



Response to COVID-19: Persevering Through Resurgence - Additional Information

Date: November 8, 2020

To: Board of Health

From: Medical Officer of Health

Wards: All

SUMMARY

This report provides an update on the status of the COVID-19 pandemic locally, the response work to date and related provincial initiatives including the new Provincial COVID-19 Response Framework. As well, it also introduces early details of the City of Toronto's COVID-19 Immunization Task Force.

Recent case data trends are summarized, including indicators of mental health and well-being. The effects of the pandemic on mental health are receiving increased focus in the literature and have been described in other jurisdictions. An introduction to current indicators of mental health and well-being, focused on Toronto's population, is provided in order to begin documenting and understanding the broader health impacts of the pandemic.

Given the importance of providing widespread access to safe and effective COVID-19 vaccines, the City of Toronto has formed a COVID-19 Immunization Task Force. The Task Force is led by Toronto Public Health (TPH), Toronto Fire Services, Toronto Paramedic Services and the Emergency Operations Centre. It is charged with the responsibility of planning and executing the largest mass immunization campaign ever undertaken at one time in Toronto. The campaign will leverage expertise within TPH, informed by experience during the 2009 H1N1 pandemic and a 2016 preparedness exercise, and with logistics support from across the City. While it is not yet clear when a safe and effective vaccine will be available, this Task Force will ensure that the City is ready to play its role in helping Torontonians get vaccinated.

It is anticipated that COVID-19 will circulate alongside other respiratory viruses during Toronto's winter months. This report outlines TPH's on-going collaboration with the Ontario Government on the promotion and administration of the influenza vaccine which is a vital tool to reduce the health impacts of the flu and avoid putting additional pressures on the health system as it responds to the increase in COVID-19 cases.

RECOMMENDATIONS

The Medical Officer of Health recommends that:

1. City Council and the Board of Health urge the Ontario Ministry of Health to undertake a comprehensive assessment of the impact of the pandemic on mental health and well-being to inform the need for additional supports or programs required to mitigate the associated harms.
2. City Council and the Board of Health urge the Ontario Ministry of Health to ensure flu vaccine promotion and distribution is targeted across Toronto, with a particular focus on those at higher risk such as racialized and low-income populations.
3. The Board of Health request the Medical Officer of Health to continue to widely promote the availability of flu vaccines in partnership with City divisions and community partners.
4. City Council and the Board of Health urge the Federal and Provincial Governments and the National Advisory Committee on Immunization to consider the following when promoting and distributing future approved COVID-19 vaccines:
 - a. prioritizing populations so that vaccination has the greatest impact on disease burden and transmission at the time of the availability of the vaccine;
 - b. this prioritization should include patient care staff to ensure that the health system remains available to respond to the needs of the population and those at highest risk of more serious complications of COVID-19 once infected; and
 - c. early distribution based on the geographic burden of disease, including disadvantaged populations.
5. The Board of Health request the Medical Officer of Health to continue to prepare as quickly as possible, in partnership with other City divisions and provincial partners, Toronto Public Health's mass immunization plan for the distribution of potential future COVID-19 vaccines to promote wide scale access and protection through immunization.
6. The Board of Health request the Medical Officer of Health to support Toronto hospitals, with community partners, to explore and pilot rapid testing options, including point-of-care tests, especially for those populations who are at higher risk.
7. The Board of Health request the Medical Officer of Health to include the use of equity indicators incorporated into routine reporting to monitor any disproportionate impacts of COVID-19 across the City and guide action.
8. The Board of Health request the Medical Officer of Health to report to an upcoming Board of Health meeting regarding the general population survey on the impacts of the COVID-19 pandemic on the residents of Toronto.

FINANCIAL IMPACT

There is no financial impact resulting from the adoption of the recommendations in this report.

DECISION HISTORY

On October 19, 2020, the Medical Officer of Health delivered a report and presentation to the Board of Health on the Response to COVID-19: Response to Resurgence.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.HL22.1>

On September 21, 2020, the Medical Officer of Health delivered a report and presentation to the Board of Health on the Response to COVID-19: Reopening and Preparations for a Potential Resurgence.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.HL20.1>

On July 26, 2020, the Medical Officer of Health delivered a Supplementary Report to City Council on Establishing a COVID-19 Isolation Site.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.HL18.1>

On July 2, 2020, the Medical Officer of Health delivered a report and presentation to the Board of Health on an update regarding COVID-19.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.HL18.1>

On June 8, 2020, the Medical Officer of Health delivered a report and presentation to the Board of Health regarding the City of Toronto's COVID-19 Response and Recovery.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.HL17.1>

On May 7, 2020, the Medical Officer of Health delivered a presentation at a special meeting of the Board of Health.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.HL16.2>

COMMENTS

Status of Pandemic Resurgence and Monitoring of Equity Indicators

A review of the current status of the Fall resurgence of COVID-19 reveals that as with the initial wave, COVID-19 cases have not been evenly distributed across Toronto neighbourhoods. With the recent addition of percent positivity and testing data, neighbourhood case rates can be better understood. Areas of concerning high virus activity can be better differentiated from those that may require more testing. Toronto Public Health (TPH) continues to look for ways to assess and share data that can support the work of all levels of government, as well as to support TPH and community groups in responding to the inequitable impacts of the pandemic on Toronto residents. This includes the use of equity indicators in routine reporting, to monitor the impact of

COVID-19 across the city. Routine reporting on equity indicators can ensure pandemic response activities such as increased access to testing, education, and other control measures are informed by the social determinants of health.

Long-Term Care Home Response during Resurgence

Like other communities in Ontario, residents and staff of Toronto long-term care homes (LTCHs) and retirement homes were significantly impacted by the first wave of the pandemic. In Canada overall, 81% of deaths during the first wave were in LTCH residents. TPH has collaborated with area hospitals, the local health integration networks (LHINs), the Ministry of Health, the Ministry of Long-Term Care, and Ontario Health to prepare for a potential resurgence of virus activity in Toronto LTCHs. This work has included training of additional TPH staff to support the increased infection prevention and control needs of LTCH staff and residents during outbreaks. We are also collaborating with local hospitals and other agencies in new and innovative ways to better coordinate outbreak response in these highly vulnerable environments. Moreover, detailed plans for outbreak response were drafted for each LTCH, and roles and responsibilities were clarified.

During the summer, the province launched a Commission to investigate the spread of COVID-19 within LTCHs. This includes understanding how residents, staff and families were impacted and the adequacy of measures taken by the province and other parties to prevent, isolate and contain the spread. The Medical Officer of Health (MOH) and other TPH staff have provided information to the Commission as requested about experiences responding to outbreaks and cases in LTCHs during the first wave of the pandemic. More information about the Commission can be found at: <https://www.ontario.ca/page/long-term-care-covid-19-commission>

Public Health Measures, New Provincial COVID-19 Response Framework and Testing in Response to Resurgence

On August 10, Toronto recorded just 11 new cases, the lowest daily reported total since March 9. Since then, daily case counts have increased, prompting TPH to call on both the City and the Ontario Government to put into place additional measures to slow the recent increase. Attachment 1 shows the steps and related timelines of the public health response associated with the lower summer case counts, and then the rapid increase in daily case counts during the fall. This includes the City and the Ontario Government first relaxing, and then re-introducing, public health measures in Toronto.

TPH continues to closely follow the epidemiology of COVID-19 to assess the impact of the most recent changes. Evidence from other jurisdictions indicates that it can take at least two incubation periods (4 weeks) to fully detect the impact of changes in community interactions as a result of changes in public health measures in place at any one time.

On November 3, 2020, the Ontario Government, in consultation with the Chief Medical Officer of Health, released the Keeping Ontario Safe and Open Framework. As described by the Provincial Government, the framework aims to ensure that public health measures are targeted, incremental and responsive to help limit the spread of

COVID-19, while keeping schools and businesses open, maintaining health system capacity and protecting vulnerable people, including those in long-term care.

The framework categorizes public health unit regions into five levels, based on the local epidemiology of COVID-19, local health system and public health capacity indicators, including:

- Green-Prevent;
- Yellow-Protect;
- Orange-Restrict;
- Red-Control; and,
- Lockdown being a measure of last and urgent resort.

These levels replace the system of Stages (1, 2, 3) that the Province had previously been utilizing. Each level outlines the types of public health and workplace safety measures required for businesses and organizations. These include targeted measures for specific sectors, institutions and other settings. Regulations that accompany the new provincial COVID-19 Response Framework were released on November 6, 2020 and provide the specific requirements for each level. They will be reviewed with city divisions for communication to relevant stakeholders. Toronto currently remains under modified Stage 2 restrictions. Using the new Provincial framework it is anticipated that the province will move Toronto to the Orange-Restrict level on November 14, 2020 however COVID-19 activity will continue to be carefully monitored leading up to November 14, 2020 and beyond. The preliminary outcomes of the current public health measures will be shared at the Board of Health (BOH) meeting through a presentation to the Board.

Additionally, access to testing for higher risk populations, especially in areas of higher need is an important component of the response. TPH is working closely with community partners and Ontario Health to facilitate access to testing for those with the greatest need. To further support this work, the report recommends that the MOH support Toronto hospitals, with community partners, to explore and pilot rapid testing options, including point-of-care tests, especially for those populations who are at higher risk.

Health Effects of COVID-19

The health impacts of COVID-19, including deaths and severe illness, continue to be well documented. However, the impacts of COVID-19 can also relate to the population level actions and restrictions required to reduce and contain the spread of the virus. The unintended consequences of these measures are wide-ranging and evidence is emerging that one area of significant effects is mental health and well-being. According to the Canadian Perspectives Survey Series survey, only half of individuals aged 15+ reported excellent or very good mental health during the COVID-19 period, with stress and anxiety resulting from physical distancing measures being a major concern¹. A report from the Toronto Foundation also noted that locally, mental health concerns appear to be growing². Another report from McMaster University focusing on families with school-aged children reported increased use of alcohol and increased symptoms consistent with anxiety and depression³. Finally, in a recent poll, 24% of Canadians reported their mental health and stress levels were worse when compared to the first

wave of the pandemic. The biggest sources of stress were the uncertainty of the pandemic's conclusion (17%), social isolation (16%), and worries about their family's health and safety (15%)⁴.

TPH has started work to understand the mental health impacts of the pandemic by identifying a set of local indicators, including those related to use of emergency department services, mental health referral agencies, and local mental health care providers. The focus was on the degree of help-seeking behaviours (e.g., volume of calls) and the reported area of concern (e.g., anxiety, crisis intervention). Between March 17th (when Ontario declared COVID-19 a public health emergency) and July 31st (when Toronto moved to Stage 3 reopening), preliminary findings showed that mental health and addictions-related visits to the emergency department decreased while contacts with a range of organizations providing virtual and telephone supports increased. These providers reported increasing client concerns related to depression and anxiety, in particular around isolation and loneliness, physical health, and availability of services. These indicators are an important input into fully understanding the response, and TPH will continue to evaluate indicators and provide updates at future meetings of the BOH.

Additionally, as highlighted at the October 19, 2020 BOH meeting, TPH has engaged a polling firm to survey a sample of Toronto residents about the specific ways that the pandemic has impacted them and their behaviours. The polling firm has contacted 1,200 individuals chosen to broadly represent Toronto residents, including a larger sample of individuals from higher impacted neighbourhoods to ensure the voices in those communities are heard. Questions in the survey were aimed to gather information about changes residents have made in their behaviours, indicators of the pandemic's impact on their mental health and well-being, and to gauge expectations about the pandemic. As part of the presentation at this BOH meeting, very preliminary findings of the survey will be outlined and a full report will be given at an upcoming BOH meeting.

Update on Safe Reopening of Toronto Elementary and Secondary Schools

A significant amount of planning with the four school boards, the Ontario Government (both the Ministry of Education and the Ministry of Health) and local health care organizations occurred during the summer to prepare for the safe reopening of elementary and secondary schools. The Ontario Government provided additional funds to support TPH to assign approximately 100 temporary nurses to support schools. In Toronto, these nurses provide their assigned schools information on ways of reducing the risk of COVID-19 and respond to reports of students, teachers or staff with COVID-19 symptoms.

As the schools re-opened in mid-September, TPH established a separate outbreak response team to work with each school to investigate COVID-19 cases in students, teachers and staff. TPH ensured the schools understood the importance of actions such as screening of students by parents before they came to school each morning and the process for accessing testing should a student or teacher develop signs and symptoms of COVID-19. This team of nurses also worked closely with schools and the school boards to manage any outbreaks that were detected.

During this period of school reopening, TPH has been closely monitoring different age groups to see if the pattern of infections changed once schools were reopened and if case rates in younger individuals increased. Since reopening, case counts and rates in school-aged children (4 to 17) have been increasing. However, this increasing trend began in mid-August, before school reopened and was preceded by a much more rapid increase in adult case rates.

TPH continues to monitor the circulation of the virus in schools, noting that other jurisdictions that reopened their schools this fall have noticed few outbreaks and low case rates in their school-aged population despite coming together each day in school. As of November 5, there have been a relatively small number of outbreaks in schools coupled with the small number of cases in each outbreak suggesting that current screening and infection prevention and control protocols appear to be working in reducing the transmission of the virus in schools.

In summary, the current data does not suggest that school reopening has been a key driver of the resurgence in COVID-19 cases in Toronto.

Preparing for COVID-19 Vaccination Roll-out

An extremely important strategy that will be employed in managing the pandemic is through the provision and widespread acceptance of safe and effective vaccines. As of October 19, there were just over 200 vaccines in development against COVID-19; 44 of these were already in clinical trials, and 12 of those were in the last phase of regulatory approval. This has been an unprecedented rapid development and testing of vaccines, which traditionally can take years from scientific discovery to clinical use. This is a testament to the incredible efforts of governments, industry and academic groups to understand the virus and its immunological properties, find possible effective vaccine strategies, evaluate them and ready them for safe human use.

Once the vaccines have completed their clinical trials they will be submitted to Health Canada (H/C), the Canadian regulator of vaccines, for approval. H/C will determine if the vaccine is sufficiently safe and effective for use in Canada. Concurrently, the National Advisory Committee on Immunization (NACI) will evaluate the approved vaccines and provide recommendations on their use. NACI is the group that will be providing guidance on how different populations within Canada should be prioritized for receiving the vaccine, to gain the greatest impact on the pandemic in the shortest time. If there is sufficient evidence for H/C approval, the federal government will work with the Provinces to distribute the vaccine. This is almost certainly not going to occur before early 2021 given the status of the clinical trials of the vaccines.

This report makes recommendations to the Federal and Provincial Governments and the National Advisory Committee on Immunization. Specifically, it recommends that distribution of the approved vaccines consider prioritizing populations so that the vaccination has the greatest impact on the burden of disease and transmission at the time of the vaccines' availability. This prioritization would include: 1) patient care staff to ensure that the health system remains available to the needs of the general population; 2) those at highest risk of more serious complications of COVID-19 once infected; and 3) early distribution based on the geographic burden of disease, including

disadvantaged populations. Some COVID-19 vaccines, such as one of the front-runners being developed by Pfizer/BioNTech, have particular cold storage requirements that will provide challenges for distribution in pharmacies and doctors' offices. In these circumstances, the province may call on TPH to conduct additional immunization clinics to provide the vaccine to residents.

City of Toronto COVID-19 Immunization Task Force

As part of the COVID-19 response and recovery efforts, the City of Toronto has formed a COVID-19 Immunization Task Force. The COVID-19 Immunization Task Force will deliver the largest mass immunization campaign ever undertaken at one time in Toronto.

The COVID-19 Immunization Task Force is co-led by TPH, Toronto Fire Services, Toronto Paramedic Services and the Emergency Operations Centre. The City has put together staff from across key divisions to create a comprehensive plan that will ensure that the City is ready once a safe and effective vaccine is available for residents of Toronto.

While it is not yet clear when a vaccine will be available, this Task Force will ensure that the City is ready to play its role in helping Torontonians get vaccinated, guided by the overall immunization strategy provided by the Province.

Each order of government has very specific roles and responsibilities and this clarity will be a key success factor in working together to get Torontonians vaccinated. The Public Health Agency of Canada, for example, is responsible for the procurement and approval of vaccines for use in Canada, while the province is responsible for the overall immunization strategy (likely a phased approach), determining specific population prioritization and distribution of the vaccines to potential vaccine delivery agents such as public health units, doctors and pharmacies.

Once this guidance from the Province is received, the City will be prepared to lead local implementation. This could range from allocating and distributing allotted vaccine doses, working with medical practitioners, administering vaccines through clinics and other methods and providing data back to the Province so they can determine the success of the campaign. On November 5, 2020, the Ministry of Health requested representatives for a COVID-19 Vaccine Working Group that will plan the logistics and roll-out of the immunization campaign.

The City and TPH together bring a great deal of experience and knowledge to this undertaking, including the experiences from the H1N1 influenza pandemic in 2009, the yearly flu vaccination clinics run by Toronto Public Health and from a full-scale emergency mass immunization exercise conducted in 2016. The lessons learned from these experiences are being applied to the COVID-19 immunization plan.

Respiratory Virus Season in Toronto

Fall/winter is the traditional respiratory virus season in Canada. As the temperature and humidity fall and people move indoors, the risk of virus transmission (e.g. influenza,

rhinovirus) increases. In 2019/2020, TPH received reports of 2,771 lab-confirmed infections with influenza. This year, it is anticipated that both influenza A/B and COVID-19 may circulate together. Both can cause serious illness, particularly for older individuals. Without laboratory testing, distinguishing between these two viruses is almost impossible. To reduce the impact of influenza, all residents are reminded of the availability of influenza vaccination which is especially important for older individuals and those with an underlying medical condition that increases the risk of serious illness from influenza infection.

As with past years, TPH is conducting an influenza vaccination campaign in collaboration with the Ministry of Health. During the 2019/2020 season, TPH administered 7,600 doses of vaccine. This year, four TPH clinic locations in the community have been established and are accessible by appointment-only to reduce long lines from forming and to mitigate the risk of spreading COVID-19. As well, TPH continues its long history of providing influenza vaccine to homeless and under housed individuals at clinics in the shelter system. This allows this population to access the vaccine close to where they seek other services.

CONTACT

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SIGNATURE

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Medical Officer of Health

ATTACHMENTS

Attachment 1: Actions Taken In Response to the COVID-19 Resurgence in September 2020

Attachment 2: Vaccines Purchased under the Canadian Government's Advanced Purchase Arrangement

Attachment 1

Actions Taken In Response to the COVID-19 Resurgence in September 2020

ACTION	DATE
Stage 3 Re-opening	July 31, 2020
Lowest Toronto Daily Case Count – 11 cases	August 10, 2020
TDSB Schools begin in-class instruction 2020/21 Year	Week of September 15, 2020
Province restricted gatherings in private spaces to 10 individuals indoors and 25 outdoors in Toronto	September 18
Province issues further measures: <ul data-bbox="203 871 1117 1060" style="list-style-type: none">• restricted alcohol sales to end at 11 pm and ordered food premises to close at midnight;• ordered that each patron provide contact information;• ordered that all work places screen staff before starting work;• adult entertainment venues were ordered to close.	September 26
Toronto City Council approved further measures: <ul data-bbox="203 1171 1101 1438" style="list-style-type: none">• limited occupancy in food establishments to 75 people;• reduced the number of individuals who could sit at one table to 6;• required each patron at a restaurant to provide their contact information to the establishment;• ordered any music/sound at these establishments to be played no louder than normal conversation level.	September 30th
Toronto's Medical Officer of Health requested the provincial Chief Medical Officer of Health to put in place measures to respond to the continued increase in daily cases in Toronto	October 2, 2020
Toronto (along with Ottawa and Peel Region) enter Stage 2 (modified)	October 10, 2020

Attachment 2

Vaccines Purchased under the Canadian Government's Advanced Purchase Arrangement

Vaccine Manufacturer	Vaccine Type	Status of Clinical Study
Pfizer/BioNTech	mRNA vaccine	Phase 3 Trial – July 2020
Johnson & Johnson (Janssen)	Adenovirus carrier vaccine	Phase 3 Trial – September 2020
Moderna	mRNA vaccine	Phase 3 Trial – July 2020
AstraZeneca/Oxford University	Adenovirus carrier vaccine	Phase 3 Trial – June 2020
Novovax	Protein sub-unit vaccines	Phase 3 Trial – September 2020
Sanofi/GSK	Protein sub-unit vaccines	Phase 3 Trial – December 2020
Mediagogo	Protein sub-unit vaccines	Phase 1 Trial – July 2020

References

1 Statistics Canada. Canadian Perspectives Survey Series 1: Impacts of COVID-19. April 8, 2020. Accessed April 30, 2020: <https://www150.statcan.gc.ca/n1/daily-quotidien/200408/dq200408c-eng.htm>

2 Toronto Foundation. Better Toronto Coalition Brief #3. COVID-19 and the repercussions for mental health in Toronto. April 30, 2020. Accessed May 07, 2020: <https://torontofoundation.ca/covid-19-and-the-repercussions-for-mental-health-in-toronto/>

3 McMaster University's Offord Centre for Child Studies. Impact of the COVID-19 pandemic on Ontario Families with Children: Findings from the Initial Lockdown <http://s3.documentcloud.org/documents/7203244/OPS-Executive-Report-v6-FINAL.pdf>

4 Leger weekly Survey on Mental Health, Stress, and Anxiety. October 19, 2020. <https://leger360.com/wp-content/uploads/2020/10/Legers-Weekly-Survey-October-19th-2020-min.pdf>