THE REGIONAL MUNICIPALITY OF NIAGARA
SPECIAL COUNCIL ORDER OF BUSINESS

CL 10-2020

Wednesday, July 8, 2020

4:30 p.m.

Meeting will be held by electronic participation only

All electronic meetings can be viewed on Niagara Region's website at:

https://www.niagararegion.ca/government/council/

Due to the efforts to contain the spread of COVID-19 the Council Chamber will not be open to the public to attend Council meetings until further notice. To view live stream meeting proceedings, please visit: niagararegion.ca/government/council

---

Pages

1. CALL TO ORDER

2. ADOPTION OF AGENDA

   2.1 Changes in Order of Items

3. DISCLOSURES OF PECUNIARY INTEREST

4. DELEGATIONS

   4.1 Options to Consider for Mandating Face Coverings (Agenda Item 6.1)

   4.1.1 C. Rowe, Resident, City of Welland — 4 - 5
   The delegation submission is attached to this agenda item as CL-C 38-2020.

   4.1.2 G. Aldridge, Resident, Town of Fort Erie — *6 - 8*
   The delegation submission is attached to this agenda item as CL-C 44-2020.

   This delegation request was received after the deadline. The request must be considered by Council.

5. CORRESPONDENCE

5.1 Receive and/or Refer

5.1.1 CL-C 39-2020 — 9 - 10
An email from C. Conte, resident, City of Niagara Falls, dated July 6, 2020, respecting face coverings.

5.1.2 CL-C 40-2020 — 11 - 12
An email from B. Dandy, resident, City of Niagara Falls, dated July 6, 2020, respecting face coverings.

5.1.3 CL-C 41-2020 — 13 - 44
A letter from P. Hallet, resident, City of St. Catharines, dated July 6, 2020, respecting face coverings.

5.1.4 CL-C 43-2020 — *45 - 46*
An email from C. Gojmerac, resident City of Welland, dated July 8, 2020, respecting face coverings.

5.1.5 CL-C 45-2020 — *47*
A Letter from D. Herrington, Consultant, Joint Accessibility Advisory Committee, dated July 8, 2020, respecting Mandatory Masks and Impact on People with Disabilities.

5.1.6 CL-C 46-2020 — *48 - 49*
An email from J.P. Marr, resident, City of St. Catharines, dated July 8, 2020, respecting face coverings.

5.2 For Consideration

5.2.1 CL-C 42-2020 — 50 - 53
A memorandum from D. Barnhart, Executive Officer to the Regional Chair, dated July 8, 2020, respecting Joint Statement from Ontario Municipalities.

6. CHIEF ADMINISTRATIVE OFFICER'S REPORT(S)

6.1 CAO 15-2020 — 54 - 87
Options to Consider for Mandating Face Coverings

7. BY-LAWS

7.1 Bill 2020-37 — 88 - 93

A by-law to require the wearing of face coverings in enclosed public places during the COVID-19 pandemic.

Note: The preparation and consideration of this proposed by-law is dependent on Council's consideration of Report CAO 15-2020.

7.2 Bill 2020-38 — 94

A by-law to adopt, ratify and confirm the actions of Regional Council at its special meeting held on July 8, 2020.

8. ADJOURNMENT

If you require any accommodations for a disability in order to attend or participate in meetings or events, please contact the Accessibility Advisor at 905-980-6000 ext. 3252 (office), 289-929-8376 (cellphone) or accessibility@niagararegion.ca (email).

From: PF-Mailbox-01
To: Norio, Ann-Marie; Trennum, Matthew
Subject: FW: Online Form - Request to Speak at a Standing Committee
Date: Monday, July 06, 2020 3:18:19 PM

From: Niagara Region Website
Sent: Monday, 06 July 2020 15:17:54 (UTC-05:00) Eastern Time (US & Canada)
To: Clerks
Subject: Online Form - Request to Speak at a Standing Committee

Request to Speak at a Standing Committee

To reply, copy the email address from below and put into 'To'. (if resident entered their email address)

Name
Cheryl Rowe

Address
[redacted]

City
Welland

Postal
[redacted]

Phone
[redacted]

Email
[redacted]

Organization

standing committee
Regional Council

Presentation Topic
Mandatory Masks Wearing

Presentation includes slides
No

Previously presented topic
No

Presentation Details
I am speaking against mandatory mask wearing based on 1. Models, and numbers 2. Decontamination vs mask wearing 3. Re Military decontamination process and N95 masks vs medical masks and risks due to re inhaling CO2 that has been exhausted.

Video Consent
Yes

July 8, 2020

Niagara Regional Council
Special Meeting

Subject: Support for a Motion To Make The Wearing of Masks Mandatory (in inside spaces)

By now, most or all of you will be familiar with me from the various e-mails I have sent to you.

I apologize for this late submission but I only just learned that I am able to do this.

I have had several responses from members of council regarding this motion both supporting this motion and expressing reservations about it. I thank those members for replying to me.

I understand that at one level this is not simple and there are various concerns that have to be considered. To develop a solution to combat this pandemic is a huge task and to get 100% certainty will take more time than this virus is giving us. The longer we wait to take positive action the more people will get sick, need intensive care and die.

I have been following recommendations from all levels of government to wear a mask when I go out to places like the supermarket. I know when I do this the mask is not protecting me but I am offering some protection to others in the event that I (unknowingly) have the virus and will not spread it as far. Dr. Hirji congratulated me for setting an example. However, the majority of people in supermarkets (and other stores) are not wearing masks or obeying the 6' rule as they reach over me to get a product. It is of no comfort to me to be protecting others and they aren't protecting me. When my wife went to the supermarket today she noticed even fewer masks and less control of how many people are being allowed into the stores. I suspect that our vigilance is declining the longer this lasts.

I am extremely disappointed in the federal and provincial governments that recommend the wearing of masks but not only don't mandate it but have sloughed it off the local governments. We are seeing a complete hodge podge of city and regional governments trying to solve the same problem. Regardless of their inaction you now have the opportunity and responsibility to take action.

It is my belief that the wearing of (non-medical) masks to reduce the spread of the virus is an all or nothing situation. In a supermarket when only 20% wear masks that is pointless. It is only when everyone is wearing a mask that everyone has increased protection. People are not following the recommendations. (Note: I acknowledge there are people who can't wear masks and the number will be somewhat less than 100%).

It is unfortunate that the scientific community has not yet delivered to us studies and statistics that make this decision trivial. What we do see are a variety of different reports with varying degrees of evidence and sometimes even conflicting evidence.

The Virus is not going to wait for these studies. Just look what is happening in the southern US right now.

Despite the lack of consistent information I believe that there are some facts that you can use to support a mask decision:

1) The virus absolutely travels from person to person via the air
2) When we breathe, speak or cough we exhale the virus.
3) We are told that a separation of 6' helps to minimize our exposure to virus in the air
4) When we speak or cough, the virus cloud goes beyond 6'
5) Masks will reduce how far that virus cloud spreads. The latest simulation studies I have seen show that a cloth mask will reduce that distance to about 6".

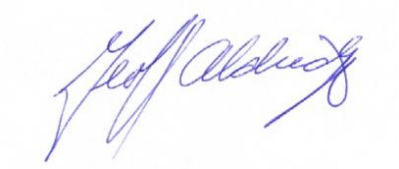
So now I want you to imagine that you are in a supermarket. The person ahead of you is not wearing a mask. Even if they are just breathing they are putting a cloud of droplets into the air for about 6'. If neither of you are moving then that may be safe and you will not be exposed to any virus that they breathed out. The problem is that we don't just stand in supermarkets. We walk, so within about 1 second of the person in front of you breathing or coughing you are walking into their cloud, potentially full of CV19.

However, if that person was wearing a mask that cloud could shrink from 6' to 6" and with the mask filtering out some of the virus you would have much less chance of walking into a virus laden cloud.

On a bit of a final note, I continue to see CV19 being referred to in the same context as catching the flu. This is nothing like the flu unless of course you want to compare it to the Spanish flu that killed 50 million people. We don't have any vaccinations for it and probably won't see them readily available for maybe 2 years. The medical world is now realizing that this is not just a respiratory disease, it is a disease that is attacking the circulatory system and organs. Some survivors of the virus are living with various amounts of organ damage.

You have the chance today to pass this motion and help protect me and my family, yourselves and your families and everyone else in the region.

Thank you



Geoffrey Aldridge

[redacted], Crystal Beach

From: PF-Mailbox-01
To: Norio, Ann-Marie; Trennum, Matthew
Subject: FW: Online Form - Enquiry from Region website
Date: Monday, July 6, 2020 1:11:18 PM

From: Niagara Region Website
Sent: Monday, 06 July 2020 13:10:30 (UTC-05:00) Eastern Time (US & Canada)
To: Clerks
Cc: webincoming
Subject: Online Form - Enquiry from Region website

Enquiry from Region website

To reply, copy the email address from below and put into 'To'. (if resident entered their email address)

name
Charlene Conte

phone
[redacted]

email
[redacted]

address

municipality
Niagara Falls

other mun

subject
Regional Council/Clerk

comments
I wish to put my support behind passing the regulation requiring masks to be worn in indoor public spaces. I see complacency and lack of regard for the welfare of others in the public just as more evidence shows the virus to be spread through the air. Many government regulations ensure the safety of

the public and this issue is no different. A simple remedy to limit spread is the wearing of masks. Please vote to make this mandatory. Thank you.

reply
yes

Page Referrer
https://www.niagararegion.ca/government/council/profiles/default.aspx

From: PF-Mailbox-01
To: Norio, Ann-Marie; Trennum, Matthew
Subject: FW: Online Form - Enquiry from Region website
Date: Monday, July 6, 2020 8:06:19 PM

From: Niagara Region Website
Sent: Monday, 06 July 2020 20:05:19 (UTC-05:00) Eastern Time (US & Canada)
To: Clerks
Cc: webincoming
Subject: Online Form - Enquiry from Region website

Enquiry from Region website

To reply, copy the email address from below and put into 'To'. (if resident entered their email address)

name
Bert Dandy

phone
[redacted]

email
[redacted]

municipality
Niagara Falls

other mun

subject
Special Council

comments
I just found out that the Region will consider mandatory masks on Wednesday. I sent a letter to Niagara Falls Council re this topic for its next meeting. I would appreciate it if my message, which follows, could be distributed to the Chair and Members for their consideration. I just read the item in the Review about a motion to make wearing of masks mandatory in Niagara Falls. I wish council to know that I hope you turn down this idea. I actually am one of those people at heightened risk from COVID-19. I am 76

years old and suffer from 2 pre-existing medical conditions. Kidney failure kept me on trice-weekly dialysis sessions next door to City Hall for over a year and I recovered as well from a heart attack some years ago. As a result, I have a compromised immune system. I have purchased several masks and try to wear them whenever I encounter other people or enter a store or business. Doing so, however, often causes me difficulties after about 5 minutes trying to breath comfortably through the mask. After walking through 2 aisles in No Frills, I feel that I have been walking for a half-hour. I realize that the advocates of mandatory masks add that exemptions would be made for those who have medical reasons affecting the wearing of masks. Great, but as usual, the devil lurks in the details. Would I need a Doctor's note or prescription? Would I have to obtain some certificate from Niagara Health? In either scenario, I would be placing additional demand on health care providers and would still face derision or contempt by some members of the public when unmasked. Maybe a tattoo on my forehead stating 'Mask Exempt' would solve things. Or maybe just leave it as is – recommended, encouraged, suggested, etc. I will still wear my mask when able. Please don't legislate, just educate on this matter. Thank you for considering my opinion. Bert Dandy Niagara Falls [redacted]

reply
yes

Page Referrer
https://www.niagararegion.ca/government/council/calendar/default.aspx

[redacted]

St. Catharines, ON
July 6, 2020

Regional Chairman
and Councillors,
Niagara Region

Dear Ms. Bradley & Regional Councillors:

I am enclosing some literature on the effectiveness of masks which I hope you will consider at Wednesday's meeting.

Dr. Mustafa Hiji has said that there is no strong experimental science on the effectiveness of masks in public & there remains legitimate scientific & medical debate. (The Standard, June 25). Dr. Jenny Harries, England's Deputy Chief Medical Officer, has cautioned wearing a face mask is not a good idea for the public" as the virus can get trapped in the material and cause infection when the wearer breathes in." The University of New South Wales reported in Science Daily: "The widespread use of cloth masks by health-care workers may actually put them at risk of respiratory illness and viral infection and their global use should be discouraged. The penetration of cloth masks by particles was almost 97% compared to medical masks with 44%." (The Standard, June 4).

.../

Dr. Hinji pointed out recently that masking had no effect on an outbreak at a nail salon in Kingston where everyone was wearing masks.

Researchers have found that prolonged mask-wearing can cause headaches, increased airway resistance, carbon dioxide accumulation & low oxygen levels. This last effect can weaken the immune system, promote cancer growth, invasion & spread, heart attacks, strokes & sometimes brain damage. (See "Blaylock" enc.)

A danger is that the public use these masks inappropriately. I encountered a mask-wearing friend at the grocery store. She was constantly pulling it down & up while speaking. Another woman commented that she was forced to wear a mask at work & she spent more time lifting it up to breathe than working sometimes. This causes microbes to spread.

The public has been warned not to wear masks in the blistering heat & I have observed the opposite. Medical peple say that once masks are warm & moist they are ineffective, not to mention ...

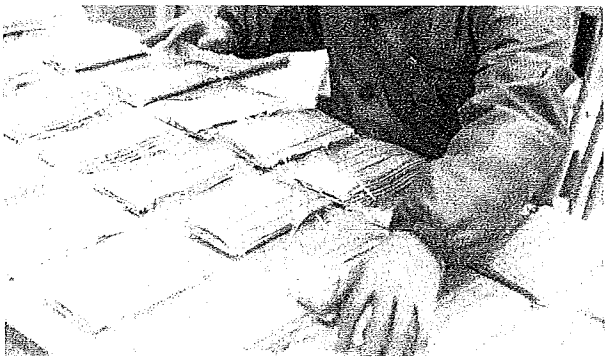
creating a favourable climate for growth of bacteria, etc. Also the public are told to wear a mask only when physical distancing is impossible. Yet I see people with prolonged mask-use alone, out in the open air or driving a car. These illogical actions are unhealthy & panic-driven by hearing statements from health-care professionals saying the virus is "swirling around us."

A proposed reason for masks is alleged contagion of asymptomatic carriers. A published clinical case study of 455 contacts exposed to an asymptomatic Covid-19 virus carrier showed that none had contracted the virus. The conclusion was that infectivity of some asymptomatic carriers might be weak. (See "Respiratory Medicine").

Thank you for considering my valid concerns truly for the health of the community & the economy.

Sincerely,
Patricia Hallett (Encls.)

Mask Facts



This was a very scientifically informative article, curated by Marilyn M. Singleton, M.D., J.D., published by the American Association of Physicians and Surgeons, on June 1, 2020. Only the conclusion is offered here but the whole article is well-worth reading. [Emphasis in the original.]

Conclusions from Organizations

The World Health Organization (WHO): apps.who.int/iris/bitstream/handle/10665/331693/WHO-2019-nCov-IPC_Masks-2020.3-eng.pdf?sequence=1&isAllowed=y

"Advice to decision makers on the use of masks for healthy people in community settings

As described above, the wide use of masks by healthy people in the community setting is not supported by current evidence and carries uncertainties and critical risks."

"**Medical masks should be reserved for health care workers.** The use of medical masks in the community may create a false sense of security, with neglect of other essential measures, such as hand hygiene practices and physical distancing, and may lead to touching the face under the masks and under the eyes, result in unnecessary costs, and take masks away from those in health care who need them most, especially when masks are in short supply."

"Masks are effective only when used in combination with frequent hand-cleaning with alcohol-based hand rub or soap and water."

WHO acknowledges that most people do not use masks properly.

Dr. Nancy Messonnier, director of the Center for the National Center for Immunization and Respiratory Diseases: www.cdc.gov/media/releases/2020/t0131-2019-novel-coronavirus.html

"We don't routinely recommend the use of face masks by the public to prevent respiratory illness," said on January 31. "And we certainly are not recommending that at this time for this new virus."

The Centers for Disease Control and Prevention
(CDC): www.cdc.gov/flu/professionals/infectioncontrol/maskguidance.htm

In March 5, 2019 regarding the flu: "Masks are not usually recommended in non-healthcare settings; however, this guidance provides other strategies for limiting the spread of influenza viruses in the community:

cover their nose and mouth when coughing or sneezing,

use tissues to contain respiratory secretions and, after use, to dispose of them in the nearest waste receptacle, and

perform hand hygiene (e.g., handwashing with non-antimicrobial soap and water, and alcohol-based hand rub if soap and water are not available) after having contact with respiratory secretions and contaminated objects/materials.

From the New England Journal of Medicine: www.nejm.org/doi/full/10.1056/NEJMp2006372

"We know that wearing a mask outside health care facilities offers little, if any, protection from infection. Public health authorities define a significant exposure to Covid-19 as face-to-face contact within 6 feet with a patient with symptomatic Covid-19 that is sustained for at least a few minutes (and some say more than 10 minutes or even 30 minutes). The chance of catching Covid-19 from a passing interaction in a public space is therefore minimal. In many cases, the desire for widespread masking is a reflexive reaction to anxiety over the pandemic."

Final Thoughts

Surgical masks – loose fitting. They are designed to protect the patient from the doctors' respiratory droplets. The wearer is not protected from others airborne particles

People do not wear masks properly. Most people have the mask under the nose. The wearer does not have glasses on and the eyes are a portal of entry.

The designer masks and scarves offer minimal protection – they give a false sense of security to both the wearer and those around the wearer.
**Not to mention they add a perverse lightheartedness to the situation.

If you are walking alone, no mask – avoid folks – that is common sense.

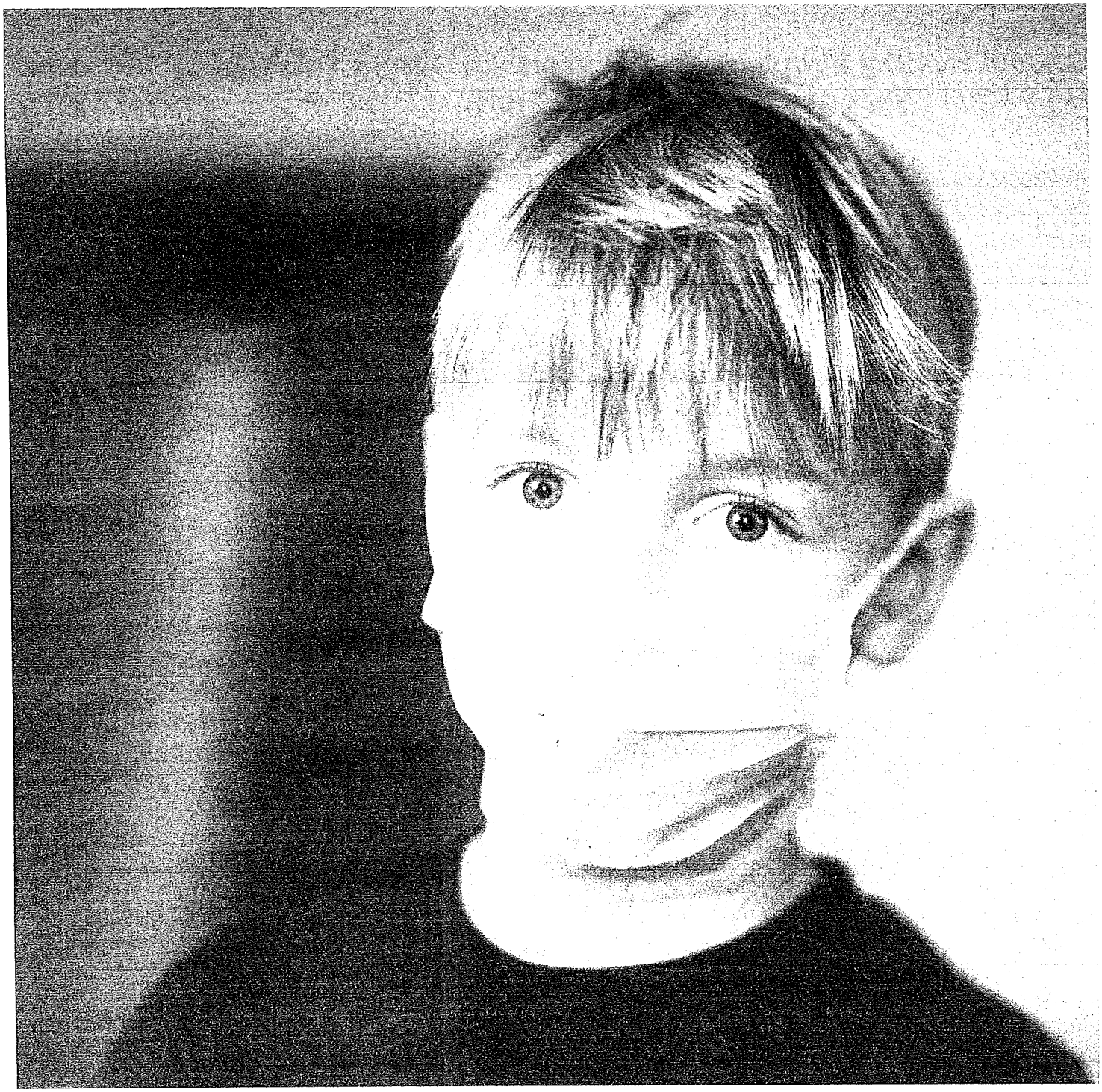
Remember – children under 2 should not wear masks – accidental suffocation and difficulty breathing in some

If wearing a mask makes people go out and get Vitamin D – go for it. In the 1918 flu pandemic people who went outside did better. Early reports are showing people with COVID-19 with low Vitamin D do worse than those with normal levels. Perhaps that is why shut-ins do so
poorly. www.medrxiv.org/content/10.1101/2020.04.08.20058578v4

If you are sick, stay home!

Additional Resource: *Healthy People Wearing Masks, Should They or Shouldn't They?* This ER nurse with over two decades of experience took a deep dive into the science to find out: jennifermargulis.net/healthy-people-wearing-masks-during-covid19/

Healthy People Wearing Masks, Should They or Shouldn't They?



Healthy people wearing masks. These days you see them everywhere. But according to Patricia Neuenschwander, M.S.N., R.N., C.P.N.P.-P.C., an emergency room nurse with over two decades of experience, the science doesn't support healthy people wearing masks. When Neuenschwander found out that her grandchild's Montessori preschool was going to require even

toddlers to wear masks, she did a deep dive into the research to better educate herself and her grandchild's school about mask-wearing.

The following is a version of the letter Patricia Neuenschwander sent to the preschooladministrators.

Should Healthy People Be Wearing Masks During This COVID-19 Crisis? By Patricia Neuenschwander, M.S.N., R.N., C.P.N.P.-P.C.

In the process of making decisions one must evaluate the options, including the risks and benefits of the recommendation. While there is considerable debate about this subject, because of the current coronavirus situation, healthy people are being told by government officials to wear masks. To evaluate this recommendation, we have to ask some commonsense questions:

- What are the risks of serious complications or death from COVID-19?
- What are the benefits—using science and data—of healthy people wearing masks to prevent spreading a virus?
- What are the risks to healthy people wearing masks?

Risk of death from coronavirus

Looking at risk of death from this novel coronavirus, we need to look at real numbers. The models and predictions have not been shown to be accurate. The population in the United States is approximately 326,700,000. As of May 9, 76,934 have been reported to die from COVID, as a complication of it, or with it. Using the real numbers of people potentially at risk (as we all are) and the number of these deaths, it works out to be 0.00023 or 0.023% of the population. That is essentially a 0% death rate in the general population.

It looks like the death rate from this is higher because not everybody has been exposed, so the death rate is higher in those known to be exposed. The problem is we don't know how many have been exposed. Without an accurate denominator, we don't really know the risk of dying if you become infected.

However, several studies show most people infected have mild to no symptoms and fully recover. A few recent studies looking at populations with real data of people who were infected, that did not have symptoms or receive treatment, have shown the death rate to be much lower than previously reported.

Because most of the people tested were sick or were at a very high risk of infection based on exposure, we have no idea how many fully recovered. We do know that older adults and people who have severe underlying medical conditions (like heart or

lung disease or diabetes) seem to be at higher risk for developing serious complications from COVID-19 illness.

As none of these risk factors are applicable to healthy children, children with no underlying health issues remain at an extremely low risk of being seriously affected or dying from this infection.

I have no qualms with people at high risk staying home or wearing a mask in public to try to protect themselves from contracting this infection. I do have qualms about healthy people wearing masks, asking them to partake in an intervention that has not shown to benefit anyone (using science and data) and can potentially cause harm.

Does wearing a mask help prevent coronavirus infection?

An important study using science to evaluate cloth mask use to prevent infection was conducted in March 2011. It is a large, prospective, randomized clinical trial; and the first randomized clinical trial ever conducted of cloth masks. The international team of researchers concluded:

> *This study is the first RCT of cloth masks, and the **results caution against the use of cloth masks.** This is an important finding to inform occupational health and safety. Moisture retention, reuse of cloth masks and poor filtration may result in increased risk of infection. Further research is needed to inform the widespread use of cloth masks globally. However, as a precautionary measure, cloth masks should not be recommended for HCWs, particularly in high-risk situations, and guidelines need to be updated."*

This study doesn't provide evidence for effectiveness in high-risk populations; it certainly does not support healthy people wearing cloth masks.

More recently, researchers from University of Illinois at Chicago School of Public Health reviewed the scientific literature. While not an exhaustive review of masks and respirators as source control and personal protection equipment (PPE), this review was made in an effort to locate and review the most relevant studies of laboratory and real-world performance to inform our recommendations. The review, which has 52 citations, concludes:

> ***We do not recommend requiring the general public who do not have symptoms of COVID-19-like illness to routinely wear cloth or surgical masks** because:*

- *There is no scientific evidence they are effective in reducing the risk of SARS-CoV-2 transmission*
- *Their use may result in those wearing the masks to relax other distancing efforts because they have a sense of protection*
- *We need to preserve the supply of surgical masks for at-risk healthcare workers.*

A 2020 study in Seoul, South Korea looked at the effectiveness of surgical and cotton masks in blocking COVID-19 in a controlled comparison of four patients. The COVID-infected patients were put in negative pressure isolated rooms. The scientists compared disposable surgical masks (3 layers) with reusable cotton masks.

Patients were instructed to cough 5 times while wearing no mask, surgical mask, or cotton mask. Interestingly, all swabs from the outer masks—including surgical masks—were positive for COVID-19. Inner masks were also found to be contaminated. **That means the mask did not effectively filter out the COVID virus since it is too small.** The authors assert:

> *Neither surgical nor cotton masks effectively filtered {COVID-19} during coughs by infected patients." Conclusion: "both surgical and cotton masks seem to be ineffective in preventing the dissemination of SARS–CoV-2 from the coughs of patients with COVID-19 to the environment and external mask surface."*

The World Health Organization does not support healthy people wearing masks

The World Health Organization (WHO) has as its mission to direct international health within the United Nations' system and to lead partners in global health responses. So what does the WHO recommend when it comes to healthy people wearing masks? "WHO stands by recommendation to not wear masks if you are not sick or not caring for someone who is sick."

"There is no specific evidence to suggest that the wearing of masks by the mass population has any potential benefit," Dr. Mike Ryan, an epidemiologist who specializes in infectious diseases and public health and who is the executive director of the WHO health emergencies program, said at a media briefing. "In fact, there's some evidence to suggest the opposite in the misuse of wearing a mask properly or fitting it properly" (source).

The CDC's mixed mask messages

According to the CDC, avoiding close contact with sick individuals; frequently washing your hands with soap and water; not touching your eyes, nose, or mouth with unwashed hands are effective prevention tips. The CDC also recommends covering your mouth and nose with a cloth face cover when around others, and practicing good respiratory hygiene (source). But here's the rub. The CDC then goes on to say that the cloth face cover is meant to protect other people in case you are infected but there are no scientific citations to support that wearing a mask is effective at preventing you from spreading the virus to others. As a matter of fact, one of the reasons America's surgeon general, Jerome Adams, M.D., M.P.H., said in an interview in March that masks can be dangerous is because people tend to touch their masks many times per hour and can spread the disease that way. A CNN News story that has since been removed from the internet had a headline that read: "Masks may actually increase your coronavirus risk if worn improperly, surgeon general warns" (click here to read it via the Wayback Machine):

> *You can increase your risk of getting it by wearing a mask if you are not a health care provider," Adams said during an interview on Fox & Friends on Monday morning. "Folks who don't know how to wear them properly tend to touch their faces a lot and actually can increase the spread of coronavirus," Adams said. "We're certainly seeing more spread in communities, but it's important for folks to know that right now their risk as American citizens remains low. There are things people can do to stay safe. There are things they shouldn't be doing and one of the things they shouldn't be doing in the general public is going out and buying masks," he said.*

On a separate page, the CDC discusses masks. They write:

> *CDC recommends wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain (e.g., grocery stores and pharmacies), especially in areas of significant community-based transmission."*

However, there are no scientific citations provided to support this on that page. They go on to say that the recommendation has changed because they have figured out it is transmissible person to person.

These mixed messages are confusing. But what we know for sure is that the CDC knew from February 26 when the first community spread case documented in the U.S. that this virus was transmitted person to person; and not only was there no recommendation to wear a mask then, they strongly opposed the general public wearing masks.

Additionally, The World Health Organization warned of human to human transmission on January 14, 2020:

> *WHO's technical lead for the response noted in a press briefing there may have been limited human-to-human transmission of the coronavirus (in the 41 confirmed cases), mainly through family members, and that there was a risk of a possible wider outbreak. The lead also said that human-to-human transmission would not be surprising given our experience with SARS, MERS and other respiratory pathogens" (source).*

The CDC has known for decades that the influenza virus is transmitted person to person, but we have never been told to wear a mask to stop the spread of that virus. As a matter of fact, the CDC specifically says masks don't work; and they do not recommend wearing a mask, to prevent transmission of the flu!

> *No recommendation can be made at this time for mask use in the community by asymptomatic persons, including those at high risk for complications, to prevent exposure to influenza viruses" (source).*

But wait. On this separate page related to the recommendation to wear a face covering, the CDC does provide seven recent publications to support the use of masks for COVID – https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover.html

Here is a brief summary of each study listed. I recommend you read them in their entirety.

1. Rothe C, Schunk M, Sothmann P, et al. Transmission of 2019-nCoV Infection from an Asymptomatic Contact in Germany. The New England Journal of Medicine. 2020;382(10):970-971.

This study is about transmission from one person exposed to four people- "The fact that asymptomatic persons are potential sources of 2019-nCoV infection may warrant a reassessment of transmission dynamics of the current outbreak." There is nothing in this study about masks related to benefits or risks of wearing one.

2. Zou L, Ruan F, Huang M, et al. SARS-CoV-2 Viral Load in Upper Respiratory Specimens of Infected Patients. The New England Journal of Medicine. 2020;382(12):1177-1179.

This study is about viral load in 17 patients: "We analyzed the viral load in nasal and throat swabs obtained from the 17 symptomatic patients in relation to day of onset of any symptoms". There is nothing in this publication to support or evaluate healthy people wearing masks.

3. Pan X, Chen D, Xia Y, et al. Asymptomatic cases in a family cluster with SARS-CoV-2 infection. The Lancet Infectious Diseases. 2020.

You can kind of tell by the title of this study but their conclusion: "To prevent and control this highly infectious disease as early as possible, people with family members with SARS-CoV-2 infection should be closely monitored and examined to rule out infection, even if they do not have any symptoms. In the case of this family, since the time between presentation and identification of SARS-CoV-2 infection was short, more studies are needed to observe the symptoms and test results of infected individuals in greater detail." Again, there is nothing in the study that supports the use of wearing a mask!

4. Bai Y, Yao L, Wei T, et al. Presumed Asymptomatic Carrier Transmission of COVID-19. JAMA. 2020.

Yet another study that has nothing to do with healthy people wearing masks. "A familial cluster of 5 patients with COVID-19 pneumonia in Anyang, China, had contact before their symptom onset with an asymptomatic family member who had traveled from the epidemic center of Wuhan."

5. Kimball A HK, Arons M, et al. Asymptomatic and Presymptomatic SARS-CoV-2 Infections in Residents of a Long-Term Care Skilled Nursing Facility — King County, Washington, March 2020. MMWR Morbidity and Mortality Weekly Report. 2020; ePub: 27 March 2020.

> *This analysis suggests that symptom screening could initially fail to identify approximately one half of SNF residents with SARS-CoV-2 infection. Unrecognized asymptomatic and presymptomatic infections might contribute to transmission in these settings. During the current COVID-19 pandemic, SNFs and all long-term care facilities should take proactive steps to prevent introduction of SARS-CoV-2, including restricting visitors except in compassionate care situations, restricting nonessential personnel from entering the building, asking staff members to monitor themselves for fever and other symptoms, screening all staff members at the beginning of their shift for fever and other symptoms, and supporting staff member sick leave, including for those with mild symptoms."*

This citation (read it here) again provides no evidence that healthy people wearing masks prevents the spread of infection or that wearing masks is a safe and effective measure.

6. Wei WE LZ, Chiew CJ, Yong SE, Toh MP, Lee VJ. Presymptomatic Transmission of SARS-CoV-2 — Singapore, January 23–March 16, 2020. MMWR Morbidity and Mortality Weekly Report. 2020;ePub: 1 April 2020.

I know you will be shocked to learn that yet again the CDC is citing research that offers no science to support healthy people wearing masks. "Investigation of all 243 cases of COVID-19 reported in Singapore during January 23–March 16 identified seven clusters of cases in which presymptomatic transmission is the most likely explanation for the occurrence of secondary cases."

7. Li R, Pei S, Chen B, et al. Substantial undocumented infection facilitates the rapid dissemination of novel coronavirus (SARS-CoV2). Science (New York, NY). 2020.

> *The transmission rate of undocumented infections per person was 55% the transmission rate of documented infections (95% CI: 46-62%), yet, because of their greater numbers, undocumented infections were the source of 79% of the documented cases. These findings explain the rapid geographic spread of SARS-CoV-2 and indicate that containment of this virus will be particularly challenging."*

Ready for the shocker? You already guessed what it is? Right. Nothing about the safety or effectiveness of wearing a mask in Study #7 either.

So what have we established? That the CDC's change in recommendations about mask wearing is based on nothing more than that the COVID-19 virus is transmissible, something every scientist who studies viruses already knew. I'm sure the CDC realizes that most people won't take the time to actually read the science. But I do.

As you can see, none of these seven studies supports that wearing a mask is effective or safe in preventing transmission. They only support that transmission is person to person and this is the case for numerous viruses.

On March 2, after we had more confirmation that COVID-19 was indeed transmitted person to person, the surgeon general was pleading with the general public not to wear masks. As mentioned above, Dr. Adams said they don't work and they actually can increase your risk. His exact words: "**one of the things they shouldn't be doing, the general public, is going out and buying masks. It actually does not**

help and it has not been proven to be effective at preventing the spread of Corona virus decreasing amongst the general public." Listen to one of his interviews here.

He also took to Twitter to get the point across. On February 29 the Surgeon General tweeted: "Seriously people -STOP BUYING MASKS! They are not effective in preventing the general public from catching the corona virus."

Wearing masks does not stop the spread of influenza viruses

For decades, we have known that masks have not been shown to be effective in preventing influenza transmission. How is it that masks don't work for this virus, but they magically work for the COVID virus? The CDC, as of today, has not changed its advice about influenza.

According to the CDC, "No recommendation can be made at this time for mask use in the community by asymptomatic persons, including those at high risk for complications, to prevent exposure to influenza viruses."

You might want to save that as a PDF, before it gets censored.

Masks make children fearful

I have not been able to locate any published research on the psychological or emotional effects of having healthy children wear masks daily for hours at a time.

I can only make an educated assumption based on over two decades of working as a healthcare professional that forcing children to wear masks will cause fear, anxiety, and negative feedback from caregivers. Mask wearing will affect children differently based on their developmental level. You cannot explain to a two-year-old why they are being forced to cover their nose and mouth.

Covering the mouth and nose for hours is not only uncomfortable for children (and adults), it also limits the airflow and the flow of oxygen coming in. It causes children to breath their own carbon dioxide, which we know is harmful. In addition, it provides a dark, warm, moist environment that potentially increases the risk of infection.

Fear is driving this recommendation for healthy people to wear masks, not science.

As a nurse for over 25 years and holding a Master's Degree in Science, I cannot in good conscience allow my grandchild to be subjected to an intervention that may

cause physical, emotional, and psychological harm without being provided significant evidence that the benefits of such intervention outweigh the risks.

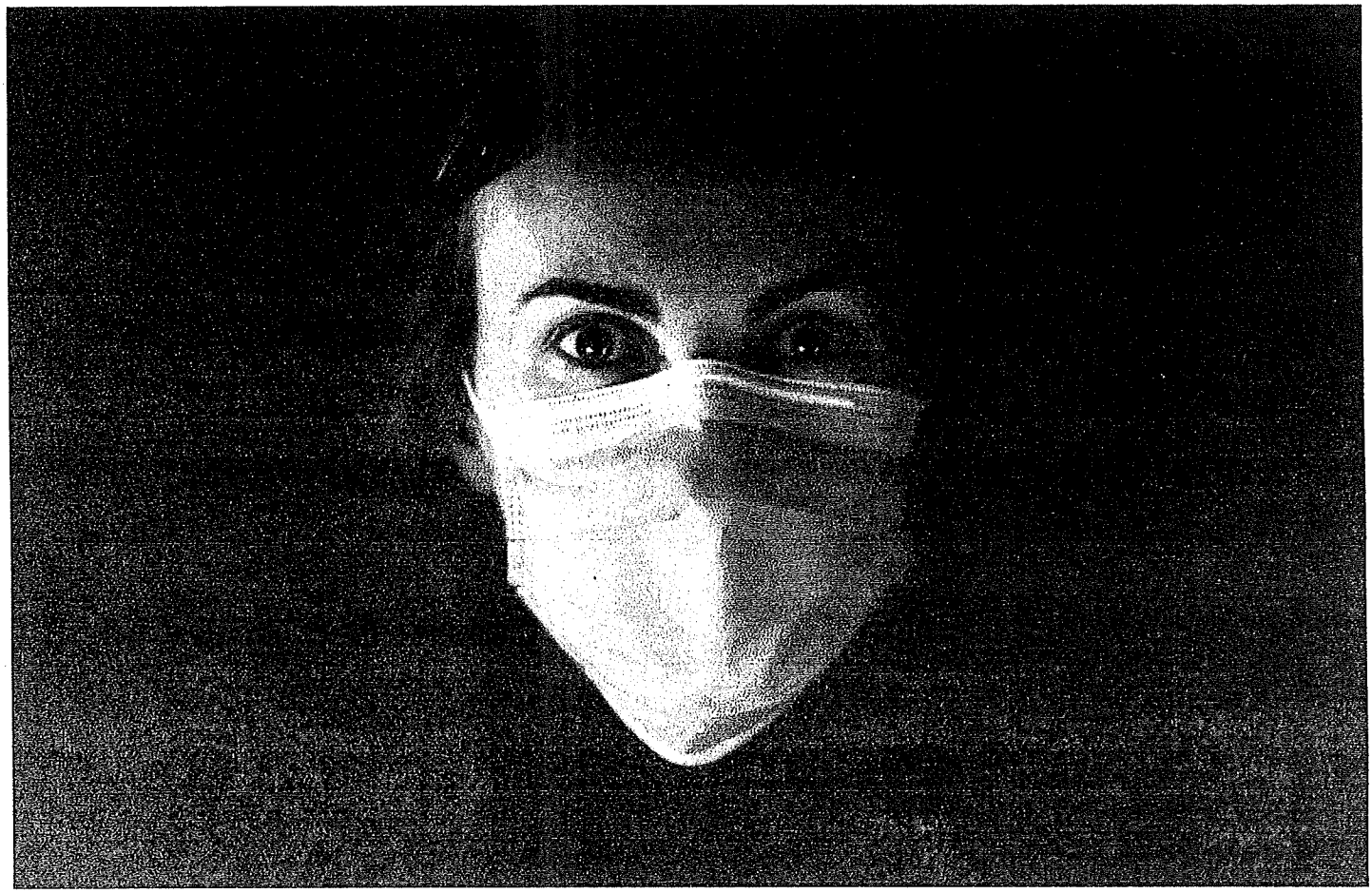
Should we be encouraging healthy people to wear masks? The answer is unequivocally no.

Sincerely,
Patricia Neuenschwander, M.S.N., R.N., C.P.N.P.-P.C.

About Patricia Neuenschwander: Patricia Neuenschwander, MSN, RN, CPNP-PC, is a board-certified pediatric nurse practitioner. A registered nurse for over 25 years, she is the co-founder, co-owner, and CEO of Creating Brighter Futures, an ABA center, located in Ann Arbor, Michigan. She also currently serves as the office manager for Bio Energy Medical Center, a multidisciplinary group medical practice, which she joined in 2007. She worked as an emergency department nurse for over 17 years. She left emergency nursing to return to school to pursue a Master's of Science in Nursing graduating Summa Cum Laude, from Wayne State University in 2014 from the pediatric nurse practitioner program in primary care. Tricia is a member of the State and National Association of Pediatric Nurses Practitioners. She is a member of Michigan For Vaccine Choice and the Children's Health Defense organization. Her passion lies in advocating for and promoting the health of all children. On a personal note, Tricia is married with 3 children and 3 step-children, as well as 4 grandchildren, one dog, and one cat. She enjoys boating, yoga, and researching vaccine safety.

Related articles:
Wearing a Mask Can Harm Your Health
Coronavirus in Sweden: A Doctor Weighs In
Glyphosate and COVID-19

Published: May 13, 2020
Last update: June 17, 2020



Blaylock: Face Masks Pose Serious Risks To The Healthy

Dr. Russell Blaylock warns that not only do face masks fail to protect the healthy from getting sick, but they also create serious health risks to the wearer. The bottom line is that if you are not sick, you should not wear a face mask.

As businesses reopen, many are requiring shoppers and employees to wear a face mask. Costco, for instance, will not allow shoppers into the store without wearing a face mask. Many employers are requiring all employees to wear a face mask while at work. In some jurisdictions, all citizens must wear a face mask if they are outside of their own home. - TN Editor

With the advent of the so-called COVID-19 pandemic, we have seen a number of medical practices that have little or no scientific support as regards reducing the spread of this infection. One of these measures is the wearing of facial masks, either a surgical-type mask, bandana or N95 respirator mask. When this pandemic began and we knew little about the virus itself or its epidemiologic behavior, it was assumed that it would behave, in terms of spread among communities, like other respiratory viruses. Little has presented itself after intense study of this virus and its behavior to change this perception.

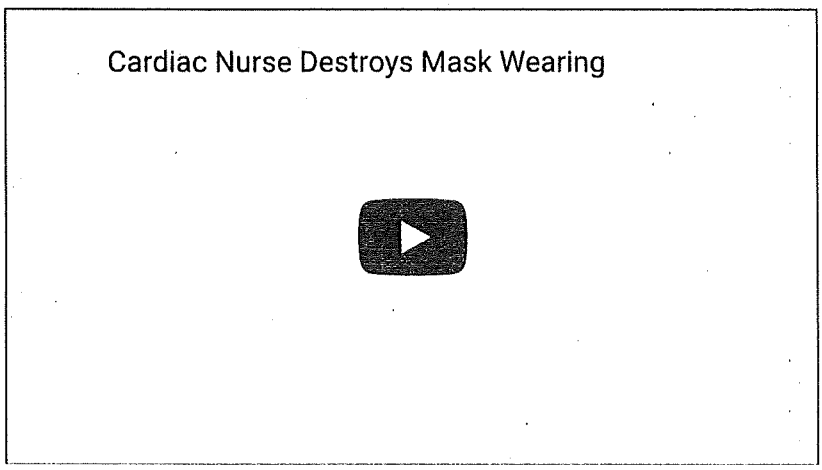
This is somewhat of an unusual virus in that for the vast majority of people infected by the virus, one experiences either no illness (asymptomatic) or very little sickness. Only a very small number of people are at risk of a potentially serious outcome from the infection—mainly those with underlying serious medical conditions in conjunction with advanced age and frailty, those with immune compromising conditions and nursing home patients near the end of their lives. There is growing evidence that the treatment protocol issued to treating doctors by the Center for Disease Control and Prevention (CDC),

mainly intubation and use of a ventilator (respirator), may have contributed significantly to the high death rate in these select individuals.

By wearing a mask, the exhaled viruses will not be able to escape and will concentrate in the nasal passages, enter the olfactory nerves and travel into the brain.

Russell Blaylock, MD

As for the scientific support for the use of face mask, a recent careful examination of the literature, in which 17 of the best studies were analyzed, concluded that, " None of the studies established a conclusive relationship between mask/respirator use and protection against influenza infection."[1] Keep in mind, no studies have been done to demonstrate that either a cloth mask or the N95 mask has any effect on transmission of the COVID-19 virus. Any recommendations, therefore, have to be based on studies of influenza virus transmission. And, as you have seen, there is no conclusive evidence of their efficiency in controlling flu virus transmission.



It is also instructive to know that until recently, the CDC did not recommend wearing a face mask or covering of any kind, unless a person was known to be infected, that is, until recently. Non-infected people need not wear a mask. When a person has TB we have them wear a mask, not the entire community of non-infected. The recommendations by the CDC and the WHO are not based on any studies of this virus and have never been used to contain any other virus pandemic or epidemic in history.

Now that we have established that there is no scientific evidence necessitating the wearing of a face mask for prevention, are there dangers to wearing a face mask, especially for long periods? Several studies have indeed found significant problems with wearing such a mask. This can vary from headaches, to increased airway resistance, carbon dioxide accumulation, to hypoxia, all the way to serious life-threatening complications.

There is a difference between the N95 respirator mask and the surgical mask (cloth or paper mask) in terms of side effects. The N95 mask, which filters out 95% of particles with a median diameter >0.3 μm^2 , because it impairs respiratory exchange (breathing) to a greater degree than a soft mask, and is more often associated with headaches. In one such study, researchers surveyed 212 healthcare workers (47 males and 165 females) asking about presence of headaches with N95 mask use, duration of the headaches, type of headaches and if the person had preexisting headaches.[2]

They found that about a third of the workers developed headaches with use of the mask, most had preexisting headaches that were worsened by the mask wearing, and 60% required pain medications for relief. As to the cause of the headaches, while straps and pressure from the mask could be causative, the bulk of the evidence points toward hypoxia and/or hypercapnia as

the cause. That is, a reduction in blood oxygenation (hypoxia) or an elevation in blood C02 (hypercapnia). It is known that the N95 mask, if worn for hours, can reduce blood oxygenation as much as 20%, which can lead to a loss of consciousness, as happened to the hapless fellow driving around alone in his car wearing an N95 mask, causing him to pass out, and to crash his car and sustain injuries. I am sure that we have several cases of elderly individuals or any person with poor lung function passing out, hitting their head. This, of course, can lead to death.

A more recent study involving 159 healthcare workers aged 21 to 35 years of age found that 81% developed headaches from wearing a face mask.[3] Some had pre-existing headaches that were precipitated by the masks. All felt like the headaches affected their work performance.

Unfortunately, no one is telling the frail elderly and those with lung diseases, such as COPD, emphysema or pulmonary fibrosis, of these dangers when wearing a facial mask of any kind—which can cause a severe worsening of lung function. This also includes lung cancer patients and people having had lung surgery, especially with partial resection or even the removal of a whole lung.

While most agree that the N95 mask can cause significant hypoxia and hypercapnia, another study of surgical masks found significant reductions in blood oxygen as well. In this study, researchers examined the blood oxygen levels in 53 surgeons using an oximeter. They measured blood oxygenation before surgery as well as at the end of surgeries.[4] The researchers found that the mask reduced the blood oxygen levels ($pa0^2$) significantly. The longer the duration of wearing the mask, the greater the fall in blood oxygen levels.

The importance of these findings is that a drop in oxygen levels (hypoxia) is associated with an impairment in immunity. Studies have shown that hypoxia can inhibit the type of main immune cells used to fight viral infections called the CD4+ T-lymphocyte. This occurs because the hypoxia increases the level of a compound called hypoxia inducible factor-1 (HIF-1), which inhibits T-lymphocytes and stimulates a powerful immune inhibitor cell called the Tregs. . This sets the stage for contracting any infection, including COVID-19 and making the consequences of that infection much graver. In essence, your mask may very well put you at an increased risk of infections and if so, having a much worse outcome.[5,6,7]

People with cancer, especially if the cancer has spread, will be at a further risk from prolonged hypoxia as the cancer grows best in a microenvironment that is low in oxygen. Low oxygen also promotes inflammation which can promote the growth, invasion and spread of cancers.[8,9] Repeated episodes of hypoxia has been proposed as a significant factor in atherosclerosis and hence increases all cardiovascular (heart attacks) and cerebrovascular (strokes) diseases.[10]

There is another danger to wearing these masks on a daily basis, especially if worn for several hours. When a person is infected with a respiratory virus, they will expel some of the virus with each breath. If they are wearing a mask, especially an N95 mask or other tightly fitting mask, they will be constantly rebreathing the viruses, raising the concentration of the virus in the lungs and the nasal passages. We know that people who have the worst reactions to the coronavirus have the highest concentrations of the virus early on. And this leads to the deadly cytokine storm in a selected number.

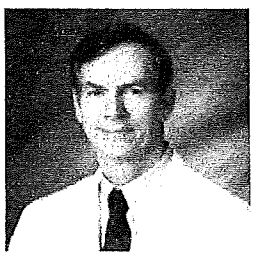
It gets even more frightening. Newer evidence suggests that in some cases the virus can enter the brain.[11,12] In most instances it enters the brain by way of the olfactory nerves (smell nerves), which connect directly with the area of the brain dealing with recent memory and memory consolidation. By wearing a mask, the exhaled viruses will not be able to escape and will concentrate in the nasal passages, enter the olfactory nerves and travel into the brain.[13]

It is evident from this review that there is insufficient evidence that wearing a mask of any kind can have a significant impact in preventing the spread of this virus. The fact that this virus is a relatively benign infection for the vast majority of the population and that most of the at-risk group also survive, from an infectious disease and epidemiological standpoint, by letting the virus spread through the healthier population we will reach a herd immunity level rather quickly that will end this pandemic quickly and prevent a return next winter. During this time, we need to protect the at-risk population by avoiding close contact, boosting their immunity with compounds that boost cellular immunity and in general, care for them.

One should not attack and insult those who have chosen not to wear a mask, as these studies suggest that is the wise choice to make.

References

1. bin-Reza F et al. The use of mask and respirators to prevent transmission of influenza: A systematic review of the scientific evidence. Resp Viruses 2012;6(4):257-67.
2. Zhu JH et al. Effects of long-duration wearing of N95 respirator and surgical facemask: a pilot study. J Lung Pulm Resp Res 2014:4:97-100.
3. Ong JJY et al. Headaches associated with personal protective equipment- A cross-sectional study among frontline healthcare workers during COVID-19. Headache 2020;60(5):864-877.
4. Bader A et al. Preliminary report on surgical mask induced deoxygenation during major surgery. Neurocirugia 2008;19:12-126.
5. Shehade H et al. Cutting edge: Hypoxia-Inducible Factor-1 negatively regulates Th1 function. J Immunol 2015;195:1372-1376.
6. Westendorf AM et al. Hypoxia enhances immunosuppression by inhibiting CD4+ effector T cell function and promoting Treg activity. Cell Physiol Biochem 2017;41:1271-84.
7. Sceneay J et al. Hypoxia-driven immunosuppression contributes to the pre-metastatic niche. Oncoimmunology 2013;2:1 e22355.
8. Blaylock RL. Immunoexcitatory mechanisms in glioma proliferation, invasion and occasional metastasis. Surg Neurol Inter 2013;4:15.
9. Aggarwal BB. Nucler factor-kappaB: The enemy within. Cancer Cell 2004;6:203-208.
10. Savransky V et al. Chronic intermittent hypoxia induces atherosclerosis. Am J Resp Crit Care Med 2007;175:1290-1297.
11. Baig AM et al. Evidence of the COVID-19 virus targeting the CNS: Tissue distribution, host-virus interaction, and proposed neurotropic mechanisms. ACS Chem Neurosci 2020;11:7:995-998.
12. Wu Y et al. Nervous system involvement after infection with COVID-19 and other coronaviruses. Brain Behavior, and Immunity, In press.
13. Perlman S et al. Spread of a neurotropic murine coronavirus into the CNS via the trigeminal and olfactory nerves. Virology 1989;170:556-560.



Dr. Russell Blaylock, author of *The Blaylock Wellness Report* newsletter, is a nationally recognized board-certified neurosurgeon, health practitioner, author, and lecturer. He attended the Louisiana State University School of Medicine and completed his internship and neurological residency at the Medical University of South Carolina. For 26 years, practiced neurosurgery in addition to having a nutritional practice. He recently retired from his neurosurgical duties to devote his full attention to nutritional research. Dr. Blaylock has authored four books, *Excitotoxins: The*

Taste That Kills, *Health and Nutrition Secrets That Can Save Your Life*, *Natural Strategies for Cancer Patients*, and his most recent work, *Cellular and Molecular Biology of Autism Spectrum Disorders*.

RESPIRATORY MEDICINE

Elsevier

Respir Med. 2020 May 13 : 106026.
doi: 10.1016/j.rmed.2020.106026 [Epub ahead of print]

PMCID: PMC7219423
PMID: 32405162

A study on infectivity of asymptomatic SARS-CoV-2 carriers

Ming Gao,[a,*,1] Lihui Yang,[b,1] Xuefu Chen,[c] Yiyu Deng,[d] Shifang Yang,[e] Hanyi Xu,[e] Zixing Chen,[e] and Xinglin Gao[e]

[a]The Second School of Clinical Medicine, Southern Medical University, Guangdong Provincial People's Hospital, Guangdong Academy of Medical Sciences, Guangzhou, 510515, China
[b]Hospital Infection Control Division, Guangdong Provincial People's Hospital, Guangdong Academy of Medical Sciences, Guangzhou, 510080, China
[c]Department of Infectious Disease, Guangdong Provincial People's Hospital, Guangdong Academy of Medical Sciences, Guangzhou, 510080, China
[d]Guangdong Provincial People's Hospital, Guangdong Academy of Medical Sciences, School of Medicine, South China University of Technology, Guangzhou, 510080, China
[e]Department of Respiratory and Critical Care Medicine, Guangdong Provincial People's Hospital, Guangdong Academy of Medical Sciences, Guangdong Provincial Geriatrics Institute, Guangzhou, 510080, China
Ming Gao: xinglingao@hotmail.com
*Corresponding author. Department of Respiratory and Critical Care Medicine, Guangdong Provincial People's Hospital, Guangdong Academy of Medical Sciences, Guangdong Provincial Geriatrics Institute, 106 Zhongshan Er Road, Guangzhou, 510080, China. xinglingao@hotmail.com
[1]Ming Gao and Lihui Yang contributed equally to this manuscript.

Received 2020 Apr 25; Revised 2020 May 11; Accepted 2020 May 12.

Abstract

Background

An ongoing outbreak of coronavirus disease 2019 (COVID-19) has spread around the world. It is debatable whether asymptomatic COVID-19 virus carriers are contagious. We report here a case of the asymptomatic patient and present clinical characteristics of 455 contacts, which aims to study the infectivity of asymptomatic carriers.

Material and methods

455 contacts who were exposed to the asymptomatic COVID-19 virus carrier became the subjects of our research. They were divided into three groups: 35 patients, 196 family members and 224 hospital staffs. We extracted their epidemiological information, clinical records, auxiliary examination results and therapeutic schedules.

Results

The median contact time for patients was four days and that for family members was five days. Cardiovascular disease accounted for 25% among original diseases of patients. Apart from hospital staffs, both patients and family members were isolated medically. During the quarantine, seven patients plus one family member appeared new respiratory symptoms, where fever was the most common one. The blood counts in most contacts were within a normal range. All CT images showed no sign of COVID-19 infection. No severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infections was detected in 455 contacts by nucleic acid test.

Conclusion

In summary, all the 455 contacts were excluded from SARS-CoV-2 infection and we conclude that the infectivity of some asymptomatic SARS-CoV-2 carriers might be weak.

Keywords: SARS-CoV-2, Asymptomatic carrier, Contacts, Infectivity
Abbreviations: COVID-19, Coronavirus disease 2019; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2; CHD, congenital heart disease; EDOU, emergency department observation unit; ED, emergency department; CT, computed tomography; RT-PCR, Reverse Transcription-Polymerase Chain Reaction; GCDC, Guangzhou Center for Disease Control and Prevention; CDC, Chinese Center for Disease Control and Prevention; IQR, interquartile ranges; PPE, personal protective equipment

1. Introdution

The emergence of the coronavirus disease 2019 (COVID-19) since early December 2019, has spread to many countries recently and sparked world pandemic via mass gathering [[1], [2], [3]]. As of March 24, 2020, there have been 334981 confirmed cases and 14652 deaths globally [4].

It has been proved that the pathogen of COVID-19 is severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which has high homology with SARS-CoV [5]. Similar to SARS-CoV, the dominant SARS-CoV-2 transmission mode is human-to-human transmission [6]. Differently, the reproductive number (R0) (the expected number of secondary cases produced by a single infected person in a susceptible population) is estimated between two and three, which is higher than SARS [6,7]. Furthermore, the transmission of SARS occurs during the symptomatic period [8]. For COVID-19, numerous asymptomatic infections were found among close contacts of confirmed patients, like the report on "Diamond Princess" [9]. However, the epidemiological significance of asymptomatic infections is unclear until now. Recent studies indicated that transmission of COVID-19 could also occur from these individuals with no symptoms [10,11]. However, for now, whether asymptomatic SARS-CoV-2 carriers are contagious still remain controversial.

Here, we report a case of an asymptomatic SARS-CoV-2 carrier with nosocomial infection and describe the clinical characteristics of 455 contacts. Our purpose is to analyze the infectivity of asymptomatic carriers.; CASE PRESENTATION.

Case A was a 22-year-old female patient who had a medical history of congenital heart disease (CHD) presented to the emergency room of Guangdong Provincial People's Hospital (Guangzhou, Guangdong province, China) on January 13, 2020. She complained of shortness of breath for 16 years, and the

symptom worsened for one month. The accompanied symptom was chest distress, without cough, sputum production and fever. Apart from CHD, she had no other diseases and had no smoking habit. Her temperature was normal, and laboratory measurements showed no apparent abnormalities (Table 1). Echocardiography displayed atrial septal defect and severe pulmonary hypertension. The diagnosis was congenital heart disease, atrial septal defect and pulmonary hypertension.

Table 1

Laboratory measurements of Case A.

	Jan, 13	Feb, 12	Feb, 19	Feb, 27	Normal range
Blood count, × 10^9/L					
White blood cell count	7.70	7.78	7.41	7.92	3.50–9.50
Neutrophil count	4.97	4.14	4.16	4.44	1.80–6.30
Lymphocyte count	2.13	2.91	2.13	2.63	1.10–3.20
Serological variables					
C-reactive protein, mg/L	0.6	5.89	NT	NT	<5.0
Procalcitonin, ng/ml	Normal	Normal	NT	NT	<0.05

NT = not tested.

Case A was mainly given to oxygen therapy, diuretic treatment, plus pharmacotherapy of pulmonary hypertension. On January 16, as Case A's condition improved and vital signs became stable, she was transferred to emergency department observation unit (EDOU). Owing to the Spring Festival and COVID-19 outbreak, she had been hospitalized in EDOU along with her brother until February 11. Before admission, she underwent a serious of examinations according to hospital-formulated guidance during epidemic period. Nevertheless, the patient's nasopharyngeal swab tested positive for SARS-CoV-2 by real-time Reverse Transcription-Polymerase Chain Reaction (RT-PCR). She was immediately admitted to quarantine ward in infectious department.

Case A and her brother both denied visiting Wuhan (the epidemic area in China) and any contact with COVID-19 patients. They wore masks all the time except at meals and drinking. How she became infected was unknown.

Notably, in isolation, the patient had never fever, sore throat, myalgia or other symptoms associated with virus infection [12]. Shortness of breath and chest distress, without further aggravation than before, were thought to be caused by CHD. Laboratory measurements reflected that white blood cells, lymphocytes, C-reactive protein and procalcitonin were within a normal range (Table 1). Upon admission, chest computed tomography (CT) scan showed non- COVID-19 imaging feature (Fig. 1 . a, c). In the time of hospitalization, the patient received antiviral and interferon therapy. 11 days after the treatment (February 22), chest CT scan indicated no significant differences in comparison with before (Fig. 1. b, d).

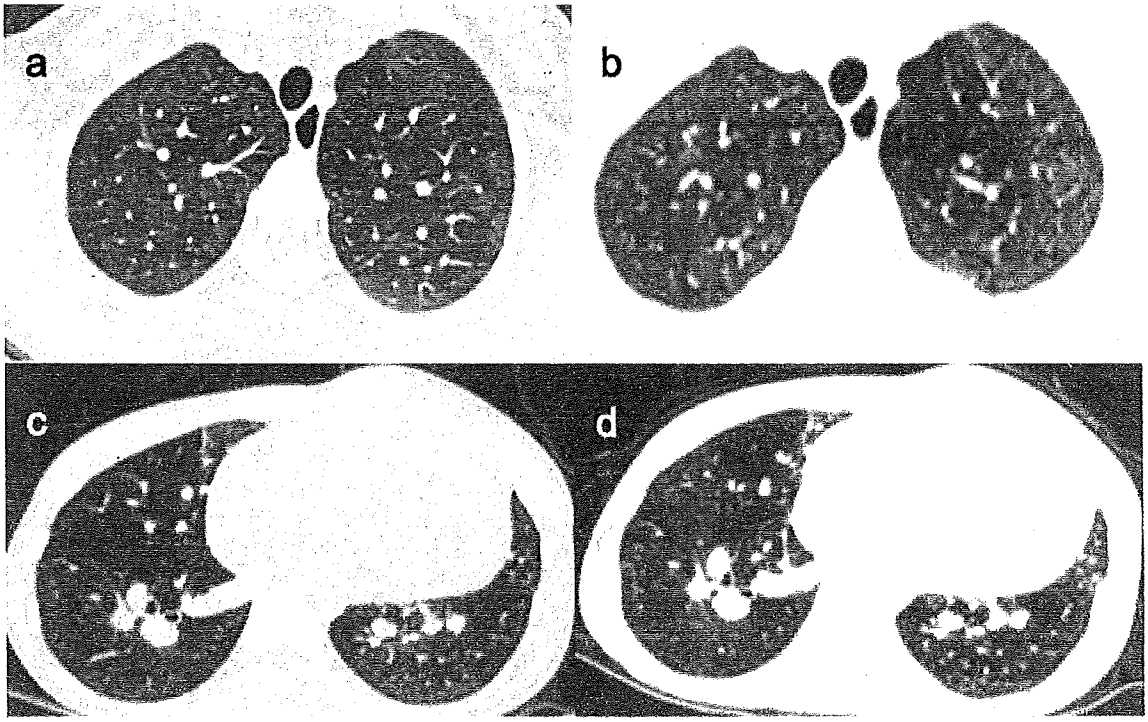


Fig. 1

Chest CT images of Case A. Figure a and c were taken on February 11, which showed non- COVID-19 imaging feature. Case A underwent a CT scan again on February 22. Figure b and d, the follow-up images, showed no significant differences than before.

Meanwhile, nucleic acid tests by real-time RT-PCR assay were performed repeatedly. Nucleic acid tests were positive for five consecutive days from February 11 to 15. The results of the test on quarantine day 16 (February 26) turned negative, subsequently, on quarantine day 18 and 20, which were also negative. She was then released from quarantine on day 21 (March 2, 2020). Due to only laboratory-confirmed positive, case A was diagnosed as an asymptomatic carrier, manifested by Guangzhou Center for Disease Control and Prevention (GCDC).

2. Materials and methods

2.1. Study design and subjects

In our study, asymptomatic COVID-19 carrier was defined as a patient without related clinical symptoms, but whose SARS-CoV-2 test was positive. Since Case A was diagnosed, all contacts, including hospital staffs, family members and patients, were routinely screened. Amounting to 455 contacts – 224 hospital staffs, 196 family members and 35 patients – who had been exposed to case A in EDOU or circulated area of it became the subjects of study. Contacts were defined as individuals in the same ward with Case A. EDOU plus the circulated area of it covers 60 square meters where there are 14 patients' beds placed at least 1.2 m apart. The study was approved by the Medical Ethical Committee of Guangdong Provincial People's Hospital.

2.2. Data collection

Isolated individuals' detailed information during the emergency department (ED) and hospitalization were retrospectively collected from electronic medical records, while other data were reviewed from documents recorded by related departments. Emphatically, we gathered their contact history, consisting of the date when they went to the emergency, the reason why they came to the emergency, and the time how long they were exposed to the case A. Demographics characteristics were also collected.

Any new symptoms on each person were taken down, both in ED and quarantine, including fever, cough, sputum production, sore throat, etc.

Meanwhile, we obtained imaging and laboratory data from hospital staffs and patients, which of family members were not noted. Each of patients had undergone a CT scan prior to admission because of the outbreak. It had been reviewed after the medical isolation began. Hospital staffs were examined one time. For laboratory test, a complete blood count was focus of attention. Nasopharyngeal swab specimens had been collected at least one time in whole people. All samples were processed at clinical laboratory of hospital and sent to GCDC simultaneously.

Patients and family members were quarantined for medical observation and hospital staffs were not quarantined because of standard protection, in principle.

2.3. Laboratory nucleic acid test

In accordance with the protocol announced previously by the WHO, RT-PCR can be considered in the assessment of individuals who have had contact with a COVID-19 case [13]. Consequently, whether the patients were infected with the SARS-CoV-2 was detected by real-time RT-PCR. Chinese Center for Disease Control and Prevention (CDC) published the sequences of primers and probe targeted to envelope gene of SARS-CoV-2, in January 21, 2020, which were as follows: forward primer 5′-TCAGAATGCCAATCTCCCCAAC-3′; reverse primer 5′-AAAGGTCCACCCGATACATTGA-3′; and probe 5′CY5CTAGTTACACTAGC-CATCCTTACTGC-3′BHQ1.

2.4. Statistical analysis

All research objects employed fundamental descriptive analysis. Continuous variables were expressed as the medians and interquartile ranges (IQR). Categorical variables in each category were summarized as counts and percentages. All statistical analyses were conducted with IBM SPSS statistics 24.0.

3. Results

3.1. Patients

The statistics of 35 patients are displayed in Table 2 . All patients also wore masks except for eating or drinking and were admitted to infectious department for medical isolation. The median contact time was four days (interquartile range, 1.0 to 6.0), whereas the longest among them reached 21 days. The median age of the patients was 62 years (interquartile range, 50.0 to 84.0). A total of 57.1% were males. All individuals had been to ED of our hospital for various diseases. Undoubtedly, acute cardiovascular event and digestive diseases were common, accounting for 25.7% and 22.9%, respectively.

Table 2

Clinical characteristics of 35 patients.

Fever	11 (31.4)
Newly emerged fever	7 (20.0)
Cough	8 (22.9)
Sputum	4 (11.4)
Dyspnea	7 (20.0)
Newly emerged dyspnea	1 (2.9)
Laboratory findings	
Leukocyte count ($\times 10^9$/L, normal range 4.0–10.0), No. (%)	
Increased	14 (40.0)
Decreased	3 (8.6)
Normal	18 (51.4)
Lymphocyte count ($\times 10^9$/L, normal range 1.5–3.5), No. (%)	
Increased	1 (2.9)
Decreased	12 (34.3)
Normal	22 (62.9)
Nucleic acid test negative, No. (%)	35 (100.0)
Radiologic findings	
Normal on chest CT, No. (%)	11 (31.4)
Abnormalities on chest CT, No. (%)	24 (68.6)
Inflammatory change	12 (34.3)
Pleural effusion	16 (45.7)
Interstitial change	2 (5.7)
Pulmonary edema	1 (2.9)
Pulmonary nodule	1 (2.9)
Clinical outcome	
Transfer to specialized department, No. (%)	25 (71.4)
Discharge from hospital, No. (%)	8 (22.9)
Death, No. (%)	2 (5.7)

[1]Others include urologic diseases and rheumatic disease.

In terms of clinical symptoms, 16 (45.7%) patients were free of respiratory symptoms, which more than half of them (19 [54.3%]) appeared inversely. The respiratory symptoms involved fever (11 [31.4%]), cough (8 [22.9%]), dyspnea (7 [20.0%]) and sputum (4 [11.4%]). Among patients with fever, hyperthermia (body temperature >39 °C) occurred in one patient with chills after chemotherapy. Three individuals presented slight fever (body temperature between 37.3 °C and 38.0 °C), of whom temperature could return to normal without therapy. Two individuals were diagnosed with infective endocarditis and acute pancreatitis severally with the cause of their symptoms including fever plus dyspnea and stomachache. Another five patients developed fever was consider as complication of the original disease, mostly pulmonary infection, whether the symptom was new or persistent. Last but not least, all dyspnea was associated with heart failure.

The blood counts in most patients were within normal range. Lymphocytopenia ($<1.5 \times 10^9$ cells/L) had appeared in 34.3% of the patients and leukopenia ($<4.0 \times 10^9$ cells/L) in 8.6%. One patient was also accompanied with neutropenia ($<1.8 \times 10^9$ cells/L) on account of myelosuppression after chemotherapy. On the contrary, lymphocytosis ($>3.5 \times 109$ cells/L) was observed in a patient with acute lymphoblastic leukemia. Besides one patient, died on quarantine 4-day, 34 patients underwent multiple nucleic acid tests of SARS-CoV-2. All the results were negative, including first time of the dead. Of 35 patients that had more than once chest CT scan, CT abnormalities were reported in 68.6%. The most common manifestations were inflammatory change (34.3%) and pleural effusion (45.7%). The interstitial change was detected less. Pulmonary edema and nodule were seen in persons with heart failure and lung cancer, respectively. Of particular concern, all CT findings were non-viral infection discussed professionally by radiologists. Normal CT image was found in 11 of 35 patients (31.4%).

According to evaluation from physicians, there were 19 infected patients (54.3%). Of these 19 patients, 15 (42.9%) had pneumonia, which was bacterial (37.1%), followed by pendulous (2.9%) and aspiration (2.9%). Mediastina inflammatory and abdominal infection arose from two patients with fistula. Other two patients had suffered from infection due to protopathy on admission. Above infected patients were administered for empirical antibiotic treatment. Four (11.4%) patients needed emergency surgery for their condition. The rest of them (34.3%) were received to heteropathy.

It totally took 14 days from the last contact with Case A to the end of medical observation. As of Feb 26, 2020, none of 35 patients was diagnosed with SARS-CoV-2 infection. Among whom eight (22.9%) were discharged from the hospital while 25 (71.4%) were transferred to the specialized department for further treatments. The remaining two individuals both died for severe heart failure judged by the clinical expert panel during the period of quarantine.

3.2. Family members

In total, 196 family members were enrolled. The situation on wearing masks was the same as that in patients. Local CDC took charge of following up 172 among them, who were ruled out SARS-CoV-2 infection after 14-days medical isolation, as far as we know. The rest of the escorts were placed in designated locations by GCDC for quarantine. Of these 24 escorts, 11 were male and 13 were female. They aged from 24 to 86 years old and the median age was 47.5 years old (interquartile range, 34.0 to 57.0). The median contact time was five days (interquartile range, 1.0 to 11.0). Regarding examinations, at least two nucleic acid tests were negative. All the attendants except a family member had no respiratory symptoms in the time of quarantine. Details as below.

A 37-year-old woman, who had stayed in EDOU (February 7) for 10 h as relative, developed slight fever (the highest temperature was 37.5 °C), dry cough and sore throat after six days (February 13). Then she was presented to our hospital immediately. According to the investigation, she had worn a mask during the hospital visit and had a history of recurrent acute tonsillitis. After admission, her CT images and laboratory measurements were normal. Additionally, she experienced four SARS-CoV-2

nucleic acid tests successively, all of which were negative. The case was given empirical antibiotic treatment since admission, and her symptoms disappeared afterwards. Based on clinical symptoms as well as auxiliary examination results, she received a diagnosis of acute tonsillitis finally. On Fberuray 25, she recovered and was discharged from the hospital.

3.3. Hospital staffs

To ensure safety, 224 hospital staffs who had come into contact with Case A were screened. As is clearly shown in Table 3 , their identities were mainly composed of doctors (59 [26.3%]) and nurses (101 [45.1%]). Others coexisted in the same room with Case A for work, such as security guards, cleaners, transportation personnel, etc. Of these 224 staffs, 103 were male and 121 were female, with ages ranging 21–60 years old. The median age was 35 years old (interquartile range, 28.0 to 42.0). Most of them were emergency workers so that they had long exposure to confirmed case. Oppositely, some doctors in other departments had a brief stay, approximately one to 2 h, because of emergency consultation. It is noteworthy that all personnel working in ED must take medical protection – namely, using N95 mask, putting on isolation gown and wearing goggle.

Table 3

Clinical characteristics of 224 hospital staffs.

Clinical characteristics	Hospital staffs (n = 224)
Demographics characteristics	
Identity, No. (%)	
Doctor	59 (26.3)
Nurse	101 (45.1)
Others[1]	64 (28.6)
Age, median (IQR), yr.	35 (28.0–42.0)
Male, sex, No. (%)	103 (46.0)
Respiratory symptoms	
None, No. (%)	224 (100.0)
Laboratory findings	
Leukocyte count ($\times 10^9$/L, normal range 4.0–10.0), No. (%)	
Increased	29 (12.9)
Decreased	0 (0.0)
Normal	195 (87.1)
Lymphocyte count ($\times 10^9$/L, normal range 1.5–3.5), No. (%)	
Increased	5 (2.2)
Decreased	3 (1.3)
Normal	216 (96.5)
Nucleic acid test negative, No. (%)	224 (100.0)
Radiologic findings	
Normal on chest CT, No./total No. (%)	171/223 (76.7)
Abnormalities on chest CT, No./total No. (%)	52/223 (23.3)
Pulmonary nodule	29/223 (13.0)
Pulmonary fibrosis focus	18/223 (8.1)
Pulmonary emphysema	5/223 (2.2)
Quarantine personnel, No. (%)	0 (0.0)

Open in a separate window

[1]Others include security guards, cleaners, transportation personnel, support crew.

No respiratory symptoms were observed, either existing or emerging. Blood test results revealed normal leukocyte count in 87.1% and lymphocyte count in 96.5%. Lymphocyte counts were decreased in three staffs (1.3%) without leukopenia (<4.0 × 10^9 cells/L). A pregnant nurse failed to accept a CT scan. A minority of hospital staffs (52 [23.3%]) found abnormalities in CT, where pulmonary nodule,

fibrosis focus and emphysema were seen. All hospital staffs were tested twice for SARS-CoV-2 nucleic acid, and the results were negative, which was identical with the two groups mentioned above. In contrast to them, none of 224 hospital staffs required medical observation.

4. Dissusion

In this study, we recorded in detail the hospitalized situation, diagnostic procedure, inspection results, treatment plans and clinical outcome of an asymptomatic SARS-CoV-2 carrier who was laboratory confirmation by RT-PCR assay, but without related symptoms and imaging changes in concert with previous reports [12,14]. Also, we analyzed epidemiological and clinical data from 455 contacts who had been exposed to the asymptomatic patient. All the 455 contacts were excluded from SARS-CoV-2 infection. Of the 231 quarantined people (196 family members and 35 patients), 229 were removed from medical observation successfully and two died for severe heart failure. New or existing respiratory symptoms were almost appeared in patients, which were considered to be associated with their original disease or complications. A family member complaining of fever was diagnosed as acute tonsillitis ultimately. Unlike COVID-19, normal blood count was found in most contacts [12,15]. All CT images showed no sign of COVID-19 infection. Unquestionably, all cases tested negative for SARS-CoV-2 nucleic acid. This fact illustrated that there had been no cases of infection in a relatively dense space.

Since the outbreak, our hospital has taken a series of effective prevention and control measures, which made a considerable effect on preventing the spread in this case. Above all, medical staffs abide by the principle of graded protection strictly. For patients and attendants, each patient can only be accompanied by one attendant, and both need to wear personal protective equipment (PPE). Nevertheless, there is still a risk of transmission of COVID-19 under stringent measures. Primarily, shortages of PPE were common in the early stages. Medical resources were supplied to healthcare workers priorly. Due to these factors, patients and attendants can only wear one mask for a long time, resulting in its ineffective. Besides, we noticed that some patients and relatives wore PPE incorrectly due to the lack of adequate training, which was also possible for hospital staffs. Last but not least, it is unavoidable to take off mask while eating or drinking, which provides an opportunity to spread the virus.

Considering all the mentioned factors, we suggest that there are more important reasons for achieving "Zero infection". As is well-known, person-to-person transmission through respiratory droplets is the main route of COVID-19 transmission [6]. Earlier research revealed that the viral load of respiratory tract samples in an asymptomatic patient was similar to that in the symptomatic patients [11]. However, a single sample is difficult to be representative. In the light of "Zero infection" for this case, we venture to guess that the viral load of respiratory tract samples in the asymptomatic patient might not be high. Moreover, although pathogenic nucleic acids can be detected in respiratory tract samples from asymptomatic carriers, the opportunity of transmission is less than that in symptomatic patient owing to the absence of the way expelling pathogen via cough and sneezing.

Based on the foregoing discussion, we conclude that the infectivity of some asymptomatic SARS-CoV-2 carriers might be weak. This finding implicates that there is not needful to worry unduly for asymptomatic or mild patients during the ongoing COVID-19 pandemic. Furthermore, excessive virus nucleic acid detection is unnecessary, which can relieve the pressure on public health resources. Under the development of epidemic circumstance, more and more public concerns on the increasing number of asymptomatic or mild patients hid in the community. However, combined with our results and the defense measures currently completed, we hope such worries are misplaced and we also believe the world will win this battle certainly.

The limitation of our study is that there is only one case and lack of detailed information on family members quarantined locally. Large-scale multicenter studies are needed to verify our conclusion. However, both asymptomatic carrier and 455 contacts were admitted to and treated in designated places. Hence, the study results are representative to some extent.

5. Conlusions

Infectivity of some asymptomatic SARS-CoV-2 carriers might be weak. Effective prevention and control measures are helpful to prevent COVID-19 spread of asymptomatic carriers. The result of this study may alleviate parts of the public concern about asymptomatic infected people.

Funding

This work was supported by the Science and Technology Planning Project of Guangdong Province (No. 2020B111111005).

CRediT authorship contribution statement

Ming Gao: Methodology, Data curation, Writing - original draft, Writing - review & editing. **Lihui Yang:** Investigation, Data curation, Formal analysis, Writing - review & editing. **Xuefu Chen:** Resources. **Yiyu Deng:** Writing - review & editing. **Shifang Yang:** Writing - review & editing. **Hanyi Xu:** Resources. **Zixing Chen:** Resources. **Xinglin Gao:** Conceptualization, Project administration, Supervision, Validation.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

We owe thanks to the staffs of Guangdong Provincial People's Hospital for gathering data in our study. We also acknowledge all the objects in this study and their family members.

Footnotes

Appendix A Supplementary data to this article can be found online at https://doi.org/10.1016/j.rmed.2020.106026.

Uncited References

[15].

Appendix A. Supplementary data

The following is the Supplementary data to this article:

Multimedia component 1:

Click here to view. (247 bytes, xml) Multimedia component 1

References

1. Lescure F.X., Bouadma L., Nguyen D. Clinical and virological data of the first cases of COVID-19 in Europe: a case series. Lancet Infect. Dis. 2020 doi: 10.1016/S1473-3099(20)30200-0. Published Online March 27 2020. Available at: [CrossRef] [Google Scholar]

2. Adalja A.A., Toner E., Inglesby T.V. JAMA; 2020. Priorities for the US Health Community Responding to COVID-19. Published Online March 03 2020. Available at: [CrossRef] [Google Scholar]

3. McCloskey B., Zumla A., Ippolito G. Mass gathering events and reducing further global spread of COVID-19: a political and public health dilemma. Lancet. 2020;395:1096–1099. doi: 10.1016/S0140-6736(20)30681-4. Available at: [PMC free article] [PubMed] [CrossRef] [Google Scholar]

4. World Health Organization . 2020. Coronavirus Disease (COVID-19) Outbreak.https://www.who.int/emergencies/diseases/novel-coronavirus-2019 Available at: [Google Scholar]

5. Lu R., Zhao X., Li J. Genomic characterisation and epidemiology of 2019 novel coronavirus: implications for virus origins and receptor binding. Lancet. 2020;395:565–574. doi: 10.1016/S0140-6736(20)30251-8. Available at: [PMC free article] [PubMed] [CrossRef] [Google Scholar]

6. Wang Y., Wang Y., Yan Chen. Unique epidemiological and clinical features of the emerging 2019 novel coronavirus pneumonia (COVID-19) implicate special control measures. J. Med. Virol. 2020 doi: 10.1002/jmv.25748. Published Online March 05 2020. Available at: [CrossRef] [Google Scholar]

7. Del Rio C., Malani P.N. JAMA; 2020. COVID-19-New Insights on a Rapidly Changing Epidemic. Published Online February 28 2020. Available at: [CrossRef] [Google Scholar]

8. Zeng G., Xie S.Y., Li Q. Infectivity of severe acute respiratory syndrome during its incubation period. Biomed. Environ. Sci. 2009;22(6):502–510. doi: 10.1016/S0895-3988(10)60008-6. Available at: [PMC free article] [PubMed] [CrossRef] [Google Scholar]

9. Diamond princess (ship) 2020. https://en.wikipedia.org/wiki/Diamond_Princess_ Available at: (ship)

10. Hu Z., Song C., Xu C. Life Sci; 2020. Clinical Characteristics of 24 Asymptomatic Infections with COVID-19 Screened Among Close Contacts in Nanjing, China. Sci China. Published Online March 04 2020. Available at: [CrossRef] [Google Scholar]

11. Zou L., Ruan F., Huang M. SARS-CoV-2 viral load in upper respiratory specimens of infected patients. N. Engl. J. Med. 2020;382:1177–1179. Available at: https://doi.org/10.1056/nejmc2001737. [PMC free article] [PubMed] [Google Scholar]

12. Guan W.J., Zhong N.S. Clinical characteristics of covid-19 in China. N. Engl. J. Med. 2020:382. [Google Scholar]

13. World Health Organization Corona-virus disease (COVID-19) technical guidance: laboratory testing for 2019-nCoV in humans. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/laboratory-guidance Available at:

14. Salehi S., Abedi A., Balakrishnan S. Coronavirus disease 2019 (COVID-19): a systematic review of imaging findings in 919 patients. AJR Am. J. Roentgenol. 2020:1–7. doi: 10.2214/AJR.20.23034. Available at: [CrossRef] [Google Scholar]

15. Huang C., Wang Y., Li X. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet. 2020;395:497–506. doi: 10.1016/S0140-6736(20)301847. Available at: [PMC free article] [PubMed] [CrossRef] [Google Scholar]

From: PF-Mailbox-01
To: Norio, Ann-Marie; Trennum, Matthew
Subject: FW: Online Form - Enquiry from Region website
Date: Wednesday, July 8, 2020 9:42:09 AM

From: Niagara Region Website
Sent: Wednesday, 08 July 2020 09:41:59 (UTC-05:00) Eastern Time (US & Canada)
To: Clerks
Cc: webincoming
Subject: Online Form - Enquiry from Region website

Enquiry from Region website

To reply, copy the email address from below and put into 'To'. (if resident entered their email address)

name
cindy gojmerac

phone
[redacted]

email
[redacted]

municipality
Welland

other mun

subject
face masks

comments
To Regional Council: I am writing because I really hope you will think twice before making masks mandatory indoors as many other cities have done. I am very much against this as are many other residents I have spoken to. If you look at the research, and that being unbiased research you would see that there is no scientific evidence to show masks work. As a matter of fact they can make you more sick. Here is a link pointing to research (and there are many others) to show you that masks are not needed. They are only

offering a false sense of security. https://www.patreon.com/posts/38846883 Other information points to the fact that all these different masks are useless. For example: N95 masks allow contaminated air to be breathed out.....so if someone is sick and is wearing this mask they are breathing that air right out anyway. Surgical masks become clogged very very quickly. Hence if you come into contact with covid you are breathing all that air in. The mask is clogged and isn't working. Cloth masks offer no protection at all. They don't filter anything. So you are breathing out your air if sick and if you come in contact would someone else it is just trapped in your mask. I urge you as many other would to please look at all information and vote "NO" to mandatory face mask. Sincerely, Cindy Gojmerac Sent from Outlook

reply
no

Page Referrer
https://www.niagararegion.ca/government/council/writtenletter.aspx

To: Julie Kirkelos, Town Clerk, Town of Lincoln

From: Donna Herrington, Consultant, JAAC

Re: Mandatory Masks and Impact on People with Disabilities

Date: July 8, 2020

Dear Julie,

As requested by Councillor Rintjema, I have polled JAAC members to get their opinions on the mandatory mask issue.

As expected, responses were varied according to their individual disability experiences. Some are in favour of using masks as a mandatory measure while others indicate that masks produce a number of physical and communication barriers.

For example, mask use makes lip reading and hearing difficult for persons who are hard-of-hearing or deaf. Further, masks tend to muffle voices making hearing difficult for persons who are blind or who have visual disabilities where following verbal cues are essential to communication. Masks are also extremely difficult for persons who get easily winded due to their conditions.

Others are in favour of masks as they feel vulnerable during personal conversations, for example, those who use wheelchairs and are “below” people during conversations.

It would be the recommendation of the JAAC that staff use masks where social distancing cannot be maintained. Further, we would recommend the use of face shields and/or masks with clear shields that allow for lip reading. Where social distancing is possible, we would recommend not using masks to facilitate easier and more accessible communication.

We understand that this is a difficult issue and hope that accessibility needs can be accommodated during this challenging time.

From: PF-Mailbox-01
To: Norio, Ann-Marie; Trennum, Matthew
Subject: FW: Online Form - Enquiry from Region website
Date: Wednesday, July 8, 2020 12:45:13 PM

From: Niagara Region Website
Sent: Wednesday, 08 July 2020 12:45:02 (UTC-05:00) Eastern Time (US & Canada)
To: Clerks
Cc: webincoming
Subject: Online Form - Enquiry from Region website

Enquiry from Region website

To reply, copy the email address from below and put into 'To'. (if resident entered their email address)

name
Jason Paul Marr

phone
[redacted]

email
[redacted]

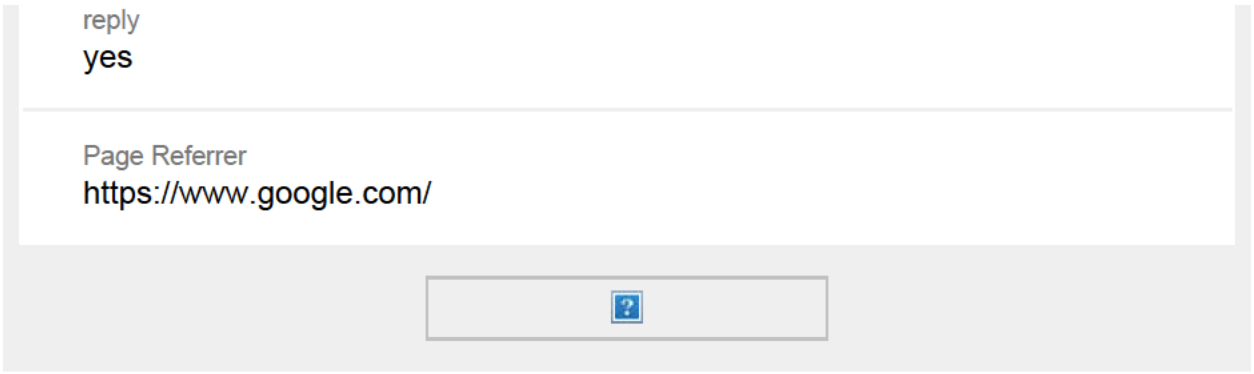
address

municipality
St. Catharines

other mun

subject
Regional Council/Clerk

comments
I strongly disagree with mandatory face masks in the niagara region. I wish to say that I am against this. And I want you to vote no.


reply
yes
Page Referrer
https://www.google.com/

Office of the Regional Chair
1815 Sir Isaac Brock Way, PO Box 1042 Thorold, ON L2V 4T7
Telephone: 905-980-6000 Toll-free: 1-800-263-7215 Fax: 905-685-6243
niagararegion.ca

MEMORANDUM

CLC 42-2020

Subject: Regional support for the joint MARCO/LUMCO/AMO position regarding COVID-19 financial relief from senior levels of government

Date: July 8, 2020

To: Regional Council

From: Daryl Barnhart, Executive Officer to the Regional Chair

On a July 7, 2020 conference call, membership representing the Mayors and Regional Chairs on Ontario (MARCO), the Large Urban Mayor's Caucus of Ontario (LUMCO), The Greater Toronto and Hamilton Mayors and the Association of Municipalities of Ontario (AMO) met to unify their position in regards to requesting COVID-19 financial relief from the senior levels of government.

As a MARCO member, the Regional Chair participated on the call. Mayor Sendzik participated on the call in his capacity as a LUMCO member.

Upon reviewing the joint statement (see CLC 42-2020 Appendix 1), the members of MARCO, LUMCO and the GTHA mayor's association voted unanimously to support this joint position. In short, the municipal groups unanimously decided to adopt a more pronounced and direct stance in regards to requesting funding from the provincial and federal government. The membership feels that in effect time is running out on securing funding, and without this type of relief municipalities will be forced to either make significant cuts to services or raise property taxes to cover the budgetary short fall.

The group maintains the position that they are not seeking changes to the Municipal Act that would allow municipalities to run deficits.

The members also agreed to a number of other key action items, including:

1. Issuing a localized statement that echoes the tone found in the joint MARCO/LUMCO statement
2. Advocate the need for financial relief to local MPs and MPPs
3. Engage local "allies" to advocate to the provincial and federal government for municipal funding. Examples of these allies include organization who rely on partnerships with municipalities to deliver critical programs and services to

residents (i.e. food banks, homelessness service providers, those who receive funding through programs like the NPI and ProKids)

Given Council's direction to proceed with COVID-19 advocacy activities in coordination between the Region and all 12 area municipalities, it is my hope that our government relations strategy will continue to be unified locally, as well as in alignment with the position put forward by MARCO and LUMCO.

Sincerely,

_____

Daryl Barnhart, M.A., APR
Executive Officer to the Regional Chair

Appendices

Appendix 1 Ontario Mayors and Chairs issue emergency call for financial support

LUMCO
Ontario's Big-City Mayors

MARCO

AMO Association of Municipalities Ontario

GTHA
Mayors and Chairs

July 6, 2020

Ontario Mayors and Chairs issue emergency call for financial support

Municipalities face difficult choices: major tax hikes and cuts to services

"Today, Mayors and Chairs from across Ontario, represented by the Association of Municipalities of Ontario, the Mayors and Regional Chairs of Ontario, and the Large Urban Mayors' Caucus of Ontario, met to discuss the COVID-19 financial emergency.

Ontario municipalities are speaking with one voice to deliver one important message: Our residents cannot wait any longer. To protect municipal services, we need immediate provincial and federal support to cover lost revenue and additional costs caused by the COVID-19 crisis.

This call for action by Ontario municipalities is part of a national effort, led by the Federation of Canadian Municipalities, to secure at least $10 billion dollars in emergency relief for Canadian municipalities to be funded 100% by the federal and provincial governments.

Municipalities across Ontario have been on the frontlines of keeping people safe during COVID-19. This has meant hundreds of millions of dollars in additional costs and lost revenues. The FCM proposal would provide approximately $4 billion to Ontario municipalities to offset lost transit revenues and added service costs, but so far, there has been no clear signal on the timing and level of a joint federal-provincial financial assistance program.

Time for a commitment is running out. Now, halfway through the budget year, municipalities have no choice but to consider plans to balance the budget by raising property taxes, user fees and charges or cutting services. Difficult conversations about cost-saving service reductions are taking place at Council meetings across the province, including:

- supports to children, families and seniors,
- reducing or cancelling transit services,
- staffing adjustments including layoffs and delaying or cancelling hiring,
- reducing essential services including public health, fire, paramedic and police services,
- closing parks and cultural sites and cancelling recreation programs,
- slower land use planning reviews and development approvals, and
- cancelling or deferring critical infrastructure and affordable housing projects, costing construction jobs.

By acting now to confirm relief for municipalities, senior governments can avoid these unforeseen property tax increases and destructive cuts to frontline municipal services. Cuts or property tax increases will unfairly hurt the very same people that the federal and provincial governments have spent billions helping during the pandemic.

Municipal services are also key to safely re-opening the economy. Investing in municipalities will ensure they continue to provide services needed to help restart their local economies.

We truly appreciate the commitments that both Premier Ford and Prime Minister Trudeau have already made to support municipal service delivery during this crisis. The millions of Ontarians we collectively serve are counting on all governments to work together now to address this urgent problem.

Our residents need support now. The time is up for federal-provincial wrangling about how to share the costs. We strongly encourage the federal government to address this in their fiscal update this week."

- 30 –

For more information:

Mayor Cam Guthrie, City of Guelph
Chair of LUMCO
519-837-5643
mayor@guelph.ca

Chair Karen Redman, Region of Waterloo
Chair of MARCO
Contact: Theresa Mendler
226-753-3414
tmendler@regionofwaterloo.ca

Mayor of Toronto John Tory
Chair of GTHA Mayors and Chairs
Contact: Lawvin Hadisi
647-460-7507
Lawvin.Hadisi@toronto.ca

Brian Lambie, AMO Media Contact
416-729-5425
lambie@redbrick.ca

For Subject: Options to Consider for Mandating Face Coverings

Report to: Regional Council

Report date: Wednesday, July 8, 2020

Recommendations

1. That Regional Council **CONSIDER** the options presented in Report CAO 15-2020; and

2. That staff **PROCEED** with the option approved by Regional Council.

Key Facts

- The Province of Ontario and The Regional Municipality of Niagara have declared emergencies as a result of the COVID-19 pandemic pursuant to the *Emergency Management and Civil Protection Act*, R.S.O. 1990, c.E.9, as amended.
- Niagara Region Public Health continues to recommend public health measures to be practiced by all residents of Niagara in order to reduce the spread of COVID-19. These include keeping a 2 metre physical distance from others, cleaning hands often, wearing a mask or face covering when maintaining physical distancing is not possible, and staying home and getting tested if sick.
- On June 25, 2020, Council approved the Recommendations in Report CAO 14-2020 (Appendix 1) to encourage all residents and visitors to Niagara to practice the above behaviours that limit the spread of infection. As well all business owners were encouraged to enable other to practice these behaviours.
- Over the past few weeks, other jurisdictions have implemented requirements with respect to face coverings either through an order issued by their medical officer of health pursuant to Provincial Emergency Orders, enactment of a by-law or by their medical officer of health providing instructions under the state of emergency for the mandatory use of face coverings.
- While Niagara's Acting Medical Officer of Health is not currently contemplating making such an order, Regional Council may pass a by-law under section 11 of the Municipal Act, 2001 which could mandate the use of face coverings.
- Alternatively, given Niagara's diverse landscape, Regional Council may choose to defer to (but fully support) the individual decision of the local area municipal councils regarding face coverings.
- Face coverings will not protect the wearer from getting COVID-19. Wearing a face covering protects others from the wearer's respiratory droplets. Therefore, properly wearing an appropriate face covering may reduce the risk of transmission when physical distancing is not possible (Appendix 4 Province of Ontario Fact Sheet).

Financial Considerations

Should Council proceed with Option 1, there would be no costs involved.

Should Council proceed with Option 2 to enact a by-law with respect to face coverings, or Option 3 to launch a comprehensive education campaign, there is no specific budget for an education and advertising program. The estimated cost of an education/advertising program is $30,000 excluding regional staff time. This campaign is likely to include radio, print and social media advertising elements similar to the scope of what was enacted during the Region's *Stay Home Niagara* efforts.

There is no capacity to absorb these costs within the 2020 Public Health Operating Budget.

In addition with respect to Option 2, financial considerations associated with by-law and enforcement would need to be addressed especially as it relates to after hours and weekend enforcement since many local area municipalities do not have enforcement outside of regular business hours.

There may be additional costs if Council elects to provide masks to the public at municipal facilities or as a part of community outreach efforts to ensure that the requirement of wearing a face covering does not become a financial barrier to individuals seeking to access goods and services, including municipal services.

Analysis

Currently businesses and workplaces are responsible for following public health guidance with some types of workplaces required to have face coverings for their clients and staff (e.g. personal service settings like nail salons, hair dressers, piercing and tattoo studios, dental offices, health care providers). Others are given discretion to decide whether to make mask-wearing mandatory based on upon each setting's particular risk profile, the occupational health and safety of employees and health risks to members of the public entering their premises. Individual businesses and workplaces may refuse entry to persons not wearing a non-medical mask, subject to reasonable exceptions, including those set out in existing public health guidelines.

The re-opening of businesses and other services will result in more people returning to the workplace, more gatherings, and more people taking public transit, which may make the ability to physically distance difficult, or in some cases, impossible. The science regarding the use of masks is still evolving and their efficacy is not definitive; however, the wearing of face masks or face coverings is one measure being considered by a number of jurisdictions that can be taken to help mitigate the risk of the spread of COVID-19, when the preferred measure of physical distancing is not possible.

Staff have outlined three options for Council to consider that support the increased use of face coverings in enclosed spaces where physical distancing is not possible, and provided an overview of considerations applicable to all options.

Option 1

Support those Local Area Municipalities who implement By-laws for Mandatory Face Coverings

Niagara Region has continued to support public health guidance to recommend and encourage the use of non-medical masks in specific situations and settings where physical distancing may be difficult.

For purposed of consistency, efficiency and enforcement, the Province of Ontario would be in the best position to mandate the wearing of medical or non-medical masks by the general public under the Emergency Management and Civil Protection Act. To date the Province has not mandated the wearing of masks citing enforcement challenges as well as concerns related to a “one size fits all” approach given the differing case counts and risk throughout Ontario municipalities.

The local area municipalities have authority pursuant to section 11 of the Municipal Act, 2001, to pass by-laws regarding the health, safety and well-being of persons. The local area municipalities are also largely responsible for business licensing pursuant to section 11 of the Municipal Act, 2001.

A “one size fits all” approach to mandating face coverings throughout the Region has drawbacks. This is an unprecedented situation. Each municipality has its own unique set of circumstances that should be considered when deciding if face coverings should be mandatory in their jurisdiction, including economic recovery strategies.

Currently COVID-19 data is available on a local municipal basis and it demonstrates the varying number of cases between municipalities in Niagara. The opportunity to main maintain physical distance may also vary depending on whether a municipality is more urban or rural, and with the kinds of public places present and how crowded they are likely to be. Should an individual municipality consider it necessary to implement a by-law to mandate face coverings, it could be done with an enhanced understanding of the local impacts and challenges this might create. The Region has not had the opportunity to undertake specific outreach and consultation with the local area municipalities, stakeholders (including the business community) and the public regarding the mandating of masks, therefore there is some risk that proceeding to do so may attract criticism for interfering in the business of the local area municipalities, particularly if the Region’s by-law conflicts with by-laws or measures being consider by the local area municipalities.

In this regard, the City of St. Catharines held a Special Council meeting on July 6, 2020 and subsequently directed City staff to enact a temporary by-law. This by-law would require individuals or organizations that are responsible for the operation of a facility or businesses which have enclosed spaces open to the public to ensure no member of the public is permitted entry unless wearing a mask or face covering to help limit the spread of COVID-19. Consideration of this by-law will take place at their Council meeting being held on July 13.

It is unknown at this time should the City of St. Catharines proceed with their by-law, whether it may be in conflict with any Regional by-law enacted and create additional confusion for members of the public and businesses.

It is worth noting that this direction would be consistent with the approach taken by Peel Region, where they deferred to the judgement of their local municipalities to make decisions regarding mandatory face coverings.

Another benefit of the decision-making on this topic resting with the local area municipalities is that they can tailor the requirements of the by-law to align with their individual business licensing by-law regimes and the duration of their declarations of emergency.

If Regional Council wants to support the local area municipalities' efforts to pass their own by-laws a suggested motion would be:

That Regional Council **ENDORSE** and **SUPPORT** the efforts of those local area municipalities that enact temporary by-laws respecting mandatory face coverings to ensure continued diligence in the fight against COVID-19.

Option 2

Enact a Temporary Regional By-law Mandating Face Coverings

Niagara Region also has the authority pursuant to section 11 of the Municipal Act, 2001 to pass by-laws regarding the health, safety and well-being of persons that could be relied upon to pass a by-law mandating the use of face coverings in enclosed public spaces where physical distancing is not possible.

Mandatory face coverings by-laws should be time limited and reviewed based on the state of the pandemic, evolving scientific evidence, the easing of other public health restrictions as the Province re-opens and the impact on the operations of businesses and facilities. Such by-laws should also be limited in scope to ensure that they are no more intrusive than necessary based on available alternatives and the rights of individuals under the Charter of Rights and Freedoms and consideration of other applicable legislation such as AODA.

One factor Council should be aware of in considering this option is the potential that the respective declarations of emergency of the Province, Region and local area municipalities may be terminated at different times. Restrictions imposed on the public and business based on the emergency should be in alignment with the changing state of emergency. However a Regional by-law would not afford flexibility to vary requirements in different municipalities, whereas a local by-law could be repealed at any time if the emergency in that jurisdiction is terminated.

The draft by-law included as Appendix 3 places the onus on persons who are in certain enclosed public places within buildings to comply with the requirement to wear a face covering and on owners and operators of enclosed public places to post signage at all entrances regarding the use of face coverings. This approach strives to provide a balanced responsibility for ensuring that face coverings are worn while in enclosed places.

The draft by-law targets enclosed places based on evidence that the risk of spreading COVID-19 is higher indoors that in outdoor spaces. The draft by-law targets those places within buildings where the public is more likely to be in close proximity such as when shopping, entering/exiting a high traffic area, waiting for service, etc. These public places would not include “employee only” areas such as offices, storage areas, etc. that are not open to the general public because there is more control of the area by the owner/employer an ability for the owner/operator to implement health and safety measures as necessary related to their employees in accordance with the Occupational Health and Safety Act.

Face coverings are defined in the draft by-law to include masks, bandanas, scarves or similar items which are fitted to completely cover the mouth, nose and chin of a wearer without gaping. The draft by-law outlines exemptions recognizing that wearing a face covering may not be possible/is not recommended for all people including, children under 5, anyone who has trouble breathing or is unable to wear a face covering for medical reasons. Individuals that are unable to wear a face covering will not be required to provide proof of any exemptions.

Public education and buy-in will be an important part of compliance with this by-law and if approved, Regional staff will work to educate residents about the by-law by undertaking a communications campaign.

Should Council wish to proceed with the passing of a temporary by-law, enforcement would be undertaken pursuant to the Provincial Offences Act. Considering that this is a Regional By-law, the draft by-law provides for enforcement by Niagara Regional Police and municipal law enforcement officers or by-law officers appointed by a lower tier municipality or by The Regional Municipality of Niagara.

Overall approach and enforcement strategies would need to be considered to ensure consistency across all the local area municipalities. Enforcement would be by way of summons until such time a set fine order can be obtained to allow for the issuance of tickets. Council should be aware that Ontario Court of Justice issued a notice July 2 that no in-person Provincial Offences Act proceedings will be conducted until September 14, 2020. The lack of practical enforcement options may undermine any relative advantages of making this measure legally mandatory and could result in conflict or questions concerning equity and infringement on certain rights.

Given the draft by-law is regulatory in nature with potential enforcement consequences (i.e. fines) and impacts to business operations, an opportunity for the local area municipalities, businesses and the public to provide input should be contemplated prior to passage of the by-law. Staff could upon direction by Council provide public notice and/or employ other means to seek public input and engage with stakeholders for purposes of receiving input for Council's consideration.

If Regional Council desires to enact a temporary Regional by-law mandating face coverings, a suggested motion would be:

That Regional Council **APPROVE** the temporary by-law to require mandatory face coverings in enclosed public places during the COVID-19 pandemic attached as Appendix 3 to Report CAO 15-2020.

Option 3

Launch a comprehensive education campaign that continues to recommend face coverings when physical distancing is not possible

This option is responsive to the potential concern that there may be uncertainty among members of the public regarding the issue of face coverings including:

- When and why to wear a face covering
- What type of face covering
- The correct use of face coverings to prevent risk of contamination
- Proper disposal of face coverings

The education campaign could comprise advertising, online resources, signage, social media and community outreach and would serve to reinforce the advice of public health officials, including regarding the importance of maintaining physical distancing of two metres wherever possible, hand washing and staying home and getting tested if symptomatic. This would build on the recommendations approved by Council on June 25, 2020, in CAO 14-2020.

This option would preserve the autonomy of local area municipalities to make their own determination regarding the benefits of passing by-laws and continues to allow businesses to develop their own policies reflective of their individual operations and customer interactions.

If Regional Council wishes to proceed with an education campaign that continues to recommend face coverings when physical distancing is not possible suggested motion would be:

That staff **BE DIRECTED** to proceed with a comprehensive education campaign that continues to recommend face coverings when physical distancing is not possible.

Face Covering Considerations Applicable to all Options

The approach to masks needs to be part of a broader strategy to reduce the spread of COVID-19. It is critical to emphasize that wearing a mask alone will not prevent the spread of COVID-19. Any guidance on mask wearing should be balanced against ensuring that members of the public do not overestimate their effectiveness or develop a false sense of security in their use, which may potentially lead to lower adherence to other more critical preventative measures such as physical distancing and hand hygiene.

Any requirement for face coverings should be accompanied by education on proper use given that improper use of face coverings can increase the risk of transmission of COVID-19. There is also a need to recognize that wearing a face covering may not be possible for some people.

Many businesses and other services that have continued to operate in some manner during the pandemic have made the wearing of masks mandatory. With regard to businesses that are already open or are preparing to reopen, the Province has already set conditions under Ontario Regulation 82/20 and Ontario Regulation 263/20 (under EMCPA) , including ensuring compliance with the Occupational Health and Safety Act and compliance with the guidance for public health officials, including any advice, recommendations or instructions on physical distancing, cleaning or disinfecting. In other cases, certain regulatory bodies have imposed this requirement as a condition of being able to re-start their services. These measures have been directed at both persons responsible for places of business, and at members of the public.

If masks are made mandatory, employees and/or the general public will either have to use their own masks, or have them supplied by their employer or the business owner in question. The costs associated with such measures must be considered to ensure that members of the public continue to have access to good and services they require. Consideration should also be given to those that may not have access to face coverings

and not be able to comply with the by-law requirements to ensure that the requirement to wear a mask does not become financial barrier.

The World Health Organization recently released an interim guide on mask usage (https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak), which includes some considerations on the benefits and drawbacks of the use of masks or face coverings:

Potential benefits/advantages

- Reduced potential exposure risk from infected persons before they develop symptoms;
- Reduced potential stigmatization of individuals wearing masks to prevent infecting others (source control) or of people caring for COVID-19 patients in non-clinical settings; however, there is the potential for the reverse to occur if masks are mandated (see below)
- Making people feel they can play a role in contributing to stopping spread of the virus;
- A visual cue to remind people to be compliant with other measures (e.g., hand hygiene, not touching nose and mouth). However, this can also have the reverse effect (see below); and,
- 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. The safe re-use of fabric masks will also reduce costs and waste and contribute to sustainability.

Potential harms/disadvantages

- 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;
- Potential discomfort;
- A false sense of security, leading to potentially lower adherence to other critical preventive measures such as physical distancing and hand hygiene;
- Poor compliance with mask wearing, in particular by young children;
- Waste management issues; improper mask disposal leading to increased litter in public places, risk of contamination to street cleaners and environment hazard;
- Difficulty communicating for deaf persons who rely on lip reading;

- Disadvantages for or difficulty wearing them, especially for children, developmentally challenged persons, those with mental illness, elderly persons with cognitive impairment, those with asthma or chronic respiratory or breathing problems, those who have had facial trauma or recent oral maxillofacial surgery, and those living in hot and humid environments.

As well, there is a risk of stigmatization of those persons with medical conditions who are unable to wear masks either being perceived as unsafe by others, or perceived as being irresponsible or inconsiderate to others.

Currently, public health officials at all government levels support the use of non-medical masks or face coverings for persons in public places where it is difficult to maintain two metres of physical separation from others. Many businesses and other services that have continued to operate in some manner during the pandemic have made the wearing of masks mandatory. In other cases, Provincial orders and certain regulatory bodies have imposed this requirement as a condition of being able to re-start their services.

It should be emphasized that wearing a face covering remains a second-line preventative measure, when the preferred measure of physical distancing is not possible. Practicing physical distancing and frequent hand washing are still the most effective methods to limit the spread of the virus, and both are supported by stronger scientific evidence than wearing face coverings. Paradoxically, a bylaw on mandatory face coverings would mandate the less scientifically-supported second line prevention measures, while leaving the more effective first line measures voluntary. Some regions that have mandated face coverings have addressed this by simultaneously requiring operators of public spaces to provide hand sanitation stations at the entrance to any public space.

Contributing factors to the effectiveness of the use of cloth masks included proper training on mask use, proper fit, hand hygiene and duration of wear. The mask wearer should be properly educated on how to use a mask and adhere to all other mask etiquette.

Alternatives Reviewed

Staff reviewed the approaches taken by other jurisdictions to date (Appendix 5).

Council could decide to not take any action with respect to mandating face coverings acknowledging that public health officials at all government levels have provided advice that the most important measures are to keep a two metre distance from others, wash hands often and to stay home when sick. The use of masks in enclosed public settings where physical distancing is not possible is in addition to the above measures.

Council could also defer to the Medical Officer of Health to continue to exercise judgement on when and if to issue emergency instructions or a public health order making non-medical masks or face coverings mandatory for all community members, with exceptions. These approaches would still suffer the enforcement issues associated with a by-law, with even more challenging enforcement if the route of a public health order was selected. As well, these avenues are legally untested methods to set a requirement on all of society. At present, the Acting Medical Officer of Health does not favour such emergency instructions or an order, but is continually reviewing the situation and would adapt if conditions and evolution of scientific knowledge warrants.

Relationship to Council Strategic Priorities

Ensuring diligence around measures to limit the spread of COVID-19 will prevent illness and potentially death in Niagara. As well it will maximize the opportunity to reopen business safely. This directly supports two of Council's Strategic Priorities: Supporting Businesses and Economic Growth and Healthy and Vibrant Community.

Other Pertinent Reports

See Appendices.

Submitted by:
Todd Harrison, CPA, CMA
Acting Chief Administrative Officer

This report was prepared in consultation with Dr. M.Mustafa. Hirji, Acting Medical Officer of Health, Ann-Marie Norio, Regional Clerk, Donna Gibbs, Director, Legal and Court Services, and Daryl Barnhart, Executive Officer to the Regional Chair.

Appendices

Appendix 1 Report CAO 14-2020 A Unified Message for All-of-Niagara Vigilance Against COVID-19

Appendix 2 Memorandum PHD-C 4-2020 Further Details on Order to Wear Masks in Wellington-Dufferin-Guelph

Appendix 3 Draft By-law

Appendix 4 Fact Sheet from Government of Ontario website "Face Coverings and Face Masks"

Appendix 5 Actions by Other Jurisdictions respecting Face Coverings

Niagara Region

Subject: A Unified Message for All-of-Niagara Vigilance Against COVID-19

Report to: Board of Health (Regional Council)

Report date: Thursday, June 25, 2020

Recommendations

1. That Regional Council, as the Board of Health, **THANKS** the people of Niagara for their sacrifice and diligence in practicing personal conduct that has "flattened the curve" of COVID-19 and enabled Niagara to move into Stage 2 of the province's *A Framework for Reopening Our Province*;

2. That Regional Council, as the Board of Health, **RESOLVES** that as restrictions on the economy and social interaction are lifted in Niagara, it is more important than ever that everyone practices behaviours that limit the spread of infection, namely:

    2.1. Keeping a physical distancing of 2 metres from others
    2.2. Washing or sanitizing hands frequently
    2.3. Wearing a face covering where it is not possible to maintain a 2 metre distance
    2.4. Being attentive to one's health, and isolating oneself while seeking testing if one develops any symptoms of infection, however mild;

3. That Regional Council, as the Board of Health, **REQUESTS** all leaders and influencers in Niagara to speak in a unified voice about the importance of practicing the above behaviours;

4. That Regional Council, as the Board of Health, **ENCOURAGES** all residents and visitors to Niagara to practice the above behaviours; and

5. That Regional Council, as the Board of Health, **ENCOURAGES** all businesses and services in Niagara to implement all reasonable measures that enable their clients, employees, and visitors to practice the above behaviours.

Key Facts

- As Niagara has entered Stage 2 of the province's *Framework to Reopen Ontario*, there will be more interaction with people who partake of business and services that can reopen, and therefore greater risk that COVID-19 will again circulate more widely.

- Other countries such as South Korea, China, and several U.S. states have seen resurgences in COVID-19 as they reopened, particularly as their populations simultaneously reduced their vigilance to personal behaviours that can limit the spread of COVID-19.

- At Public Health & Social Services Committee on June 16, several members highlighted their concern with a resurgence of infection in Niagara, and the importance of people practicing behaviours such as wearing face coverings that limit the spread of COVID-19.

- Aligned and consistent messaging by all parties is needed to "break through" the plethora of information that surrounds us, and ensure everyone understands the importance of ongoing diligence in the face of COVID-19 to prevent future surges of illness.

Financial Considerations

There are no financial implications to this report.

Analysis

Niagara has achieved great success in reducing the spread of COVID-19. During the peak period of the outbreak, Niagara saw 150 cases over the course of a week (April 11–17). In the most recent week (June 13–19), Niagara had only 13 new cases.

This success is attributable to multiple factors:

1. Restrictions on the US border and measures to reduce travel that have stopped the importation of infections into Niagara from abroad

2. Restrictions on business and social life, reducing interactions amongst persons and therefore reducing the ability of infection to spread
3. Intensive follow-up of cases and contact tracing by Public Health to break chains of transmission
4. Efforts by essential businesses to limit the spread of infection by measures such as controlling the number of clients in their premises, frequent disinfection, one-way flows of traffic to discourage interaction, barriers between workers and clients at check-outs, increased on-line and curbside shopping.
5. Efforts by the people of Niagara to practice behaviours that have limited the spread of infection such as staying home as much as possible, keeping 2 metre distance from persons outside of the household, washing and sanitizing hands frequently, wearing face coverings when a 2-metre distance can't be kept, and staying isolated and getting tested when feeling ill.

These measures have also incurred significant cost and sacrifice in terms of personal freedom and mental wellness, lost income, pressures on child care, risk of illness incurred by essential workers continuing to serve the people of Niagara, and economic survival of businesses amongst many others. The social and economic costs of these has been significant.

As Niagara entered Stage 2 of the Province's *A Framework for Reopening our Province* (https://www.ontario.ca/page/framework-reopening-our-province-stage-2) on June 19, 2020, one of the five success factors listed earlier is being scaled back: restrictions on business and social life. This will lessen the most painful of the social and economic costs being experienced, but at the cost of lessening the measures in place to slow the spread of COVID-19. In order to maintain low case counts of COVID-19 in Niagara, efforts towards the remaining four success factors need to continue if not be redoubled.

At greatest risk of not continuing are the voluntary measures taken by businesses and the people of Niagara. There is understandably going to be fatigue to maintaining these measures, and continuing these practices with the same intensity will be difficult.

The experience of other countries such as China, South Korea, and the United States shows that as vigilance to such measures drops with reopening of businesses and services, COVID-19 is resurgent:

> …a resurgence of infections in the Seoul region where half of South Korea's 51 million people live is threatening the country's success story and prompting health authorities to warn that action must be taken now to stop a second wave.
>
> …since the easing of distancing, there has been a clear erosion in citizen vigilance, which, along with the highly effective contact tracing, has been credited for allowing the country to weather the epidemic without lockdowns.
>
> While the Health Ministry and KCDC have repeatedly urged residents in the capital area to refrain from unnecessary gatherings and other public activity, data provided by cellphone carriers, credit-card companies and mass-transport operators over the past weekend indicated that people were just as active as before.[1]

It is imperative that Niagara not mirror this experience and once again experience the same costs to citizens and business of restrictions on the economy and social life.

In terms of personal conduct that can limit the spread of COVID-19, the Public Health Agency of Canada advises that [2]

> The best thing you can do to prevent spreading COVID-19 is to wash your hands frequently with warm water and soap for at least 20 seconds. If none is available, use hand sanitizer containing at least 60% alcohol.

The Agency further highlights physical distancing, particularly staying home if one is ill, as measures that are important to stop the spread of infection. Where physical distancing is not possible, wearing a face covering is a secondary measure to mitigate the risk of not keeping physical distance:

- maintain a 2-metre physical distance from others

[1] "Resurgence of coronavirus infections in Seoul prompts warning from South Korean health authorities". *Globe & Mail*. June 11, 2020. https://www.theglobeandmail.com/world/article-resurgence-of-coronavirus-infections-in-seoul-prompts-warning-from/ (Accessed June 12, 2020)

[2] "Non-medical masks and face coverings: About". Public Health Agency of Canada. June 9, 2020. https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/prevention-risks/about-non-medical-masks-face-coverings.html (Accessed June 19, 2020)

- when physical distancing cannot be maintained, consider wearing a non-medical mask or homemade face covering

It should be emphasized that wearing a face covering remains a second-line preventive measures, when the preferred measures of physical distancing is not possible. Physical distancing has stronger and consistent evidence to support it. The evidence for face coverings is much weaker and conflicting, even though over the course of the pandemic, the research has begun to lean more favourably to the benefits of wearing face coverings.

A recent systematic review and meta-analysis published in *The Lancet* on June 1, 2020 examined the scientific evidence for these two measures. This kind of research study is considered one of the highest forms of scientific evidence as it combines the findings of the best research available to determine the overall impact. This study concluded with "moderate certainty" that physical distancing reduces the spread of COVID-19. It also concluded that face masks "could result" in reducing risk of infection, but only with "low certainty".[3]

Ontario's scientific agency for public health, Public Health Ontario, published a summary and synthesis of research on face coverings on June 4, 2020. This summary highlights the many studies showing face coverings as ineffective or harmful, as well as more recent studies no showing some benefit to face coverings. Overall, it concludes[4]

- The majority of studies have not demonstrated benefit in cluster randomized controlled trials evaluating the effect of members of the general public wearing masks in non-healthcare settings to prevent the acquisition of viral respiratory infections.

[3] DK Chu, EA Aki, S Duda, K Solo, S Yaacoub, HJ Schünemann. "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". *The Lancet*. June 1, 2020. DOI:https://doi.org/10.1016/S0140-6736(20)31142-9

[4] Ontario Agency for Health Protection and Promotion (Public Health Ontario). 2019-nCoV – What We Know So Far About…Wearing Masks in Public. Toronto, ON: Queen's Printer for Ontario; 2020.

- If masks are not used appropriately, and not combined with meticulous hand hygiene, there is a theoretical risk of increased infection risk through self-contamination.
- Recommending indiscriminate public wearing of medical masks may result in additional critical shortages of masks needed to protect front-line healthcare workers, and any potential benefits of mask wearing are likely less impactful than physical distancing and hand hygiene.

Balancing this potential benefit with uncertain scientific evidence, the Public Health Agency of Canada recommend face coverings be used, but in a limited fashion: as a mitigation measures when physical distancing is not possible, but not universally.

In addition to these personal behaviours that can limit the spread of COVID-19, one other element of personal contact can support another success factor: getting tested for COVID-19 which enables case management and contact tracing efforts by local public health. Continuing the message the importance of anyone with mild symptoms getting tested will ensure cases of COVID-19 are not missed, and stopping chains of transmission can be maximised.

Through the diligence of citizens and businesses practicing an enabling these behaviours (physical distancing, hand washing/sanitizing, wearing face coverings where distancing is not possible, isolating and getting tested when one has symptoms of illness), Niagara will stand the best chance of successfully reopening the economy and resuming social life, with only limited impact on COVID-19 spread. An All-of-Niagara effort by opinion leaders and influencers to promote these behaviours is recommended to realize this potential.

Alternatives Reviewed

Not speaking in a unified voice across Niagara will lessen the ability of the message to reach and influence residents, employers, and visitors.

Relationship to Council Strategic Priorities

Ensuring diligence around voluntary measures to limit the spread of COVID-19 will prevent illness and potentially death in Niagara. As well, it will maximize the opportunity to reopen businesses safety. This directly supports two of Council’s Strategic Priorities:

- Supporting Businesses and Economic Growth
- Healthy and Vibrant Community

Other Pertinent Reports

None

_____

Prepared & Recommended by:
M. Mustafa Hirji, MD MPH FRCPC
Medical Officer of Health & Commissioner (Acting)
Public Health & Emergency Services

_____

Submitted by:
Ron Tripp, P.Eng.
Acting Chief Administrative Officer

Pubic Health & Emergency Services
1815 Sir Isaac Brock Way, Thorold, ON L2V 4T7
905-980-6000 Toll-free: 1-800-263-7215

MEMORANDUM **PHD-C 4-2020**

Subject: Further Details on Order to Wear Masks in Wellington-Dufferin-Guelph

Date: July 14, 2020

To: Public Health & Social Services Committee

From: M. Mustafa Hirji, Medical Officer of Health & Commissioner (Acting)

At the June 16, 2020 meeting of Public Health & Social Services Committee, Committee requested Public Health to provide more information on the requirement to wear face coverings in Guelph.

What occurred in Wellington-Dufferin-Guelph was a joint effort by their local public health agency and their municipalities. The medical officer of health issued a public health order on all businesses within the region, and in concert, every municipality issued an emergency order as well.

The substance of these orders was that all owners/operators of commercial establishments prohibit persons from entering or remaining in their premises unless they are wearing a face covering. Face coverings must be worn at all times in these establishments, except as reasonably required to receive the services provided by the establishment (i.e. a mask can be removed while receiving outdoor dine-in services). Exceptions are made for persons for whom face coverings are not recommended. The orders also mandate that alcohol-based hand rub be made available for persons entering or exiting these establishments.

In terms of enforcement of the public health order, consistent with section 23 of the *Provincial Offenses Act*, as well as sections 100–102 of the *Health Protection and Promotion Act*, enforcement of the order on any business that was not compliant would require a two stage court proceeding through the Provincial Offenses Court or a court proceeding through the Ontario Superior Court of Justice. As of June 28, 2020, Wellington-Dufferin-Guelph Public Health has not pursued any court proceedings to enforce the order.

Niagara Region

Pubic Health & Emergency Services
1815 Sir Isaac Brock Way, Thorold, ON L2V 4T7
905-980-6000 Toll-free: 1-800-263-7215

As of July 2, 2020, the following are various jurisdictions in Ontario and requirements that they have made around wearing face coverings:

JURISDICTION	TYPE OF REQUIREMENT	OBJECT OF REQUIREMENT	CONTENT OF REQUIREMENT
WELLINGTON-DUFFERIN-GUELPH	Public Health Order & Municipal Emergency Orders	Owners/operators of commercial establishments	• Disallow entry to anyone not wearing a face covering • Hand sanitizer available at entrances
WINDSOR & ESSEX COUNTY	Public Health Order	Owners/operators of commercial establishments	• Have a policy to prohibit entry of anyone not wearing a face covering • Hand sanitizer available at entrances
KINGSTON FRONTENAC LENNOX & ADDINGTON	Public Health Order	Owners/operators of commercial establishments	• Have a policy to prohibit entry of anyone not wearing a face covering • Hand sanitizer available at entrances
CITY OF TORONTO	Bylaw	Owners/operators of indoor spaces accessible to the public	• Have a policy to require staff, customers, and visitors wear a face covering
MIDDLESEX-LONDON	Public Health Order	Transit Operators Hair/nail salons	• Implement local guidance for reducing risk in public spaces • Ensure staff, customers, volunteers, and contractors wear face coverings

JURISDICTION	TYPE OF REQUIREMENT	OBJECT OF REQUIREMENT	CONTENT OF REQUIREMENT
		Any business where workers and customers are face-to-face for more than 15 minutes	
PEEL REGION	Bylaw (proposed)	Owners/operators of indoor spaces accessible to the public	• Have a policy to require staff, customers, and visitors wear a face covering
WATERLOO REGION	Bylaw (proposed)	All members of the public	• Public must wear face coverings in public spaces

Respectfully submitted and signed by

_____

M. Mustafa Hirji, MD MPH FRCPC
Medical Officer of Health & Commissioner Acting

THE REGIONAL MUNICIPALITY OF NIAGARA

BY-LAW NO. <>

A BY-LAW TO REQUIRE MANDATORY FACE COVERINGS IN ENCLOSED PUBLIC PLACES DURING THE COVID-19 PANDEMIC

WHEREAS on March 17, 2020, an emergency was declared by the Government of Ontario ("Province") pursuant to Order in Council 518/2020 under section 7.0.1 of the *Emergency Management and Civil Protection Act*, R.S.O. 1990, c. E.9 ("EMCPA") in response to the outbreak of COVID-19;

WHEREAS on April 3, 2020 The Regional Municipality of Niagara and Niagara's 12 local area municipalities jointly declared a State of Emergency under s 7.0.1 (1) of the *Emergency Management and Civil Protection Act*;

WHEREAS public health authorities at the Federal and Provincial level have recommended that persons where face coverings in public where physical distancing cannot be maintained;

WHEREAS subsection 891) of the Municipal Act, 2001, S.O. 2001, c. 25, as amended provides that the powers of a municipality shall be interpreted broadly so as to confer broad authority to enable it to govern its affairs as it considers appropriate and to enhance its ability to respond to municipal issues;

WHEREAS The Regional Municipality of Niagara has the authority to enact by-laws for the health, safety and well-being of persons pursuant to section 11 of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended; and

WHEREAS the Council of The Regional Municipality of Niagara wishes to enact a temporary by-law to protect the health, safety, and well-being of residents and visitors to Niagara Region as the Province reopens to require individuals to wear a face covering while in certain enclosed public spaces to assist in reducing the spread of COVID-19 in the Region.

NOW THEREFORE the Council of The Regional Municipality of Niagara enacts as follows:

1. (1) Every person within an enclosed public place shall wear a face covering.

(2) Every person that is the parent or guardian accompanying a child that is five (5) years old or older in an enclosed public place shall ensure that the child wears a face covering.

(3) A “person” in subsections (1) and (2) of this section shall include any occupant within an enclosed public place and shall include, but not be limited to, any owner, operator, employee and worker in the enclosed public place and any customer, patron or other visitor in the enclosed public place but shall not include any of the following persons:

(a) a child who is under the age of five (5) years old;

(b) a person who is unable to wear a face covering as a result of a medical condition or a disability pursuant to the Human Rights Code, R.S.O. 1990, c. H.19, who is unable to put on or remove a face covering without assistance or for whom a face covering would inhibit the person’s ability to breathe;

(c) a person while consuming food or drink provided by a business that is permitted to operate under the Provincial Emergency Orders and provided that all other conditions of the Emergency Orders are met;

(d) a person engaged in a sport or other strenuous physical activity;

(e) a person while assisting or accommodating another person with a hearing disability; and

(f) employees and agents for the owner or operator of the enclosed public space within an area not for public access, or within or behind a physical barrier.

(4) No person shall be required to provide proof of any of the exemptions set out in subsections (3) (a), (b) and (e) of this section.

(5) For the purposes of this By-law, an enclosed public place shall mean all or any portion of a building that is located indoors and where the public is ordinarily invited or permitted access to whether or not a fee is charged or a membership is required for entry.

(6) For greater clarity, an enclosed public place shall include the following:

(a) retail stores where goods and services are sold to customers;

(b) businesses that primarily sell food including restaurants, supermarkets, grocery stores, bakeries and convenience stores;

(c) churches, mosques, temples, synagogues and other places of worship, except during a religious rite or ceremony that is incompatible with the face being covered;

(d) shopping malls or similar structures which contain multiple places of business;

(e) lobby areas of commercial buildings;

(f) common areas of hotels and motels and other short term accommodations, such as lobbies, elevators, meeting rooms or other common use facilities but does not include the common areas of residential apartment buildings or condominiums;

(g) laundromats;

(h) concert venues, theatres and cinemas;

(i) fitness centres, gyms, other recreational and sports facilities and clubhouses;

(j) arcades and other amusement facilities;

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

(l) museums, galleries, historic sites and similar attractions;

(m) businesses providing personal care services;

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

(o) municipal buildings.

(7) For greater clarity, a waiting area, lobby, service counter, washroom, hallway, stairwell and elevator are included as part of an enclosed public place prescribed in subsection (6) of this section if they are open to the general public.

(8) For greater clarity, the following places shall not be included as an enclosed public place for the purposes of this section:

(a) day cares, schools, post secondary institutions and other facilities used solely for educational purposes;

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

(c) buildings and services owned or operated by the Province of Ontario or the Federal Government of Canada;

(d) an indoor area of a building that is accessible only to employees; and

(e) portions of buildings that are being used for the purpose of providing day camps for children or for the training of amateur or professional athletes

(9) For the purposes of this by-law, a face covering shall mean a mask or other face covering, including a bandana or scarf constructed of cloth, linen or other similar fabric that fits securely to the head and is large enough to completely and comfortably cover the mouth, nose and chin without gaping.

(10) Every person who is the owner or operator of an enclosed public place shall post clearly visible signage conspicuously at all entrances to the enclosed public place containing the following text in a minimum font size of 24 point:

Protect each other
Wear a face covering
Cover your nose, mouth, and chin
Required by the Face Covering By-law
Does not apply to children under the age of five and those who are unable to wear a face covering as a result of a medical condition or a disability.

(11) A "person" in subsection (10) of this section shall include, but not be limited to, a corporation.

2. This By-law may be enforced by:

(1) A provincial offences officer of a lower tier municipality or The Regional Municipality of Niagara or other person appointed under the authority of a municipal by-law to enforce municipal by-laws;

(2) A public health inspector acting under the direction of the Medical Officer of Health;

(3) A police officer of the Niagara Regional Police Service;

(4) Such other person as designated from time to time by The Regional Municipality of Niagara.

3. (1) Every person who contravenes any provision of this By-law is guilty of an offence.

(2) Upon conviction, every person who contravenes any provision in this By-law is liable to a fine not exceeding one thousand dollars ($1,000), exclusive of costs, for each offence, recoverable under the provisions of the Provincial Offences Act, R.S.O. 1990, c. P.33, as amended, or any successor legislation thereto.

4. If any provision of this By-law is declared invalid for any reason by a court of competent jurisdiction, only that invalid portion of the By-law shall be severed and the remainder of the By-law shall still continue in force.

5. 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*, R.S.O. 1990, c. E.9, as amended.

6. This By-law may be cited as the “Face Covering By-law”.

7. This By-law shall come into force and effect on July 20, 2020.

8. This By-law shall be deemed repealed and no longer in force and effect at 12:01 a.m. on October 1, 2020 unless otherwise extended or repealed by resolution of Council.

THE REGIONAL MUNICIPALITY OF NIAGARA

_____

James Bradley, Regional Chair

_____

Ann-Marie Norio, Regional Clerk

Passed: <date>

! COVID-19: Get the latest updates or take a self-assessment.

Ontario

Face coverings and face masks

Learn about face coverings and how to properly wear, fit, remove and clean your non-medical face mask.

About face coverings and COVID-19 (coronavirus)

The best way to stop the spread of COVID-19 (coronavirus) is by staying home and avoiding close contact with others outside of your household.

It is recommended that you use a face covering (non-medical mask such as a cloth mask) to reduce the risk of transmission of COVID-19 when physical distancing and keeping two-metres' distance from others may be challenging or not possible, such as:

- public transit
- smaller grocery stores or pharmacies
- when you are receiving essential services

Face coverings will not protect you from getting COVID-19.

Medical masks (surgical, medical procedure face masks and respirators like N95 masks) should be reserved for use by health care workers and first responders.

Get a poster about face coverings (https://files.ontario.ca/moh-coronavirus-face-coverings-en-2020-05-20.pdf) .

Fit

Non-medical masks or face coverings should:

- fit securely to the head with ties or ear loops
- maintain their shape after washing and drying
- be made of at least two layers of tightly woven material (such as cotton or linen)
- be large enough to completely and comfortably cover the nose and mouth without gaping

Face coverings will not protect you from getting COVID-19. The best way to protect yourself is to:

- minimize errands to a single trip where possible
- avoid close contact with others and keep at least two metres from others outside your household
- wash your hands regularly (or using alcohol-based hand sanitizer if soap and water are not available)
- practice proper cough and sneeze etiquette (for example, sneeze and cough into your sleeve and avoid touching your eyes, nose or mouth)

Who should not use face coverings

Face coverings should not be placed on or used by:

- children under the age of two
- anyone who has trouble breathing
- anyone who is unconscious, incapacitated or otherwise unable to remove the mask without assistance

How to properly use face coverings

When wearing a face covering, you should:

- wash your hands immediately before putting it on and immediately after taking it off (practise good hand hygiene while you are wearing the face covering)
- make sure the face covering fits well around your nose and mouth
- avoid moving the mask around or adjusting it often
- avoid touching the covering while using it
- not share it with others

Face coverings should be changed when they get slightly wet or dirty.

Remove or dispose of face coverings

When removing a face covering, you should:

- throw it out into a lined garbage bin
- wash your hands

Do not leave any discarded face coverings in shopping carts or on the ground.

Cleaning

If the face covering **can be cleaned**, you should:

- put it directly into the washing machine or a bag that can be emptied into the washing machine
- wash with other items using a hot cycle with laundry detergent (no special soaps are needed), and dry thoroughly
- wash your hands after putting the face covering into the laundry

All face coverings **that cannot be cleaned** should be thrown out and replaced as soon as they get slightly wet, dirty or crumpled.

For more information, please read the Public Health Ontario (PHO) fact sheet (https://www.publichealthontario.ca/-/media/documents/ncov/factsheet/factsheet-covid-19-how-to-wear-mask.pdf?la=en) .

Summary dos and don’ts

Do:

- wash your hands immediately before putting on and immediately after taking off a face covering or face mask
- practise good hand hygiene while you are wearing the face covering
- make sure the face covering fits well around your nose and mouth

- avoid moving the mask around or adjusting it often
- avoid touching the covering while using it
- change the face covering or face mask when it gets slightly wet or dirty

Do not:

- share face coverings or face masks with others
- place on children under the age of two years or on anyone unable to remove without assistance or who has trouble breathing
- use plastic or other non-breathable materials as a face covering or face mask

Guidance for health care workers

Personal protective equipment (https://www.canada.ca/en/health-canada/services/drugs-health-products/medical-devices/covid19-personal-protective-equipment.html) (PPE) is a garment or device worn by health care workers to protect themselves from infection when they:

- are in close contact with people who are infected
- can't maintain a safe physical distance
- do not have access to a physical barrier

PPE includes:

- surgical masks, also called procedural or medical masks, which prevent droplets and splashes from passing through the mask material
- respirators, such as the N95 respirator, which have a filter and seal around the nose and mouth to help prevent exposure to airborne particles
- gowns
- gloves
- eye protection, such as goggles or face shields

The type of PPE you need depends on the type of health care work you do. Health care workers who provide direct care to patients with suspected or confirmed COVID-19 need to:

- follow droplet and contact precautions
- use a surgical mask, isolation gown, gloves and eye protection

Learn more about Public Health Ontario's PPE recommendations in health care facilities (https://www.publichealthontario.ca/-/media/documents/ncov/updated-ipac-measures-covid-19.pdf?la=en) .

If you are a business or health care organization and you need PPE, you can find a company or business association that supplies personal protective equipment (https://covid-19.ontario.ca/how-your-organization-can-help-fight-coronavirus) .

Updated: June 23, 2020
Published: May 20, 2020

Related

What you should do to help prevent the spread (https://www.ontario.ca/page/covid-19-stop-spread#section-1)

[Sector-specific health and safety guidance to prevent COVID-19 in the workplace (https://www.ontario.ca/page/resources-prevent-covid-19-workplace)]

As of July 7, 2020, the following are various jurisdictions in Ontario and requirements that they have made around wearing face coverings:

JURISDICTION	TYPE OF REQUIREMENT	OBJECT OF REQUIREMENT	CONTENT OF REQUIREMENT
WELLINGTON-DUFFERIN-GUELPH	Public Health Order & Municipal Emergency Orders	Owners/operators of commercial establishments	• Disallow entry to anyone not wearing a face covering • Hand sanitizer available at entrances
WINDSOR & ESSEX COUNTY	Public Health Order	Owners/operators of commercial establishments	• Have a policy to prohibit entry of anyone not wearing a face covering • Hand sanitizer available at entrances
KINGSTON FRONTENAC LENNOX & ADDINGTON	Public Health Order	Owners/operators of commercial establishments	• Have a policy to prohibit entry of anyone not wearing a face covering • Hand sanitizer available at entrances
CITY OF TORONTO	Bylaw	Owners/operators of indoor spaces accessible to the public	• Have a policy to require staff, customers, and visitors wear a face covering
MIDDLESEX-LONDON	Public Health Order	Transit Operators Hair/nail salons Any business where workers and customers are face-to-face for more than 15 minutes	• Implement local guidance for reducing risk in public spaces • Ensure staff, customers, volunteers, and contractors wear face coverings

JURISDICTION	TYPE OF REQUIREMENT	OBJECT OF REQUIREMENT	CONTENT OF REQUIREMENT
PEEL REGION	Support of By-law issued by lower tiers	All members of the public	• Public must wear face coverings in enclosed public spaces
WATERLOO REGION	Bylaw	All members of the public	• Public must wear face coverings in enclosed public spaces • Business owners must post signage
DURHAM REGION	Instruction from Public Health pursuant to Provincial Emergency Orders	All members of the public	• Public must wear face coverings while in indoor places accessible to the public
YORK REGION	Instruction from Public Health pursuant to Provincial Emergency Orders (proposed)	Operators of enclosed public spaces	• Have a policy that prohibits persons from entering without a face covering
SIMCOE MUSKOKA DISTRICT HEALTH UNIT	Instruction from Public Health pursuant to Provincial Emergency Orders	All members of the public	• Public must wear a face covering while within publically accessible indoor locations

JURISDICTION	TYPE OF REQUIREMENT	OBJECT OF REQUIREMENT	CONTENT OF REQUIREMENT
PUBLIC HEALTH SUDBURY & DISTRICTS	Instruction from Public Health pursuant to Provincial Emergency Orders	Owners/operators of commercial establishments	• Have a policy that prohibits persons from entering without a face covering

THE REGIONAL MUNICIPALITY OF NIAGARA

BY-LAW NO. <>

A BY-LAW TO REQUIRE MANDATORY FACE COVERINGS IN ENCLOSED PUBLIC PLACES DURING THE COVID-19 PANDEMIC

WHEREAS on March 17, 2020, an emergency was declared by the Government of Ontario ("Province") pursuant to Order in Council 518/2020 under section 7.0.1 of the *Emergency Management and Civil Protection Act*, R.S.O. 1990, c. E.9 ("EMCPA") in response to the outbreak of COVID-19;

WHEREAS on April 3, 2020 The Regional Municipality of Niagara and Niagara's 12 local area municipalities jointly declared a State of Emergency under s 7.0.1 (1) of the *Emergency Management and Civil Protection Act*;

WHEREAS public health authorities at the Federal and Provincial level have recommended that persons where face coverings in public where physical distancing cannot be maintained;

WHEREAS subsection 8(1) of the Municipal Act, 2001, S.O. 2001, c. 25, as amended provides that the powers of a municipality shall be interpreted broadly so as to confer broad authority to enable it to govern its affairs as it considers appropriate and to enhance its ability to respond to municipal issues;

WHEREAS The Regional Municipality of Niagara has the authority to enact by-laws for the health, safety and well-being of persons pursuant to section 11 of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended; and

WHEREAS the Council of The Regional Municipality of Niagara wishes to enact a temporary by-law to protect the health, safety, and well-being of residents and visitors to Niagara Region as the Province reopens to require individuals to wear a face covering while in certain enclosed public spaces to assist in reducing the spread of COVID-19 in the Region.

NOW THEREFORE the Council of The Regional Municipality of Niagara enacts as follows:

1. (1) Every person within an enclosed public place shall wear a face covering.

(2) Every person that is the parent or guardian accompanying a child that is five (5) years old or older in an enclosed public place shall ensure that the child wears a face covering.

(3) A “person” in subsections (1) and (2) of this section shall include any occupant within an enclosed public place and shall include, but not be limited to, any owner, operator, employee and worker in the enclosed public place and any customer, patron or other visitor in the enclosed public place but shall not include any of the following persons:

(a) a child who is under the age of five (5) years old;

(b) a person who is unable to wear a face covering as a result of a medical condition or a disability pursuant to the Human Rights Code, R.S.O. 1990, c. H.19, who is unable to put on or remove a face covering without assistance or for whom a face covering would inhibit the person’s ability to breathe;

(c) a person while consuming food or drink provided by a business that is permitted to operate under the Provincial Emergency Orders and provided that all other conditions of the Emergency Orders are met;

(d) a person engaged in a sport or other strenuous physical activity;

(e) a person while assisting or accommodating another person with a hearing disability; and

(f) employees and agents for the owner or operator of the enclosed public space within an area not for public access, or within or behind a physical barrier.

(4) No person shall be required to provide proof of any of the exemptions set out in subsections (3) (a), (b) and (e) of this section.

(5) For the purposes of this By-law, an enclosed public place shall mean all or any portion of a building that is located indoors and where the public is ordinarily invited or permitted access to whether or not a fee is charged or a membership is required for entry.

(6) For greater clarity, an enclosed public place shall include the following:

(a) retail stores where goods and services are sold to customers;

(b) businesses that primarily sell food including restaurants, supermarkets, grocery stores, bakeries and convenience stores;

(c) churches, mosques, temples, synagogues and other places of worship, except during a religious rite or ceremony that is incompatible with the face being covered;

(d) shopping malls or similar structures which contain multiple places of business;

(e) lobby areas of commercial buildings;

(f) common areas of hotels and motels and other short term accommodations, such as lobbies, elevators, meeting rooms or other common use facilities but does not include the common areas of residential apartment buildings or condominiums;

(g) laundromats;

(h) concert venues, theatres and cinemas;

(i) fitness centres, gyms, other recreational and sports facilities and clubhouses;

(j) arcades and other amusement facilities;

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

(l) museums, galleries, historic sites and similar attractions;

(m) businesses providing personal care services;

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

(o) municipal buildings.

(7) For greater clarity, a waiting area, lobby, service counter, washroom, hallway, stairwell and elevator are included as part of an enclosed public place prescribed in subsection (6) of this section if they are open to the general public.

(8) For greater clarity, the following places shall not be included as an enclosed public place for the purposes of this section:

(a) day cares, schools, post secondary institutions and other facilities used solely for educational purposes;

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

(c) buildings and services owned or operated by the Province of Ontario or the Federal Government of Canada;

(d) an indoor area of a building that is accessible only to employees; and

(e) portions of buildings that are being used for the purpose of providing day camps for children or for the training of amateur or professional athletes

(9) For the purposes of this by-law, a face covering shall mean a mask or other face covering, including a bandana or scarf constructed of cloth, linen or other similar fabric that fits securely to the head and is large enough to completely and comfortably cover the mouth, nose and chin without gaping.

(10) Every person who is the owner or operator of an enclosed public place shall post clearly visible signage conspicuously at all entrances to the enclosed public place containing the following text in a minimum font size of 24 point:

Protect each other
Wear a face covering
Cover your nose, mouth, and chin
Required by the Face Covering By-law
Does not apply to children under the age of five and those who are unable to wear a face covering as a result of a medical condition or a disability.

(11) A "person" in subsection (10) of this section shall include, but not be limited to, a corporation.

2. This By-law may be enforced by:

(1) A provincial offences officer of a lower tier municipality or The Regional Municipality of Niagara or other person appointed under the authority of a municipal by-law to enforce municipal by-laws;

(2) A public health inspector acting under the direction of the Medical Officer of Health;

(3) A police officer of the Niagara Regional Police Service;

(4) Such other person as designated from time to time by The Regional Municipality of Niagara.

3. (1) Every person who contravenes any provision of this By-law is guilty of an offence.

(2) Upon conviction, every person who contravenes any provision in this By-law is liable to a fine not exceeding one thousand dollars ($1,000), exclusive of costs, for each offence, recoverable under the provisions of the Provincial Offences Act, R.S.O. 1990, c. P.33, as amended, or any successor legislation thereto.

4. If any provision of this By-law is declared invalid for any reason by a court of competent jurisdiction, only that invalid portion of the By-law shall be severed and the remainder of the By-law shall still continue in force.

5. 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*, R.S.O. 1990, c. E.9, as amended.

6. This By-law may be cited as the “Face Covering By-law”.

7. This By-law shall come into force and effect on July 20, 2020.

8. This By-law shall be deemed repealed and no longer in force and effect at 12:01 a.m. on October 1, 2020 unless otherwise extended or repealed by resolution of Council.

THE REGIONAL MUNICIPALITY OF NIAGARA

James Bradley, Regional Chair

Ann-Marie Norio, Regional Clerk

Passed: <date>

THE REGIONAL MUNICIPALITY OF NIAGARA

BY-LAW NO. <>

A BY-LAW TO ADOPT, RATIFY AND CONFIRM THE ACTIONS OF REGIONAL COUNCIL AT ITS SPECIAL MEETING HELD JULY 8, 2020

WHEREAS subsection 5 (3) of the Municipal Act, S.O. 2001, Ch. 25, as amended, provides that, except if otherwise authorized, the powers of Regional Council shall be exercised by by-law; and,

WHEREAS it is deemed desirable and expedient that the actions of Regional Council as herein set forth be adopted, ratified and confirmed by by-law.

NOW THEREFORE the Council of The Regional Municipality of Niagara enacts as follows:

1. That the actions of the Regional Council at its special meeting held July 8, 2020, including all resolutions or motions approved, are hereby adopted, ratified and confirmed as if they were expressly embodied in this by-law.

2. That the above-mentioned actions shall not include:
   a) Any actions required by law to be taken by resolution; or
   b) Any actions for which prior Local Planning Appeal Tribunal approval is required, until such approval is obtained.

3. That the Chair and proper officials of The Regional Municipality of Niagara are hereby authorized and directed to do all things necessary to give effect to the above-mentioned actions and to obtain approvals where required.

4. That unless otherwise provided, the Chair and Clerk are hereby authorized and directed to execute and the Clerk to affix the seal of The Regional Municipality of Niagara to all documents necessary to give effect to the above-mentioned actions.

5. That this by-law shall come into force and effect on the day upon which it is passed.

THE REGIONAL MUNICIPALITY OF NIAGARA

James Bradley, Regional Chair

Ann-Marie Norio, Regional Clerk

Passed: <date>