Exton, Adam (HC/SC)

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Sent:	2020-08-19 8:30 AM
То:	gphin / rmisp (PHAC/ASPC)
Subject:	GPHIN Daily Report (19 August 2020)
Attachments:	GPHIN Daily Report 20200819 IH.docx

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 18 August 2020 at 19:00 EDT, a total of 123,154 cases have been recorded in Canada including 9,045 deaths. The cases are reported in Newfoundland and Labrador (268 confirmed cases, 3 deaths), Prince Edward Island (44 confirmed cases), Nova Scotia (1,075 confirmed cases, 64 deaths), New Brunswick (186 confirmed cases, 2 deaths), Quebec (61,252 confirmed cases, 5,727 deaths), Ontario (40,870 confirmed cases, 2,793 deaths), Manitoba (748 confirmed cases, 11 deaths), Saskatchewan (1,582 confirmed cases, 22 deaths), Alberta (12,419 confirmed cases, 225 deaths), British Columbia (4,677 confirmed cases, 198 deaths), Yukon (15 confirmed cases), Northwest Territories (5 confirmed cases), Nunavut (0 confirmed case), and repatriated travellers (13 confirmed cases). A detailed <u>epidemiological summary</u> 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 <u>high</u>.

International (Update) - Coronavirus disease (COVID-19) Outbreak (Media)

As of 19 August 2020, August 19, 2020, 10:58 GMT, there were 22,334,748 cases of COVID-19 and 784,876 deaths reported globally. Top 10 countries with the highest number of cases, by alphabetical order are: Brazil (3,411,872 cases, 110,019 deaths); Chile (388,855 cases, 10,546 deaths); Colombia (489,122 cases, 15,619 deaths); India (2,771,958 cases, 53,046 deaths); Mexico (531,239 cases, 57,774 deaths); Peru (549,321 cases, 26,658 deaths); Russia (937,321 cases, 15,989 deaths); South Africa (592,144 cases, 12,264 deaths); Spain (384,270 cases, 28,670 deaths); United States (5,656,204 cases, 175,092 deaths).

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

- The health authority in northern British Columbia has issued an alert after more than a dozen people tested positive for COVID-19. According to Northern Health, the outbreak is linked to a religious gathering held between 30 July and 02 August in Deadwood, AB about an hour north of Peace River. The agency is asking anyone who attended the "It Is Time Canada" event to monitor for symptoms and self-isolate if they show signs of COVID-19. Contact tracing and testing has also identified that some individuals may be at risk of secondary transmission, from contact with cases related to attendance at the event.
- <u>Manitoba's Chief Provincial Public Health Officer has declared an outbreak of COVID-19 at a personal care home</u> in the province. On 17 August 2020, the official stated that there were 38 new cases of COVID-19 identified in the province, including one new case at Bethesda Place, a care home in Steinbach, Manitoba.
- Meanwhile, a bulletin released on 15 August 2020 by the authorities showed that <u>1,669 more COVID-19 tests</u> were done in Manitoba, bringing the total number completed to <u>113,952</u>. A COVID-19 cluster in Brandon, Manitoba, which is in the Prairie Mountain region, had at least 64 known cases linked to it as of the week of 17 August 2020. As of 15 August, there were also 43 cases linked to the city's Maple Leaf Foods pork processing plant. The province is currently recommending only people with symptoms be tested for COVID-19. Employers should not send their workers for testing unless they have symptoms or the testing has been recommended by public health.
- On 18 August 2020, <u>the Windsor Essex County Health Unit (WECHU) reported a big jump in new COVID-19</u> <u>cases</u>. Lab results confirmed 25 new cases that include 21 agricultural sector workers, three residents of a retirement home, and one case under investigation. According to the Medical Officer of Health, authorities continue to work with the farm and retirement homes that are currently in outbreak. The three retirement home

residents who tested positive for the virus are from a home where a staff member tested positive last week. There are currently four workplaces experiencing outbreaks. All of the current cases are linked to a farm already on the list.

- <u>A COVID-19 outbreak has recently been declared at a long-term care home in Brampton</u>. According to Peel
 Public Health, and as of 14 August 2020, Extendicare Brampton, which contains 150 beds, has had an outbreak
 of the novel coronavirus. According to Ontario health protocols, an outbreak indicates that a facility has at least
 one confirmed case of COVID-19 among residents or staff. Extendicare Brampton is currently taking the
 necessary precautions following the declaration of the outbreak. An epidemiologic update released by Peel Public
 Health on 14 August reported that there have been 54 COVID-19 institutional outbreaks across the Region of
 Peel amid the pandemic.
- On 18 August 2020, Quebec reported 46 new COVID-19 cases and six additional deaths linked to the novel <u>coronavirus</u>. According to health officials, two of the deaths occurred in the past 24 hours. Quebec's Health Minister is outlining the province's plan for dealing with a potential second wave of COVID-19. The official indicated that the Province has given itself six weeks to put an action plan into place to ready the health network for new outbreaks.
- With only weeks until classes resume, <u>a new survey suggests the majority of Canadian parents plan to send their children back to school, but most would want classes cancelled if there is a new COVID-19 outbreak in their <u>community</u>. As provinces prepare to reopen schools, the survey by Leger and the Association for Canadian Studies is the latest check on parents. The results suggest many parents are torn, with 66 per cent of respondents with children admitting they were worried about children returning to school but 63 per cent saying they planned to send their kids anyway. Yet 69 per cent also felt all classes should be suspended and learning shifted back to home if there is a significant increase in COVID-19 cases in their community, with 19 per cent saying classes should continue and 12 per cent unsure either way. The online survey of 1,510 Canadians over age 18, including 385 parents with school-aged children in their households, took place 14-16 August. The survey also found strong support among respondents with children for requiring certain protections to be taken to prevent the spread of COVID-19 at schools, including 76 per cent who said students should have to wear masks.</u>
- On 18 August 2020, <u>the City of Toronto has identified numerous facilities for two Toronto school boards to use this upcoming school year</u> as the boards continue to explore options to address coronavirus concerns in the classroom. in a letter addressed to Toronto District School Board (TDSB) and Toronto Catholic District School Board (TCDSB). In the letter, the City has identified 24 facilities and 36 rooms that could be made available on 08 September at the request of the boards. The City's parks could be used for outdoor instruction and physical activity without a permit.
- Alberta's top doctor is recommending teachers and staff get tested for COVID-19 before the school year starts, with a new partnership announced to help with an expected increase for asymptomatic testing. <u>Shoppers Drug</u> <u>Mart and Loblaws pharmacy locations across the province will offer the testing</u> as more individuals book appointments in the next two weeks.

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

On 18 August 2020, the Centers for Disease Control and Prevention (CDC) updated its <u>COVID-19 Travel</u> <u>Recommendations by Destination</u>. Several Presidential proclamations established restrictions on the entry of certain travelers into the United States in an effort to help slow the spread of coronavirus disease 2019 (COVID-19). <u>Travelers Prohibited from Entry to the United States</u>, with specific exceptions, foreign nationals who have been in any of the following countries during the past 14 days may not enter the United States include those coming from: China; Iran;

European Schengen (Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Monaco, San Marino, Vatican City); United Kingdom (England, Scotland, Wales, Northern Ireland); Republic of Ireland; and Brazil. In addition, CDC updated its Level 3 Travel Notice: COVID-19 Risk Is High - CDC recommends that travelers avoid all nonessential travel to the following destinations. Please refer to the list provided. Level 2: COVID-19 Risk Is Moderate - CDC recommends that older adults, people of any age with certain underlying medical conditions, and others at increased risk for severe illness postpone all nonessential travel to the following destinations: Bermuda; Malaysia; and Northern Mariana Islands, Level 1: COVID-19 Risk Is Low - CDC recommends that older adults, people of any age with certain underlying medical conditions, and others at increased risk for severe illness talk to their healthcare providers before traveling to the following destinations: Bonaire; Fiji; New Zealand; Saba; Saint Barthelemy; Sint Eustatius; and Thailand. No Travel Health Notice: COVID-19 Risk is Very Low - American Samoa; Anguilla; British Virgin Islands; Brunei; Cayman Islands; Dominica; Falkland Islands; Guernsey; Greenland; Isle of Man; Laos; Macau SAR; Marshall Islands; Mauritius; Micronesia; New Caledonia; Palau; Saint Kitts and Nevis; Saint Pierre and Miguelon; Taiwan; and Timor-Leste. Level 3: No Data Available-COVID-19 Risk is Unknown - CDC recommends that travelers avoid all nonessential travel to the following destinations

because these countries have not reported COVID-19 data and risk is unknown: <u>Cook Islands; Kiribati; Nauru;</u> <u>Niue; North Korea; Samoa; Solomon Islands; Tonga; Turkmenistan; Tuvalu;</u> and <u>Vanuatu</u>.

- On 17 August 2020, CDC updated its <u>Crew Disembarkations through Commercial Travel</u>. CDC is allowing crew
 members to disembark from all cruise ships in U.S. waters with certain precautions. Cruise lines with complete
 and accurate response plans will be able to use commercial travel to disembark crew members from certain ships
 if the ships meet certain criteria set by CDC including that there have been no confirmed cases of COVID-19 or
 COVID-like illnesses on board the ship within the last 28 days.
- On 17 August 2020, CDC updated its Information for Pediatric Healthcare Providers. Revisions were made on 14 August 2020 to reflect new evidence about COVID-19 in children. This guidance is intended to inform pediatric healthcare providers of up-to-date information about children with suspected or confirmed COVID-19 and about caring for children during the pandemic. Children are defined as age 1 month to 18 years for the purpose of this document. For healthcare providers caring for neonates (≤28 days old) with suspected or confirmed COVID-19, including those born to a mother with suspected or confirmed COVID-19, please refer to CDC guidance for evaluating and managing neonates at risk for COVID-19.
- On 17 August 2020, CDC updated its <u>Staffing Resources and Guidance</u>. CDC is using a multi-pronged approach to help enhance and complement the efforts of state, tribal, local, and territorial staff. In addition, a map shows CDC deployments and CDC field staff.
- On 17 August 2020, CDC updated its <u>Clinical Mitigation (Non-US Settings)</u>. As a result of the COVID-19 pandemic, health systems globally are being overwhelmed. Healthcare services are being compromised in order to meet the demands of caring for COVID-19 patients. However, ensuring delivery of essential health services must be prioritized to prevent increases in morbidity and mortality. Additionally, lock-downs and fear of acquiring the virus may reduce healthcare utilization; mitigation strategies are needed to ensure safe and effective delivery of routine essential services. Information is provided regarding: Immunizations; Malaria; HIV/AIDS; and Telehealth and Telemedicine:
- On 17 August 2020, CDC updated its <u>Operational Considerations for Maintaining Essential Services and Providing Prevention, Care, and Treatment for Tuberculosis (TB) in Low-Resource non-US Settings During the COVID-19 Pandemic.</u> Modeling highlights the potentially devastating effects of the COVID-19 pandemic on global TB programs, which could result in an additional 6.3 million TB cases and 1.4 million TB deaths by 2025. Furthermore, a 25% global reduction in TB detection over 3 months could lead to a 13% increase in TB deaths, setting TB mortality levels back to what they were 5 years ago. Increased demand for healthcare services due to COVID-19 can challenge health facilities and healthcare systems. Previous global and regional health emergencies, like Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome (MERS), and Ebola virus disease, negatively impacted TB care. These challenges often resulted in disruption of TB care services, delayed diagnosis and treatment, and increased illness and death for patients with TB. It is therefore imperative to maintain continuity of essential TB care services during the COVID-19 pandemic. This document summarizes operational considerations to assist TB programs, health service managers, and healthcare personnel in maintaining continuity of essential TB services in low-resource, non-US settings during the COVID-19 pandemic.
- On 17 August 2020, CDC updated its <u>Overview of Testing for SARS-CoV-2</u>. This document is intended to provide guidance on the appropriate use of testing and does not dictate the determination of payment decisions or insurance coverage of such testing for people residing in the United States, except as may be otherwise referenced (or prescribed) by another entity or federal or state agency. A list of featured stricles are provided.
- On 17 August 2020, CDC updated its <u>Social Media Toolkit</u>. The toolkit provides information on Social Distancing; Masks; Handwashing; What To Do If You're Sick; Stop the Spread; Contact Tracing; #COVIDStopsWithMe; and Pets & COVID-19 Guidance.
- On 17 August 2020, CDC updated its <u>COVID-19 Published Science and Research</u>. CDC is responding to the COVID-19 pandemic by learning more about how the disease spreads and affects people and communities. CDC's Morbidity and Mortality Weekly Report publishes the results of COVID-19 outbreak investigations. CDC's scientific journal Emerging Infectious Diseases has published dozens of studies by researchers studying COVID-19 since the pandemic began.
- The Food and Drug Administration (FDA) has been urging U.S. consumers to avoid a growing list of hand sanitizers that may contain toxic substances. Now FDA is warning that some hand sanitizers' brands may not be strong enough to kill the coronavirus. FDA is providing a list of sanitizer products that lack enough of the active ingredients that protect people from infection. While most of the problematic brands were made in Mexico, additions to the FDA's list this week included Leafree Instant Hand Sanitizer from China, with the product labeled "edible alcohol." The agency also flagged some sanitizers made in North Carolina, Ohio, Texas and Utah. According to data from the National Poison Data System, through the third week of July, there had been a 59% spike in calls, more than 18,000 cases, to one of the 55 poison control centers around the U.S. due to various

incidents involving hand sanitizer, compared to the same period last year. Nearly 12,000 of those cases involved kids ages 5 and younger.

 On 18 August 2020, <u>U.S. border officials say they're seeing an increase in seizures of fake COVID-19 meds.</u> Officials south of the border say they've seized eight shipments so far of unauthorized COVID-19 treatments. U.S. Customs and Border Protection says the seizures have all been made at the Port of Seattle since the start of last month. The shipments are unauthorized flu treatments, USCBP said in a statement on 17 August, but the medication is being marketed as effective against COVID-19. They say 2,376 pills have been seized. Shipments have been both express consignment and through passengers at the airport.

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

- On 18 August 2020, <u>Brazil approved phase 3 human trials of potential vaccines developed by AstraZeneca in partnership with the University of Oxford, China's Sinovac Biotech and Pfizer in partnership with BioNTech.</u> Health regulator Anvisa gave the authorization to the study, which will see 6,000 people in Brazil volunteer to trial the vaccine contender of Johnson & Johnson's pharmaceutical subsidiary Janssen. Brazilian officials have declared to start producing British and Chinese vaccines within a year, but experts warn it may take at least twice as long. China's Sinopharm also aims to carry out trials for a possible vaccine in Brazil in a deal with the southern State of Parana pending regulatory approval.
- China State-owned pharmaceutical company <u>Sinopharm claims the Covid-19 vaccines might be available by end of 2020</u>, once final stage trials are over. The estimated cost of the vaccine is £100 for two doses. Officials feared the vaccine might not be ready until at least 2021 because a lack of new infections in China made it difficult to test it. Sinopharm also declared their capacity to make 220 million doses a year. The company has the ability to make doses for 110 million people; but the population of China alone is 1.4 billion, therefore it is unclear if it would be available to any other countries in the near future. The vaccine was developed alongside experts at the <u>Wuhan Institute of Biological Products</u> and the Beijing Institute of Biological Products.
- On 17 August 2020, <u>Shenzhen government announced the move on adding more coronavirus tests for frozen food imports</u>, according to its microblog. The City's government has set up a central warehouse where all imported foods must be cleared through customs. While there, the cargoes will undergo further COVID-19 tests before being sold or processed in the city. The new warehouse, expected to begin operations on 18 August, will sterilise outer packaging and run coronavirus tests on samples of frozen meat and seafood. The new requirements demonstrate lingering concerns that imported food could introduce the virus to a new environment despite experts at the World Health Organisation saying that the risk of COVID-19 entering the food chain is negligible. China has also suspended imports from dozens of processing plants that have reported coronavirus cases among workers.
- On 18 August 2020, in Hong Kong, the <u>Centre for Food Safety (CFS) of the Food and Environmental Hygiene</u> <u>Department (FEHD) declared that had taken 40 samples of frozen chicken meat from Brazil at import and</u> <u>wholesale levels for testing of the COVID-19</u> as a precautionary measure. All samples tested negative for the COVID-19. The test occurred in view of a notice issued by the Shenzhen Headquarters for Prevention and Control of Pneumonia Epidemic Caused by Novel Coronavirus that a surface sample of chicken wings imported from Brazil tested positive for COVID-19 in Shenzhen. An investigation revealed that the batch of chicken wings concerned has not been on sale in Hong Kong so far. For the sake of prudence, the Centre has also temporarily suspended the import licence application for import of poultry meat into Hong Kong from the plant concerned, while waiting for further case investigation and testing details from the relevant authorities.
- <u>More than 70 people have tested positive for coronavirus at a dessert factory in Nottinghamshire</u>, in the East Midlands region of England. The positive cases were reported at Bakkavor in Newark. The cases were confirmed after 701 workers were tested positive for the virus. All 1,600 employees will now receive coronavirus tests at a facility set up on site by the British National Health Service.
- New 90-minute tests that can detect coronavirus and flu will be rolled out in hospitals and care homes from next week. UK government declared that the "on-the-spot" swab and DNA tests will help distinguish between Covid-19 and other seasonal illnesses. According to the Health Secretary, this test would be "hugely beneficial" over the winter. Currently, a third of tests take longer than 24 hours to process. The announcement comes as the government pushed back a July target to regularly test all care home staff and residents, a key move to identify so-called silent spreaders, those who are infected but do not show symptoms. This is unlikely to be achieved until September because the number of testing kits has become more limited. The government indicated that almost half a million of the new rapid swab tests, called LamPORE, will be available from next week in adult care settings and laboratories, with millions more due to be rolled out later in the year. Additionally, thousands of DNA test machines, which have already been used in eight London hospitals and can analyse nose swabs, will be available across NHS hospitals from September.
- <u>Concerns about infections traced to a church in northern Seoul have raised concerns of a massive outbreak, as</u> <u>cases continued to spread across South Korea</u> at an alarming rate on 18 August 2020. The country reported 246

more new coronavirus cases, according to the Korea Centers for Disease Control and Prevention. The number of new cases identified in the past five days came close to 1,000. Among the new infections, those linked to Sarang Jeil Church ballooned to 319 in less than a week since the first case was reported on 12 August. With the latest figure, it has emerged as the country's second-biggest cluster infection after the fringe religious sect Shincheonji, in which 5,214 were infected. However, the number, which includes cases identified before noon Monday (17 August) is feared to further rise. Of the 2,000, or roughly half of the church's 4,000 members who were screened for the new coronavirus, 16 percent have tested positive. Authorities suspect the cluster infection has worsened as some church members were in close contact with each other, such as sleeping and eating at the church, and taking part in a mass Liberation Day rally in central Seoul.

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

- New research has identified a part of the SARS-CoV-2 coronavirus that can be targeted by drugs that prevent the virus from replicating, a key step for developing new and more effective drug treatments. The researchers compared frameshifting in SARS-CoV-2 to the same process in its close cousin, the coronavirus that caused the SARS outbreak in the early 2000s. Their results show that both the genetics and structure of frameshifting is the same in both viruses. The study, "Structural and Functional Conservation of the Programmed –1 Ribosomal Frameshift Signal of SARS Coronavirus 2 (SARS-CoV-2)," was published in the Journal of Biological Chemistry.
- Psychosocial needs of people affected by cancer are not being adequately met due to the disruption in services caused by COVID-19, a new report in the journal *Psycho-Oncology* reports. During this unique study, researchers from six universities, as part of their work on the British Psychosocial Oncology Society Executive Committee, investigated how psychosocial support for those affected by cancer was impacted during the current COVID-19 pandemic. Surveying 94 professionals working in the field of psychosocial oncology in the UK, the researchers identified a number of concerns regarding suspension of face-to-face delivery of care to those affected by the disease. Care is now being delivered remotely by staff at home or in some regions has been suspended entirely. The research identified that a lack of face-to-face monitoring and social isolation has led to heightened feelings of anxiety and distress amongst some cancer communities, increasing the need for psychological support. Due to this increased demand and the temporary suspension of services delivering psychosocial support, advice and care, the needs of patients may not be met.
- COVID-19 patients with pneumonia improved faster when treated with Vanda Pharmaceuticals Inc's experimental therapy than those on placebo, the company announced on 18 August 2020, citing an interim analysis of data from a late-stage study. While the data from 60 patients showed that a 14-day treatment with the drug, tradipitant, helped speed up clinical improvements by day seven, the company warned a larger patient size was needed to confirm the benefit. The U.S. Food and Drug Administration (FDA) has imposed a partial clinical hold on tradipitant trials that are longer than 12 weeks, citing the need for additional studies before testing the drug in humans beyond that timeframe. A U.S. court sided with the FDA in January over a legal dispute related to the agency's decision. The drug is also being tested as a treatment for various conditions including atopic dermatitis and motion sickness. The company says the drug targets a receptor in the body that could be associated with causing lung injury. According to Vanda, the drug's properties as an anti-inflammatory agent would complement antiviral drugs for COVID-19, if the results from its analysis were confirmed.
- A study describes the characteristics and outcomes of patients with severe COVID-19 and in-hospital cardiac arrest (IHCA) in Wuhan, China. The outcomes of patients with severe COVID-19 pneumonia after IHCA over a 40-day period were retrospectively evaluated. Between 15 January and 25 February 2020, data for all cardiopulmonary resuscitation (CPR) attempts for IHCA that occurred in a tertiary teaching hospital in Wuhan, China were collected according to the Utstein style. The primary outcome was restoration of spontaneous circulation (ROSC), and the secondary outcomes were 30-day survival, and neurological outcome. Data from 136 patients showed 119 (87.5%) patients had a respiratory cause for their cardiac arrest, and 113 (83.1%) were resuscitated in a general ward. The average length of hospital stay was 7 days and the time from illness onset to hospital admission was 10 days. The most frequent comorbidity was hypertension (30.2%), and the most frequent symptom was shortness of breath (75%). Of the patients receiving CPR, ROSC was achieved in 18 (13.2%) patients, 4 (2.9%) patients survived for at least 30 days, and one patient achieved a favourable neurological outcome at 30 days. Cardiac arrest location and initial rhythm were associated with better outcomes. According to researchers, survival of patients with severe COVID-19 pneumonia who had an in-hospital cardiac arrest was poor in Wuhan.
- A study published in June focused on the Greater Sydney area during the early epidemic stage of COVID-19 found an association between lower humidity and an increase in community transmission. Now a second study published in August by the same team confirms the risk. The study is published on 18 August 2020 in <u>Transboundary and Emerging Diseases</u>. The research is the second peer-reviewed study of a relationship between weather conditions and COVID-19 in Australia. The study estimated that for a 1 percent decrease in

relative humidity, COVID-19 cases might increase by 7-8 percent. The estimate is about a 2-fold increase in COVID-19 notifications for a 10 percent drop in relative humidity. The study shows that additional evidence from the Sydney COVID-19 epidemic has confirmed cases to be associated with humidity. Reduced humidity was found in several different regions of Sydney to be consistently linked to increased cases. The same link was not found for other weather factors—rainfall, temperature or wind. Climatic conditions conducive to the spread of COVID-19 present a challenge to public health. Further studies on humidity for the remainder of the year are needed to determine how the humidity relationship works and the extent to which it drives COVID-19 case notification rates.

A new study suggests that coronavirus patients taking famotidine, the generic of Pepcid AC, are less likely to need to be intubated or to die of COVID-19. Only about 10 percent of those patients - 83, to be exact - actually received famotidine, however. Overall, patients who got famotidine were about 31 percent less likely to need to be intubated. They also faced a lower risk of dying while hospitalized, by an odds ratio of 0.366. Two-thirds of the group that got famotidine was only given the drug upon admission to the hospital, while 29 percent had been taking it regularly before they were hospitalized for COVID-19.

Domestic Events of Interest

Nil

International Events of Interest

WHO - WHO calls for widespread flu vaccinations this year (Media)

On 18 August 2020, the World Health Organization's Senior Adviser called upon the world to ensure widespread anti-flu vaccinations in 2020 to help to ward off the risk of complicating COVID-19 infections. The official's call came as the world's COVID-19 infections neared the 22 million mark, with a death toll exceeding 774,000.

United States - California confirms first case of plague in 5 years (Media)

On 17 August 2020, El Dorado County officials declared that the California Department of Public Health notified them of the positive test of a local resident who is under medical care while recovering at home. Health officials believe the South Lake Tahoe resident may have been bitten by an infected flea while walking a dog along the Truckee River corridor, or in the Tahoe Keys area on Tahoe's south shore. The last reported human cases of plague in California were in 2015, when two people were exposed to infected rodents or their fleas in Yosemite National Park. Both were treated and recovered. No human cases have been reported since, but authorities did find evidence that a total of 20 ground squirrels or chipmunks around South Lake Tahoe had been exposed to the plague bacterium from 2016-19. Those rodents were identified near the Tallac Historic Site, Fallen Leaf Campground or Taylor Creek Visitor Center. According to the Centers for Disease Control and Prevention, in recent decades, an average of seven human plague cases are reported nationwide each year. Most human cases in the United States are scattered in rural areas in the west, including northern New Mexico, northern Arizona, southern Colorado, California, southern Oregon, and far western Nevada.

United States - New mosquito that can carry Zika and yellow fever found in Shasta County (Media)

According to the Shasta Mosquito and Vector Control District, *Aedes aegypti* was found on 14 August 2020 in a trap north of Lake Boulevard and west of North Market Street, also known as Highway 273. According to mosquito district manager the mosquitoes have been found in other areas of California, but the recent finding in Redding marks a first for Shasta County. Currently, one female Aedes aegypti mosquito has been found and authorities are trying to determine and limit the extent of the infestation. Health authorities plan to eradicate this species to protect their residents from the potential disease risk of these invasive mosquitoes.

Democratic Republic of the Congo - Ebola in DRC update: 1 additional case, death (Media)

The World Health Organization (WHO) has reported one additional Ebola Virus Disease (EVD) case and an additional death, bringing the outbreak total in Équateur Province, Democratic Republic of the Congo (DRC) to 89 total cases (85 confirmed, 4 probable) and 37 deaths.

Researches, Policies and Guidelines

United States - Airborne viruses can spread on dust, non-respiratory particles (Study)

Influenza viruses can spread through the air on dust, fibers and other microscopic particles, according to new research from the University of California, Davis and the Icahn School of Medicine at Mt. Sinai. The findings, with obvious implications for coronavirus transmission as well as influenza, are published on 18 August 2020 in <u>Nature</u> <u>Communications</u>. In the new study, researchers looked at whether tiny, non-respiratory particles they call "aerosolized

fomites" could carry influenza virus between guinea pigs. The investigators were also able to infect cells from these particles released from the virus-contaminated paper tissues.

United States - New gene therapy approach eliminates at least 90% latent herpes simplex virus 1 (Study)

Infectious disease researchers at Fred Hutchinson Cancer Research Center have used a gene editing approach to remove latent herpes simplex virus 1, or HSV-1, also known as oral herpes. In animal models, the findings show at least a 90 percent decrease in the latent virus, enough researchers expect that it will keep the infection from coming back. The study, published on 18 August 2020 in *Nature Communications*, used two sets of genetic scissors to damage the virus's DNA, fine-tuned the delivery vehicle to the infected cells, and targeted the nerve pathways that connect the neck with the face and reach the tissue where the virus lies dormant in individuals with the infection. The researchers found a 92% reduction in the virus DNA present in the superior cervical ganglia, the nerve tissue where the virus lies dormant. The reductions remained for at least a month after the treatment and is enough the researchers affirm to keep the virus from reactivating. The researchers are pursuing a similar strategy for herpes simplex 2, which causes genital herpes. They expect it to take at least 3 years to move toward clinical trials.

United States - HHS Releases Healthy People 2030 with National Disease Prevention and Health Promotion Objectives for the Next Decade (Official)

On 18 August 2020, the U.S. Department of Health and Human Services released Healthy People 2030, the nation's 10year plan for addressing their most critical public health priorities and challenges. This decade, Healthy People 2030 features 355 core – or measurable – objectives with 10-year targets, new objectives related to opioid use disorder and youth e-cigarette use, and resources for adapting Healthy People 2030 to emerging public health threats like COVID-19. For the first time, Healthy People 2030 also sets 10-year targets for objectives related to social determinants of health.

Australia - Discovery offers new hope for millions at risk from antibiotic-resistant infections (Study)

There is new hope for approximately 700,000 people who die each year from antibiotic-resistant infections, with University of Queensland researchers discovering how bacteria share antibiotic-resistance genes. In this study, investigators examined plasmids, which are one of the major drivers for the rapid spread of antibiotic resistance genes between bacteria. The study used a powerful genetic screening system to identify all of the components required for the transfer of an important type of antibiotic resistance plasmid from one bacterial cell to another. The team also investigated the crystal structure of this controlling element, and revealed how it binds to DNA and activates transcription of other genes involved in the transfer. The research has been published in *Nature Microbiology*. According to an UQ's Professor, antibiotic resistant bacteria, in particular emerging 'drug resistant organisms', could lead to around 10 million deaths globally by 2050.

Iran - Iranian Scientists Produce Home-Made Cancer Diagnostic Kits (Study)

Iranian researchers at a knowledge-based company in East Azarbaijan province's Science and Technology Park succeeded in indigenizating and production of mutation detection kits for K-Ras, B-raf and JAK2 genes by Real-Time PCR method. The company's Founder indicated that diagnosis of Jak2 gene mutation is used to detect point somatic mutation of V617F in JAK2 gene and to assess risk in patients with polycythemia vera, thrombocythemia and promyelocytic leukemia, as well as to study responses to specific therapies which target JAK2. The kit has been indigenized and produced by Real-Time PCR method, noting that the price of foreign samples of this kit for 50 tests is over \$3000, and the sample produced by Iranian scientists can be offered at a price of less than a quarter of the foreign models.

China - China-developed vaccine against African swine fever proves effective, to enter production trials (Study)

A China-developed vaccine that protects pigs from African Swine Fever (ASF) will soon enter the expanded clinical and production trial stage after previous tests proved effective, moving one step closer to providing immunity for pigs against the ASF virus. The Ministry of Agriculture and Rural Affairs (MARA) declared on 18 August 2020 that the ASF vaccine had shown positive results in previous tests on 3,000 pigs and is expected to be expanded to clinical trials. Developed by the Harbin Veterinary Research Institute (HVRI) under the Chinese Academy of Agricultural Sciences (CAAS). According to the Head of CAAS, the vaccine trials covered about 3,000 pigs from Northeast China's Heilongjiang Province, Central China's Henan Province and Northwest China's Xinjiang Uyghur Autonomous Region. With no effective vaccine against the ASF virus available, hog farms and slaughter houses mainly rely on environmental disinfections and carry out hazard-free treatment on possible contaminated goods, experts had said.

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

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