the time of data extraction. It includes cases that have been discharged from hospital as well as cases that are currently hospitalized. Emergency room visits are not included in the number of reported hospitalizations.
- ICU admission includes all cases for which an ICU admission date was reported at the time of data extraction. It is a subset of the count of hospitalized cases. It includes cases that have been treated or that are currently being treated in an ICU.
- Orientation of case counts by geography is based on the diagnosing health unit (DHU). DHU refers to the case's public health unit of residence at the time of illness onset and not necessarily the location of exposure. Cases for which the DHU was reported as MOH (to signify a case that is not a resident of Ontario) have been excluded from the analyses.
- Likely source of acquisition is determined by examining the exposure and risk factor fields from iPHIS and local systems to determine whether a case travelled, was associated with an outbreak, was a contact of a case, had no known epidemiological link (sporadic community transmission) or was reported to have an unknown source/no information was reported. Some cases may have no information reported if the case is untraceable, was lost to follow-up or referred to FNIHB. Cases with multiple exposures or risk factors were assigned to a single likely acquisition source group which was determined hierarchically in the following order:
    - For cases with an episode date *on or after* April 1, 2020: Outbreak-associated > close contact of a confirmed case > travel > no known epidemiological link > information missing or unknown
    - For cases with an episode date *before* April 1, 2020: Travel > outbreak-associated > close contact of a confirmed case > no known epidemiological link > information missing or unknown
- Deaths are determined by using the outcome field in iPHIS plus. 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.
    - The date of death is determined using the outcome date field for cases marked as 'Fatal' in the outcome field.

- iPHIS cases for which the Disposition Status was reported as ENTERED IN ERROR, DOES NOT MEET DEFINITION, DUPLICATE-DO NOT USE, or any variation on these values have been excluded.

- Ongoing outbreaks are those that are reported in iPHIS as 'Open' without a 'Declared Over Date' recorded.

- 'Long-term care home residents' includes cases that reported 'Yes' to the risk factor 'Resident of nursing home or other chronic care facility' and reported to be part of an outbreak assigned as a long-term care home (via the Outbreak number or case comments field); or were reported to be part of an outbreak assigned as a long-term care home (via the outbreak number or case comments field) with an age over 70 years and did not report 'No' to the risk factor 'Resident of nursing home or other chronic care facility'. Excludes cases that reported 'Yes' to both risk factors: 'Resident of nursing home or other chronic care facility' and 'health care worker'.

- The 'health care workers' variable includes cases that reported 'Yes' to any of the occupation of health care worker, doctor, nurse, dentist, dental hygienist, midwife, other medical technicians, personal support worker, respiratory therapist, first responder.

- 'Health care workers associated with long-term care outbreaks' includes 'health care workers' reported to be part of an outbreak assigned as a long-term care home (via the outbreak number or case comments field). Excludes cases that reported 'Yes' to risk factors 'Resident of nursing home or other chronic care facility' and 'Yes' to the calculated 'health care workers' variable.

- Percent change is calculated by taking the difference between the current day and previous day, divided by the previous day count.

# Disclaimer

This document was developed by Public Health Ontario (PHO). PHO provides scientific and technical advice to Ontario's government, public health organizations and health care providers. PHO's work is guided by the current best available evidence at the time of publication.

The application and use of this document is the responsibility of the user. PHO assumes no liability resulting from any such application or use.



# Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Epidemiologic summary: COVID-19 in Ontario – January 15, 2020 to July 7, 2020. Toronto, ON: Queen's Printer for Ontario; 2020.

# For Further Information

For more information, email cd@oahpp.ca.

# Public Health Ontario

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Ontario

# 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



**1 author:**

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

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# 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:

**Jacobs, J. L. et al. (2009)** "Use of surgical face masks to reduce the incidence of the common cold among health care workers in Japan: A randomized controlled trial", *American Journal of Infection Control*, Volume 37, Issue 5, 417 - 419.
https://www.ncbi.nlm.nih.gov/pubmed/19216002

> 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.

**Cowling, B. et al. (2010)** "Face masks to prevent transmission of influenza virus: A systematic review", *Epidemiology and Infection*, 138(4), 449-456. 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.

**bin-Reza et al. (2012)** "The use of masks and respirators to prevent transmission of influenza: a systematic review of the scientific evidence", *Influenza and Other Respiratory Viruses* 6(4), 257–267.
https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1750-2659.2011.00307.x

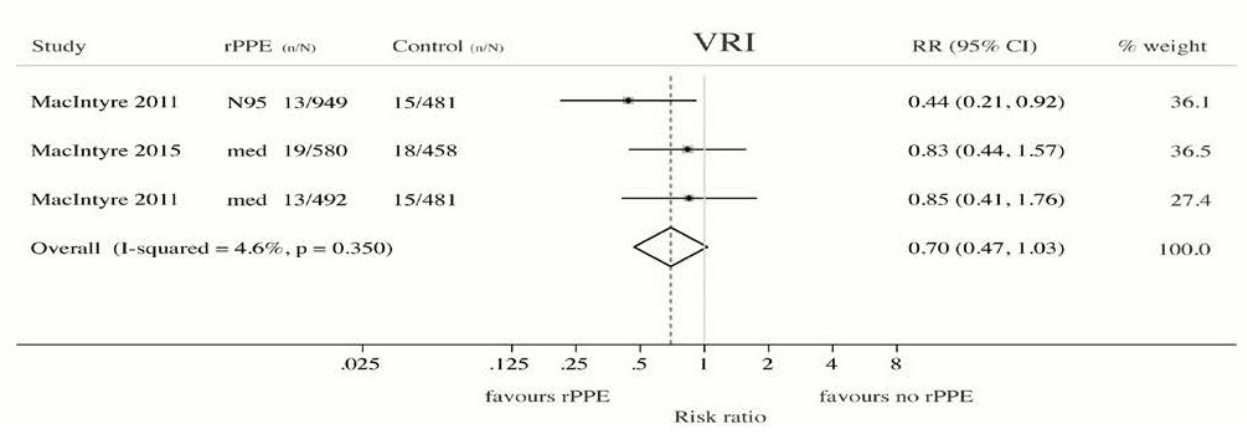
> "There were 17 eligible studies. … None of the studies established a conclusive relationship between mask ⁄ respirator use and protection against influenza infection."

**Smith, J.D. et al. (2016)** "Effectiveness of N95 respirators versus surgical masks in protecting health care workers from acute respiratory infection: a systematic review and meta-analysis", *CMAJ* Mar 2016, cmaj.150835; DOI: 10.1503/cmaj.150835
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."

**Offeddu, V. et al. (2017)** "Effectiveness of Masks and Respirators Against Respiratory Infections in Healthcare Workers: A Systematic Review and Meta-Analysis", *Clinical Infectious Diseases*, Volume 65, Issue 11, 1 December 2017, Pages 1934–1942, https://doi.org/10.1093/cid/cix681
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:




**Radonovich, L.J. et al. (2019)** "N95 Respirators vs Medical Masks for Preventing Influenza Among Health Care Personnel: A Randomized Clinical Trial", *JAMA*. 2019; 322(9): 824–833. doi:10.1001/jama.2019.11645
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."

**Long, Y. et al. (2020)** "Effectiveness of N95 respirators versus surgical masks against influenza: A systematic review and meta-analysis", *J Evid Based Med.* 2020; 1- 9. https://doi.org/10.1111/jebm.12381
https://onlinelibrary.wiley.com/doi/epdf/10.1111/jebm.12381

> "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).

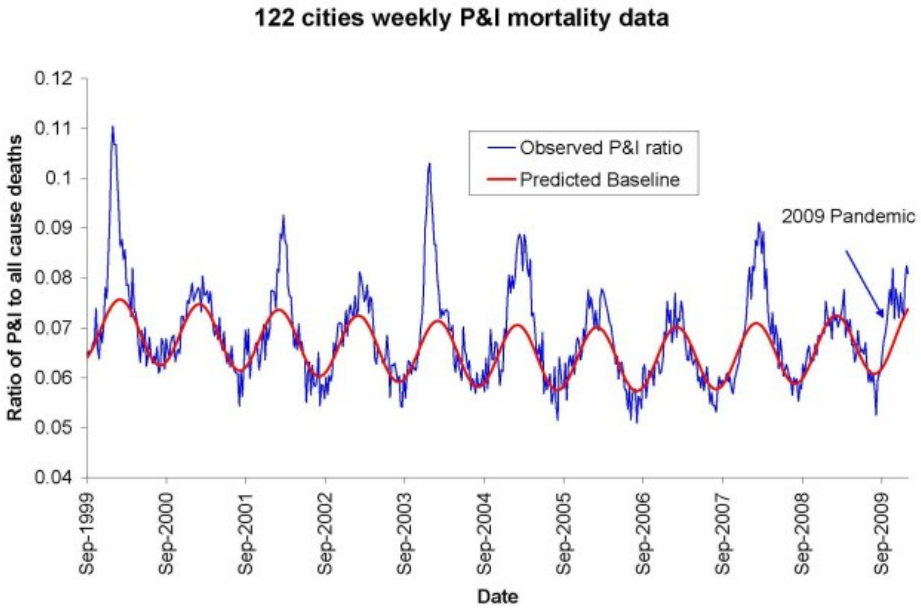
## Physics and Biology of Viral Respiratory Disease and of Why Masks Do Not Work

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:




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** (R0) is highly or predominantly dependent on ambient absolute humidity.

For a definition of R0, see HealthKnowlege-UK (2020): R0 is "the average number of secondary infections produced by a typical case of an infection in a population where everyone is susceptible." The average R0 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 R0 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 ($TCID_{50}$), 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 ~0.3−0.5 μm) 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 $10^3$–$10^7$ virions per aerolized influenza droplet with diameter 1 μm − 10 μm
- 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 ~6 h, infected cells begin producing influenza virus and continue to do so for ~5 h. The average lifetime of infected cells is ~11 h, and the half-life of free infectious virus is ~3 h. We calculated the [in-body] basic reproductive number, $R_0$, which indicated that a single infected cell could produce ~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 an 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:

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**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: No Mandatory Masks
**Date:** July 9, 2020 8:55:05 AM

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From: Chris Act [redacted]
Sent: Wednesday, July 8, 2020 9:23 PM
To: clerk@hamilton.ca
Subject: No Mandatory Masks

Hello,
Please provide to Mr Ford and add to your agenda.
Mandatory masks are suffocating everyone. People are using the same mask day in day out not cleaning it and touching it and it's more germ contaminated than nit wearing one.
Continue social distancing.
Continue to limit large groups.
Send guidelines to everyone how to combat this with eating properly, exercising, physical distancing, no large groups, workplace switching half employees in the office at a time to allow distancing and safety, there are so many more ways to combat this. Mask wearing is and should only be used when absolutely necessary which is not a mandatory case. People are even wearing masks outdoors. People are fainting.
Thank you.

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: Science clearly backs up No need for Masks..
**Date:** July 9, 2020 8:55:11 AM

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**From:** Erin Davis [redacted]
**Sent:** Wednesday, July 8, 2020 9:20 PM
**To:** clerk@hamilton.ca
**Subject:** Fwd: Science clearly backs up No need for Masks..

---------- Forwarded message ---------
From: **Erin Davis** [redacted]
Date: Wed, Jul 8, 2020 at 5:00 PM
Subject: Science clearly backs up No need for Masks..
To: Ferguson, Lloyd <Lloyd.Ferguson@hamilton.ca>, Office of the Mayor <mayor@hamilton.ca>, Clark, Brad <brad.clark@hamilton.ca>

Dear Mayor, et al

See updated data for Ontario March - July 2020.

I understand that City of Hamilton council members are considering passing a new bylaw requiring mandatory masks in all indoor public areas as per the advice of the Hamilton County Health Unit.

If this had been presented and implemented back in March, and imposed during the build up and peak period in "the curve", it would have been more acceptable and made practical sense.

Now that the curve has flattened to the point of "flat line", and case numbers are currently at two for the city and the county combined, it seems we are closing the barn door after the horse has already escaped.

Recovery rate is 99+% which is looking at the glass 1/2 full. The Media are not the experts, and seem to focus on the glass 1/2 empty. And yet as the cases increase as more people get tested the death rate lowers. In April 78% of the deaths were from LTC facilities. therefore there is no need to force masks on the population as a whole.

Experts have huge support : https://masksickness.ca/articles/2020/06/25/masks-dont-work-review-science-relevant-covid-19-social-policy?fbclid=IwAR0oFayFxVwtHFgCMpQ9D_dmU6y7wPRxHofMd7GAp8eOrj6MUuJQSvUJets

Let's ignore the actual, negligible statistics and assume the virus is as virulent and contagious as your health director is purporting. If this is the case, then every mask being worn becomes potentially contaminated in very little time, whether being worn in solitude or among a store full of shoppers. By virtue of the fact every breath potentially draws in contaminated, infectious particles against the front of a mask, and every exhale potentially pushes contaminated,infectious particles against the face side of the mask, this potentially, and quickly becomes the most contaminated item any one of us can have on our person, or hanging from the rear view mirror awaiting the next point of use.

So here's what I expect your council to fulfill as commitment of their concern for the health of the general public...

1) Every public indoor area (all stores included) hand out appropriate, new face masks, provided for free by the City of Hamilton , no exceptions. This will be the ONLY way the general public can be assured contamination is not being transferred from store to store, home to store, store
to home, car to store, store to car, car to home, home to car, etc., etc..

2) Every public indoor area (all stores included) must have a medical grade disposal unit located at the exit, and, every patron must dispose of their masks upon leaving. Every time! Once again, this will eliminate the transfer of contaminates from store to store, store to car (rear view mirror decor), car to store, car to home, home to car, etc., etc.. This disposal bin and monitoring of mask disposal must be provided free by the City of Hamilton and not become incumbent on the merchant.

3) Failing to provide this level of service and concern for the general well being of City of Hamilton citizens renders the mandatory mask bylaw null and void. Setting all collateral health consequences aside as a result of mask wearing, requesting citizens to participate in an invalid campaign to minimize spread of a contagion during a “crisis” is fraudulent in nature, and inviting cause for liability suits against city and council.

Your consideration on this matter is duly required.

Respectfully,

Erin L Davis
”Inspired Solutions. Principled Results. For the People”

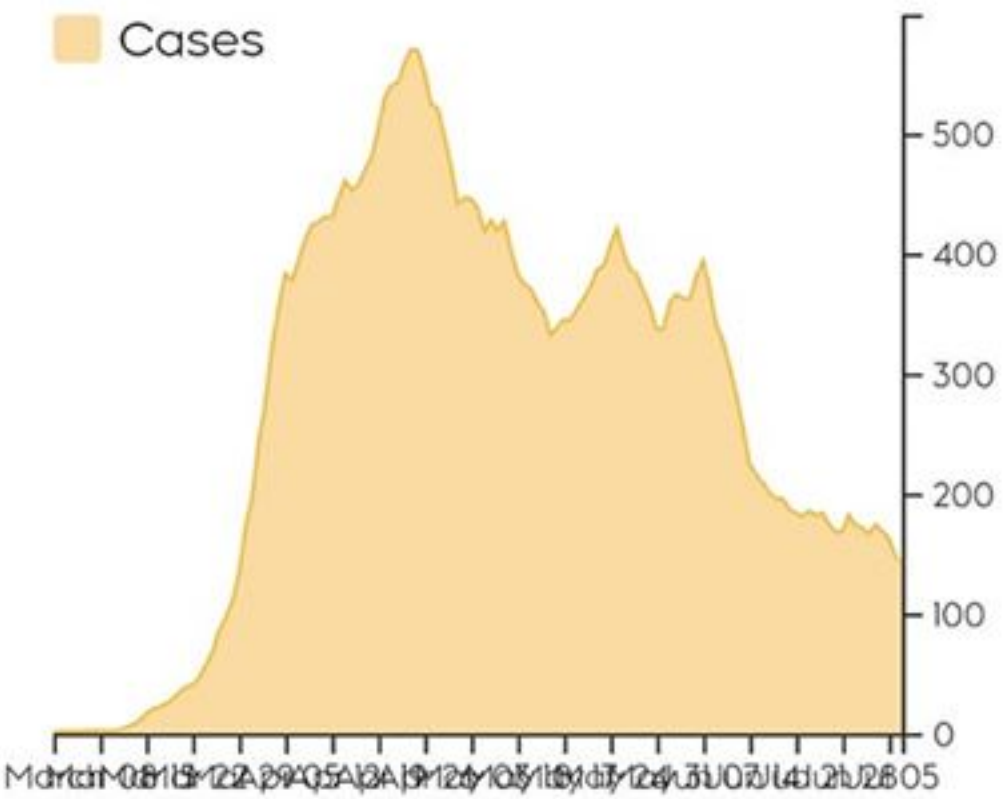
## Test Details

| Administered | Negative | Pending |
|---|---|---|
| 1,559,529 | --- | 12,625 |

# Ontario

Total | Breakdown

Cumulative | New | 7-day avg | Raw | /100K




## Case History

**July 7** - Ontario added 112 new cases of COVID-19 as well as two new deaths and 177 new recoveries.

**July 6** - The province added 154 new

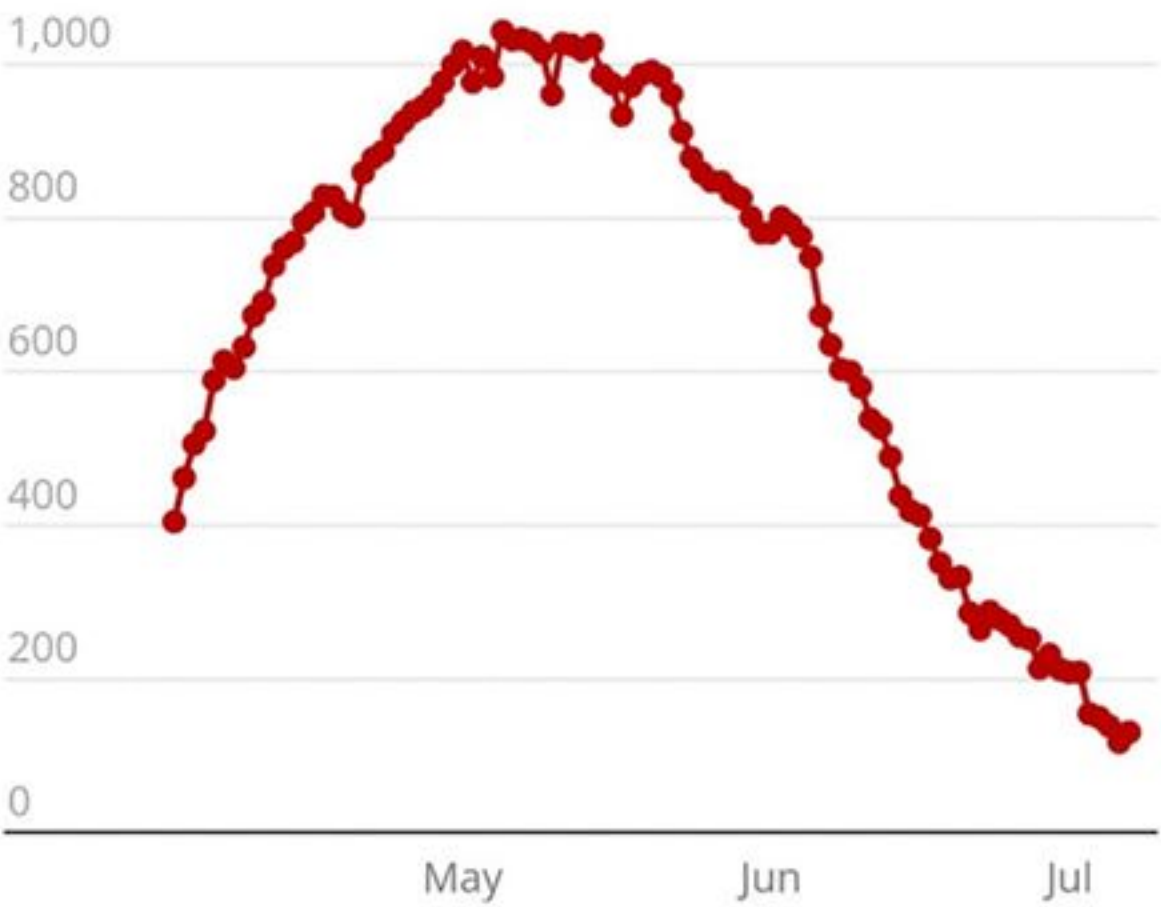
*Active cases per 100,000 is calculated on population figures provided by Public Health Ontario.*

Source: Ontario Ministry of Health

CBCNEWS

# Ontario hospital patients with confirmed cases of COVID-19

The number of patients rose steadily through April, hovered near 1,000 in early May, but then dropped.




Source: Ontario Ministry of Health

CBCNEWS

# Waterloo region COVID-19 cases

Cumulative number of confirmed COVID-19 cases in

| Active | Recovered | Deceased |
|---|---|---|
| 1,766 | 31603 | 2691 |

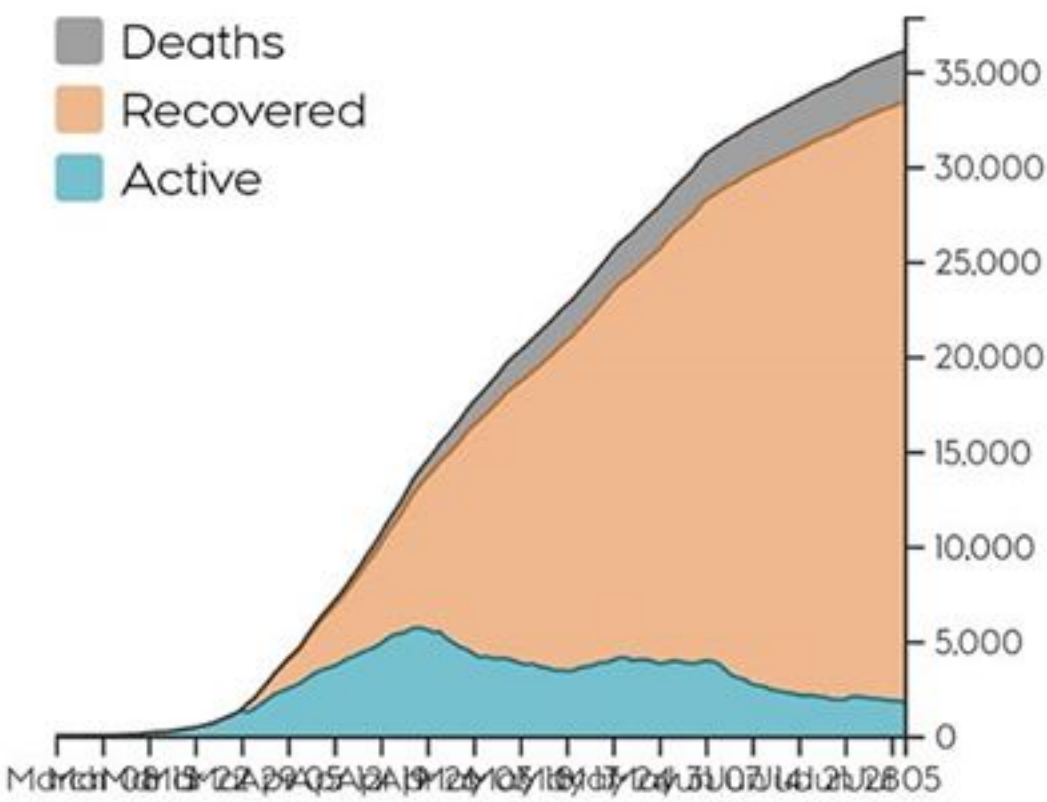
## Test Details

| Administered | Negative | Pending |
|---|---|---|
| 1,559,529 | --- | 12,625 |

# Ontario

Total | Breakdown

Cumulative | New | 7-day avg | Raw | /100K




## Case History

July 7 - Ontario added 112 new cases of COVID-19 as well as two new

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: No to mandatory mask in the City of Hamilton
**Date:** July 9, 2020 8:55:23 AM

---

**From:** dageria.morgan <dageria.morgan@gmail.com>
**Sent:** Wednesday, July 8, 2020 8:30 PM
**To:** clerk@hamilton.ca
**Subject:** FW: No to mandatory mask in the City of Hamilton

Dear Sirs,

Please accept this email as an indication of my objection to mandatory mask in the city of Hamilton.

We are still living in a democracy and our individual choice as citizens of a democracy should mean something.

Thank you!

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: Debate on Mandatory face masks
**Date:** July 9, 2020 12:25:58 PM

---

From: Lynda Moore [redacted]
Sent: Thursday, July 9, 2020 11:52 AM
To: clerk@hamilton.ca
Subject: Debate on Mandatory face masks

I am writing to say that myself and my family are opposed to the wearing of masks, whether mandatory or voluntary.

We would like our voices to be heard that we are not in agreement with any such rule being rolled out!!!

There is enough evidence to support our position as well as our rights as citizens of a country that is suppose uphold and defend our freedom.

Please reconsider the long term consequences of such a ruling. Not only emotionally but psychologically and physically.

Inhaling carbon dioxide is not healthy, inhaling toxins that the lungs are meant to rid the body of is not healthy. Lack of oxygen to the lungs for long periods of time is unhealthy. And lastly, taking away our rights and freedoms is the beginning of the demise of our great country.

We greatly appreciate your consideration in this matter,

Lynda Moore
[redacted]

Sent from my iPhone

5.5(s)

**From:** clerk@hamilton.ca
**To:** Kolar, Loren
**Subject:** Fw: No mandatory masks
**Date:** July 9, 2020 8:55:17 AM

---

From: Nicole Devcic [redacted]
Sent: Wednesday, July 8, 2020 8:31 PM
To: clerk@hamilton.ca
Subject: No mandatory masks

Hi there,

I was told to use this email to voice my opinion. I'm not interested in wearing masks. Please do not make them mandatory.

Thank you
Nicole

Sent from my iPhone

# CITY OF HAMILTON
## PUBLIC HEALTH SERVICES
## Office of the Medical Officer of Health

| | |
|---|---|
| **TO:** | Mayor and Members<br>Board of Health |
| **COMMITTEE DATE:** | July 10, 2020 |
| **SUBJECT/REPORT NO:** | Interim Plan to Resource and Structure Public Health Services During COVID-19 (BOH20013) (City Wide) |
| **WARD(S) AFFECTED:** | City Wide |
| **PREPARED BY:** | Carolyn Hureau (905) 546-2424 Ext. 6004 |
| **SUBMITTED BY:**<br><br>**SIGNATURE:** | Dr. Elizabeth Richardson, MD, MHSc, FRCPC<br>Medical Officer of Health<br>Public Health Services |

### RECOMMENDATIONS

(a) That the Board of Health authorize an increase of up to 75.14 FTE ($2.08M for the remainder of 2020) to continue responding to COVID-19 while reopening Public Health Services programs and services;

(b) That the Board of Health approve an increase of 17.0 FTE as part of an application to Ontario Health West to provide scheduling and booking support for the assessment centres;

(c) That the Board of Health approve up to $265,000 in one-time funding for the extension of Kronos software to Public Health Services to support staff scheduling, time, attendance and activity tracking; and

(d) That a letter be sent to the Minister of Health to request funding to cover 100% of the costs for the COVID-19 response that exceed the 2020 PHS Annual Service Plan & Budget.

### EXECUTIVE SUMMARY

Public Health Services (PHS) must continue to be responsive to COVID-19 outbreaks and case volumes as they fluctuate as well as provincial direction to manage the situation. Substantive resources have been redeployed to carry out critical functions, currently 261 PHS staff and 42 City staff are supporting the COVID-19 response. At the

same time, it is imperative that PHS programs and services reopen to continue addressing all the drivers of population health, not just COVID-19.

As indicated in Report BOH20011, staff have developed an interim plan to achieve this. In order to carry out case, contact and outbreak management, support community infection prevention and control, undertake the associated data and administrative work and provide a public hotline, the plan includes an estimated 109.9 FTE in staffing and a modified PHS structure to effectively manage the increased volume of work due to COVID-19. In addition to staff from the Infectious Diseases, Epidemiology and Evaluation, and Health Strategy and Health Equity programs who will continue to be allocated to this work as part of their usual duties, a total of 17.76 FTE of existing staff are being allocated from other program areas including those in Healthy Families and Chronic Diseases due to some programs and services not be being able to reopen until later in 2021.

The net result, assuming no further technological or staffing redeployment from the provincial or federal levels, is a proposed increase of 92.14 FTE as the upper limit of what would be required. PHS will be applying to Ontario Health West to fund 17.0 FTE of the total FTE ($1.45M annualized) to continue supporting scheduling inquiries and booking for the Hamilton assessment centres. It is anticipated this will be required for 18-24 months. If funding is not granted, PHS will transition this work to the organization(s) who provide this function. The remaining 75.14 FTE are required to continue responding to COVID-19 while reopening PHS programs and services.

As PHS programs reopen, we anticipate there will be an increased demand for some services (e.g., dental, mental health, sexual health, vaccine) and a decreased demand for others (e.g., health education and in-person classes) until the public becomes more comfortable with this new COVID-19 reality. Staff will be able to better understand changes to service demands and associated costs once more PHS programs reopen.

The Province continues to refine its approach to COVID-19 across the public health and health care systems, including additional staff and resources being made available from both federal and provincial levels. In addition, long-term redeployment of administrative type staff from other departments is being explored. As details become known, the mitigation plan will be adjusted and any major changes, or increased resource requirements, will be communicated to the Board of Health.

There has also been an increase in financial and administrative work associated with COVID-19 mainly due to continued reliance on outdated paper-based processes that require manual data entry and approval. To address this, PHS is recommending that software to assist with automated staff scheduling, time, attendance and activity tracking be procured and implemented. This cost-effective solution will not only assist in addressing the increased administrative workload due to COVID-19 but will also help

streamline processes and yield efficiencies in the long term. The estimated cost of this software is a one-time fee of $175,000 for set-up and implementation and an estimated annual fee of $18,000 thereafter. In addition, 4.0 FTE will be required on a temporary basis to transition and implement Kronos ($90,000), for a total one-time cost of $265,000. If the Board of Health chooses not to invest in this software, an additional 4.0 FTE will be required on a temporary basis, ($90,000 remainder of 2020 and $287,600 annualized).

Staff will continue to review programs to identify other pressures and opportunities that may affect the PHS budget in a COVID-19 world, as well as technological solutions that may streamline resource utilization for both COVID-19 and other programs. This will be communicated to the Board of Health along with updated information regarding the financial impacts of COVID-19 over the next few months.

**Alternatives for Consideration – See Page 6**

**FINANCIAL – STAFFING – LEGAL IMPLICATIONS**

Financial: The proposed FTE increase is 92.14 FTE. A total of 75.14 FTE is for the PHS COVID-19 response. The overall budget impact for the remainder of 2020 is $2.08M ($2.68M offset by $600,000), in addition to the $1.6M already incurred. It is anticipated that the pressures will last for 18-24 months at an annualized cost of $6.78M. PHS recommends that the Board of Health apply to the Province for 100% funding of the amount that exceeds the 2020 approved PHS budget, as well as for the 2021 budget year. The Province has indicated that $100M has been set aside to offset COVID-19 related costs, including those related to public health functions. Further details regarding this funding have not yet been provided.

The remaining 17.0 FTE ($1.45M annualized) will be dedicated to scheduling and booking at the assessment centres. Staff will apply to Ontario Health West for 100% funding of this. If funding is not granted, PHS will transition this work to the organization(s) who provide this function.

The estimated costs of the Kronos software for staff scheduling, time, attendance and activity tracking is a one-time fee of $175,000 for set-up and implementation. In addition, a minimum of 4.0 FTE will be required on a temporary basis to transition and implement Kronos ($90,000), for a total one-time cost of $265,000.

If the Board of Health chooses not to invest in this software, an additional 4.0 FTE will be required on a temporary basis, ($90,000 remainder of 2020 and $287,600 annualized).

If the Ministry does not provide 100% funding for these COVID-19 additional costs there will be a 2020 Year end impact. If the COVID-19 response continues into 2021, and no additional Ministry funding is committed there will be a levy impact in 2021 as well. This will be addressed through the 2021 Budget process.

Staffing: This plan proposes that 109.9 FTE be dedicated to the COVID-19 response for the remainder of 2020. This consists of an increase of 75.14 FTE over and above PHS' existing complement and 17.0 FTE for the assessment centres. In addition, Infectious Disease Control, Epidemiology and Evaluation and Health Strategy & Health Equity along with a further 17.76 existing FTE will remain redeployed to the COVID-19 response.

These staff resources will be allocated to COVID-19 case and contact management, outbreak management, infection prevention and control, and related supports. These are all critical components of the COVID-19 post-peak response (Report BOH20010) to slow the spread of virus and reduce the trajectory of a second wave.

Legal: There are no legal implications; however, boards of health and medical officers of health are required to respond to infectious diseases and provide the Ontario Public Health Standards under the Health Protection and Promotion Act.

## HISTORICAL BACKGROUND

Since January 2020, PHS has been responding to the COVID-19 pandemic. During this time, substantive resources were redeployed to carry out critical functions in order to flatten the curve and protect the health of Hamilton residents. Currently, 261 PHS staff and 42 City staff are supporting the COVID-19 response. It is anticipated that PHS will need to continue these efforts for at least 18-24 months until a vaccine becomes available.

In March 2020, several PHS programs and services were put on-hold in order to redeploy the necessary resources to COVID-19. The broad range of programs and services offered by PHS address all the drivers of community health and play a key role in keeping our residents healthy, preventing disease and reducing health inequities. For this reason, it is vital that PHS programs and services reopen. It is not possible, however, to do this effectively while continuing to respond to COVID-19 using existing PHS resources. The

current PHS staffing complement is very lean as a result of several organizational restructures and program reviews carried out over the past few years.

This report outlines an interim plan to resource and structure PHS to continue an effective and timely response to COVID-19 while reopening PHS programs and services.

## POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Boards of health are legislated to deliver the programs and services outlined in the Ontario Public Health Standards pursuant to the Health Protection and Promotion Act. The Province has made it clear that boards of health are expected to take necessary measures to respond to COVID-19 within their jurisdictions while continuing to maintain critical public health programs and services.

## RELEVANT CONSULTATION

Staff participate in regular conference calls with Ontario Health West and the Ministry of Health including discussions on resourcing public health services for the remainder of 2020 and beyond. To date, Ministry staff have indicated that health units should apply for funding beyond the 2020 Annual Service Plan and Budget later this year. In addition, Ontario Health West has encouraged Hamilton to submit a proposal for ongoing operations of assessment centres.

PHS Finance and Administrative staff have been consulted and have provided the financial information within Report BOH20013.

## ANALYSIS AND RATIONALE FOR RECOMMENDATION

PHS must continue to be responsive to COVID-19 outbreaks and case volumes as they fluctuate as well as provincial direction to manage the situation. The development of a vaccine or treatment may modify the approach that is taken and PHS will have a role in the delivery of these as well.

At the same time, it is imperative that PHS program and services reopen to continue addressing all the other drivers of community health, not just COVID-19. This includes moving forward with work related to PHS' four strategic priorities: mental health and well-being, healthy weights, health equity and climate change.

To do this effectively, changes need to be made to the way PHS is resourced and structured. At this time, it is estimated that an increase of up to 75.14 FTE will be required for the remainder of 2020. There is currently a high demand for public health professionals such as public health inspectors. The financial impact of this staffing increase for the remainder of 2020 would be $2.08M over and above the approved PHS budget. These estimated costs assume that:

- 50% (37.57 FTE) of new staff would start by August 15, 2020; and,
- 50% (37.57 FTE) of new staff hired would start by October 1, 2020.

It should be noted that this does not include staff resources required to do scheduling and booking for the Hamilton assessment centres. PHS will be applying to Ontario Health West for $1.45M in funding for 17.0 FTE to do this work. If funding is not granted, PHS will not assume responsibility for this function.

There are several factors that will influence the amount of staff resource required to reopen PHS programs and services. One factor that will influence the amount of staff resource required is the demand for service. Given the impact of COVID-19, it is difficult to forecast what the demand for various public health programs and services will be when they reopen. There may be an increased demand for some services (e.g., dental services, mental health supports, sexual health clinics, vaccines etc.) and a decreased demand for others (e.g., health education and in-person classes) as residents continue adapting to a COVID-19 world.

Another factor is the significant pressures that have resulted from the extended disruption of PHS programs and services. For example, although the School Program may not resume its regular activities, these public health nurses will be needed to provide surge capacity for the Vaccine Program to run catch-up clinics to ensure residents who missed their scheduled vaccinations during the shut down are able to receive them. Public health nurses from the School Program will also be able to address increased mental health needs and school travel planning as a result of COVID-19 will also be needed.

To address the increased financial and administrative workload and throughput associated with COVID-19, PHS plan to procure and implement a software for staff scheduling, time, attendance and activity tracking. Transitioning from an outdated paper-based process requiring manual data entry to a digital solution will help streamline processes and increase efficiencies over the long-term. The estimated cost of this software is a one-time fee of $175,000 for set-up and implementation and an annual fee of $18,000 thereafter. Without this software, it is estimated that an additional 4.0 FTE (i.e., Financial Assistants and Program Secretaries) would be needed to manage the increased volume of work.

Several options for mitigating these pressures have been and continue to be explored. For example, the Province continues to refine its approach to COVID-19 across the public health and health care systems, including additional staff and resources being made available from both federal and provincial levels. In addition, long-term redeployment of administrative type staff from other City departments is being explored. Staff will continue to identify pressures and opportunities to offset costs that may be realized through the provision of services within this new context. An updated report outlining the financial impacts of COVID-19 will be provided to the Board of Health in the

next few months once staff gain a better understanding of the service demands following the reopening PHS programs and services.

Other public health units from across the province have indicated they are putting interim organizational structures in place to support COVID-19 work. Many health units are also in the process of forecasting the financial impacts related to the pandemic. To date, only Halton Region and Toronto Public Health Units have released their financial information. Halton reported $1.9M in extraordinary COVID-19 related costs as of May 31, while Toronto reported $5M in extraordinary costs for the same period. In terms of forecasting, Toronto estimated a total of $24.4M in extraordinary costs for 2020 (January 1 – December 31, 2020). Forecasting information was not provided for Halton Region.

## ALTERNATIVES FOR CONSIDERATION

An alternative would be to use existing PHS resources to cover COVID-19 related costs. In order to free up staff resources, PHS programming would need to be significantly curtailed and the associated staff redeployed to COVID-19. This means that programs and services such as the following would not be available to Hamilton residents to the same extent:

- Pest Control – pause this service;
- School Dental and Vision Screening – pause this service;
- School Program – urgent system support services only;
- Healthy Growth and Development Programs – pause face-to-face prenatal and parenting classes;
- Sexual Health Clinics – reduce to one day per week at the downtown site only; and,
- Smoking Prevention – pause health promotion programming.

Using this method, it is estimated that 45.64 FTE of the 75.14 additional FTE required could be offset. It is not possible, however, to offset the remaining 29.5 FTE through staff reallocation because there are not enough personnel with the specific skillsets and professional designations (e.g., Public Health Inspectors, Epidemiologists, etc.) required to respond to COVID-19. It should be noted that 25 FTE of the 45.64 FTE that could be offset are positions within the case and contact management section. It would only be possible to offset these positions for the duration of the provincial order affecting public health staffing because staff would need to be allocated to positions that are not aligned with their skillsets. Given that this is poor practice and that there is uncertainty regarding the duration of the provincial order, this is not recommended. Furthermore, this alternative would require several PHS programs and services to either remain on-hold or be significantly pared back for an extended period of time and therefore this alternative is not recommended. To continue improving and protecting the health and wellbeing of Hamilton residents, it is imperative that PHS continue addressing all of the drivers of community health, not just COVID-19.

## ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

### Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

### Our People and Performance

Hamiltonians have a high level of trust and confidence in their City government.

## APPENDICES AND SCHEDULES ATTACHED

Not Applicable.

# CITY OF HAMILTON
## PUBLIC HEALTH SERVICES
### Office of the Medical Officer of Health

| | |
|---|---|
| **TO:** | Mayor and Members<br>Board of Health |
| **COMMITTEE DATE:** | July 10, 2020 |
| **SUBJECT/REPORT NO:** | Face Coverings in Enclosed Public Spaces (BOH20014) (City Wide) |
| **WARD(S) AFFECTED:** | City Wide |
| **PREPARED BY:** | Ninh Tran (905) 546-2424 Ext. 7113<br>Michael Kyne (905) 546-2424 Ext. 4716<br>Jennifer Sheryer (905) 546-2424 Ext. 2023<br>Monica Ciriello (905) 546-2424 Ext. 5809 |
| **SUBMITTED BY:**<br><br>**SIGNATURE:** | Dr. Elizabeth Richardson, MD, MHSc, FRCPC<br>Medical Officer of Health<br>Public Health Services |

**RECOMMENDATION**

(a) That City Council enact a by-law to Require the Wearing of Face Coverings Within Enclosed Public Spaces and to amend City of Hamilton By-law 17-225, being a By-law to Establish a System of Administrative Penalties", as outlined in Appendix "A" to Report BOH20014:

(i) Requiring all person(s) or organization(s) with custody or control over an enclosed space open to the public to ensure that all persons attending wear face coverings (e.g. masks) as a condition of entry to the enclosed space. The by-law shall also require the posting of sufficient and appropriate signage notifying staff and members of the public of this requirement;

(ii) Requiring all person(s) attending an enclosed space open to the public, to ensure that they wear face coverings (e.g. masks) as a condition of entry to the enclosed space; and,

(iii) That permits appropriate exemptions for individuals who are unable to wear a face covering for medical reasons, children under two years old (or up to five years old if the child refuses), and other reasonable accommodations;

(b) That the by-law shall come into force at 12:01 a.m. on July 20, 2020 and shall be reviewed by the Board of Health every 3 months unless directed otherwise by City Council.

(c) That the Mayor be directed to request that the Province of Ontario impose requirements substantially similar to those outlined in this by-law to all public spaces and facilities regulated or owned by the Province within the City of Hamilton.

(d) That the Mayor be directed to request that the federal government impose requirements substantially similar to those outlined in this by-law to all public spaces and facilities regulated or owned by the federal government within the City of Hamilton.

## EXECUTIVE SUMMARY

The COVID-19 Pandemic was declared by the World Health Organization on March 11, 2020. To date, Hamilton Public Health Services (PHS) has investigated over 842 cases of COVID-19 in the city. While cases are currently stable, and Hamilton has entered Stage 2 of the re-opening process, the risk for the ongoing spread of COVID-19 continues. Some jurisdictions around the world, including many in the United States, are experiencing a resurgence of cases since re-opening.

PHS continues to recommend public health measures to be practiced by all residents of the City in order to reduce the spread of COVID-19. These include cleaning hands often, staying home if sick, keeping a physical distance from others and wearing a mask or face covering, especially in settings where it is difficult to maintain a physical distance from others.

As Hamilton continues to ease public health restrictions, in accordance with the Provincial Framework for re-opening, additional public health measures should be considered to prevent a resurgence of COVID-19 cases. Therefore, this report recommends that City Council enact a bylaw requiring the wearing of masks or face coverings in enclosed public settings, as members of the public once again frequent businesses and other facilities.

While the science on the use of non-medical masks by the general public is not definitive, there is a growing body of evidence on the effectiveness of these masks to act as a barrier to prevent the spread of COVID-19. Further, jurisdictions that have

mandated the use of non-medical masks in public settings have seen more people complying with the wearing of masks. The use of masks and face coverings is inexpensive, acceptable and a non-invasive measure to help control the spread of COVID-19. More widespread wearing of masks and face coverings may act as a visual cue that public health measures, including maintaining a physical distance from others, are still required, that the COVID-19 Pandemic is on-going and that resurgence of local disease activity remains an ongoing threat. PHS recommends that City Council enact a bylaw requiring face coverings in enclosed spaces open to the public. This by-law will require that businesses or facilities ensure face coverings are worn by the public in the enclosed spaces under their control. This shall include corresponding signage and notifying staff on the requirements of this by-law.

**Alternatives for Consideration – See Page 10**

## FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: No additional funding is required for enforcement, as it will utilize existing Licensing and By-Law Enforcement Officers.

Staffing: This report does not recommend any additional staff. The education and enforcement of the By-law will be completed by existing Licensing and Bylaw Enforcement Officer's, however depending on the workload and enforcement additional City staff through redeployment may be required. In addition, police officers and public health inspectors would also be authorized to enforce this By-Law. It is anticipated that they would use this authority if by-law issues are noted during the course of their regular inspections/duties.

Legal: The *Municipal Act, 2001* empowers municipalities to pass by-laws with respect to the health, safety and well-being of persons.

## HISTORICAL BACKGROUND

On March 11, 2020, the COVID-19 Pandemic was declared by the World Health Organization and the first case in Hamilton was detected. Two weeks later there were 35 confirmed cases. One month later, the number of cases had increased more than fivefold, totalling 198 confirmed cases in Hamilton. Since then, Hamilton has seen over 800 cases and more than 40 deaths due to COVID-19.

On March 17, 2020, the Government of Ontario made an order declaring an emergency under s. 7.0.1. (1) the *Emergency Management and Civil Protection Act* requiring immediately closure of a wide range of facilities and establishments.

On April 6, 2020, Canada's Chief Public Health Officer, Dr. Theresa Tam, recommended the use of non-medical masks by the public as an additional measure to prevent the spread of COVID-19.

On June 19, 2020, Hamilton entered Stage 2 of Ontario's easing of COVID-19 restrictions allowing for public access to restaurant patios, malls as well as many other retail locations.

On June 22, 2020, mandatory face coverings became effective on the City of Hamilton's public transit Hamilton Street Railway (HSR).

On June 29, 2020, the mayors of the Greater Toronto Hamilton Area (GTHA) called for the province of Ontario to enact provincial legislation mandating the use of non-medical masks and face coverings. The GTHA mayors also committed to working with their local Medical Officers of Health to increase the uptake of masks or face coverings including the use of local medical masking legislation.

## POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The *Municipal Act, 2001* empowers municipalities to pass by-laws with respect to the health, safety and well-being of persons.

## RELEVANT CONSULTATION

An environmental scan was done to determine which Ontario Health Units had existing or were proposing legislation requiring face coverings. The preliminary findings are listed in Table 1.

Table 1: Mandatory face coverings by Ontario jurisdictions (current and proposed).

| Jurisdiction | Establishment covered | Status |
|---|---|---|
| Wellington Dufferin Guelph | Commercial only | Effective June 12, 2020 |
| Windsor Essex County | Commercial only | Effective June 26, 2020 |
| Kingston Frontenac Lennox Addington | Public, commercial and municipal establishments | Effective June 27, 2020 (originally commercial only) |
| City of Toronto | Public, commercial and municipal establishments | Passed June 30, 2020. In effect as of July 7, 2020 |
| Sudbury | Commercial establishments | Effective as of July 8, 2020 |
| Region of Peel | Public, commercial and municipal establishments | Proposed – in development |
| Region of Waterloo | Public, commercial and municipal establishments | Proposed – to be decided at July 6, 2020 Regional Council Meeting |

| | | |
|---|---|---|
| York Region | TBD | To be discussed and decided at Regional Council Meeting on July 9, 2020 |
| City of Ottawa | Indoor public places | Motion for by-law to be discussed at July 15, 2020 Council meeting |
| Middlesex London | Businesses that provide direct face-to-face services less than 2 metres away from a customer for more than 15 minutes | Effective July 20, 2020 |

Consultation was done with other health units who had already put in place legislation mandating non-medical masks and face coverings regarding their current experience. All reported overall satisfaction and support from their community and/or businesses and reported increased uptake of use of masks in these settings without the need to issue any charges at the time of this report.

Consultation was done with other health units who were in the process of mandating masks or face coverings to determine their planned approaches to help better align with neighbouring or regional municipalities. At the time of writing this report, Toronto, York Region, Peel Region and Waterloo Region were using or considering a by-law approach.

Legal Services and the Licensing and By-law Services Division were consulted regarding the Legal and Enforcement Implications of having a by-law on mandatory non-medical masks and face coverings. Legal Services developed a draft by-law (Appendix “A” to BOH20014).

## ANALYSIS AND RATIONALE FOR RECOMMENDATION

As of July 2, 2020, there have been 842 cases of COVID-19 in Hamilton, including 44 deaths. While COVID-19 case counts are currently stable, there are still several cases reported each day. COVID-19 is still circulating in the City, and the risk for its continued spread remains.

Preventive measures that are currently adopted will need to continue to be expanded as required. One such measure includes increasing the use of non-medical masks or face coverings by the general public in public settings.

The re-opening of businesses and other services will result in more people circulating in public, returning to the workplace, gathering and taking public transit, which will make the ability to physically distance difficult, or in some cases, impossible. The benefits of reopening businesses and services must be balanced, to the extent possible, with

measures to ensure the safety of employees and the public. The wearing of masks or face coverings by members of the public is one measure that can be taken to help mitigate these risks.

Currently the Medical Officer of Health, the Chief Medical Officer of Health for Ontario, Chief Public Health Officer for Canada and the World Health Organization strongly recommend the wearing of masks or face coverings where physical distancing cannot be maintained, in addition to other public health measures. Preliminary evidence shows that if a sufficient proportion of the public wear effective masks, transmission levels can be reduced. Mandating mask use has been shown to increase levels of mask or face covering use.

**The Science on Face Coverings Continues to Evolve**

Face coverings can be important for containing COVID-19 since it is increasingly clear that a substantial proportion of infections are transmitted by people with no symptoms of illness, or those who are pre-symptomatic [1]. Early in the pandemic, asymptomatic transmission was not known to be significant. To prevent the spread from those who are contagious but without symptoms (or with very mild symptoms), masking needs to be universal and not restricted to individuals who think they may have COVID-19.

Medical masks are traditionally worn for two-way protection: to protect the health care worker from being infected by a sick patient, and as source control to keep a health care worker's germs from spreading to a patient. Non-medical masks have not been shown to be effective in protecting the person wearing the mask, but can be beneficial for source control [2,3]. Source control prevents the spread of respiratory droplets from coughing, sneezing or talking from the person wearing the mask to others. There is evidence that cloth masks can reduce the expulsion of respiratory droplets into the air and onto surfaces [3].

In modelling studies, evidence is showing that higher compliance in the wearing of masks is required to achieve a significant positive impact. One study estimated that 50% compliance on the use of masks in public settings is not sufficient to prevent continued spread of COVID-19. However, at 80% public compliance, COVID-19 spread can be reduced [4]. Another model suggested that broad adoption of even relatively ineffective face masks may meaningfully reduce community transmission of COVID-19 and decrease peak hospitalizations and deaths [5].

An ecological study found societal norms and government policies supporting the wearing of masks by the public are independently associated with less mortality from COVID-19 [6]. Another ecological study from Germany showed that regions where masks were made mandatory earlier in the Pandemic had lower new infections subsequent to the introduction of the masking policy compared to those that adopted policies later on in the outbreak. The greatest drop in new cases was seen in those aged 60 years and older [7].

**Spread of COVID-19 Enclosed Versus Outdoor Spaces**

The risk for spreading COVID-19 appears to be higher in enclosed settings compared to outdoors. Living in the same household with someone who has COVID-19 is clearly a high risk for spread. Enclosed settings may also be more important for spreading COVID-19 since they are often more crowded compared to outdoor settings, the respiratory droplets from a person who is talking, coughing or sneezing can contaminate surfaces and may not fall as quickly to the ground when in the air due to less air ventilation, and the flow of air in an enclosed setting may contribute to the spread of the virus in a particular direction [8]. In outdoor settings, there is often less crowding, good air circulation, and surfaces are less likely to be contaminated.

Given that all enclosed settings are higher risk, requiring wearing a mask in enclosed spaces open to the public, including commercial and non-commercial settings, will be essential to prevent additional spread of COVID-19. Temporary removal of masks may be necessary for the purpose of receiving a service at a business or facility but should be minimized where possible.

**Global Masking and Face Covering Policies to Slow the Spread of COVID-19**

Currently, there are over 100 countries which have adopted some form of legislation for universal masking. Many countries or regions that have contained COVID-19 outbreaks have higher rates of public mask and face covering usage. Some countries had "masking cultures" before the pandemic, where people would wear masks in public to prevent the spread of infections routinely. Other countries issued government orders for public masking in response to the pandemic.

Face masks are used extensively by the general public in Asian countries, for example China, Singapore, South Korea and Japan. Face-mask use has been increasingly common since the 2003 SARS epidemic. In Hong Kong, 76% of the population was wearing a face mask during the SARS epidemic [9].

**Masks and Face Covering Use in Transit Systems**

Many jurisdictions have enacted mandatory legislation for mask or face covering use on transit systems, recognizing that using transit can often not be avoided, and maintaining a physical distance on transit systems is difficult [10]. Beginning June 22, 2020, masks or face coverings became mandatory when travelling on the HSR, with some exceptions. Other transit systems in Ontario, including Ottawa, Brampton, Mississauga, Guelph and Toronto, have also enacted legislation requiring mask use. However, not all transit systems that serve in the City have a by-law such as the GO transit, which is under provincial jurisdiction. It would be preferable that the Province enact a complementary mask regulation applicable within the City of Hamilton including on all public transit systems under provincial jurisdiction including the GO transit.

**Acceptability of Face Coverings**

The effectiveness of universal masking or face coverings may be dependent on the type of face coverings used, societal acceptance of face coverings, and other interventions applied. Face covering techniques and norms need to be taught with targeted information to different demographics.

Leger and the Association for Canadian Studies publishes a Weekly COVID-19 Pandemic tracker. In their June 30, 2020 survey, the online poll surveyed 1,521 adult Canadians. More than half of Canadian respondents (58%) said that masks should be mandatory in public and confined spaces, like shopping malls and public transit, with the highest level of support in Ontarians at 68% with only 24% in opposition [11]. This support is higher than it was the previous week (54% overall and 58% in Ontario). In the June 9th survey, eighty per cent of respondents felt it is each Canadian's individual responsibility to try to prevent a second wave of the Pandemic [12].

**Face Coverings as a Visual Cue for Preventive Behaviours**

Where more routinely used, face coverings may serve as a visual cue for adopting this preventive measure, and act as a reminder to the public to perform other preventive behaviours. One study from Italy showed that mask use increases compliance with physical distancing, likely as a visual cue to maintain preventive behaviours [13]. Ensuring that preventive measures are top of mind is important, as fatigue of restrictions or the false perception that the risk for transmission of COVID is low can be concerning.

**Universal Face Coverings for Source Control**

Face coverings for source control can be a personal hygiene measure and needs to be part of a broader strategy to reduce transmission risk. Cloth masks or face coverings are low-cost, reusable and non-invasive. It is critical to emphasize that wearing a face covering alone will not prevent the spread of COVID-19. Practising physical distancing and frequent hand washing are still the most effective methods to limit the spread of the virus.

**Need for Provincial Legislation**

The most efficient way to enact mandatory face covering legislation would likely be through a provincial order through the *Emergency Management and Civil Protection Act* as has been done with other measures related to the re-opening process.

Provincial legislation would lead to a consistent approach across the province given that some municipalities/regions have mandatory policies, whereas many others do not. There also exist significant differences between the jurisdictions that have mandated masking in terms of scope: commercial only vs. all enclosed public spaces; owners and operators vs. individual citizens; exemptions for individuals; and requirements such as policy, signage, and provision of hand sanitizers.

However, as there has been a preference expressed for local decision making on this issue, a City bylaw at the recommendation of the Medical Officer of Health is appropriate at this time to proceed with requiring face coverings in enclosed spaces open to the public in the City of Hamilton.

**Rationale for Limiting Scope to Enclosed Spaces:**

- **Outdoor:** The risk of COVID-19 spread is significantly lower in outdoor settings, where there is often less crowding, good air circulation, disinfection through UV light and surfaces are less likely to be contaminated;

- **Workplaces / Occupational Health and Safety:** Workplaces without public access would be governed by Occupational Health and Safety requirements and needs. In addition, non-medical masks or face coverings may not be suitable for to meet occupational health and safety requirements. Employers should consult with Occupational Health and Safety guidelines to ensure that measures that are appropriate to their particular work setting – which may or may not include mask-wearing policies – are properly implemented; and,

- **Excluding Provincial and Federal Buildings and Facilities:** Many buildings and facilities are either under direct provincial and federal control or are regulated and governed by provincial and federal ministries and would be not covered in the by-law. This would include schools, universities and independent health facilities.

**Potential Negative Unintended Consequences:**

- There may be in individual level impacts such as facial dermatitis, facial lesions, itchiness and skin irritation, worsening acne, fogging of glasses, difficulty in clear communication;
- If worn improperly, facial coverings use can present the opportunity to contaminate the wearer; lack of hand hygiene may also cross contaminate the environment
- Individuals who may not be able to tolerate face coverings (e.g. underlying medical conditions) may be stigmatized;
- Depending on how policies are enforced, income and other inequities may be exacerbated (e.g. for those who lack access to masks and face coverings); and,
- Impact on the PPE supply chain should individuals use medical masks in non-health care settings.

**Mitigating Negative Unintended Consequences:**

- **Education on Face Covering Use:** Continued education on appropriate use of face covering including: covering of nose, mouth and chin; appropriate materials; appropriate hand hygiene and avoiding cross contamination; use of non-medical masks to preserve medical masks for health care providers; appropriate cleaning, replacement and non-shared use; and that this is done in addition to physical distancing and hand hygiene;

- **Provision of Face Coverings:** Although the mandating of wearing of non-medical masks and face coverings will increase and support usage, this needs to be supplemented by ensuring access, particularly for those who have barriers acquiring them such as financial barriers. Currently the City of Hamilton HSR service provides non-medical masks free of charge for its users. Public Health Services will work with community support agencies to increase accessibility of masks for those who have financial barriers acquiring masks or face coverings; and,

- **Progressive Enforcement:**
  Licensing and By-law Officers, or other authorized staff will use a progressive enforcement approach. Acting as ambassadors on behalf of the City, Officers will begin with education in an attempt to achieve compliance with the By-law. If they do not obtain compliance, or if there is a repeated offense, charges under the By-law may be laid.

## ALTERNATIVES FOR CONSIDERATION

**Reduce Scope of By-Law to Commercial Establishments:**
A number of other Ontario jurisdictions have mandated masks or face coverings in commercial establishments only (Wellington Dufferin Guelph, Windsor Essex County)

**Pros:** Less staff time required to implement bylaw as there would be fewer establishments under this bylaw.

**Cons:** Would not achieve benefit of increased mask usage in non-commercial establishments

## ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

**Healthy and Safe Communities**
Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

## APPENDICES AND SCHEDULES ATTACHED

| | |
|---|---|
| Appendix “A” to Report BOH20014: | A by-law to Require the Wearing of Face Coverings Within Enclosed Public Spaces and to amend City of Hamilton By-law 17-225, being a By-law to Establish a System of Administrative Penalties |

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**Authority:** Item,
Report
CM:
Ward: City Wide

**Bill No.**

**CITY OF HAMILTON**

**BY-LAW NO.**

**A by-law to Require the Wearing of Face Coverings Within Enclosed Public Spaces and to amend City of Hamilton By-law 17-225, being a By-law to Establish a System of Administrative Penalties**

**WHEREAS** under section 10 of the *Municipal Act, 2001*, the City may pass by-laws respecting health, safety, and well-being of persons and the economic, social, and environmental well-being of the City;

**AND WHEREAS** the World Health Organization has declared a worldwide pandemic regarding the Novel Coronavirus ("**COVID-19 Pandemic**");

**AND WHEREAS** on March 17, 2020, a Declaration of Emergency was made by the Province of Ontario pursuant to section 7.0.1 of the *Emergency Management and Civil Protection Act* related to the COVID-19 Pandemic and has been extended pursuant to section 7.0.7 of the *Emergency Management and Civil Protection Act* due to the health risks to Ontario residents arising from COVID-19;

**AND WHEREAS** the Province of Ontario has enacted O. Reg. 263/20 (STAGE 2 CLOSURES) under Subsection 7.0.2 (4) of the *Emergency Management and Civil Protection Act* to permit certain businesses to reopen for attendance by members of the public subject to conditions, including the advice, recommendations and instructions of public health officials;

**AND WHEREAS** Novel Coronavirus is present within the city of Hamilton, and it causes the disease COVID-19 that is readily communicable from person to person and carries a risk of serious complications such as pneumonia or respiratory failure, and may result in death;

**AND WHEREAS** physical distancing is difficult to maintain in enclosed public spaces and there exists a pressing need for establishments to implement appropriate measures and regulations to better prevent the spread of COVID-19 and protect the health, safety and well-being of the residents of the city of Hamilton within enclosed public spaces;

**AND WHEREAS** it is believed that the existence of an enforceable by-law requirement will help to educate the public on the importance of a properly worn Face Covering and encourage voluntary compliance;

**AND WHEREAS** the City considers it desirable to enact a by-law to impose the following regulations requiring businesses and organizations that have enclosed spaces open to the public to ensure that persons wear a Face Covering as it is a necessary, recognized, practicable, and effective method to limit the spread of COVID-19 and thereby help protect the health, safety and well-being of the residents of the city of Hamilton;

**NOW THEREFORE** the Council of the City enacts as follows:

## PART 1- DEFINITIONS

1.1 For the purposes of this by-law,

"**APS By-law**" shall mean the City's Administrative Penalties By-law No. 17-225;

"**Authorized Staff**" means a Municipal Law Enforcement Officer or any employee of the City whose duties include those provided for or assigned under this by-law, and shall include without limitation the Director, the Medical Officer of Health, any public health inspector, and any Police Officer;

**"City"** means the City of Hamilton;

**"Director"** means the Director of Licensing and By-law Services, or their designate(s), for the City;

**"Enclosed"** means any enclosed space, whether or not doors, windows, or other parts of the enclosed have been opened;

"***Emergency Management and Civil Protection Act***" means the *Emergency Management and Civil Protection Act*, R.S.O. 1990, c. E. 9 and any regulations or Orders thereunder;

**"Establishment"** means any municipal bus or transit shelter and any enclosed space where members of the public are ordinarily invited or permitted access, either expressly or by implication, and whether or not a fee is charged for entry and shall include without limitation enclosed:

(a) premises or any portion thereof which are used as a place of business for the sale or offering for sale of goods or services and includes a mall or similar structure which contains multiple places of business;

(b) churches, mosques, synagogues, temples, or other places of worship;

(c) community centres including indoor recreational facilities;

(d) libraries, art galleries, museums, aquariums, zoos, and other similar facilities;

(e) facilities operated by community service agencies which are attended by members of the public;

(f) banquet halls, convention centres, arenas, stadiums, and other indoor event spaces;

(g) premises utilized as an open house, presentation centre, or other facility for real estate purposes;

(h) common areas of hotels, motels, and other multi-unit short term rentals, such as lobbies, elevators, meeting rooms, or other common use facilities;

(i) concert venues, theatres, cinemas, casinos, and other entertainment facilities;

(j) homeless shelters; and

(k) municipal public transportation facilities including, for clarity, all vehicles owned or operated by Hamilton Street Railway and DARTS Transit;

For clarity "**Establishment**" shall not include:

(a) airports or other facilities under the jurisdiction of the federal government;

(b) provincial public transportation facilities;

(c) schools or post-secondary institutions;

(d) child care facilities;

(e) portions of an Establishment that are not open to members of the public;

(f) hospitals, independent health facilities, or offices of regulated health professionals; and

(g) any portion of a property used primarily as a private dwelling;

"**Face Covering**" means a medical or non-medical mask or other face covering such as a balaclava, bandana, scarf, cloth, or other similar item that covers the nose, mouth, and chin without gapping;

**"Medical Officer of Health"** means the City's Medical Officer of Health or their designate(s);

"***Human Rights Code***" means the *Human Rights Code*, R.S.O. 1990, c. H. 19.

**"*Municipal Act, 2001*"** means the *Municipal Act, 2001*, S.O. 2001, c. 25;

"**Operator**" means a person or organization which is responsible for or otherwise has custody, or control over the operation, of an Establishment and shall include without limitation a supervisor, manager, or owner of an Establishment;

**"Personal Health Information"** shall mean personal health information as defined by the *Personal Health Information Protection Act, 2004*, S.O. 2003, c. 3, Sched. A;

"**Police Officer**" includes an officer of the Hamilton Police Service; and

"***Provincial Offences Act***" means the *Provincial Offences Act*, R.S.O. 1990, c. P33.

## PART 2 – OPERATOR REQUIREMENTS

2.1 Every Operator shall ensure that a clearly visible sign is posted at all entrances to their Establishment that contains the following wording:

**All persons entering or remaining in these premises shall wear a face covering which covers the nose, mouth, and chin as required under City of Hamilton By-law _____-2020 (unless exempt).**

2.2 To assist with visual recognition, the wording in the signage referred to in section 2.1 shall be in a colour that contrasts with the sign's background such as black text on white background, shall be in a sans serif font such as Arial or Verdana, and shall have a font size of at least 24 points.

2.3 Every Operator shall take reasonable steps to ensure that no member of the public is permitted entry to, or otherwise remains within, the Establishment unless the member of the public is wearing a Face Covering in a manner which covers their mouth, nose, and chin. This requirement shall not apply to members of the public that state that they fall within an exemption of this by-law or appear to fall within one of the exemptions.

2.4 Every Operator shall ensure that any person who refuses to comply with the requirements of this by-law is promptly asked to leave their Establishment and is reported to Authorized Staff upon failure to comply with this direction.

2.5 Every Operator shall ensure that a person responsible for ensuring compliance with this by-law is present at the Establishment at all times when it is open to the public.

2.6 Every Operator shall ensure that all persons working at the Establishment are aware of the requirements of this by-law.

2.7 Every Operator shall ensure that its employees and every person working within the Establishment wears a Face Covering while working in any part of the Establishment that is open to members of the public.

2.8 For the purposes of this by-law, no Operator shall require any employee or member of the public to provide proof that any exemption set out in section 4.1 applies to that

employee or member of the public or request any Personal Health Information from any individual.

## PART 3 – CUSTOMER REQUIREMENTS

3.1 Every person shall comply with signage posted that requires them to wear a Face Covering while in the Establishment.

3.2 Every parent, guardian, or person accompanying a child of at least two years of age to an Establishment shall ensure that the child complies with signage posted that requires the wearing of a Face Covering in the Establishment.

## PART 4 - EXEMPTIONS

4.1 The requirements of sections 3.1 and 3.2 shall not apply to a person who:

(a) is a child under the age of two;

(b) is a child at least two years in age but under the age of 5 years who refuses to wear a Face Covering and cannot be persuaded to do so by their caregiver;

(c) has an underlying medical condition which inhibits their ability to wear a Face Covering;

(d) is unable to place or remove a Face Covering without assistance;

(e) is an employee or agent of the Operator and is within an area designated for them and not for public access, or is within or behind a physical barrier;

(f) is reasonably accommodated by not wearing a Face Covering in accordance with the *Human Rights Code* including a person with a disability that makes it difficult to wear or communicate while wearing a Face Covering;

(g) is in a swimming pool;

(h) is actively engaged in an athletic or fitness activity;

(i) who removes the mask for the period necessary to receive services or treatment;

(j) who is sleeping or in bed at a homeless shelter; or

(k) states that one of the exemptions of this by-law applies to them.

4.2 The requirements of sections 2.3 and 2.4 shall not apply to an Operator with respect to a person who is exempt from wearing a Face Covering in accordance with this by-law.

## PART 5 - ADMINISTRATION AND ENFORCEMENT

5.1 The Director is responsible for the administration and enforcement of this by-law and may appoint delegates or assign duties to City staff under this by-law.

5.2 City staff who carry out any action under this by-law are deemed to be Authorized Staff for the purposes of this by-law, in the absence of evidence to the contrary.

5.3 Authorized Staff may, at any reasonable time, enter and inspect all lands, buildings, structures or parts thereof that are subject to this by-law for the purposes of determining compliance with this by-law. Inspection of any dwelling unit shall be in accordance with the requirements of the *Municipal Act, 2001*.

5.4 For the purposes of this by-law, Authorized Staff may:

a) require the production for inspection of documents or things relevant to the inspection;

b) inspect and remove documents or things relevant to an inspection for the purposes of making copies or extracts;

c) require information from any person concerning a matter related to an inspection; and

d) alone or in conjunction with a person possessing special or expert knowledge, make examinations or take tests, samples or photographs necessary for the purposes of an inspection.

5.5 Despite section 5.4, no Authorized Staff shall request or require any Personal Health Information from any individual.

5.6 Where any person contravenes any provision of this by-law, Authorized Staff may direct such person, verbally or in writing, to comply with this by-law. Every person so directed shall comply with such direction without delay.

5.7 No person shall prevent, hinder or obstruct, or attempt to hinder or obstruct any Authorized Staff in the exercise of any power or the performance of any activity or duty under this by-law.

## PART 6 – OFFENCES AND PENALTIES

6.1 Every person who contravenes any provision of this by-law is guilty of an offence and is liable to pay a fine, and such other penalties, as provided for in the *Provincial Offences Act* and the *Municipal Act, 2001*.

6.2 Every person, other than a corporation, who contravenes any provision of this by-law, is guilty of an offence and on conviction is liable, for every day or part thereof upon which such offence occurs or continues, to a fine of not more than $10,000 for a first conviction; and not more than $25,000 for any subsequent conviction.

6.3 Every corporation which contravenes any provision of this by-law, is guilty of an offence and on conviction is liable, for every day or part thereof upon which such offence occurs or continues, to a fine of not more than $25,000 for a first conviction and not more than $50,000 for any subsequent conviction.

6.4 If an offence under the by-law is continued on more than one day, the person who committed it is liable to be convicted for a separate offence for each day on which it is continued.

6.5 Without limiting the above, every person who contravenes this by-law may also be liable, upon issuance of a penalty notice, to pay an administrative penalty in an amount specified in the APS By-law.

6.6 An administrative penalty imposed by the City on a person under section 434.1 of the *Municipal Act, 2001*, constitutes a debt of the person to the municipality. If an administrative penalty is not paid within 15 days after the day that it becomes due and payable, the City may add the administrative penalty to the tax roll for any property in the city of Hamilton for which all of the owners are responsible for paying the administrative penalty and collect it in the same manner as municipal taxes.

## PART 7 – AMENDMENTS TO THE APS BY-LAW

7.1 Schedule A of By-law No. 17-225 is amended by adding the following table:

| **TABLE 25: BY-LAW NO. XX- XXX to Require the Wearing of Face Coverings Within Enclosed Public Spaces** | | | | |
|---|---|---|---|---|
| **ITEM** | **COLUMN 1 DESIGNATED BY-LAW & SECTION** | | **COLUMN 2 SHORT FORM WORDING** | **COLUMN 3 SET PENALTY** |
| 1 | xx-xxx | 2.1 | As Operator failed to post mandatory Face Covering Sign at entrance of Establishment | $500.00 |
| 2 | xx-xxx | 2.3 | As Operator failed to prohibit entry to Establishment to person not wearing a Face Covering | $500.00 |
| 3 | xx-xxx | 2.4 | As Operator, failed to ask person not wearing a Face Covering to leave Establishment | $500.00 |

| **TABLE 25: BY-LAW NO. XX- XXX to Require the Wearing of Face Coverings Within Enclosed Public Spaces** | | | | |
|---|---|---|---|---|
| **ITEM** | **COLUMN 1 DESIGNATED BY-LAW & SECTION** | | **COLUMN 2 SHORT FORM WORDING** | **COLUMN 3 SET PENALTY** |
| 4 | xx-xxx | 2.7 | As Operator failed to ensure person working in Establishment wears Face Covering | $500.00 |
| 5 | xx-xxx | 5.7 | Obstructing an Officer or Authorized Staff | $500.00 |
| 6 | xx-xxx | 3.1 | Fail to wear a required Face Covering in an Establishment | $200.00 |
| 7 | xx-xxx | 3.2 | Fail to ensure child under your care wears a required Face Covering in an Establishment | $200.00 |

7.2 In all other respects the APS By-law is confirmed.

## PART 8 – MISCELLANEOUS

**8.1 Conflict:** In the event a discrepancy between this by-law and any statute, regulation, rule, by-law, order or instrument of the Province of Ontario or the Government of Canada, the provision that is the most restrictive prevails. This by-law shall not be interpreted so as to conflict with a provincial or federal statute, regulation, or instrument of a legislative nature, including an order made under the *Emergency Management and Civil Protection Act*.

**8.2 Severability:** Should any section of this by-law be declared by a court of competent jurisdiction to be ultra vires or illegal for any reason, the remaining parts shall nevertheless remain valid and binding, and shall be read as if the offending section or part had been struck out.

**8.3 Short Title:** This by-law may be referred to as the Hamilton Face Covering By-law.

**8.4 Effective Date:** This by-law shall become effective at 12:01 a.m. on July 20, 2020.

**PASSED** this _____ ____ , _____

F. Eisenberger
Mayor

A. Holland
City Clerk