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Sent: 2020-10-06 8:08 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

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

As of 05 October 2020 at 19:00 EDT, a total of 168,960 cases have been recorded in Canada including 9,504 deaths. The cases are reported in Newfoundland and Labrador (277 confirmed cases, 4 deaths), Prince Edward Island (61 confirmed cases), Nova Scotia (1,089 confirmed cases, 65 deaths), New Brunswick (203 confirmed cases, 2 deaths), Quebec (79,650 confirmed cases, 5,884 deaths), Ontario (54,814 confirmed cases, 2,980 deaths), Manitoba (2,191 confirmed cases, 23 deaths), Saskatchewan (1,968 confirmed cases, 24 deaths), Alberta (18,935 confirmed cases, 280 deaths), British Columbia (9,739 confirmed cases, 242 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 October 06, 2020, 11:20 GMT, there were 35,776,482 cases of COVID-19 and 1,049,689 deaths reported globally. Top 10 countries with the highest number of cases, by alphabetical order are: Argentina (809,728 cases, 21,468 deaths), Brazil (4,940,499 cases, 146,773 deaths); Colombia (862,158 cases, 26,844 deaths); India (6,687,247 cases, 103,629 deaths); Mexico (789,780 cases, 81,877 deaths); Peru (829,999 cases, 32,834 deaths); Russia (1,237,504 cases, 21,663 deaths); South Africa (682,215 cases, 17,016 deaths); Spain (852,838 cases, 32,225 deaths); United States (7,679,908 cases, 215,032 deaths).

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

- [The Nunavut government has confirmed seven new positive cases of COVID-19 at the Hope Bay mine, bringing the total number of confirmed cases to nine.](#) The government also announced a new total of four presumptive cases at the mine. The territory's chief public health officer had previously stated that the cases might count as Nunavut's first because transmission likely occurred in the territory, but that would be decided in conversations with the home jurisdictions of the infected people. Whether these cases will count toward Nunavut's total is still being worked out.
- [The Prime Minister has promised more support for local public health units in emerging COVID-19 hot spots](#) — some of which are struggling with testing backlogs and a contact tracing system that can't keep up with the number of new cases being reported. The government has signed agreements with Alberta, Ontario and Quebec to supply federal bureaucrats to help those provinces with their contact tracing. 500 public servants will be on hand to support Ontario's tracing efforts, with 30 tracers specifically assigned to the city of Ottawa. Some federal laboratories will be re-purposed to help provinces ramp up testing and the labs will run 1,000 tests a day in Ontario, with more capacity to be brought online in the coming days.
- [Newfoundland and Labrador is advising passengers on a recent Air Canada flight from Toronto to Halifax to immediately isolate and get tested for COVID-19.](#) Authorities reported that passengers on AC604 on 30 September 2020 seated in rows 13 through 17 should isolate for 14 days upon their arrival in the province and call 811 to arrange a test. Public Health reports while the risk of COVID-19 infection is low for the other passengers, the agency is still recommending they get tested out of an abundance of caution.
- [According to the Manitoba's surveillance data from 20 -26 September, a total of 109 healthcare workers have contracted the disease since the start of the pandemic,](#) 12 more workers than the week before. Of these employees, 35 are healthcare aides, 28 are nurses, nine are physicians or physicians in training, seven are social/support workers, five are medical clerks, three are pharmacists, and 21 fall into a combined category.

- [Ontario has paused walk-in testing at the centres so it can catch up on a backlog of 79,000 untested swabs](#), and when the centres reopen on 06 October, tests will be by appointment only. Testing will also be limited to those exhibiting symptoms. At least 60 pharmacies across the province are offering evaluation for asymptomatic people, also by appointment.
- [High school students in Quebec's red zones will be required to wear masks in the classroom](#), organized sports will be prohibited and gyms closed under new restrictions. The new rules go into effect 08 October until at least 28 October.
- [Covid-19 outbreak is declared again at one of Niagara's hardest hit retirement homes](#). Lundy Manor was the scene of one of the region's worst outbreaks in the spring, with 18 residents losing their lives after contracting the coronavirus. Public health has also declared outbreaks at Shalom Gardens in Grimsby, Meadows of Dorchester and Millennium Trail Manor in Niagara Falls along with Pioneer Elder Care in St. Catharines.
- [The County of Simcoe has confirmed that two long-term care residents at Simcoe Manor in Beeton, Ont., have died as the nursing home experiences a COVID-19 outbreak](#). According to the county, one resident who died tested positive for the coronavirus, while the other who passed away was tested and the results have not yet come in. There have been four staff members and four residents who have tested positive for the novel coronavirus at Simcoe Manor. Three resident care units have been impacted by COVID-19. Simcoe Manor is one of two long-term care homes that are currently experiencing a COVID-19 outbreak in the Simcoe Muskoka region, the other being at the Pines Long-Term Care Home in Bracebridge, Ont.
- On 05 October, B.C.'s Provincial Health Officer stated that [British Columbians are again flattening the COVID-19 curve](#) as the official presented fall modelling data. The data, however, shows cases in B.C. have increased since the middle of July. The majority of cases remain related to local acquisition through a known case or cluster, although some continue to be linked to international travel, as well as temporary foreign workers entering the province. The official pointed out the number of cases currently in hospital is lower than in April.

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

- The [US CDC has stated that the coronavirus can spread more than 6 feet through the air, especially in poorly ventilated and enclosed spaces](#). But agency officials maintained that such spread is uncommon and current social distancing guidelines still make sense. However, several experts faulted the [updated Centers for Disease Control and Prevention guidance](#). The experts noted that the virus can spread more easily than the CDC seems to be indicating, and suggested that the public should wear masks even in prolonged outdoor gatherings when they are more than 6 feet apart.
- On 4 October 2020, [New York City Mayor proposed temporarily closing all schools and non-essential businesses in nine zip codes that have seen Covid-19 test positivity rates above 3% for at least seven consecutive days](#). The Mayor characterized the plan as an effort to rewind reopening in nine neighborhoods in Brooklyn and Queens. The proposed plan, which requires State approval, includes the closure of all non-essential businesses, private and public schools and daycares beginning Wednesday, 7 October. Restaurants in the affected areas would have to stop indoor and outdoor dining but would be allowed to continue service for to-go orders. Businesses and schools would be allowed to reopen after two weeks if the zip codes have seen seven consecutive days of positivity rates below 3%. If not, they would be closed for at least four weeks.
- [Thousands of minks at Utah fur farms have died because of the coronavirus in the past 10 days, forcing nine sites in three counties to quarantine, but the state veterinarian noted people don't appear to be at risk from the outbreak](#). According to the state veterinarian, the COVID-19 infections likely were spread from workers at the mink ranches to the animals, with no sign so far that the animals are spreading it to humans. According to the U.S. Department of Agriculture, in addition to the minks, more than 50 animals in the U.S. had tested positive for the coronavirus as of 2 September. The infections have been detected in pet cats and dogs, as well as lions and tigers at a New York zoo. Minks were discovered to be susceptible to the SARS-CoV-2 virus in April, after outbreaks at several farms in the Netherlands, followed by outbreaks in Denmark and Spain. More than 1 million animals were culled in those countries. Several workers at the Utah mink farms have tested positive for COVID-19, including some who had no symptoms. After the initial U.S. cases were confirmed, mink farms across Utah and the rest of the country implemented strict measures to prevent the disease from spreading, such as restricting access, conducting health checks on workers and disinfecting surfaces. The USDA and the Centers for Disease Control and Prevention have issued guidelines for farmed minks and other mustelids, a family of animals that also includes weasels and badgers. Utah is one of the nation's top mink producers. Overall, there are 245 fur farms in 22 states, part of an industry valued at \$82.6 million a year, according to Fur Commission USA.
- FDA awarded a new [research contract](#) to the Stanford University School of Medicine to perform an in-depth analysis of tissue samples to learn more about how SARS-CoV-2—the virus that causes COVID-19—affects different systems in the body, and identify immune correlates. This regulatory science project could potentially help inform development and evaluation of medical countermeasures for COVID-19.

WHO - Weekly Epidemiological Update Coronavirus disease 2019 (COVID-19) 5 October 2020 (Official)

- **Diagnostics:** WHO issued the [first](#) and [second](#) Emergency Use Listing for a quality antigen based rapid diagnostic test. [WHO published guidance](#) highlights the value of these tests in areas where community transmission is widespread and where nucleic acid amplification-based diagnostic testing is either unavailable or where test results are significantly delayed. On 28 September, the Access to COVID-19 Tools (ACT) Accelerator announced 120 million high-quality, affordable [COVID-19 antigen rapid tests to be made available to low- and middle-income countries](#).
- **Diagnostics:** WHO published the final version of [Target Product Profiles \(TPP\)](#) for priority diagnostics. These TPPs describe the desirable and minimal acceptable profiles for four tests: (i) point of care tests for suspected cases and their close contacts where reference assay testing is unavailable, or turnaround times obviate clinical utility; (ii) tests for diagnosis or confirmation of acute or subacute infection, suitable for low or high-volume needs; (iii) point of care test for prior infection; and (iv) tests for prior infection for moderate to high volume needs.
- **COVAX:** The Director-General, in his regular [media briefing](#) on 2 October, highlighted 168 have joined COVAX. Through the ACT Accelerator and COVAX Facility, any vaccines that are proven to be safe and effective will be rolled out equitably across the world.
- **International Day of Older Persons:** On 1 October, the International Day of Older Persons, WHO launched a [package of tools](#), including a digital application to help health and social workers provide better care for older people. A [data portal](#) was also launched that will compile data on global indicators for monitoring the health and well-being of people aged 60 and over. Globally, older persons and those receiving long term care, accounts for a majority of COVID-19 severe cases and deaths.
- **Mental Health:** Billions of people around the world have been affected by the COVID-19 pandemic, which is having an added impact on people's mental health. On 10 October, World Mental Health Day, WHO is organizing a [Big Event for Mental Health](#). The advocacy event will focus on the urgent need to address the world's chronic under-investment in mental health – a problem that has been thrown into the spotlight during the COVID-19 pandemic.
- **Preparedness:** During the United Nations General Assembly, a high-level event on '[Sustainable preparedness for health security and resilience: Adopting a whole-of-society approach and breaking the "panic-then-forget" cycle](#)' was organized and co-hosted by Finland, France and Indonesia, along with the WHO. As the world crossed a grim milestone with over a million lives lost to COVID-19, with many more expected to have died from unprecedented disruptions to health systems. The event highlighted the need for sustainable health emergency preparedness as COVID-19 will not be the world's last health emergency.

ECDC - Infection prevention and control and preparedness for COVID-19 in healthcare settings - fifth update (Official)

On 6 October, ECDC published a report in regards to infection prevention and control and preparedness for COVID-19 in healthcare settings. This [document](#) aims to provide guidance to healthcare facilities and healthcare providers in the European Union/European Economic Area (EU/EEA) and the United Kingdom (UK) on preparedness and infection prevention and control (IPC) measures for the management of possible and confirmed cases of COVID-19 in healthcare settings, including long-term care facilities (LTCFs). In addition, this document addresses the management of clinical diagnostic specimens at laboratories in the EU/EEA. This is the fifth update of the ECDC guidance on 'Infection prevention and control and preparedness for COVID-19 in healthcare settings', and replaces the document dated 4 July 2020.

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

- On 4 October, [the President of the Medical Association of the Honduran Institute of Social Security \(IHSS\) confirmed that Honduras registered its first COVID-19 reinfections](#). The Association President reported that three patients with COVID-19 symptoms were recently detected in a care center in San Pedro Sula City and doctors were able to document that these people tested positive for PCR four or five months before. At that period, the patients had mild to moderate symptoms, received treatment and subsequently their test was negative, but very recently they were positive again and some are even in serious condition. The official suggested that the population attend the Red Cross and IHSS to establish the amount of antibodies they have after infection to assess those possibilities.
- [Around 10 percent of the global population may have been infected with the coronavirus](#), and the vast majority of the people are still at risk, World Health Organization (WHO) Health Emergencies Programme Executive Director Stated on 05 October. The current best estimates show that about 10 percent of the global population may have been infected by this virus, this varies depending on country, this varies from urban to rural, it varies between different groups, but what it does mean is that the vast majority of the world remains at risk.
- [A team of scientists in India has developed an inexpensive paper-based test for coronavirus that could give fast results similar to a pregnancy test](#). The test, is based on a gene-editing technology called Crispr. Scientists

estimate that the kit - called Feluda - would return results in under an hour and cost 500 rupees (about \$6.75; £5.25). Feluda will be made by a leading Indian conglomerate, Tata, and could be the world's first paper-based Covid-19 test available in the market.

- [The British government has launched an investigation into how nearly 16,000 new coronavirus infections went unreported as a result of a technical glitch](#), a failing that could have given fresh impetus to an outbreak that critics note could easily get out of control. The latest problem appears to have been caused by an Excel file maxing out during an automated process.
- The [mortality rate for the novel coronavirus stands at approximately 8%](#), which is higher than for flu, director of the Gamaleya National Research Institute of Epidemiology and Microbiology, academician of the Russian Academy of Science has noted.
- [Venezuela has received a shipment of the Russian-made Sputnik-V vaccine against the coronavirus](#). The delivery is the first in Latin America and will allow Venezuela to participate in clinical trials of the vaccine.

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

- [More than 200,000 people in the United States have now died from COVID-19, but the death toll of the U.S. epidemic is likely much higher, according to a new, first-of-its-kind study from researchers at the University of Pennsylvania, Boston University, and the Robert Wood Johnson Foundation](#). Available as a pre-print on [medRxiv](#) ahead of peer-reviewed publication, the study estimates the number of excess deaths, those that occurred from February through September 2020 above what would be expected in a normal year. For every 100 excess deaths directly attributed to COVID-19, there were another 36 excess deaths. This means 26% of all excess deaths were not directly attributed to COVID. The research team found more of these additional deaths in counties with greater income inequality, more non-Hispanic Black residents, less homeownership, and high-population density, indicating a pattern related to socioeconomic disadvantage and structural racism. The results focus important attention on the disparate impact of the COVID-19 pandemic on low-income and minority communities. These groups have historically experienced high death rates, which are now further exacerbated by the current pandemic.
- [Researchers at Caltech have developed a low-cost multiplex test that can rapidly provide three different types of data on COVID-19](#). The test can detect the presence of SARS-CoV-2, antibodies against the virus (potentially indicating a level of immunity), and inflammatory markers that could indicate the severity of COVID-19. Using blood or saliva, the test can provide a result in as little as 10 minutes. The researchers hope that it could soon be used by people at home to assess their COVID-19 status. The study is published in the journal [Cell](#).
- [During July–August 2020, four state health departments and CDC investigated](#) a COVID-19 outbreak that occurred during a 3-week family gathering of five households in which an adolescent aged 13 years was the index and suspected primary patient; 11 subsequent cases occurred. There is increasing evidence that children and adolescents can efficiently transmit SARS-CoV-2, the virus that causes coronavirus disease 2019 (COVID-19). This outbreak highlights several important issues. First, children and adolescents can serve as the source for COVID-19 outbreaks within families, even when their symptoms are mild. Better understanding of transmission by children and adolescents in different settings is needed to refine public health guidance. Second, this investigation provides evidence of the benefit of physical distancing as a mitigation strategy to prevent SARS-CoV-2 transmission. None of the six family members who maintained outdoor physical distance without face masks during two visits to the family gathering developed symptoms; the four who were tested for SARS-CoV-2 had negative test results. Third, rapid antigen tests generally have lower sensitivity (84.0%–97.6%) compared with RT-PCR testing; negative results should be confirmed with RT-PCR if used for persons with high pretest probability of infection, such as those with a known exposure. Fourth, regardless of negative test results, persons should self-quarantine for 14 days after a known exposure or after travel when mandated by state, territorial, tribal, or local authorities. Finally, SARS-CoV-2 can spread efficiently during gatherings, especially with prolonged, close contact. Physical distancing, face mask use, and hand hygiene reduce transmission; gatherings should be avoided when physical distancing and face mask use are not possible.
- [SARS-CoV-2, the virus that causes COVID-19, survives on human skin for 9 hours, much longer than a strain of influenza A virus \(IAV\)](#). A [study](#) in Clinical Infectious Disease indicates that the long survival time on human skin may increase the contact-transmission risk of SARS-CoV-2 compared to other viruses, but finds hand hygiene is highly effective at neutralizing the virus.
- [Dozens of animal species could be vulnerable to the virus that causes COVID-19](#), researchers at University College London suggest. The researchers investigated how the spike protein from SARS-CoV-2 could interact with the Ace2 protein it attaches to when it infects people. The study, published in [Scientific Reports](#), found that 26 animals, including pigs, horses and rabbits, may be susceptible to infection
- A new study in the [Annals of Clinical and Translational Neurology](#) has found that [8 in 10 COVID-19 patients suffer neurological symptoms](#). These symptoms include muscle pain, headaches, dizziness, encephalopathy and brain fog. The study also found 16% had taste disorders and 11% had smell disorders. After discharge from the hospital, only 32% of patients with encephalopathy were able to care for their own affairs, compared to 89% of

those who didn't develop encephalopathy. Also, the death rate in patients with encephalopathy was much higher (about 22%) than in those without encephalopathy (3%). The researchers noted that, the findings will help shape long-term care for people who suffer from neurological complications of COVID-19.

- A new study led by a physician and researcher in the Department of Family Medicine in the West Virginia University School of Medicine, revealed the factors played in quashing a COVID-19 outbreak at Sundale, a long-term care facility in Morgantown. The researcher stated that [testing, isolating and communicating are keys to controlling a COVID-19 outbreak in a long-term care facility](#).

Domestic Events of Interest

Nil

International Events of Interest

[United States - Recent HIV Clusters and Outbreaks Across the United States Among People Who Inject Drugs and Considerations During the COVID-19 Pandemic](#) (Official)

Since 2015, the Centers for Disease Control and Prevention (CDC) and health departments across the United States have identified several HIV clusters and outbreaks occurring predominantly among people who inject drugs (PWID). Long-term declining trends in HIV incidence among people who inject drugs have stalled. The purpose of this Health Advisory, posted on 5 October 2020, is to alert public health departments and healthcare providers to the possibility of new injection-related HIV infections and outbreaks. This HAN provides guidance for preventing, identifying, and responding to HIV among people who inject drugs. It also provides considerations for delivering services in the context of the COVID-19 pandemic.

[Brazil - Against dengue, 'Aedes aegypti' mosquitoes with Wolbachia bacteria begin to be released in Belo Horizonte](#) (Media)

Researchers expect dengue, zika and chikungunya to decline in Brazil. *Aedes aegypti* mosquitoes that went through a process of implantation of the bacterium Wolbachia began to be released in the Region of Sale Nova, in Belo Horizonte on 5 October 2020. The project, carried out in other countries, is considered promising for reducing the transmission of dengue, zika and chikungunya. According to the researchers each tube has approximately 150 insects with Wolbachia. The scientists explained that with the release of mosquitoes that contain the bacteria, the expectation is that they reproduce, thus establishing a new population of insects, all with the microorganism. The researchers claim that there is no genetic modification in the process. The Scientists announced that the study to control these diseases has already been implemented by researchers from the World Mosquito Program (WMP) in 12 countries.

Researches, Policies and Guidelines

[United States - Flavivirus vaccines: Researchers one step closer to development](#) (Study)

The results of a recent study moved University of Arizona Health Sciences researchers one step closer to developing effective vaccinations against flaviviruses, which infect more than 400 million people a year with diseases such as dengue, yellow fever, West Nile, Zika and Japanese encephalitis. The study titled "Affinity-restricted memory B cells dominate recall responses to heterologous flavivirus challenges," published in the journal *Immunity*, focused on two types of cells that produce antibodies: plasma cells and memory B cells. Plasma cells are the primary drivers of long-lasting immunity, as they continue to produce antibodies once an infection has been cleared or after vaccination. Memory B cells only produce antibodies if a second infection occurs. The study found that when memory B cells are activated by a new infection, they produce antibodies that are diverse and capable of targeting viruses that have changed since the first infection, through mutation or infection with a slightly different strain.

[United States, Mexico - Renew Alliance for Food Safety between Mexico and the United States](#) (Media)

In order to strengthen the safety of food produced, marketed and consumed in Mexico and the United States, health agencies in both countries join forces in signing the Alliance for Food Safety Declaration of Intent. Through this Declaration, the health institutions of the secretariats of Agriculture and Rural and Health Development, Mexico, and the U.S. Food and Drug Administration (FDA) will promote collaborative actions with academic, scientific, consumer groups, and the private sector, with the aim of gaining greater knowledge of the safety systems of both countries and establishing mutual trust bases in their respective systems in favor of identifying additional areas of opportunity of mutual interest. The document replaces the Declaration of Intent, signed in 2014, which included only fresh and minimally processed agricultural products.

[ECDC - Looking at newer enhanced seasonal influenza vaccines: a systematic review of efficacy, effectiveness and safety](#) (Official)

Based on a systematic literature review, ECDC has assessed the efficacy, effectiveness and safety of newer and enhanced inactivated seasonal influenza (flu) vaccines among those 18 years or older. These assessed are MF59® adjuvanted, cell-based, high-dose, and recombinant haemagglutinin influenza vaccines. The report provides recommendations to enhance research conduct as well as reporting on this topic to improve available data overall for these newer enhanced seasonal influenza vaccines.

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

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