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**Sent:** 2020-09-03 8:25 AM  
**To:** gphin / rmisp (PHAC/ASPC)  
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Good morning,

Please find below the daily Summary and articles collected by GPHIN for your review and risk assessment.

### GPHIN Daily Report Email Summary

#### Special Section on Coronavirus

##### [Canada \(Update\) - Coronavirus disease \(COVID-19\) Outbreak \(Official\)](#)

As of 02 September 2020 at 20:22 EDT, a total of 129,923 cases have been recorded in Canada including 9,135 deaths. The cases are reported in Newfoundland and Labrador (269 confirmed cases, 3 deaths), Prince Edward Island (44 confirmed cases), Nova Scotia (1,085 confirmed cases, 65 deaths), New Brunswick (192 confirmed cases, 2 deaths), Quebec (62,746 confirmed cases, 5,764 deaths), Ontario (42,554 confirmed cases, 2,812 deaths), Manitoba (1,244 confirmed cases, 14 deaths), Saskatchewan (1,624 confirmed cases, 24 deaths), Alberta (14,180 confirmed cases, 242 deaths), British Columbia (5,952 confirmed cases, 209 deaths), Yukon (15 confirmed cases), Northwest Territories (5 confirmed cases), Nunavut (0 confirmed case), and repatriated travellers (13 confirmed cases). A detailed [epidemiological summary](#) is available. The risk will vary between and within communities, but given the increasing number of cases in Canada, the risk to Canadians is considered [high](#).

##### [International \(Update\) - Coronavirus disease \(COVID-19\) Outbreak \(Media\)](#)

As of 03 September 2020, 11:42 GMT, there were 26,211,112 cases of COVID-19 and 868,066 deaths reported globally. Top 10 countries with the highest number of cases, by alphabetical order are: Argentina (439,172 cases, 9,118 deaths), Brazil (4,001,422 cases, 123,899 deaths); Colombia (633,339 cases, 20,348 deaths); India (3,853,406 cases, 67,486 deaths); Mexico (610,957 cases, 65,816 deaths); Peru (663,437 cases, 29,259 deaths); Russia (1,009,995 cases, 17,528 deaths); South Africa (630,595 cases, 14,389 deaths); Spain (479,554 cases, 29,194 deaths); United States (6,291,542 cases, 190,014 deaths).

#### Canada – Coronavirus disease (COVID -19) Outbreaks and Outcomes (Official and Media)

- On 2 September 2020, Canada's Chief Public Health Officer (CPHO) statement noted that [Canadians could find ways to enjoy physical intimacy while safeguarding the progress authorities have all made containing COVID-19](#). The CPHO stressed that if persons choose to engage in an in-person sexual encounter with someone outside of their household or close contacts bubble, there are some steps they can take to reduce their risk, such as establishing a trusting relationship with their sexual partner. When engaging in sexual activity, Canadians can reduce their risk by following a series of recommendations provided and listed by the official, including monitoring for COVID-19 symptoms and not having sex if them or their partner are experiencing symptoms, among others.
- [On 2 September 2020, remarks from the Chief Public Health Officer on COVID-19 on ongoing efforts for the development of safe and effective COVID-19 vaccines for Canada](#) were published. The official pointed out that the vaccine research and development process in usual times takes more than a decade before they are approved for use for Canadians. Canada, and the world, cannot wait 10 years for a COVID-19 vaccine. By the same token, safety and efficacy cannot be compromised. A key component of the vaccine process is Canada's National Advisory Committee on Immunizations, or NACI. For over 50 years, NACI has safeguarded the health of Canadians by reviewing the research and data on vaccines in Canada, and making recommendations on the use of vaccines across Canada. NACI is composed of health professionals, scientists and researchers who review the research and ensure that the highest standards of safety and efficacy are met. In the end, the ultimate success of a COVID-19 vaccine in Canada will depend on individual Canadians rolling up their sleeves to get immunized.
- [If a COVID-19 vaccine were available today, three in four adults in Canada would roll up their sleeves according to a new Ipsos survey](#). On 31 August 2020, the polling firm released a survey of 20,000 adults from 27 countries done

on behalf of the World Economic Forum which shows 74 per cent would get a COVID-19 vaccine. In Canada, the number climbs to 77 per cent.

- [Ottawa Public Health \(OPH\) continues to see a rise in the number of local institutions dealing with COVID-19.](#) The Beacon Learning Centre and New Edinburgh Square retirement home are the latest to see one staff member a piece test positive for the virus. The list of local facilities declaring outbreaks is up to 18 as of 2 September; however, only Billingswood Manor and CentrepoinTE Home-based Childcare are seeing more than two cases.
- [An Ottawa resident tested positive for COVID-19 after being alerted to a close contact with a confirmed case through the COVID Alert App.](#) An individual received a notification through the COVID Alert App that they were in close contact with a confirmed case of COVID-19. That individual presented for testing, and tested positive for COVID-19. The COVID Alert App was downloaded more than 2.2 million times in the first month after its launch. According to the PHAC, only 110 people who tested positive for COVID-19 entered the information into the app to notify others of a possible exposure to novel coronavirus
- [According to the Nova Scotia's chief medical officer of health, he fully expects that the province will see cases of COVID-19 in schools.](#) The province outlined three different risk levels: high, moderate, and low. The Nova Scotia Department of Health and Wellness defines those three levels this way: an individual is at high risk if they are a close contact; an individual is at moderate risk if there has not been prolonged contact and they have maintained two metres or six feet from the confirmed case; an individual is at low risk if they have had limited or casual contact with a confirmed case. The "key elements" of their response plan: public health will immediately launch an investigation to determine and arrange testing for all close contacts. Close contacts may include everyone in the class, school bus, or before and after school program; all close contacts will be required to self-isolate at home while waiting for results. If they are negative, they need to complete their 14-day isolation; if they are positive, they have to isolate as a case and follow public health guidelines all families at the school will be notified about the exposure and measures being taken; school closures due to COVID-19 will occur on the advice and recommendation of public health and only if there is deemed to be a risk to all staff and students.
- [Newfoundland and Labrador will be the first province in Atlantic Canada to launch a COVID Alert app.](#) The app will provide up-to-date information and alerts in case of a COVID-19 outbreak. Last month, P.E.I. said the province was debating on introducing a COVID-19 app, but is holding off on making a decision until data is available from Ontario where a contact tracing app has already been launched.
- [Ontario's Official Opposition made a formal request for the watchdog to investigate the reopening strategy](#) asking Ontario's ombudsman to review the government's back-to-school plan to ensure it's living up to vital safety standards. The ombudsman's purview includes school boards and argues an urgent investigation is required to address the "confusion or anxiety" felt by many. Meanwhile, the province's strategy will see students in kindergarten through Grade 8 return to school without any reduction in class sizes, though students will spend the day in a single cohort to limit contact with other children.
- [The Ontario government is clarifying visitor rules for long-term care homes](#) to give families and caregivers greater access to residents. The updated policy will mean a resident can designate two caregivers who can visit without time limits. If a home is not in outbreak, or the resident is not symptomatic or self-isolating, the caregivers can visit together.
- [Two Toronto shelters have been hit with a COVID-19 outbreak.](#) According to data provided by the city, Eva's Satellite in North York reported two cases as of 30 August 2020, with the outbreak initially reported 23 August. One of the COSTI refugee shelters reported four cases, including one involving a five-year-old boy. Executive Director, who would only confirm that the facility was an east-end location, did not provide the exact location of the shelter. The shelter, which houses people aged 16 to 24 years old, stated that anyone who experiences symptoms is sent for immediate testing and they have created isolation areas within the shelter.
- [The Windsor-Essex County Health Unit \(WECHU\) is reporting another death related to COVID-19 in the region.](#) According to the Medical Officer of Health, the latest death was a woman in her 80s from a retirement home who died in hospital on 1 September 2020. Out of the new cases, two are from retirement homes and two are close contacts of confirmed cases. On 2 September 2020, the official reported about at least 31 cases associated with a community cluster. The earliest symptom onset was 20 August 2020. There have been 73 deaths related to COVID-19 in Windsor-Essex. Fifty-one deaths are related to residents in retirement or long-term care homes and two are related to migrant workers. There is one retirement home in outbreak status. New Beginnings in Leamington has 21 residents and six staff members who have tested positive. One workplace is reporting an outbreak, a manufacturing facility in Tecumseh.
- [Two staff members at a high school in Vaudreuil-Dorion, located west of Montreal, have been placed in isolation, after one of them tested positive for COVID-19.](#) A letter sent to parents of students at École secondaire de la Cité-des-Jeunes on 2 September 2020 states the school would remain open and, according to the school's administration, the staff member was not in contact with students and not in the building on 1 September, the first full day of school. The employee was also not in school on Friday, 24 August or on Monday, 31 August when there were half days of classes. École secondaire de la Cité-des-Jeunes is home to more than 3,000 students.

- [Thirty cases of COVID-19 have been associated to a bar in Quebec City](#). CIUSSS de la Capitale-Nationale, the regional public health authority for the area, indicated that the situation at Le Kirouac Bar is of concern with 30 cumulative positive cases. Over the weekend, public health had recommended people who visited the bar the previous week get tested. In addition, the Acting Public Health Director at the CIUSSS de la Capitale-Nationale declared that authorities' ongoing investigations show that there is transmission of the virus in the community.
- [A Canadian Doctor is urging that COVID-19 patients be monitored and tracked long after the novel coronavirus leaves their bodies, as evidence mounts that the virus can cause long-lasting heart damage](#). The Professor of Medicine at the University of Alberta and an expert on heart failure noted that what doctors might be seeing in Canada a widespread prevalence of heart disease in patients with COVID-19. Researchers at two Ontario universities are looking into how COVID-19 attacks the lungs, noting that ACE2 enzyme is likely only part of the puzzle there. In the heart, the virus' attack on ACE2 can lead to myocarditis, heart inflammation, as well as vascular dysfunction, which will make it important for doctors to monitor COVID-19 patients long after the virus has left their bodies. The expert thinks there are going to be long-lasting effects, urging authorities and doctor to be vigilant.
- [A new app is looking to help health-care professionals and the public make better-informed decisions about COVID-19 for their patients, their families and themselves by collecting peer-reviewed scientific papers and hosting them in one place](#). The new app, called COVID AIKnowledgeEnable (COVID KE), uses artificial intelligence to search multiple peer-reviewed medical data sources in combination with collective insights of health-care professionals to deliver the most relevant findings and advice to users. The application, created by Canadian medical software developer Real Time Medical (RTM), also features confidence ratings and commentary from doctors to further assist users in determining which articles are the most helpful for them. The app is the first of its kind in the world to combine the power of artificial intelligence with the collective knowledge of experts to sort through misinformation. The app is available for use on iPhone, Android and desktop and is downloadable worldwide. Public users can access the app for a monthly subscription fee of US\$1.99 (\$2.59 CAD) while clinicians can access it for US\$2.99 (\$3.90 CAD) a month. While the app was initially developed for research on any medical condition, its focus has shifted to COVID-19 in a move to assist people as they safely transition back to work and school.
- Sources have indicated that [Transport Canada is holding early talks with airlines to introduce COVID-19 testing at airports](#), but the day when such tests could become an alternative to the quarantines could still be far off. The airline-led talks come as Air Canada and WestJet introduce their own testing plans for Toronto and Vancouver airports, respectively this fall. According to the sources, the use of airport testing to reduce or eliminate Canada's strict two-week self quarantine rule would be logistically challenging as it would require cooperation from airports, airlines, federal and provincial health authorities. In addition, government-approved lab tests that largely take 24 to 48 hours to deliver results would need to be used, making them impractical for airport departures. Canada has faced pressure from airlines to change its travel restrictions, with the country's borders now closed to all non-citizens except for essential workers. However, one of the sources noted that there is no guarantee that Canada would choose to lift the 14-day quarantine even if testing were able to take place at airports. Canada's Chief Public Health Officer has declared her agency was looking at "options going forward and reducing the more restrictive measures at the border." Health officials are also considering the timing of the test, since travelers coming to Canada might have a negative result if they were infected only one or two days prior.
- [U.S. and Canada has mutually agreed in March to shut down the border to mitigate the spread of the coronavirus and they could stay up longer than expected](#). There is still no specified date for its reopening, although trade has continued between the countries. The border is shut tight for any trips that are deemed "non-essential" or discretionary and that includes all recreation and tourism, but the longer the border stays closed, the more profound the economic impact in the communities. Statistics Canada recently reported that cross border car trips are down about 95% across both sides of the border. Meanwhile, The Mohawk of Akwesasne straddles the U.S. and Canadian borders and its 13,000 residents hold a unique position, as they have maintained their right to travel between the two countries even during this pandemic. The residents in the community can cross the border for essential travel in either the U.S. or Canada to shop, bank, go to a doctor or check on family members. It also means they are exempt from a two-week quarantine when entering Canada. The Grand Chief of the Mohawk Council of Akwesasne; however, notes his community has a greater responsibility to keep everyone safe. An overnight curfew in Akwesasne is still in place with a ban on travel outside an 80-kilometre (50-mile) radius. Some border communities, especially in the U.S., are lobbying for a path forward to try to get the border open using what they call a careful, slow, thoughtful process, taking advice from public health experts. Many in Canada's business community agree, arguing Canada should double down on rapid testing and that a two-week quarantine for months to come is unsustainable and will disproportionately impact leisure and hospitality.
- [One education expert in British Columbia is pushing for a later return to class](#). This comes as parent and teacher concerns run high, with many feeling issues around heading back to school during the COVID-19 pandemic have not been fully addressed yet. An Educational Technology expert affirms parents face too few options and too many risks, and pushing the start of the school year to 1 October would give more time to get things right, including a proper needs assessment with real consultation.

## United States - Coronavirus Disease 2019 (COVID-19) - Communication Resources (Official and Media)

- On 2 September 2020, the Centers for Disease Control and Prevention (CDC) has updated its [COVID-19 Contact Tracing Communications Toolkit for Health Departments](#). Contact tracing slows the spread of COVID-19 by: letting people know they may have been exposed to COVID-19 and should monitor their health for signs and symptoms of COVID-19; helping people who may have been exposed to COVID-19 get tested; and asking people to self-isolate if they have COVID-19 or self-quarantine if they are a close contact of someone who has COVID-19. Residents should consider developing promotional messages to incorporate in communications to their community.
- On 1 September 2020, the [U.S. Food and Drug Administration](#) (FDA) has, jointly with the Federal Trade Commission (FTC), issued a [warning letter](#) to Lattice Biologics, Ltd., for marketing an unapproved amniotic fluid product, sometimes referred to as AmnioBoost, to mitigate, prevent, treat, diagnose or cure Severe Acute Respiratory Syndrome (SARS) or Acute Respiratory Distress Syndrome (ARDS) related to COVID-19.
- On 02 September 2020, [the National Institutes of Health \(NIH\) announced \\$129.3 million in scale-up and manufacturing support for a new set of COVID-19 testing technologies](#) as part of its [Rapid Acceleration of Diagnostics \(RADx\) initiative](#). NIH is awarding contracts to nine companies for technologies that include portable point-of-care tests for immediate results and high-throughput laboratories that can return results within 24 hours. These tests add to [initial awards](#) made to seven companies on 31 July 2020.
- [Dozens of doctors, nurses and health officials expressed concern about the country's readiness to conduct mass vaccinations](#), as well as frustration with months of inconsistent information from the federal government. As millions of Americans are counting on a COVID-19 vaccine to curb the global pandemic and return life to normal, the path to delivering vaccines to 330 million people remains unclear for the local health officials expected to carry out the work. In a four-page memo this summer, the federal Centers for Disease Control and Prevention told health departments across the country to draft vaccination plans by 1 October "to coincide with the earliest possible release of COVID-19 vaccine." However, health departments affirm they currently lack the staff, money and tools to educate people about vaccines and then to distribute, administer and track hundreds of millions of doses. Nor do they know when, or if, they will get federal aid to do that. The unprecedented pace of vaccine development has left many Americans skeptical about the safety of COVID-19 immunizations; others simply do not trust the federal government. The U.S. has committed more than \$10 billion to develop new coronavirus vaccines but has not allocated money specifically for distributing and administering vaccines.
- [Healthcare workers, first responders, and adults with pre-existing conditions that put them at risk for severe symptoms of COVID-19 should be the initial recipients of the first approved vaccine in the United States](#), according to a framework from the National Academy of Medicine (NAM) published 1 September. The NAM framework offers four phases of vaccine deployment. In addition to the aforementioned groups, older adults in congregate living are included in phase 1. In phase 2, teachers, school staff, critical risk workers, prisoners, those in homeless shelters and group homes, and older adults not included in phase 1 can be vaccinated. Phase 3 is for children, young adults, and workers in industries with exposure to the virus. Phase 4 includes everyone else.
- On 2 September 2020, the [U.S. Food and Drug Administration \(FDA\)](#) updated its guidance, "[Investigational COVID-19 Convalescent Plasma](#)," to provide additional information related to the recently issued Emergency Use Authorization (EUA) for the use of COVID-19 convalescent plasma to treat hospitalized patients with COVID-19. The guidance also provides recommendations to blood establishments on collection. This update includes a discussion regarding FDA's intent to exercise temporary enforcement discretion regarding the IND requirements for the use of this product when blood establishments, hospitals, and health care providers collect plasma that does not meet the Conditions of Authorization of the EUA. The revised guidance continues to provide recommendations for health care providers who wish to administer and study convalescent plasma under an Investigational New Drug Application. In addition, the agency updated the web page, "[Recommendations for Investigational COVID-19 Convalescent Plasma](#)," which also provides this information. The guidance supersedes the guidance of the same title issued in April 2020 and updated in May 2020.

## [WHO - Corticosteroids for COVID-19 \(Official\)](#)

On 2 September 2020, WHO published its Corticosteroids for COVID-19 guidance. This guidance was developed in collaboration with the non-profit [Magic Evidence Ecosystem Foundation](#) (MAGIC), which provided methodologic support to develop and disseminate living guidance for COVID-19 drug treatments. The panel provides two recommendations: 1). WHO experts recommend systemic corticosteroids rather than no corticosteroids for the treatment of patients with severe and critical COVID-19 (strong recommendation, based on moderate certainty evidence); 2) WHO experts suggest not to use corticosteroids in the treatment of patients with non-severe COVID-19 (conditional recommendation, based on low certainty evidence).

## **IHR announcement**

The World Health Organization (WHO) has posted an announcement on the WHO's secure Event Information Site (EIS) regarding an invitation to Ministers to participate in the COVID-19 Information session on Thursday, 03 September 2020.

## International - Coronavirus disease (COVID-19) Outbreak and Outcomes (Official and Media)

- [The Turkish authorities may soon issue a permit for trials of Russian vaccine against coronavirus infection](#), the country's health minister notified on 2 September 2020. The Ministry has received a request to test a vaccine being developed in Russia, and in the near future, permit is expected to be issued for this. Two domestic vaccines are currently being tested in the country. He added that such tests were carried out in Turkey on volunteers exclusively.
- [Cuba defends the use of hydroxychloroquine to treat Covid-19 at an early stage](#). Doctors have a good opinion of the results achieved, as long as they are used early in low doses and only in patients without comorbidities, which can be complicated by hydroxychloroquine – said consultant to the president of BioCubaFarma. In addition to hydroxychloroquine, five other drugs are being used to treat the new coronavirus. The list consist of recombinant human interferon alfa-2b, which combines alpha interferon and gamma; biomodulin T; the CIGB-258 peptide and the humanized monoclonal antibody Itolizumab. Some of them were used to treat dengue and cancer.
- The week of 2 September 2020, [Colombia ended its initial quarantine measures after nearly five months of national lockdowns](#). Colombia is now in a phase of selective quarantine. Restrictions on events and large crowds will continue while the government evaluates the spread of the virus, as more economic activity resumes with safety
- [Restrictions on visiting other households have been reintroduced in Glasgow and two neighbouring areas after a rise in coronavirus cases](#). The new rules impacts more than 800,000 people, with restrictions affecting for 633,120 people living in Glasgow, 95,530 in East Renfrewshire and 88,930 in West Dunbartonshire. Residents are being told not to host people from other households in their own homes or visit another person's home. The restrictions came into effect from midnight, on 2 September 2020. And they will last for two weeks, but will be reviewed after a week. People living in those areas should also not visit someone else's home, no matter where it is. Only essential indoor visits will be allowed in hospitals and care homes.
- On 2 September 2020, the National Security Council declared that [Ukraine registered a record 2,495 cases of coronavirus in the past 24 hours](#). Ukraine has imposed a temporary ban on most foreigners from entering the country until 28 September and extended lockdown measures until the end of October to contain a recent spike in cases.
- On 2 September 2020, two Migration Ministry officials declared that [Greece confirmed its first coronavirus case in the overcrowded Migrant Camp of Moria, on the Island of Lesbos](#). According to one of the officials, a 40-year old asylum seeker had tested positive for the virus, and had been put in isolation. Authorities were trying to trace the people he had contacted. According to official data, Moria, with a capacity for 2,757 people, [currently accommodates 12,714](#). At the moment, 27,576 migrants and refugees are hosted mainly on five islands in the Aegean in overcrowded facilities, making up part of the some 100,000 asylum seekers in Greece. Since 1 March, all migrants who reach Lesbos have been quarantined away from the island's camps.
- [The Japanese government is considering offering the coronavirus vaccine free of charge to all citizens](#). The government aims to secure enough vaccines for every citizen by the middle of 2020.
- The International Air Transport Association (IATA) indicated that globally, carriers and airports largely back testing to replace quarantines. A UN Aviation Task Force is expected to weigh in on one industry proposal at a 15 September meeting. [IATA and Airports Council International \(ACI\) support the use of PCR \(polymerase chain reaction\) tests 48 hours ahead of departure from high-risk countries](#), since rapid tests are not seen as reliable or widely accepted by regulators.

## Studies Related to Coronavirus disease (COVID -19) Outbreak (Media)

- [Canadian new national study's findings show Black Canadians are more likely than other Canadians to be infected or hospitalized](#) by the disease and nearly three times more likely to know someone who has died after contracting COVID-19. The study, carried out by the Edmonton-based African Canadian Civic Engagement Council and Innovative Research Group, looks at the health and economic impacts of COVID-19 from the perspectives of Black Canadians and those in the broader Canadian population. The research comes after warnings from advocates, researchers and social agencies across Canada that a lack of race-based data is a barrier to ensuring those most affected by the pandemic get the help they need.
- [Researchers at the Federal University of Maranhão, Brazil, have conducted a study suggesting that the state of Maranhão is well on its way to acquiring herd immunity](#) to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the agent that causes coronavirus disease 2019 (COVID-19). Brazil's response to the pandemic has been controversial, testing capacity has been low, and the government's uncertainty over social distancing measures has meant the population received mixed messages. Subsequently, social distancing was never implemented to the extent that would be sufficient to curb disease spread and contain the pandemic. The authors say that to the best of their knowledge, the seroprevalence of SARS-CoV-2 estimated in this study was the highest and the closest to the herd immunity threshold reported to date.

- ['Bradykinin hypothesis' may explain how COVID-19 attacks the human body](#). Using the Summit supercomputer at the Oak Ridge National Laboratory in Tennessee – considered to be the second-most-powerful computer in the world – a team of researchers led by computational systems expert analyzed billions of genetic data points from the lung cells of nine COVID-19 patients. It took Summit seven days to sort through data that traditional desktop computers would have spent months dissecting. While cytokines fight off infection by attracting white blood cells and ultimately regulating the body's temperature, bradykinins handle it via methods including inflammation. They're responsible for sneezes, coughs, stuffy noses and other typical symptoms of influenza and the common cold. They're also able to dilate blood vessels, making them porous. Like cytokines, bradykinins can wind up in overdrive. Jacobson and his team say the genetic data from COVID-19 patients' lungs includes an abundance of enzymes that can trigger the production of bradykinins and unexpectedly few enzymes that can break it down – what they described as the perfect conditions for a bradykinin storm, allowing for fluid to build up around the lungs. If this is happening in the lungs, the researchers theorize, it could also be taking place in other parts of patients' bodies, causing everything from muscle pain to nausea to diarrhea as blood vessels leak due to the "out-of-control cascade" of bradykinin production. If bradykinin storms are in fact responsible for some of the complications experienced by COVID-19 patients, then at least 10 existing drugs could be repurposed to treat those patients, Jacobson said, although only after extensive clinical trials.
- [A study published in the Annals of Internal Medicine adds to the evidence that feces can play a role in the transmission of SARS-CoV2](#). The study looked at COVID-19 transmission in a cluster of three families living in a high-rise apartment building in Guangzhou, China. In an accompanying commentary, the director of the Water Academy at Heriot-Watt University writes that the findings "add to the growing body of evidence that wastewater plumbing systems, particularly those in high-rise buildings, deserve closer investigation, both immediately in the context of SARS-CoV-2 and in the long term, because they may be a reservoir for other harmful pathogens.
- According to research published in the *British Medical Journal* on 2 September 2020, [COVID-19 patients may need to wait over a month before being retested to know whether they have cleared the virus, and one in five negative test results could be false](#). Researchers of the University of Modena and Reggio Emilia studied 1,162 patients, in the Reggio Emilia Province of Italy, who tested positive for COVID-19 using a polymerase chain reaction (PCR) test. Patients were retested around 15 days after their first test, 14 days after their second and nine days after their third. The researchers set these time intervals in accordance with European Centre for Disease Control and Prevention recommendations. About 60.6% of the patients who recovered tested negative for COVID-19 by their first follow-up test. Another test confirmed that negative result in just 78.7% of these patients, which the team says suggests about one in five negative tests are false negatives. The investigators affirm this could mean that many are still shedding the virus after testing negative and unknowingly passing it on to others. The researchers determined a patient had cleared the virus once they tested negative on two consecutive PCR tests. Overall, it took about 30 days from diagnosis and 36 days from the onset of symptoms for patients to clear the virus. The team notes that understanding the timing of viral clearance is key to determining testing strategies and ensuring people do not have to spend unnecessary time in isolation. Postponing the follow-up testing of those who are no longer experiencing illness or symptoms could increase the efficiency and performance of testing strategies.
- [The novel coronavirus uses structures within its RNA to infect cells. Scientists have now identified these configurations, generating the most comprehensive atlas to date of SARS-CoV-2's genome](#). Scientists are developing diagnostic testing, understanding the virus's basic biology, modeling the epidemiology, and developing potential therapies or vaccines. A team has now made the most comprehensive map to date of these genomic structures. In two preprints posted in July 2020 to *bioRxiv.org*, the team mapped structures across the entire RNA genome of the coronavirus SARS-CoV-2, using living cells and computational analyses. SARS-CoV-2 relies on its unique RNA structures to infect people and cause the illness COVID-19. However, these structures' contribution to infection and disease is often underappreciated, even among scientists. Researchers believe that if they just focus on the proteins encoded in the virus's genome, they will understand how SARS-CoV-2 works. In one study, investigators examined the RNA's structure from within the virus's natural environment: infected cells. In a related computational study, the team tried to predict how SARS-CoV-2's RNA genome, as well as other pieces of viral RNA made by the cell, might fold and interact with themselves. The two studies have not yet undergone peer review, but together, they reveal that SARS-CoV-2's genome has a complex, compact architecture. The mapping effort also represents a preliminary step toward new drugs that might target the virus's RNA structures.
- [Researchers from Japan have carried out a study where they have identified an effective treatment for severe Covid-19 positive patients who suffer from inflammatory responses](#). Researchers recommended an antibody-based drug called Actemra for severe Covid-19 patients. The drug helps in the rapid decline of the levels of the pro-inflammatory cytokines, and it could alleviate severe disease symptoms. The study was published in the journal *PNAS*. The researchers examined the symptoms of the virus that persist even after the recovery of the patient from active viral infection.

## Domestic Events of Interest

## [Canada \(Update\) - Public Health Notice: Outbreak of \*Salmonella\* infections linked to peaches imported from the United States \(Official\)](#)

The Public Health Agency of Canada (PHAC) is collaborating with federal and provincial public health partners, the [United States Centers for Disease Control and Prevention](#) (U.S. CDC), and the [U.S. Food and Drug Administration](#) to investigate an outbreak of *Salmonella* infections occurring in two provinces. The outbreak is ongoing, as recent illnesses continue to be reported to PHAC. Since 23 August, there have been 15 additional illnesses reported in the ongoing Canadian investigation. As of 2 September 2020, there have been 48 confirmed case of *Salmonella* Enteritidis illness linked to this outbreak in two provinces: Ontario (32) and Quebec (16). Eleven individuals have been hospitalized. No deaths have been reported. There is no evidence to suggest that peaches grown in Canada are associated with outbreak. Based on the investigation findings to date, the outbreak has been linked to peaches from Prima Wawona from the United States. Peaches imported from the United States are under investigation. The [U.S. CDC](#) is also investigating an outbreak of *Salmonella* Enteritidis illnesses that have a similar genetic fingerprint to illnesses reported in this outbreak. PHAC recommends not eating, using, selling or serving any recalled peaches from Prima Wawona from the United States, or any products made with these peaches. Peaches grown in Canada are not affected by this advice.

## **International Events of Interest**

### [United States – Florida dengue fever local transmission cases rise to 54 \(Media\)](#)

The Florida Department of Health reported additional locally acquired dengue fever case in Monroe County, bringing the total to 54 statewide (53 in Monroe County and 1 in Miami-Dade County). One case was reported in a non-Florida resident. In addition to the locally acquired cases, Florida has reported 32 international travel-associated dengue fever cases. Counties reporting cases were: Brevard (2), Broward (5), Clay, Collier, Duval, Franklin, Hillsborough (3), Miami-Dade (13), Orange, Palm Beach, Sarasota, Seminole, and St. Lucie. Florida Keys: Oxitec gets approval to release *Aedes aegypti* mosquitoes

### [International - EU agency reports cases of \*Salmonella\* after contaminated imported nuts \(Media\)](#)

An outbreak of *Salmonella* Typhimurium linked to Brazil nuts imported from Bolivia has been reported in several EU countries. According to the European Centre for Disease Control and Prevention (ECDC), a multi-country cluster of infections caused by the bacteria has been identified, with suspected cases reported in the United Kingdom, France, Luxembourg, the Netherlands, and Canada. Several EU countries, including Belgium, Germany and Greece, are also listed as concerned countries, although no cases have yet been reported. The United Kingdom reported 98 cases across different regions of the country. The UK Food Standards Agency (FSA) has subsequently provided distribution information about the concerned batch of nuts to 33 countries. FSA has published four alerts for affected items, including recalls from companies such as Lidl, Eat Natural, and Rude Health Food. According to the Deputy Director of the National Infection Service at Public Health England, epidemiological and microbiological investigations point to contaminated nuts used in several products. Investigations to determine the source of the contamination and whether any other products may have been affected continue. Following the outbreak, the European Commission has triggered a rapid alert system for food and feed (RASFF) notification. The World Health Organisation has also launched an alert via the International Food Safety Authorities Network.

### [Netherlands - Poliovirus found in sewage water in the Netherlands \(Media\)](#)

Poliovirus has been found in wastewater near where a large pharmaceutical company makes vaccines. According to a local report, the Healthcare Inspectorate (IGJ) is investigating the case, indicating that it is still unclear what the source is and whether employees have been exposed to the virus. All technical and lab facilities are currently under investigation and employees are tested. In addition to Bilthoven Biologicals, one of the largest vaccine manufacturers in the world, the site also houses the Intravacc research institute and the National Institute for Public Health and the Environment (RIVM) building, where a polio laboratory is located. In the sewer, it was examined both the wastewater from the companies and the water from the toilets of the three institutions ended up. Samples were taken from the sewage water on 21 July, and in the first week of August, it was established that it contained poliovirus. According to a RIVM spokesperson, no technical problem has yet been identified in the company or the lab. Nor has a human source been found yet. RIVM informed the WHO about the incident two weeks ago. Bilthoven Biologicals produces half of the 60 million polio vaccines in the world. The WHO is the buyer.

### [Pakistan - Punjab reports two new polio cases \(Media\)](#)

On 1 September 2020, the Official in-charge of the Punjab's Polio Programme confirmed two new polio cases have been reported in the Province, bringing the number of polio confirmed cases in Punjab to eight, this year. In 2020, 67 polio cases have been reported from across Pakistan, majority of these from Khyber Pakhtunkhwa. The cases are an eight-month-old child, who has lost his life, and a 13-year-old-child. Both children were living in distinct districts. The eight-month-child is the fourth causality of a polio patient in 2020. The case of polio affecting a teenager has again sparked debate as the disease is usually attributed to kids up to five years of age. According to a Family Physician, although quite unusual, malnutrition and co-morbidities might have caused polio to attack these children at older age. The official in-

charge for Punjab Polio Programme noted that vaccine campaigns were conducted in December 2019 and January 2020. Virus transmission continued due to gap in polio eradication campaigns recently. The campaigns have since resumed and the next national drive will be held on 21 September.

## **Researches, Policies and Guidelines**

### **[EURO WHO - Unleashing the potential of vaccines for a healthier Europe](#) (Official)**

The European Immunization Agenda for the coming decade seeks to ensure that everyone enjoys the full benefits of vaccines throughout their lives no matter who they are, where they live or when they were born. It will be determined by national priorities – a bottom-up approach providing localized solutions to localized issues. Guided by the principles of the European Programme of Work, the Agenda will be: equity-based, people-focused, country-owned, data-enabled, partnership-based, innovation- and research-driven, and primary health care-based. To accelerate progress, WHO/Europe will be working closely with Member States and partners to build trust in vaccines, understand and remove barriers to vaccination, strengthen primary health care so routine childhood vaccinations reach every child, and extend programmes to benefit people of all ages. By working together, the Region can harness the potential of vaccines to protect individual health and prosperity as well as broader productivity within society. The work of WHO/Europe's vaccine-preventable diseases and immunization programme contributes to one of the 4 flagship initiatives to complement the European Programme of Work, which sets out health priorities for the coming 5 years.

Best Regards | Sincères salutations  
The GPHIN Team / L'équipe du RMISP

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