ENVIRONMENTAL SCAN

COVID-19 Immunity Status and Community Public Health Measures (Update as of July 19, 2021)

07/23/2021

Key Points

- The emergence of the Delta variant (B.1.617.2, first identified in India) shifted the Coronavirus Disease 2019 (COVID-19) epidemiology in many countries, resulting in increased incidence and vaccination programming efforts to accelerate vaccine rollout, both of which are central considerations for public health measure policies.

- At the time this scan was conducted, most jurisdictions proceeded with or planned to proceed with lifting public health measures, despite the threat or effect of the Delta variant resulting in more cases of COVID-19. However, most jurisdictions still had public health measures in place that were determined by immunity status. The exception is Israel, where masks are once again required indoors by everyone regardless of immunity status, with a few exceptions.

- The World Health Organization (WHO) has provided guidance for individual-level public health measures based on immunity status to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

Purpose and Scope

As jurisdictions continue implementing their COVID-19 mass immunization programs, decision-makers and their communities are examining how the progress of vaccination programs will impact the need for, and use of, community-based and individual public health measures in the short and medium term, given the individual and societal disruptions resulting from these preventive health measures. Thus, it is of interest to review which countries have adjusted public health measures based on an individual’s COVID-19 immune status. Select countries that have published guidance on public health measures specific for individuals who have natural or vaccination-induced immunity to SARS-CoV-2 were included, as well as those countries that have a similar context to Ontario in terms of COVID-19 caseload, variants of concern (VOCs) and/or immunization programs. As the global pandemic evolves, this report will be updated to reflect changes to public health measures based on individual COVID-19 immune status in respective countries.

Immunity is defined in this document as some level of immune protection conferred through an authorized COVID-19 vaccine or through infection with SARS-CoV-2, since it was not possible to separate immunity from vaccination as opposed to immunity from natural infection for some of the jurisdictions examined. While several countries are discussing COVID-19 vaccination status in the context of international travel, this was deemed out of scope for the current scan which focuses on community public health measures relevant to the provincial Ontario context. Literature related to case and contact
management (CCM) and specific health-care settings, including long-term care facilities, was also deemed out of scope.

This report is an update of the Public Health Ontario (PHO) report titled COVID-19 Immunity Status and Community Public Health Measures (Update as of June 4, 2021).¹

Methods

This environmental scan reports on information up to July 19, 2021, and was informed by previous PHO reports and keyword searches in the Google search engine for literature related to COVID-19 epidemiology, vaccination programs, and public health measures based on immune status. A formal database search was not conducted due to time constraints; thus, some relevant articles may not be included. The vaccination coverage data for Canada and Ontario was updated on July 29, 2021.

Findings

This section provides an overview of COVID-19 epidemiology, vaccination programming, and changes to public health measures based on COVID-19 immunity status (where relevant) for select jurisdictions. Findings are organized into: 1) multi-jurisdictional agencies with public health measures specific to immunity status; 2) jurisdictions that have published guidance on public health measures specific to immunity status; and 3) those that currently do not have any published guidance on public health measures specific to immune status (not including travel or CCM). Since the last report entitled COVID-19 Immunity Status and Community Public Health Measures,¹ the WHO has been added to the report.

Multi-jurisdictional Agencies with Public Health Measures Specific to Immunity Status

EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL (ECDC)

PUBLIC HEALTH MEASURES BASED ON IMMUNITY STATUS

- On June 23, 2021, the ECDC released a statement regarding the SARS-CoV-2 Delta variant in the European Union (EU)² In part of her remarks, Dr. Andrea Ammon, ECDC Director said, “There are still too many individuals at risk of severe COVID-19 infection whom we need to protect as soon as possible. Until most of the vulnerable individuals are protected, we need to keep the circulation of the Delta virus low by strictly adhering to public health measures, which worked for controlling the impact of other variants.” As of July 14, 2021, the ECDC has continued to make statements that suggest public health measures should remain in effect for everyone, regardless of immune status. Their website addressed the ongoing threat of the Delta variant and said, “mask wearing and social distancing will need to be maintained at a level sufficient to contain community transmission of the Delta variant until more of the populations are fully vaccinated, in order to avoid a resurgence of cases with a possible increase in hospitalisations and deaths. Citizens should follow national advice to protect themselves and others.”²
WHO
PUBLIC HEALTH MEASURES BASED ON IMMUNITY STATUS

- On June 14, 2021, the WHO updated its November 4, 2020 interim guidance document entitled “Considerations in adjusting public health and social measures in the context of COVID-19”\(^3\). The updated version contains a new section on considerations for individualized public health measures based on a person’s SARS-CoV-2 immunity status.

The WHO states that, “applying individualized public health measure recommendations based on someone’s immunity status must be carefully considered in light of a number of aspects, including: the level of transmission of SARS-CoV-2; the evidence around the impact of various COVID-19 vaccines in preventing transmission; effectiveness against disease and duration of vaccine-induced immunity; the level and duration of protection conferred by natural immunity; the COVID-19 response strategy and risk tolerance of the implementing country; the potential circulation of immune-escape VOCs; and important ethical considerations, particularly given current limited availability of vaccines worldwide and existing inequities in vaccine availability across and within countries and population groups.” The document describes ethical and in-depth technical considerations for individualized public health measures.

- The WHO document states that countries can consider relaxing some measures for individuals that meet either of the following criteria:
  - Fully vaccinated with one of the WHO Emergency Use Listing (EUL) vaccines or authorized by a stringent regulatory authority (and at least two weeks after completion of vaccination);
  - SARS-CoV-2 infection confirmed by RT-PCR within the past six months and no longer infectious as per WHO’s criteria for releasing COVID-19 patients from isolation.

- The WHO document provides options for individualized measures for quarantine, international travel, and congregating in indoor settings. The WHO states that decision makers should use a risk-based approach when considering the use of masks by the general public regardless of vaccination or natural immunity status. In areas of known or suspected community or cluster SARS-CoV-2 transmission:
  - The general public should wear a non-medical mask in indoor (e.g., shops, shared workplaces, schools) or outdoor settings where physical distancing of at least one metre cannot be maintained.
  - If indoors, unless ventilation has been be assessed to be adequate, WHO advises that the general public should wear a non-medical mask, regardless of whether physical distancing of at least one metre can be maintained.
  - Local authorities may consider allowing congregation of fully vaccinated or recovered individuals without wearing masks and without applying physical distancing in indoor private settings in regions with low SARS-CoV-2 incidence (<20/100,000 population).
Jurisdictions with Public Health Measures Specific to Immunity Status

DENMARK

EPIDEMIOLOGICAL CONTEXT

- As of July 15, 2021, the weekly confirmed COVID-19 cases per 100,000 people were 104.1.4
- As of July 15, 2021, the cumulative number of cases in Denmark was 304,439 (equivalent to 5,256.0 cases per 100,000 people).5
- As of July 14, 2021, the cumulative death rate was 43.9 deaths per 100,000 people.6
- According to the ECDC SARS-CoV-2 Variants Dashboard, as of the week of June 28, 2021, 63.4% of cases were the Delta variant, 35.3% Alpha (B.1.117, first identified in the United Kingdom [UK]), 0.4% Beta (B.1.351, first identified in South Africa) and 0.1% Gamma (P.1, first identified in Brazil).7 As of Jul 20, 2021, the Global Initiative on Sharing All Influenza Data (GISAID) tracking of variants site reported 90.8% of cases were “VOC Delta* G/452R.V3 (B.1.617+) first detected in India” in the previous four weeks.8
- On July 12, 2021, Denmark reported its highest percent positivity since January 2021 (based on PCR testing), and most of the cases were the Delta variant.9

VACCINATION CONTEXT

- As of July 16, 2021, 6,266,892 doses (108 doses per 100 people) of the COVID-19 vaccine had been administered. As of July 16, 2021, 66% of the population had received at least one dose of a COVID-19 vaccine and 43% were fully vaccinated.10
- On July 15, 2021, children 12 to 15 years old became eligible to book vaccinations.11 The Danish Health Authority plans to complete vaccination of this cohort by end of August 2021.

PUBLIC HEALTH MEASURES BASED ON IMMUNITY STATUS

- Denmark’s recent changes to public health measures have applied to the general population, regardless of immunity status. For example, effective June 14, 2021, masks are no longer required except on public transportation during rush hour and if standing on public transportation, regardless of time. They plan to lift that requirement September 1, 2021.12
- The Danish Health Authority stated that effective August 1, 2021, museums, cinemas and theatres will no longer require the Coronapas (corona passport), and bars and restaurants will no longer require it as of September 1, 2021.12
- The Danish Health Authority plans to phase out the Coronapas by October 1, 2021.12

ENGLAND

EPIDEMIOLOGICAL CONTEXT

- As of July 9, 2021, the rate of cases in a 7-day period per 100,000 people was 342.13
- As of June 15, 2021, the cumulative number of cases in England was 4,594,159.13
- As of July 15, 2021, there were 130,781 cumulative deaths.13
A report from July 9, 2021 reported that the Delta variant accounted for approximately 99% of sequenced and 97% genotyped cases from June 27 to July 3, 2021.14

**VACCINATION CONTEXT**

- As of July 14, 2021, 68.25 million doses15 (121 doses per 100 people)16 of the COVID-19 vaccine had been administered. As of July 14, 2021, 68.7% of the population had received at least one dose of the COVID-19 vaccine17 and 52.5% were fully vaccinated.18
- All adults ages 18 years and older are eligible for vaccination.19
- On June 30, 2021, following interim advice from the Joint Committee on Vaccination and Immunisation (JCVI), it was announced that individuals who are most vulnerable to COVID-19 may be offered a booster vaccination from September 2021 to ensure the protection they have from first and second doses is maintained ahead of the winter and against new variants.20
- On July 5, 2021, it was announced that all adults under age 40 can receive their second dose at eight weeks (reduced from 12 weeks) (previously permitted for adults 40 years and older).21
- On July 19, 2021, the JCVI advised that children at increased risk of serious COVID-19 disease be offered the Pfizer-BioNTech vaccine.22 This includes children ages 12 to 15 with severe neurodisabilities, Down’s syndrome, immunosuppression and multiple or severe learning disabilities. They also advised that young people ages 12 to 17 who live with an immunosuppressed individual should be offered the vaccine as well.
- Starting in October 2021, anyone working in a registered care home must be fully vaccinated.23

**PUBLIC HEALTH MEASURES BASED ON IMMUNITY STATUS**

- A media publication on June 28, 2021 reported that individuals in England can receive a National Health Service (NHS) COVID Pass from the NHS website or the NHS app. The system will generate a QR code, which lasts for 28 days. It can be emailed to you or be downloaded as a PDF copy. The following three groups are eligible for an NHS COVID Pass:24
  - Anyone in England aged 16 or older, two weeks after receiving their second dose of a COVID-19 vaccine (as long as both doses were administered in England).
  - Individuals who have had a negative PCR test or lateral flow test result within the past 48 hours. These passes last for 48 hours after the test result.
  - Anyone who has a positive PCR test result within the last six months who has finished the required self-isolation period. These passes last for 180 days after the test result.
- The passes are mainly used for travel; however, the Events Research Program is testing different ways to run large events safely such as concerts, nightclubs and sporting events where the passes might possibly be used.
- On July 12, 2021, the Health and Care Secretary confirmed moving to the next stage of the roadmap effective July 19, 2021.25
  - On July 19, 2021, most legal restrictions were removed (regardless of immunity status) and individuals are encouraged to protect themselves and others though informed choice. The government recommends the individuals continue to wear face coverings (even though
they are not required) in crowded enclosed spaces (e.g., public transit) and when gathering with individuals that one normally does not.26

- Organizations and large events are encouraged to use the NHS COVID-19 Pass in high-risk settings to help limit the risk of infection in their venues.26 “The Government will work with organisations where people are likely to be in close proximity to others outside their household to encourage the use of this. If sufficient measures are not taken to limit infection, the Government will consider mandating certification in certain venues at a later date.”27

FRANCE

EPIDEMIOLOGICAL CONTEXT

- As of July 15, 2021, the weekly confirmed COVID-19 cases per 100,000 people were 50.8.4
- As of July 15, 2021, the cumulative number of cases in France was 5.90 million (equivalent to 8,725.7 cases per 100,000 people).5
- As of July 14, 2021, the cumulative death rate was 165.2 deaths per 100,000 people.6
- According to the ECDC SARS-CoV-2 Variants Dashboard, as of the week of June 28, 2021, 69% of cases were the Delta variant, 18.6% Alpha, 4.2% Beta and 5.8% Gamma.7 As of Jul 20, 2021, the GISAID tracking of variants site reported 48.2% of cases were “VOC Delta* G/452R.V3 (B.1.617+) first detected in India” in the previous four weeks.8

VACCINATION CONTEXT

- As of July 16, 2021, 62,321,355 doses (93 doses per 100 people) of the COVID-19 vaccine had been administered. As of July 16, 2021, 54% of the population had received at least one dose of a COVID-19 vaccine and 40% were fully vaccinated.29
- In France, COVID-19 vaccinations are available for individuals 12 years and older.28,29
- Individuals 16 years and older who have already had COVID-19 can chose to receive only one dose with proof of a positive PCR/antigen/serology test.29
- A third dose of vaccine is recommended for individuals who are immunocompromised. This dose should be given at least four weeks after the second dose, or as soon as possible for individuals who have already exceeded this time.29
- On July 12, 2021, the President of France announced that COVID-19 vaccinations will be mandatory for all health-care workers and individuals in contact with vulnerable persons (e.g., caregivers, professionals and volunteers) starting on September 15, 2021.28,30 Those who don’t get vaccinated by September 15, 2021 will face potential job sanctions or fines.28

PUBLIC HEALTH MEASURES BASED ON IMMUNITY STATUS

- On Monday July 12, 2021, the President of France announced that COVID-19 passes (also known as a Health Pass) will be mandatory for individuals who want to attend certain public places.28
  - Starting July 21, 2021, the COVID-19 pass will be required at all places of leisure and culture that have more than 50 people.30
  - Starting in early August, the COVID-19 pass will be required to enter cafés, restaurants, shopping centers, hospitals, retirement homes, medico-social establishments, and for any
long-distance travel by plane, train and coach. Other places may be added to this list at a later date if necessary.

- To obtain a COVID-19 pass, individuals must have proof they are fully vaccinated, recently recovered from the virus or have documentation of a recent negative COVID-19 test. It is unclear how children under the age of 12, who are not eligible for vaccination, will be addressed.

- For vaccination: it must be two weeks after the second injection for a two dose vaccine (i.e., Pfizer/BioNTech, Moderna, AstraZeneca), four weeks after injection for a single dose vaccine (i.e., Johnson & Johnson/Janssen) or two weeks after a first dose in people who have previously been infected with COVID-19.

- For negative tests: individuals must provide proof of a negative RT-PCR or antigen test within the previous 48 hours.

- For recovery: individuals must provide proof (i.e., RT-PCR or antigen test) dating from at least 11 days before and less than six months after.

**GERMANY**

**EPIDEMIOLOGICAL CONTEXT**

- As of July 15, 2021, the weekly confirmed COVID-19 cases per 100,000 people were 8.2.

- As of July 15, 2021, the cumulative number of cases in Germany was 3.75 million (equivalent to 4,473.9 cases per 100,000 people).

- As of July 14, 2021, the cumulative death rate was 109.0 deaths per 100,000 people.

- According to the ECDC SARS-CoV-2 Variants Dashboard, as of the week of June 28, 2021, 67.7% of cases were the Delta variant, 26.5% Alpha, 0% Beta and 2.3% Gamma. As of Jul 20, 2021, the GISAID tracking of variants site reported 72.4% of cases were “VOC Delta* G/452R.V3 (B.1.617+) first detected in India” in the previous four weeks.

**VACCINATION CONTEXT**

- As of July 16, 2021, 84,989,850 doses (102 doses per 100 people) of the COVID-19 vaccine had been administered. As of July 16, 2021, 60% of the population had received at least one dose of a COVID-19 vaccine and 45% were fully vaccinated.

- Due to the rapid spread of the Delta variant, on July 2, 2021, the Standing Commission on Vaccination recommended that individuals who received a first dose of AstraZeneca should get an mRNA vaccine (e.g., Pfizer-BioNTech or Moderna) as their second dose, regardless of age as the combination of these vaccines is "clearly superior" to the immune response from two doses of AstraZeneca.

- The Health Minister noted that Germany needs to accelerate its vaccination rollout in response to the Delta variant. The government pledged to deliver five million doses to vaccination centres across the country in the first week of July.

- The German government estimates that 85% of those aged 12 to 59 and 90% of those over 60 would need to be vaccinated in order to cope with aggressive variants such as Delta.
• On July 13, 2021, the government issued a statement that it would not make vaccination compulsory, but continues to urge the public to get vaccinated.34

PUBLIC HEALTH MEASURES BASED ON IMMUNITY STATUS

• The German government has stated that in the event of a fourth wave in autumn 2021, fully vaccinated individuals should expect “normalcy” (as opposed to lockdown measures) and more privileges than unvaccinated individuals.35,36 The federal Minister of Health said, “as long as there are no mutations that impact the protection from vaccines... then being fully vaccinated means that restrictions of the kind we saw last winter will not be necessary, needed or legally appropriate.”35

IRELAND

EPIDEMIOLOGICAL CONTEXT

• As of July 15, 2021, weekly confirmed COVID-19 cases per 100,000 people were 94.8.4

• As of July 15, 2021, the cumulative number of cases in Ireland was 280,784 (equivalent to 5,686.4 cases per 100,000 people).5

• As of July 14, 2021, the cumulative death rate was 101.6 deaths per 100,000 people.6

• As of July 20, 2021, the GISAID tracking of variants site reported 65.6% of cases were “VOC Delta* G/452R.V3 (B.1.617+) first detected in India” in the previous four weeks.8

• On July 16, 2021, a news outlet published that the Health Executive Service (HSE) of Ireland reported that 5% of COVID-19 cases were in individuals who had two doses of vaccine.37

VACCINATION CONTEXT

• As of July 16, 2021, 4,995,719 doses (101 doses per 100 people) of the COVID-19 vaccine had been administered. As of July 16, 2021, 59% of the population had received at least one dose of a COVID-19 vaccine and 44% were fully vaccinated.30

• The HSE estimates it will take until late August or early September for 80% of the adult population to be fully vaccinated.37

PUBLIC HEALTH MEASURES BASED ON IMMUNITY STATUS

• On July 14, 2021, the Irish government passed legislation permitting people who are fully vaccinated to eat and drink in indoor venues.38 The Bill requires that individuals provide proof of vaccination to enter indoor venues, either as paper documentation or using an EU digital COVID certificate. Tables with children present must maintain a two meter distance from other tables. Despite sharp increases in cases in recent weeks due to the Delta variant, the government still planned to open indoor dining for fully vaccinated individuals effective July 26, 2021.39

ISRAEL

EPIDEMIOLOGICAL CONTEXT

• As of July 15, 2021, weekly confirmed COVID-19 cases per 100,000 people were 49.5.4

• As of July 15, 2021, the cumulative number of cases in Israel was 849,274 (equivalent to 9,811.9 cases per 100,000 people).5
• As of July 14, 2021, the cumulative death rate was 74.4 deaths per 100,000 people.6

• A media report from July 4, 2021 reported that Delta variant is now responsible for more than 90% of Israel’s cases (up from 60% two weeks prior).40 As of July 19, 2021, the GISAID tracking of variants site reported 99.2% of cases were “VOC Delta* G/452R.V3 (B.1.617+) first detected in India” in the previous four weeks.8

VACCINATION CONTEXT

• As of July 16, 2021, 10,959,633 doses (121 doses per 100 people) of the COVID-19 vaccine had been administered. As of July 16, 2021, 63% of the population had received at least one dose of a COVID-19 vaccine and 58% were fully vaccinated.50

• As of July 5, 2021, the Ministry of Health had noted that at this stage there is neither a recommendation nor a resolution to administer a third vaccine dose to the Israeli public.41 However, the Ministry of Health is promoting the administration of and will be offering an additional (third) vaccine dose to individuals with reduced immune system (immunosuppressed).41,42

• The Ministry of Health reported that starting July 12, 2021, the administration of the first vaccine dose for children aged 12 and older will resume (after confirmation that Pfizer’s vaccine supply will be expedited to Israel by early August).43

PUBLIC HEALTH MEASURES BASED ON IMMUNITY STATUS

• Due to a rise in cases, particularly from the Delta variant, public health measures that were previously removed have been re-instated and additional measures have been implemented.

• On June 15, 2021, the indoor masking mandate was dropped due to decreased COVID-19 cases nationwide.44 Facemasks were no longer required in indoor public spaces. Exceptions included: 1) recovered and unvaccinated guests/staff in nursing facilities, long-term healthcare facilities and facilities for older adults (due to their high risk for infection), 2) individuals who are required to go into isolation on their way to the isolation site, and 3) flight passengers and air crew.

• On June 25, 2021, in response to rising case numbers, the Ministry of Health re-instated the mask mandate.45 Masks are now required everywhere, except when outdoors or in an individual’s own residence. The Ministry of Health also recommends wearing masks in large outdoor gatherings (e.g., Pride events).

• On June 21, 2021, the Ministry of Health launched new unified certificates that will replace and combine the older vaccination and recovery certificates into one document. The combined certificate will be valid until December 31, 2021.46

• On July 18, 2021, it was announced that effective July 20, 2021 individuals attending summer camp will be required to present a certificate of vaccination or recovery or negative results of a COVID-19 test taken up to 72 hours before arrival at a summer camp (including outdoor camps).47

• On July 17, 2021, the Prime Minister and the Ministers of Economy and Health, provided guidance regarding the new “Happy Pass” which is expected to take effect July 21, 2021.48 The Happy Pass is an outline for safely holding mass gatherings.49 The rules will apply to indoor gatherings where food and drinks are served, and individuals both sit and stand.
Starting July 21, access to weddings/events with more than 100 guests will be permitted only to individuals who are vaccinated, recovered or holders of a recent negative coronavirus test.

ITALY

EPIDEMIOLOGICAL CONTEXT

- As of July 15, 2021, the weekly confirmed COVID-19 cases per 100,000 people were 18.5.4
- As of July 15, 2021, the cumulative number of cases in Italy was 4.28 million (equivalent to 7,076.1 cases per 100,000 people).5
- As of July 14, 2021, the cumulative death rate was 211.4 deaths per 100,000 people.6
- As of June 22, 2021 the Delta variant accounted for 22.7% of cases and was identified in 16 regions with a range between 0 and 70.6%.50 The prevalence of the Alpha variant was 57.8% and Gamma was 11.8%. As of Jul 20, 2021, the GISAID tracking of variants site reported 60.8% of cases were “VOC Delta* G/452R.V3 (B.1.617+) first detected in India” in the previous four weeks.8

VACCINATION CONTEXT

- As of July 16, 2021, 59,966,908 doses (99 doses per 100 people) of the COVID-19 vaccine had been administered. As of July 16, 2021, 60% of the population had received at least one dose of a COVID-19 vaccine and 41% were fully vaccinated.50

PUBLIC HEALTH MEASURES BASED ON IMMUNITY STATUS

- Italy was using a paper ‘Health Pass’ since April 2021, but has since moved to a digital (and printable version) called a ‘Green Pass’.
- On June 17, 2021, Italy launched the Green Pass to facilitate travel within the country and in Europe. The Green Pass became fully operational on June 28, 2021, in time for the launch of the European pass on July 1, 2021.51 The Green Pass is a free document in digital and printable format and also allows individuals to attend public events in Italy (e.g., fairs, concerts, sports competitions, and festivities during religious or civil ceremonies), to access nursing homes and to move in and out of areas that may be classified as ‘red zone’ or ‘orange zone’ (i.e., higher risk areas).51
- The Green Pass provides proof that the holder has been vaccinated against COVID-19, has tested negative for COVID-19 (antigenic or molecular swab taken within the last 48 hours), or has recovered from it.51-53 It is unclear how children under the age of 12, who are not eligible for vaccination, will be addressed.
- According to a media report from July 19, 2021, Italy is expected to tighten COVID-19 restrictions for unvaccinated individuals in response to a surge in COVID-19 infections.54 Individuals who are not fully vaccinated could be barred from being served indoors at restaurants and bars and from entering stadiums, museums, theatres, cinemas, swimming pools and gyms. The government also hopes that the requirement for Green Passes when travelling within the country (by plane/train) will encourage individuals to get vaccinated. These proposed restrictions were expected to be approved the week of July 18, 2021, and could take effect starting July 26, 2021.
**NORWAY**

**EPIDEMIOLOGICAL CONTEXT**

- As of July 15, 2021, the weekly confirmed COVID-19 cases per 100,000 people were 22.2.  
- As of July 15, 2021, the cumulative number of cases in Norway was 280,784 (equivalent to 5,686.4 cases per 100,000 people).
- As of July 14, 2021, the cumulative death rate was 14.7 deaths per 100,000 people.
- According to the ECDC SARS-CoV-2 Variants Dashboard, as of the week of June 28, 2021, 19.9% of cases were the Delta variant, 56.5% Alpha, 0% Beta and 0% Gamma. As of Jul 20, 2021, the GISAID tracking of variants site reported 58.0% of cases were “VOC Delta* G/452R.V3 (B.1.617+)” first detected in India in the previous four weeks.

**VACCINATION CONTEXT**

- As of July 16, 2021, 4,785,937 doses (89 doses per 100 people) of COVID-19 vaccine had been administered. As of July 16, 2021, 59% of the population had received at least one dose of a COVID-19 vaccine and 31% were fully vaccinated.

**PUBLIC HEALTH MEASURES BASED ON IMMUNITY STATUS**

- On June 14, 2021, the government released details about how the Norwegian COVID-19 certificate will work. The certificate will be for domestic use once the country enters step three of their four step reopening plan (expected to take place mid to late June). The certificate will enable the country to hold large events such as festivals, reopening of theme parks, theatres, and football matches to the public, as well as domestic cruises. To run large events like these, organisers will scan the QR codes on individuals’ COVID certificates. When scanned, the QR code will glow green or red depending on an individual’s status. Children will also be required to have a COVID-19 certificate to get into large events. Parents can request access to their children’s COVID-19 certificates.
- COVID-19 certificates provide information about individuals’: 1) most recent COVID-19 vaccination, 2) COVID-19 recoveries during the past six months and 3) recent negative test results for COVID-19. The certificate can be downloaded to a mobile phone or tablet. The certificate is used for domestic use in Norway (e.g., to enter major events), or for travel within the EU.
- COVID-19 passes will be valid for use (i.e., scan green) when an individual:
  - Has received the first of a two-dose vaccine (and three weeks have passed since the first dose – and will be valid for 14 weeks after the first dose).
  - Has received both doses of a two-dose vaccine (and one week has passed since second dose – no expiry date).
  - Is only planning to have one dose of a vaccine because they had COVID-19 more than three weeks before they were vaccinated (and one week has passed since the first/only dose – no expiry).
  - Has received one dose of a one-dose vaccine (and three weeks have passed since dose administered – no expiry date).
• Develops COVID-19 between their first and second doses (more than three weeks after the first vaccine dose and 10 days after illness).

• Has had COVID-19 as documented through a result from a PCR test, an equivalent laboratory analysis or a rapid antigen test (valid for six months from the first positive test result and at least 10 days have pass after the first positive test result).

• Receives a negative COVID-19 test (valid for 24 hours).

• An update from Norwegian Public Health on July 1, 2021 stated that fully vaccinated individuals are no longer advised against making unnecessary journeys in Norway. However, the general advice to keep practicing social distancing and wearing a face mask while travelling in public remains the same.57

UNITED STATES

EPIDEMIOLOGICAL CONTEXT

• As of July 15, 2021, weekly confirmed COVID-19 cases per 100,000 people were 55.9.4

• As of July 15, 2021, the cumulative number of cases in the United States (US) was 33.98 million (equivalent to 10,264.5 cases per 100,000 people).3

• As of July 14, 2021, the cumulative death rate was 183.7 deaths per 100,000 people.6

• The most prevalent variant in the US (as of June 19, 2021) is the Alpha variant, which accounted for 43.4% of variant cases, followed by Delta 31.1%, Gamma 9.9%, Iota (B.1.526, first identified in the US) 5.5%.58 As of Jul 20, 2021, the GISAID tracking of variants site reported 62.2% of cases were “VOC Delta* G/452R.V3 (B.1.617+) first detected in India” in the previous four weeks.8

VACCINATION CONTEXT

• As of July 16, 2021, 336,054,953 doses (101 doses per 100 people) of the COVID-19 vaccine had been administered. As of July 16, 2021, 56% of the population had received at least one dose of a COVID-19 vaccine and 48% were fully vaccinated.10

• As of July 15, 2021, the percentage of the population over 65 years of age that has been fully vaccinated was 79.3%; additionally, 59.2% of those aged 18 years and older, and 56.5% of those 12 years and older had been fully vaccinated.59

• In May 2021, the President announced the goal to have 70% of adults have at least one dose of a COVID-19 vaccine and 160 million people fully vaccinated by July 4, 2021.60 However, vaccination rates began to slow and as of July 4, 2021, only two-thirds of adults in the US had received at least one dose of COVID-19 vaccine and about 157 million people were fully vaccinated. The group with the smallest share of those vaccinated (with the exception of children who are not eligible for vaccination) were young adults ages 18 to 29.

PUBLIC HEALTH MEASURES BASED ON IMMUNITY STATUS

• On July 16, 2021, the US Centers for Disease Control and Prevention (CDC) updated their interim public health recommendations for fully vaccinated individuals.61 The update included consideration for individuals who are immunocompromised. It is recommended that individuals who are immunocompromised “be counseled about the potential for reduced immune responses to COVID-19 vaccines and to follow current prevention measures (including wearing a
mask, staying six feet apart from others that they don’t live with, and avoiding crowds and poorly ventilated indoor spaces) to protect themselves against COVID-19 until advised otherwise by their healthcare provider”.

Jurisdictions without Public Health Measures Specific to Immunity Status

FINLAND

EPIDEMIOLOGICAL CONTEXT

- As of July 15, 2021, the weekly confirmed COVID-19 cases per 100,000 people were 33.6.  
- As of July 15, 2021, the cumulative number of cases in Finland was 99,212 (equivalent to 1,790.6 cases per 100,000 people).  
- As of July 14, 2021, the cumulative death rate was 17.7 deaths per 100,000 people.  
- As of July 14, 2021, there were 7,891 total cases of the Alpha variant reported, 1,428 cases of Beta, 916 of Delta and 6 were Gamma.  
- As of July 19, 2021, the GISAID tracking of variants site reported 100% of cases were “VOC Delta* G/452R.V3 (B.1.617+) first detected in India” in the previous four weeks.

VACCINATION CONTEXT

- As of July 16, 2021, 4,951,925 doses (90 doses per 100 people) of the COVID-19 vaccine had been administered. As of July 16, 2021, 64% of the population had received at least one dose of a COVID-19 vaccine and 26% were fully vaccinated.  
- On June 24, 2021, the Finnish Institute for Health and Welfare proposed the introduction of COVID-19 vaccinations in Finland for all young people aged 12 to 15, citing that it would reduce the need for restrictions targeting children and young people. On June 30, 2021, it was announced that COVID-19 vaccines could be given to children in Finland aged 12 to 15 who are at risk of contracting a severe COVID-19 infection.

PUBLIC HEALTH MEASURES BASED ON IMMUNITY STATUS

- No updates from the previous version.
Implications for Practice

The majority of the jurisdictions included in this scan have implemented public health measures specific to individuals who have acquired immunity to SARS-CoV-2 both through vaccination or past infection (e.g., Norway, US, Denmark, Ireland, Germany, Italy, France). Some jurisdictions have considered public health measures for individuals who have SARS-CoV-2 immunity and have created COVID-19 immunity passports, but have not mandated their use other than for travel (e.g., England), while other jurisdictions have no intention to implement immunity-based public health measures, but have created immunity passports for the purposes of travel domestically and within the EU (e.g., Finland). Additionally, some countries that have previously implemented immunity passports and then phased them out, have reintroduced some public health measures in response to the Delta variant increasing cases and breakthrough infections in fully vaccinated individuals (i.e., Israel).

Jurisdictions have responded in different ways to the identification of the Delta variant, which is more transmissible, causes more severe disease than non-variant strains, and reduces the effectiveness of a single dose of current vaccines. The emergence of the Delta variant has shifted the COVID-19 epidemiology in many countries, resulting in increased COVID-19 incidence and efforts to accelerate vaccine rollout, both of which are central considerations for public health measure policies. The majority of jurisdictions in this scan proceeded with or plan to proceed with lifting public health measures and reopening, despite the threat or presence of the Delta variant causing more cases of COVID-19. However, these jurisdictions still have some public health measures in place that are based on immunity status.

There are possibly many factors accounting for the differences in how jurisdictions are adjusting their public health measures and recovery plans in response to the Delta variant. One factor may be that jurisdictions with immunity passports plan to rely on the immunity of the fully vaccinated population and accelerated vaccine rollout to prevent a surge in cases. Pfizer-BioNTech’s report that their COVID-19 vaccine is safe and effective in children 12 to 15 years of age resulted in many countries extending vaccine eligibility to this age group as the Delta variant was becoming the dominant strain. This increase in potential vaccine coverage is also a consideration. Other, contextual factors include political strategy, country risk tolerance, societal and individual impact resulting from the measures, values and public acceptance of public health measures.

It is important to consider the local epidemiological context when easing public health measures at the individual or population level. This includes taking into account the incidence and burden of disease in the jurisdiction, as well as pathogen transmissibility and vaccine effectiveness, which is evolving as a result of VOCs and can change when immunity begins to wane. In the context of the Delta variant, an understanding of vaccine uptake in Ontario based on socio-demographic information is particularly important in order to understand if inequities exist in vaccination coverage and if so, how this impacts individuals within these communities, and how the subsequent relaxation of public health measures based on vaccination status could potentially exacerbate existing inequalities.

As of July 17, 2021, 69.7% of the Canadian population had received at least one dose of a COVID-19 vaccine, and 50.2% have been fully vaccinated. In Ontario, as of July 28, 2021, 70.1% of Ontarian’s have received at least one dose of a COVID-19 vaccine, and 59.1% of the population was fully vaccinated. Variability in vaccine coverage thresholds affects decision making due to considerations, such as local epidemiology and case counts, local circulating SARS-CoV-2 lineages, and the types of public health measures being lifted (e.g., high versus lower risk for transmission), and the accepted level of risk tolerance. In this scan, the different jurisdictions had different levels of vaccine coverage when they began loosening public health measures based on immunity status.
While the possible application of individual and population level immunity-based privileges in Canada in general, and in Ontario, might motivate individuals to get vaccinated and improve vaccine confidence, an equity lens is needed in the risk-decision framework when considering public health measures based on immunity status. Ethical considerations for the use of immunity status in relaxing certain individual public health measures, include the potential to increase social stigmatization and exacerbate existing inequalities, particularly among marginalized and racialized groups.70,71
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