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**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 24 September 2020 at 19:00 EDT, a total of 149,094 cases have been recorded in Canada including 9,249 deaths. The cases are reported in Newfoundland and Labrador (272 confirmed cases, 3 deaths), Prince Edward Island (58 confirmed cases), Nova Scotia (1,087 confirmed cases, 65 deaths), New Brunswick (199 confirmed cases, 2 deaths), Quebec (69,670 confirmed cases, 5,810 deaths), Ontario (48,496 confirmed cases, 2,836 deaths), Manitoba (1,711 confirmed cases, 19 deaths), Saskatchewan (1,835 confirmed cases, 24 deaths), Alberta (17,190 confirmed cases, 261 deaths), British Columbia (8,543 confirmed cases, 229 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 25 September 2020, 11:14 GMT, there were 32,455,363 cases of COVID-19 and 988,502 deaths reported globally. Top 10 countries with the highest number of cases, by alphabetical order are: Argentina (678,266 cases, 14,766 deaths), Brazil (4,659,909 cases, 139,883 deaths); Colombia (790,823 cases, 24,924 deaths); India (5,823,060 cases, 92,347 deaths); Mexico (715,457 cases, 75,439 deaths); Peru (788,930 cases, 31,938 deaths); Russia (1,136,048 cases, 20,056 deaths); South Africa (667,049 cases, 16,283 deaths); Spain (704,209 cases, 31,118 deaths); United States (7,185,915 cases, 207,540 deaths).

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

- [On 24 September, Canada's Chief Public Health Officer \(CPHO\) issued statement](#) indicating that, although the pattern of epidemic curves varies by region in Canada, all provinces west of the Atlantic region are showing increasing incidence of COVID-19. The latest data indicate that 12 health regions in four provinces (British Columbia, Alberta, Ontario and Quebec) are experiencing incidence rates of over 50 cases per 100,000 population. In areas where the virus is surging, there are heavy demands on resources for testing and contact tracing to interrupt new chains of transmission. Moreover, the epidemiological analysis and modelling studies show that if the current rate of accelerated growth is not slowed, there will be a large resurgence in these and likely other areas of the country. However, Canada still has a chance to prevent a large resurgence if people all act together now. The CPHO stated that, local public health authorities cannot do this alone, individual actions to prevent exposure and limit the number of close contacts are a must. This is not simply a matter of resources, it is a reality of the current level of accelerated growth. Based on the past week, each new generation of cases is growing at a rate of about 1.3 times in Canada. That means each of the more than 1,000 new COVID-19 cases reported daily will pass the infection to 1.3 others; so, 1,000 cases generates 1,300 cases, which in turn generate 1,700 more cases and so on –unless people all work together to slow the rate of spread.
- The [Government of Canada has announced 28 Indigenous organizations in the province of Saskatchewan received approximately \\$6.1 million in funding through the Indigenous Community Support Fund's off-reserve and urban stream to address the ongoing COVID-19 pandemic](#). The funding will aid with food security, mental health support services, homelessness, and required emergency supplies to ensure the health and safety of Indigenous Peoples.
- [Infectious disease experts affirm Canadian health authorities must tighten restrictions again or hospitalizations and deaths from COVID-19 will increase exponentially in the coming weeks](#). Echoing comments made on 23

September 2020 by Chief Public Health Officer, who indicated that Canada is at a crossroads in its pandemic battle, experts in public health are urging governments to take decisive action to prevent the current resurgence of the virus from spiralling out of control. An infectious disease physician based at a Women's College Hospital in Toronto stressed that Canadians grew fatigued with the restrictions imposed on their social circles earlier in the year and will not be eager to return to them unless pressed, which means demanding Canadians tighten their social circles, and backing that up with enforcement. According to the expert, right now, people are playing fast and loose with bubbles all over the place. Meanwhile, an associate professor at the University of Toronto's Dalla Lana School of Public Health is encouraging everyone to rethink what their bubbles through what is necessary when it comes to interactions with others.

- Ahead of a second wave of the coronavirus in Canada, [experts note its time to talk more seriously about the country's exposure notification app, COVID Alert](#). Since it launched in July, the app has been downloaded more than 2.7 million times. From the day the app rolled out (31 July) to 22 September, just 375 people who tested positive for COVID-19 have logged their diagnosis. That is very different from the more than 1,000 new daily cases nationally. Since 1 September, 263 people who tested positive for the virus logged their diagnosis to notify others of possible exposure. The app has also been downloaded 490,000 times during the same period, according to the Public Health Agency of Canada. According to an infectious disease expert based out of Toronto General Hospital, given that the recent rise in cases is being driven by young people the message about the benefit and safety of the app needs to get laser-focused.
- A media source has learned that [Ontario wants to avoid imposing lockdown-style measures to combat a second wave of COVID-19](#), but is prepared to take targeted action such as closing certain higher-risk businesses. The source obtained a copy of Ontario's fall pandemic preparedness plan, still in draft form. Whichever scenario plays out, the plan favours responding with targeted restrictions, rather than widespread closures or a lockdown. Parts of the plan that have not been revealed include expanding testing capacity to 50,000 tests per day, with the ability to ramp up to 100,000 tests per day as needed. The plan also says the province will adopt new testing technologies, including saliva tests and tests that can be processed at the point of care. The draft document indicates the province will take action on what it calls "health behaviour surveillance" as part of its efforts to slow transmission of COVID-19.
- [Ottawa Public Health reports the new COVID-19 outbreak is at Lycee Claudel](#), a French private school in Ottawa. Two students at the school have tested positive for COVID-19. COVID-19 cases have been reported at 52 schools with the Ottawa Carleton District School Board, Ottawa Catholic School Board, and the French public and catholic school boards.
- [Government figures show there have been 210 school-related COVID-19 cases in Ontario in total](#) — 101 among students and 40 among staff (69 individuals were not identified). This is an increase of 31 more cases since the previous day. The COVID-19 cases are currently from 178 out of 4,828 schools in the province. Affected schools are in Toronto, Oakville, Pickering, Ajax, Whitby, Oshawa, Mississauga, Brampton, Caledon, Orangeville, Aurora, Milton, Tottenham, Waterloo, Cambridge, Kitchener, Brantford, Welland, Ancaster, Balmertown, Hamilton, Niagara Falls, Barrie, Orillia, Huntsville, Amherstburg, Thornhill, Maple, Woodbridge, Vaughan, Markham, London, Windsor, Embrun, Orleans, Nepean, Rockland, Ottawa,
- [Three people who have tested positive for COVID-19 in the Renfrew and Pembroke regions have contracted the virus through connections relating back to the outbreak at Fellowes High School](#), neither of which are employees or students of the school. The Renfrew County and District Health Unit noted in a press release on 23 September 2020 that the new cases were found through contact tracing. The Renfrew County District Health Unit is still requiring that all staff and students must continue to self-isolate and self-monitor even if they have received a negative COVID-19 test result until further notice. A re-opening of the school has yet to be determined.
- Public health officials never contacted a Vancouver high-school teacher, who tested positive for COVID-19 after a student in her class, was confirmed to have the illness. According to the West Vancouver Teachers Association President, the teacher was alerted by students, who were themselves contact-traced, and asked to isolate. As a result, the teacher has filed a claim over the matter with WorkSafeBC, the provincial agency that promotes safe and healthy workplaces. [The teacher's claim would become the first test case of a teacher filing over the coronavirus with WorkSafeBC](#). Public health officials are now investigating whether the teacher became infected by the student. Since the re-opening schools two weeks ago, no confirmed transmission of COVID-19 between a student and a teacher has occurred in Vancouver.
- On 24 September 2020, Public Health Ontario (PHO) indicated that [an unexpected outage that temporarily prevented it from issuing COVID-19 test results to patients has been fixed](#). Test results affected by the outage the day before are now being inputted into the lab information system and will be completed. The agency has cautioned that some laboratory test results might be delayed as a result. PHO continued to collect test samples throughout the outage. The provincial government has previously noted that it is working to ramp up testing amid an upward trend in COVID-cases, with a goal of reaching 50,000 tests per day.
- [The Ontario government is building on the largest provincial testing initiative in Canada by providing \\$1.07 billion to expand COVID-19 testing and case and contact management](#). The government is also investing \$30 million to prevent and manage outbreaks in priority sectors, including the province's long-term care homes, retirement

homes and schools. A critical part of Ontario's COVID-19 fall preparedness plan is encouraging people to continue to adhere to foundational public health measures and monitor public health trends carefully.

- On 24 September 2020, [Associate Chief Medical Officer of Health, outlining updated COVID-19 testing guidelines for Ontario, stated that publicly funded testing would be available and easily accessible for those who are symptomatic, have had close contact with a confirmed case, or are part of an outbreak investigation](#). Effective immediately, Ontarians should only seek testing at assessment centres if they are showing COVID-19 symptoms; have been exposed to a confirmed case of the virus, as informed by their public health unit or exposure notification through the COVID Alert app; a resident or work in a setting that has a COVID-19 outbreak, as identified and informed by their local public health unit; and eligible for testing as part of a targeted testing initiative directed by the Ministry of Health or the Ministry of Long-Term Care.
- [Medical experts affirm an abrupt shift in Ontario's testing strategy highlights the complexities of responding to a second wave of the COVID-19 pandemic](#). Testing for asymptomatic residents is available at up to 60 pharmacies by appointment starting on 25 September 2020. Doctors shaping Ontario's pandemic response note the shift is necessary to preserve the province's testing capacity, which has been severely strained in recent weeks as case numbers climb.
- On 24 September 2020, the Minister for Seniors and Accessibility declared that the [Ontario government is extending the Ontario Community Support Program until March 2021](#). This will ensure that low-income seniors and people with disabilities, many who are self isolating due to COVID-19, can continue to get meals and other essential supplies delivered to their homes in the upcoming winter months. Since the program was launched in partnership with the Ontario Community Support Association (OCSA) in April, it has enabled more than 230,000 deliveries of meals and essential supplies across the province, helping seniors and people with disabilities as they stayed home to protect themselves from COVID-19.
- According to Yukon Chief Medical Officer, [the territory is looking to adopt a new method of COVID-19 testing that is being introduced in British Columbia](#). The week of 27 September 2020, B.C. announced it was introducing a new mouth rinse, gargle and spit test for students from kindergarten to Grade 12 to help make it easier for children and teenagers to check whether they have COVID-19. The test was developed in that province as an alternative to nasal swabs. Yukon Chief Medical Officer noted that with this less-invasive test for children, it might be a kinder option for kids who might have to be tested multiple times over the fall and winter months. Nova Scotia is also looking to implement the new testing method, but health officials there noted right now there are not enough cases in that province to confirm the testing method.
- According to a new report, the owners of a private long-term care home in suburban Montreal where dozens of residents died during the COVID-19 pandemic in March and April displayed organizational negligence. [The Quebec government released the report into Residence Herron on 23 September 2020, as well as a separate report that looked into a public long-term care home north of Montreal](#) where 100 residents died. Commissioned by the provincial government, the investigation concludes that authorities at Herron repeatedly failed to address shortcomings noted in prior inspection reports and in a coroner's report, largely because of vacancies in key posts and a turnover rate that reached 20 per cent a year.
- [The Edmonton International Airport \(EIA\) is working with a local company on a pilot program to trial a new COVID-19 saliva test](#) that the company affirms can produce results in seconds. EIA has been selected as the exclusive location to host clinical trials of a coronavirus test that uses a saliva sample from a person and produces a positive or negative result in less than one minute. The airport hopes the rapid-result test will address the need for a 14-day quarantine period, which is currently in place for any traveller entering the country from outside Canada. The airport is working with GLC Medical Inc. on the trial, which does not yet have a scheduled start date. The saliva test is still undergoing clinical testing as part of the regulatory approval process.
- [A group of 38 health experts have signed an open letter calling for swift and decisive action from the Ontario government](#) warning that new COVID-19 case numbers in Ontario are rising too quickly and it's time for the province to step in to get them back under control. The letter calls on the provincial government to tighten restrictions on non-essential businesses and activities the signatories say lead to people gathering too closely together. Those include dine-in restaurants, bars, nightclubs, gyms, theatres, and places of worship. The doctors are also calling for non-essential businesses to return to working from home and for universities and colleges to return to online classes wherever possible. The group of experts indicate that what is happening in the province is entirely predictable.
- [Vancouver Coastal Health \(VCH\)'s top doctor is defending her position on reporting COVID-19 exposures in the region's schools](#). The official indicated that VCH will notify the public of COVID-19 exposures when necessary, adding that privacy must be maintained because of the stigma around individuals who contract the coronavirus. The official indicated that VCH did not want to unnecessarily create anxiety in parents if their children are not at risk.
- [New Brunswick is re-imposing travel restrictions on residents of Quebec's southern Gaspé area, which has seen its COVID-19 alert level rise](#). The Premier indicated that only residents of the Listuj First Nation and Pointe-a-la-Croix, near Campbellton, N.B., will be allowed to make day trips into New Brunswick. The new rule enters into

effect 25 September. The move follows recent decision to re-impose travel restrictions on residents of Quebec's Temiscouata region, which is close to Edmundston, N.B. Residents of southern Gaspé and of Temiscouata are still permitted to make day trips into New Brunswick for essential reasons such as medical appointments, approved work and child custody arrangements

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

- [On 23 September 2020, the Director of the U.S. Centers for Disease Control and Prevention \(CDC\) declared that a majority of Americans remain susceptible to COVID-19.](#) During a hearing to the Senate Health Committee, the CDC Director stated that CDC is in the process of a very large, sequential study across the entire United States, measuring serology. The preliminary results on the first round show that a majority of the nation (more than 90% of the population) remains susceptible. In addition, the Director of the U.S. National Institute of Allergy and Infectious Diseases (NIAID) warned of the long-term effects that disease might have on those infected. The NIAID Director noted that a recent study in non-athletes, who have recovered from the virus, showed that in their MRIs researchers found that about 60 to 70% of the athletes had indication of inflammatory disease in the heart.
- The FDA re-issued an emergency use authorization (EUA) for the [Assure COVID-19 IgG/IgM Rapid Test Device](#), making it the first authorized serology (antibody) test that can be used at the point of care (POC), meaning it is authorized for use in patient care settings operating under a CLIA Certificate of Waiver, Certificate of Compliance, or Certificate of Accreditation.
- The FDA added one new device to the Device Discontinuance List on the [Medical Device Shortages During the COVID-19 Public Health Emergency](#) web page.
- FDA developed new [health education materials](#) that have been culturally and linguistically tailored for diverse consumers. These materials are intended for health care professionals to share with their patients to help stimulate dialogue and answer pressing questions about FDA's response to COVID-19. The materials provide information on the different areas of the FDA's response to the pandemic, including health fraud, medical product supply, therapeutics, vaccine development, and diagnostic and antibody testing.

#### **[WHO - Managing the COVID-19 infodemic: Promoting healthy behaviours and mitigating the harm from misinformation and disinformation](#) (Official)**

On 23 September 2020, WHO, UN, UNICEF, UNDP, UNESCO, UNAIDS, ITU, UN Global Pulse, and IFRC issued a joint statement regarding managing the COVID-19 infodemic. The Coronavirus disease (COVID-19) is the first pandemic in history in which technology and social media are being used on a massive scale to keep people safe, informed, productive and connected. At the same time, the technology is enabling and amplifying an infodemic that continues to undermine the global response and jeopardizes measures to control the pandemic. Mis- and disinformation can be harmful to people's physical and mental health; increase stigmatization; and reduce public health measures' effectiveness and endangering countries' ability to stop the pandemic. The Resolution WHA73.1 on the COVID-19 response, approved at the World Health Assembly in May 2020 by WHO Member States, calls on Member States to provide reliable COVID-19 content, take measures to counter mis- and disinformation and leverage digital technologies across the response. It also calls on international organizations to address mis- and disinformation in the digital sphere, work to prevent harmful cyber activities undermining the health response and support the provision of science-based data to the public. The agencies urge Member States to engage and listen to their communities as they develop their national action plans, and to empower communities to develop solutions and resilience against mis- and disinformation.

#### **[PAHO - PAHO urges countries to plan early for COVID-19 vaccinations to reduce deaths](#) (Official)**

On 23 September 2020, the Pan American Health Organization (PAHO) Director declared that countries should not wait for a COVID-19 vaccine to be developed before they start planning and preparing for its arrival, urging that in the meantime, countries remain realistic and continue other recommended public health measures to contain the virus. Vaccine preparations will not replace the measures implemented currently. The COVAX facility has signed up 64 self-financing countries and 92 countries eligible for support through that instrument. Through COVAX, participating countries will be guaranteed initial doses to cover at least 3% of their population in the first phases of deployment, as supplies catch up with global demand, eventually reaching 20% of their population – enough to protect those at higher risk for severe COVID-19. PAHO is prepared to offer technical cooperation to countries so they can prepare and implement their vaccination campaigns.

#### **[ECDC - Rapid risk assessment: Increased transmission of COVID-19 in the EU/EEA and the UK – twelfth update](#) (Official)**

On 24 September, ECDC published a rapid risk assessment report in regards to increased transmission of COVID-19. [In this update](#), ECDC analyses the risk posed to the general population, vulnerable individuals, and healthcare provision by the current increase in COVID-19 case notification rates observed in the EU/EEA and the UK.

#### **[ECDC - Guidelines for the implementation of non-pharmaceutical interventions against COVID-19](#) (Official)**



On 24 September, ECDC published guidelines for the implementation of non-pharmaceutical interventions against COVID-19. The [guideline](#) states that non-pharmaceutical interventions (NPI) are public health measures that aim to prevent and/or control SARS-CoV-2 transmission in the community. As long as there is no effective and safe vaccine to protect those at risk of severe COVID-19, NPI are the most effective public health interventions against COVID-19. These ECDC guidelines detail available options for NPI in various epidemiologic scenarios, assess the evidence for their effectiveness and address implementation issues, including potential barriers and facilitators.

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

- [China's candidate coronavirus vaccine caused no side effects among recruits in Moscow as part of large-scale clinical trials](#). Petrovax, the Russian pharmaceutical company working with the vaccine's Chinese developers, announced on 22 September 2020 that the volunteers were doing well, and none of them has shown any side effects. Petrovax has received more than 3,000 applications to get the Ad5-nCoV vaccine so far. The study's participants will be under direct supervision for nearly a month, with four interim presentational examinations, and will undergo a control examination after six months. The company expects preliminary results sometime in November. Once Russia registers the Chinese vaccine, Petrovax would be able to produce more than 4 million doses per month this year and 10 million doses per month in 2021.
- On 24 September, China's Qingdao Municipal Health Commission notified that during regular routine inspections of the employees of Qingdao Port Dagang Company, [it was discovered that two loading and unloading workers were infected with coronavirus and were asymptomatic](#). The workers unloaded imported frozen seafood on 19 September, and the nucleic acid test was positive 5 days later. So far, 132 close contacts have been investigated and 129 people have been tested, all of which are negative. All products involved in the epidemic have been sealed, and some positive samples have been detected.
- [Swiss health authorities have ordered a quarantine for a staggering 2,500 students](#) at a prestigious hospitality management school in the city of Lausanne after significant outbreaks of the coronavirus that are a suspected by-product of off-campus partying. According to Authorities in Switzerland's Vaud canton, or region, all undergraduates at the Ecole Hoteliere de Lausanne, known as the Lausanne Hospitality Management University in English, have been ordered to quarantine both on- and off-campus because the number of COVID-19 outbreaks because targeted closures were not possible. The university has a total student body of about 3,500, including people pursuing advanced degrees. Switzerland is not alone. The latest government figures in neighboring France show that 22 per cent of the country's currently active virus clusters emerged at schools are universities. The United States has also seen clusters linked to college students.
- Authorities declared on 24 September 2020 that [dogs trained to detect the novel coronavirus began sniffing passenger samples at Finland's Helsinki-Vantaa airport](#) this week, in a pilot project running alongside more usual testing at the airport. The dogs' efficiency has not been proven in comparative scientific studies so passengers who volunteer to be tested and are suspected as carrying the virus are instructed to also take a swab to confirm the result. A team of 15 dogs and 10 instructors are being trained for the job in Finland by volunteers, sponsored by a private veterinary clinic.
- [Health officials have stated that, the COVID-19 pandemic has become very alarming in Iraq, with the country currently reporting close to 4,000 new cases every day and around 500 deaths a week](#). To respond to the escalating emergency and support local health authorities, Médecins Sans Frontières (MSF) has started working in Al-Kindy hospital in Baghdad. The hospital is receiving large numbers of severe and critical COVID-19 patients. Despite efforts to tackle the virus, the growing number of severe and critical cases has recently overwhelmed Al-Kindy and other health facilities treating people with COVID-19. The RCU in Al-Kindy hospital has 52 beds, all of which are currently full. The waiting lists and lack of bed capacity are not the only issues in Baghdad. Some people seem to be avoiding treatment due to the heavy social stigma associated with COVID-19 in the community. Iraqi health workers have also been very badly affected, with almost 15,000 cases since the start of the outbreak. This comes on top of existing shortages of human resources in several hospitals in Baghdad, further complicating an already critical situation.
- [A Chinese pharmaceutical company has indicated the coronavirus vaccine it is developing should be ready by early 2021 for distribution worldwide, including the United States](#). The CEO of SinoVac, vowed to apply to the US Food and Drug Administration to sell CoronaVac in the United States if it passes its third and final round of testing in humans. The CEO noted that he has been given the experimental vaccine. More than 24,000 people are currently participating in clinical trials of CoronaVac in Brazil, Turkey, and Indonesia, with additional trials scheduled for Bangladesh and possibly Chile. The company projects it will be able to produce a few hundred million doses of the vaccine by February or March of 2021. SinoVac is also starting to test small doses of CoronaVac on children in the three countries because of the high rate of infection among young people there. Stringent regulations in the US, European Union, Japan and Australia have historically blocked the sale of Chinese vaccines.
- The [Russian Direct Investment Fund \(RDIF\) and Moscow-based ChemRar Group have agreed to supply the anti-COVID drug Avifavir to 17 countries](#). Avifavir will now be delivered to Saudi Arabia, Brazil, Bulgaria, Serbia, Argentina, Chile, Colombia, Ecuador, El Salvador, Honduras, Kuwait, Panama, Paraguay, Slovakia, South Africa,

the UAE and Uruguay. After being first registered in Russia on 29 May 2020, it has already been used for COVID-19 treatment in more than 70 Russian regions and subsequently purchased by Belarus, Bolivia, Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan. The authorities claim that the efficacy of favipiravir against COVID-19 has been confirmed by Japan's Fujifilm Holdings Corp, several months after Avifavir trials in Russia.

- [Swedish Prime Minister has stated that some areas of Sweden are seeing a worrying resurgence of coronavirus infections](#) because many people seem to have set aside months of caution in favour of full-on social life once again. Though still with a COVID-19 caseload much lower than in many other European countries, Sweden has recorded a gradual rise in new infections in recent weeks.
- [The Sanofi CEO has stated that he expects a COVID-19 vaccine to be ready by early in 2021](#). It won't be in Phase 3 until November or December. The company is increasing its flu vaccine by 15%.
- The [United Nations chief implored countries to cooperate in repatriating 300,000 stranded mariners who have been stuck at sea throughout the pandemic, some of whom have not been home in a year or more](#). France has proposed compiling a global UN list of ports that can be secured to accommodate crew changes. Kenya has also called for sharing costs globally for a rapid testing plan for major ports.
- Across the United States, [a small handful of scientists are brewing up their own homemade and unproven COVID-19 vaccines and giving them to friends, family and themselves](#). These scientists hail from disparate groups. Some are shadowy and anonymous, while others are highly organized and Ivy-league affiliated. These DIY groups are united in their belief that traditional vaccine development is too long and cumbersome, and society could have access to a potential vaccine now. The founding Director of the Division of Medical Ethics at New York University Langone Medical Center is among a growing chorus of bioethicists condemning the DIY vaccine movement. The DIY nature of these experiments means no one is formally keeping track of what happens to people who take these vaccines.
- [IATA has urged governments to begin careful planning with industry stakeholders to ensure full preparedness when vaccines for COVID-19 are approved and available for distribution](#). The association also warned of potentially severe capacity constraints in transporting vaccines by air. Vaccines must be handled and transported in line with international regulatory requirements, at controlled temperatures and without delay to ensure the quality of the product. While there are still many unknowns (number of doses, temperature sensitivities, manufacturing locations, etc.), it is clear that the scale of activity will be vast, that cold chain facilities will be required and that delivery to every corner of the planet will be needed. On top of the transport preparations and coordination needed, governments must also consider the current diminished cargo capacity of the global air transport industry. IATA warns that, with the severe downturn in passenger traffic, airlines have downsized networks and put many aircraft into remote long-term storage. The WHO, UNICEF and Gavi have already reported severe difficulties in maintaining their planned vaccine programs during the COVID19 crisis due, in part, to limited air connectivity.

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

- [As few as 247 people could have carried COVID-19 into Quebec during the spring, according to a genome sequencing study published by the Institut national de santé publique du Québec \(INSPQ\) and the McGill Genome Centre](#). The study looked at 734 genome sequences in the province that were obtained between mid-February and 1 April, and compared those sequences with 21,935 sequences from elsewhere in Canada and around the world. According to a dataset examined by the research team, travel history data also suggested that 32.7 per cent of COVID-19 infections came from Europe, with France having the highest amount at 12.1 per cent. Another 31 per cent came from the Caribbean and Latin America, and 23.9 per cent came from the United States. The data found that only 1.2 per cent of COVID-19 infections came from Asia and none from China.
- [US researchers show that the students and teachers contracted the disease mostly from outside and there was little evidence of the outbreak inside the schools](#). As the US announced the reopening of the schools last month, and concerns about the coronavirus outbreak among children grew, US health experts have confirmed that the rates of infection inside the building remained significantly lower than the public premises. According to an ANI report, the students and teachers contracted the disease mostly from outside and there was little evidence of the outbreak inside the schools. The research suggested that the buildings and institutions did not make the staff or the students "more vulnerable" with adherence to health safety measures and remote teaching. Data gathered by the experts from the smaller communities, however, indicated that the onset of the flu season and with the arrival of the winters, the equation might perhaps change and may put the staff and the students at greater risks. According to the researchers at Brown University, working in collaboration with school administrators, the data uploaded on the National COVID-19 School Response Data Dashboard indicated low levels of infection among teachers and students. In a sample collected by the authorities over the course of a two-week period beginning from 31 August, it was found that only 0.23 per cent of students were either confirmed or presumptive cases of the novel coronavirus.
- On the latest [Morbidity and Mortality Weekly Report \(MMWR\)](#), researchers have revealed that Health care personnel (HCP) with COVID-19 who died tended to be older, male, Asian, Black, and have an underlying

medical condition when compared with HCP who did not die. Nursing and residential care facilities were the most commonly reported job setting and nursing the most common single occupation type of HCP with COVID-19 in six jurisdictions.

- [Researchers have found that more than 10% of people who develop severe COVID-19 have misguided antibodies—autoantibodies—that attack the immune system rather than the virus that causes the disease.](#) Another 3.5% or more of people who develop severe COVID-19 carry a specific kind of genetic mutation that impacts immunity. Consequently, both groups lack effective immune responses that depend on type I interferon, a set of 17 proteins crucial for protecting cells and the body from viruses. Whether these proteins have been neutralized by autoantibodies or—because of a faulty gene—were produced in insufficient amounts or induced an inadequate antiviral response, their absence appears to be a commonality among a subgroup of people who suffer from life-threatening COVID-19 pneumonia. These findings are the first published results from the COVID Human Genetic Effort, an international project spanning more than 50 genetic sequencing hubs and hundreds of hospitals.
- [On 23 September 2020, Sinovac announced it had been approved to begin a phase 1/2 Trial for adolescents and children for its CoronaVac vaccine.](#) This investigational vaccine is already in phase 1/12 clinical trial for adults. The vaccine showed it was safe and showed an immune response. The vaccine was well tolerated across low, medium, and high dosages and there were no reports of any serious adverse events. The Ethics Committee of the Hebei Provincial CDC approved this new trial of a randomized, double-blinded, and placebo-controlled trial among adolescents and children between the ages of 3-17 years old. In this trial, there will be an administration of a low dosage (300SU/dose) and medium dosage (600SU/dose) vaccines, with a 2-dose immunization scheduled at 28-day intervals. CoronVac is an inactivated COVID-19 vaccine candidate.
- [A team of mathematical modellers and epidemiologists at Oxford University's Nuffield Department of Medicine released the latest model of a population responding to the coronavirus epidemic.](#) The model, OpenABM-COVID19, provides public health decision-makers with the ability to review the potential progression and outcome of the coronavirus, including fluctuations in infected individuals, hospitalisations, intensive care unit (ICU) admissions and deaths, and assess the impact of test and trace programs. The model has been further enhanced in partnership with Google Research, including studies to assess the uptake needed for Exposure Notification Systems (contact tracing apps) in the U.S.
- A study published in the [Emerging Infectious Diseases Journal](#) shows that dried blood spot (DBS) samples can be used for the detection of severe acute respiratory syndrome coronavirus 2 spike antibodies. DBS sampling is comparable to matched serum samples with a relative 98.1% sensitivity and 100% specificity. Thus, DBS sampling offers an alternative for population-wide serologic testing in the coronavirus pandemic.
- In a [study](#), conducted by Wayne State University researchers in Detroit, involved a retrospective analysis of 708 initial nose-throat swabs from hospitalized coronavirus patients tested from 4 April to 5 June, using reverse transcription polymerase chain reaction (RT-PCR). In the first week of the study, 48.7% of viral loads were characterized as intermediate, versus 25.5% in both the low and high viral load categories. Thereafter, the percentage of high and intermediate loads progressively fell at the same time as the proportion of low viral loads rose. Five weeks into the study, 70% of the samples showed a low initial viral load, corresponding to a decrease in the death rate; 45% of patients with high viral loads died, in contrast with 32% in those with intermediate loads and 14% in those with low loads. At week 5 the rate of patients with an intermediate load was around 18%, and about 12% had high viral loads. By week 6, no patients had high viral loads. The authors concluded that the downward trend in viral load may indicate that the pandemic is becoming less severe, implementation of physical distancing and lockdowns may have decreased overall exposure to the coronavirus, and analyzing viral loads over time may be a good way to assess pandemic progress.
- In an [unpublished study, conducted by researchers in Italy, suggests that as pandemic lockdowns in that country began, resulting in lower case numbers, COVID-19 patient viral loads on nose-throat swabs tested by RT-PCR also fell from March to May.](#) The authors indicate that their findings may account for lower percentages of patients needing intensive care and dying of their infections over time.

## Domestic Events of Interest

### [Canada, BC - Overdose deaths hit new record during dual public health emergencies](#) (Media)

While many Provinces have been focused on the COVID-19 pandemic, British Columbia has been dealing with a second public health emergency: overdose deaths. B.C. now has a record of six straight months with over 100 illicit drug toxicity deaths. Fentanyl appears to be playing a larger role in B.C.'s drug overdose crisis, with the number of overdose deaths showing signs of extreme fentanyl concentrations nearly doubling to 14% in April 2020 to August 2020, compared to 8% from January 2019 to March 2020. The majority of overdose deaths are in men, accounting for 81% of all overdose deaths to date in 2020; however, in August 2020, overdose rates for women returned to average levels. The highest overdose rates are in the Northern Health region, where there are 40 overdose deaths per 100,000, compared with 31

across the Province. Vancouver had the second highest overdose rate at 36 overdoses per 100,000. Despite the increase in deaths, there have been no reported deaths at supervised consumption or drug overdose prevention sites.

### [Canada, QC - Public health warns of possible Legionnaires' disease outbreak in LaSalle \(Media\)](#)

The Montreal regional public health department issued a call for caution to the health network after a possible outbreak of Legionnaires' disease in LaSalle. Seven cases of Legionnaires' disease were reported to the public health authority between 9 – 22 September. The call for caution is a warning to the health network to watch for cases of Legionnaires' disease since its symptoms may be confused with those of COVID-19. The public health department notes it's investigating to determine whether the seven people in LaSalle were exposed to the same environmental source and then to identify it and correct it. The department indicated it's investigating all possible sources, including water fountains and construction sites. The public health department reports the latest cases of Legionnaires' disease are probably not linked to seven cases that were identified in the southwest sector of Montreal this summer.

## **International Events of Interest**

### [United States - Mushrooms link in 41 Salmonella cases in 10 States \(Media\)](#)

As of 24 September, 2020, a total of 41 people infected with the outbreak strain of Salmonella Stanley have been reported from 10 states – Arizona, California, Connecticut, Georgia, Illinois, Louisiana, New Jersey, New York City, Pennsylvania and Wisconsin. Illnesses started on dates ranging from 21 January 2020, to 26 August 2020. The cases range in age from 2 to 74 years, with a median age of 27. Sixty-two percent of the cases are female. 32 cases with information available, 4 hospitalizations have been reported and no deaths occurred. Epidemiologic and trace back information show that wood ear mushrooms distributed by Wismettac Asian Foods, Inc., are the likely source of this outbreak. The [FDA](#) has also reported that the product was distributed in six packs of five-pound bags to restaurants in 32 states and Canada.

### [United States - First-ever Yellow Fever mosquito detected in Butte County \(Media\)](#)

For the first time in Butte County, California, the mosquito commonly known as the yellow fever mosquito has been found. The invasive species was discovered on 17 September in northeast Chico. The *Aedes aegypti* mosquito has been detected previously in other areas of California, but never in Butte County. *Aedes aegypti* have the potential to transmit viruses such as chikungunya, dengue, yellow fever, and Zika that are not known to be transmitted by Butte County's native mosquitoes, and that to date, have not been detected in *Aedes aegypti* in California. The District is working to evaluate the extent of the infestation and plans to do everything to eradicate this mosquito and to protect residents from the potential disease risk of these invasive mosquitoes.

### [Turkey - A dangerous species of mosquito appeared in Turkey \(Media\)](#)

According to Turkish media, an Asian tiger mosquito capable of carrying yellow fever and the zika virus has begun to spread rapidly in Turkey. Clusters of these insects were found in large areas of Istanbul, previously were not common in Turkey. According to scientists, these mosquitoes are well adapted to the new conditions.

## **Researches, Policies and Guidelines**

### [United States - Acanthamoeba acquired via contaminated soil while potting plants \(Study\)](#)

In a study published in the [New England Journal of Medicine](#), Emory University researchers describe a case of Granulomatous Amebic Encephalitis (GAE) caused by the free-living amoeba, Acanthamoeba. They report the 82-year-old man likely contracted the parasite via exposure to soil from potted-plant maintenance. The case was hospitalized and died after a week. An autopsy showed liquefactive necrosis in part of his brain. Acanthamoeba cysts and trophozoites were detected microscopically and by PCR. The Centers for Disease Control and Prevention (CDC) indicates Acanthamoeba is a microscopic, free-living amoeba, or amoeba (single-celled living organism), that can cause rare, but severe infections of the eye, skin, and central nervous system. The amoeba is found worldwide in the environment in water and soil.

### [United States - Meningococcal Vaccination: Recommendations of the Advisory Committee on Immunization Practices, United States, 2020 \(Official\)](#)

This report compiles and summarizes all recommendations from CDC's Advisory Committee on Immunization Practices (ACIP) for use of meningococcal vaccines in the United States. As a comprehensive summary and update of previously published recommendations, it replaces all previously published reports and policy notes. This report also contains new recommendations for administration of booster doses of serogroup B meningococcal (MenB) vaccine for persons at increased risk for serogroup B meningococcal disease. These guidelines will be updated as needed on the basis of availability of new data or licensure of new meningococcal vaccines. ACIP recommends routine vaccination with a quadrivalent meningococcal conjugate vaccine (MenACWY) for adolescents aged 11 or 12 years, with a booster dose at



age 16 years. ACIP also recommends routine vaccination with MenACWY for persons aged  $\geq 2$  months at increased risk for meningococcal disease caused by serogroups A, C, W, or Y. ACIP recommends MenACWY booster doses for previously vaccinated persons who become or remain at increased risk.

#### **[United States - Trends in Diagnosis of HIV Infection, Linkage to Medical Care, and Viral Suppression Among Men Who Have Sex with Men, by Race/Ethnicity and Age — 33 Jurisdictions, United States, 2014–2018 \(Official\)](#)**

Annual diagnoses of HIV infection among Men who have sex with men (MSM) in the 33 analyzed jurisdictions decreased during 2014–2018. However, the rate of annual decrease among Black MSM (1.3%) was less than that among White MSM (4.8%), diagnoses did not significantly change among Hispanic MSM or any MSM aged 13–19 years, and diagnoses increased among Black and Hispanic MSM aged 25–34 years. In addition, more diagnoses occurred overall among Black MSM than among other racial/ethnic MSM groups. CDC recently reported that racial/ethnic disparities in estimated rates of diagnosis of HIV infection among MSM increased during 2010–2015, and Black MSM had an HIV diagnosis rate that was 9.3 times that of White MSM in 2015 (5). These data warrant intensified prevention efforts for Black and Hispanic MSM, especially those aged 25–34 years, and all MSM aged 13–19 years. Providing antiretroviral therapy for both HIV preexposure prophylaxis and treatment can prevent HIV infection and, subsequently, the need for linkage to care and viral suppression among MSM. However, during 2017, Black and Hispanic MSM who had discussed preexposure prophylaxis with a medical provider were less likely than were White MSM to receive prescriptions for preexposure prophylaxis in 23 jurisdictions. Providers' implicit racial biases toward Blacks and Hispanics often promote treatment nonadherence, which inhibits viral suppression. Therefore, interventions might need to address systemic racism and concomitant racial biases within health care systems. CDC encourages use of interventions that address social determinants of health that underlie the high risk for HIV infection among MSM of all races/ethnicities and ages. Such interventions might help prevent HIV infection and eliminate racial/ethnic disparities in HIV infection among MSM.

#### **[Democratic Republic of the Congo - Ebola Response Priorities in the Time of Covid-19 \(Study\)](#)**

In the 2013–2016 Ebola virus disease (EVD) epidemic in West Africa there were at least eight flare-ups from persistently infected survivors, which extended the required response for 11 months after the first declaration of Ebola-free status by the Liberian Ministry of Health. During the 10th DRC outbreak, a single relapsed case of EVD extended the need for the full response effort by several months. Missed Ebola cases and re-ignition of the 10th outbreak, when the impact may be amplified by a lack of attention and resources due to the COVID-19 pandemic and the declaration of the 11th DRC Ebola outbreak in Equateur Province, could be devastating for DRC and neighboring countries. Surveillance and rapid-response capacity should be maintained, not only for a duration equivalent to two incubation periods (42 days) after the last confirmed case tested negative, but also for at least 90 additional days of enhanced surveillance. To maintain the ability to rapidly detect and respond to new EVD cases, researchers recommend that the response partners initiate or strengthen the critical strategies. Where possible, these activities should be broadened to include surveillance and detection of COVID-19 cases and to strengthen provincial capacity for surveillance and infection prevention and control generally. Five recommendations were published in *The New England Journal of Medicine* on 24 September 2020.

#### **[Russia - Unique natural antibiotic discovered in Russia \(Study\)](#)**

In a study, published in the *Applied Biochemistry and Microbiology*, scientists at Tyumen State University report they have discovered a universal natural antibiotic that overcomes the resistance of pathogens to drugs. For the first time in the world, the researchers demonstrated the unique ability of peptide Emhisillipsin A, secreted from *Emericellopsis alkalina* fungus. According to experts, the substance suppresses the ability of bacteria to form biofilms, so that the resistance of these pathogens to antibiotics is negated. The authors add that the main therapeutic feature of the substance is the universality of the impact, as the peptide inhibit grow of not only MDR- and XDR-shaped bacteria, but also almost any pathogenic eukaryotes, including fungus and yeast. Emericillipsin A is a promising molecule, both as an independent treatment, and as an element of complex drugs. The therapy can be carried out either by injection or locally, by direct treatment of the affected tissues. In the future, the scientists intends to move from working with cellular models to laboratory tests of the drug.

#### **[Germany - Key genetic clue missing in fight against superbugs \(Study\)](#)**

For the first time, researchers have discovered how antibiotic resistance genes are spreading, at a continental scale, via bacterial plasmids in the hospital superbug, *Klebsiella pneumoniae*. Researchers from the Center for Genomic Pathogen Surveillance, based jointly at the Wellcome Sanger Institute and the Big Data Institute, University of Oxford, together with their collaborators used genome sequencing technology to analyze plasmids, genetic structures in bacteria that can carry antibiotic resistance genes, as well as bacterial chromosomes from *K. pneumoniae* samples taken from European hospital patients. The findings, published on 24 September 2020 in *Proceedings of the National Academy of Sciences*, reveal three different pathways by which antibiotic resistance genes spread via plasmids through bacterial populations. Researchers indicate it is critical that plasmids are included when tracking antibiotic resistance in order to have the best chance of stopping superbugs.

Best Regards | Sincères salutations  
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