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**Sent:** 2020-11-06 8:28 AM  
**To:** gphin / rmisp (PHAC/ASPC)  
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Good morning,

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

### GPHIN Daily Report Email Summary

#### Special Section on Coronavirus

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

As of November 5, 2020 at 19:00 EDT, a total of 251,338 cases have been recorded in Canada including 10,381 deaths. The cases are reported in Newfoundland and Labrador (294 confirmed cases, 4 deaths), Prince Edward Island (64 confirmed cases), Nova Scotia (1,119 confirmed cases, 65 deaths), New Brunswick (349 confirmed cases, 6 deaths), Quebec (111,056 confirmed cases, 6,378 deaths), Ontario (80,690 confirmed cases, 3,195 deaths), Manitoba (7,177 confirmed cases, 91 deaths), Saskatchewan (3,536 confirmed cases, 25 deaths), Alberta (30,447 confirmed cases, 343 deaths), British Columbia (16,560 confirmed cases, 273 deaths), Yukon (23 confirmed cases, 1 death), Northwest Territories (10 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 November 6, 2020, 12:36 GMT, there were 49,175,499 cases of COVID-19 and 1,241,912 deaths reported globally. Top 10 countries with the highest number of cases, by alphabetical order are: Argentina (1,217,028 cases, 32,766 deaths), Brazil (5,614,258 cases, 161,779 deaths), Colombia (1,117,977 cases, 32,209 deaths), France (1,601,367 cases, 39,037 deaths), India (8,411,724 cases, 125,029 deaths), Mexico (949,197 cases, 93,772 deaths), Russia (1,733,440 cases, 29,887 deaths), Spain (1,365,895 cases, 38,486 deaths), United Kingdom (1,123,197 cases, 48,120 deaths), and United States (9,926,637 cases, 240,026 deaths).

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

- On November 5<sup>th</sup>, [the Canada Border Services Agency \(CBSA\), Health Canada and the Royal Canadian Mounted Police \(RCMP\) announced the results of a Government of Canada initiative to combat unauthorized or counterfeit goods attempting to enter Canada through British Columbia](#). *Project Purify* is a multi-departmental partnership between the CBSA, Health Canada and the RCMP, which was established to enhance the identification, interception and tracking of unauthorized or counterfeit COVID-19 health-related products in British Columbia between March 20<sup>th</sup> and June 30<sup>th</sup>, 2020. During this period, over 380 shipments of unauthorized content or counterfeit COVID-19-related goods were detained at the border, including: 48,000 COVID-19 test kits, 4.5 million units of personal protective equipment, 33,000 prescription tablets and pills, and over 1,500 other intercepts of fraudulent and potentially dangerous products. The CBSA seized mislabelled or improperly declared goods, and referred others to Health Canada, who then seized or refused entry.
- On November 5<sup>th</sup>, [Alberta Chief medical officer of health revealed that they do not have the capacity to conduct full contact tracing as Alberta reports 'about 800' COVID-19 cases](#). They will focus contact tracing on "high priority situations" only. The exact number of new infections, as well as updated information on things like active data, deaths and hospitalizations, is unknown due to technical issues involving a discrepancy in data, according to the official. Existing bylaw, which was approved by council at the end of July, states that mask-wearing will be made mandatory when the city reaches enhanced status according to AHS. Regions around Edmonton and Calgary are listed as enhanced. City of Edmonton recommending extension of mandatory mask bylaw through May 2021. Interim city manager and city officials recommended the five-month. Currently, the bylaw requires residents to wear face coverings in all publicly-accessible indoor spaces until the end of 2020 after coming into effect August 1<sup>st</sup>.

- [Health Canada has approved the first Canadian-made rapid COVID-19 test](#), and it comes from a new company in Guelph, Ontario. Precision Biomonitoring says its Triplelock test strips have been developed and manufactured in southern Ontario and received approval from the federal regulator this week. Until now, all rapid testing systems in Canada have been imported from other countries. The company says its system can provide accurate results on-site for nine nasal swab samples in just 60 minutes. This is ideal for remote work sites such as mining and Indigenous communities.
- [The rapid COVID-19 tests being offered at Calgary's international airport and the Coutts border crossing are being analyzed at the University of Calgary](#). The hematology lab at the Cumming School of Medicine is using two different methods to test for COVID-19: a molecular test developed at the university and another method that involves sequencing the virus. The lab has been expanded to accommodate the work and will be able to analyze 600 samples per day. Once this COVID-19 pilot project is over, the data from positive samples could be studied to reveal critical information about the virus.
- [B.C. Provincial Health Officer indicated that B.C. is not withholding data](#) about how many health-care workers have tested positive for COVID-19, but that she had concerns that the data would be misinterpreted at the national level. The province's Ministry of Health said in an email that it had concerns that this data could be misinterpreted to indicate that health care workers were acquiring COVID-19 in the workplace. The official says there are many other settings where they can contract the virus including at home or elsewhere in the community. The province now says that as of Nov. 4, the number of B.C. healthcare workers who tested positive for COVID-19 since the beginning of the pandemic was 1,442, which represents approximately 8.9 per cent of the 16,136 case total.

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

- Since March 2020, large-scale measures to reduce workplace transmission of SARS-CoV-2, including workplace closures and providing telework options, have been implemented. A study published November 5, 2020, in the [Morbidity and Mortality Weekly Report](#) shows that adults who received positive test results for SARS-CoV-2 infection were more likely to report exclusively going to an office or school setting in the 2 weeks before illness onset, compared with those who tested negative, even among those working in a profession outside of the critical infrastructure. Businesses and employers should promote alternative work site options, such as teleworking, where possible, to reduce exposures to SARS-CoV-2. Where telework options are not feasible, worker safety measures should continue to be scaled up to reduce possible worksite exposures.

#### **[WHO - World Health Assembly charts course for COVID-19 response and global health priorities \(Official\)](#)**

As health leaders prepare to gather for a virtual session of the resumed 73rd World Health Assembly (WHA), WHO has three messages to share. First, the world can beat COVID-19 with science, solutions and solidarity. Second, countries must not backslide on their critical health goals. Third, the world must prepare for the next pandemic now. The WHA will consider a draft resolution ([EB146.R10](#)) that strengthens Member States' preparedness for health emergencies, such as COVID-19, through more robust compliance with the International Health Regulations (2005). This resolution calls on the global health community to ensure that all countries are better equipped to detect and respond to cases of COVID-19 and other dangerous infectious diseases.

#### **[PAHO - Countries are falling short in implementing mental health services during COVID-19 pandemic \(Official\)](#)**

A new survey conducted by PAHO and WHO shows that countries are falling short in implementing mental health services at a time when mental health support is paramount. In a press briefing on the COVID-19 pandemic on November 5<sup>th</sup>, PAHO Assistant Director noted that data from 29 countries show that while 27 of them have integrated mental health into their COVID-19 plans, only two are adequately funded. Noting that healthcare workers have been particularly affected by COVID-19, "making extraordinary personal sacrifices and difficult decisions on the frontlines of the pandemic for months", according to him, a new data from 6 countries show worrying signs. The official indicated that mental health as well as physical health must remain a key consideration as we move towards the end of the first year of this global pandemic. Countries have also failed to sufficiently staff their mental health services, so care may be more out of reach than ever before: psychotherapy, substance abuse support and access to medication have been significantly disrupted and remain unavailable to many who urgently need them. Individuals living with mental health and substance abuse disorders need reliable care and support, especially now.

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

- [According to an internal document reported by the media, a WHO led scheme to supply COVID-19 drugs to poor countries](#) is betting on experimental monoclonal antibody treatments and steroids but is shunning Gilead's remdesivir blockbuster therapy. The WHO draft document, states the priorities are to secure monoclonal antibodies in a tight market and to boost purchases and distribution of cheap steroid dexamethasone, of which it has already booked nearly 3 million courses of treatment for poorer countries. The paper, which for the first time outlines how the scheme would spend donors' money, does not cite remdesivir among priority drugs, a significant omission as the antiviral is the only other medication alongside dexamethasone approved across the world for

treating COVID-19. Gilead Science GILD.O, the U.S. company that developed remdesivir, reported the WHO scheme had not funded its COVID-19 trials and had never approached the firm for the possible inclusion of the drug in its portfolio. The drug-supply scheme is one of the four pillars of the so-called ACT Accelerator, a WHO-led project which also seeks to secure COVID-19 vaccines, diagnostics and protective gear for poorer countries by raising more than \$38 billion by the beginning of 2022.

- [Results of Oxford University's final-stage Covid-19 vaccine trial will be published by the end of December](#). Drugs giant AstraZeneca, which owns the rights to the vaccine, confirmed on November 4<sup>th</sup>, it expects data on the effectiveness of the jab within weeks. The healthcare regulator MHRA will then examine the figures before it is given the green light for use in the wider community. The NHS is geared up to administer a Covid-19 vaccine as soon as December, if one is proven, the chief executive stated this week. According to the chairperson of the UK's vaccines taskforce, inoculations had the possibility of being ready before the end of the year.
- [Russia's coronavirus tests give false negative results up to 40% of the time](#), a health official said on November 5<sup>th</sup>, as new infections rose and Moscow's mayor warned of a worsening situation. The Kremlin, which has said there are no plans for a lockdown despite the surge in COVID-19 cases in recent weeks, told reporters the overall situation was alarming but under control. The foreign ministry's representative recommended that Russians postpone non-essential travel because of the pandemic.
- According to the [Public Health England \(PHE\) data, cases of the coronavirus are starting to fall](#) as infection rates "slow" across younger age groups. The weekly national influenza and Covid-19 report has shown the first signs that the second wave of the virus is "flattening".
- [The United Kingdom's various contact-tracing apps can now intercommunicate](#), allowing people to be matched from the different areas they cover. Until now, users needed to download separate Covid-19 apps and change settings if, for example, they travelled from England to Scotland. Those who already have the apps do not need to do anything to make the new system work. However, the apps do not communicate with other European equivalents.

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

- According to a [new study](#) (not yet peer-reviewed), [robust cellular immunity to SARS-CoV-2 appears to last for at least six months after infection](#), and white blood cell levels are higher in people who experienced symptoms. Researchers from the [UK Coronavirus Immunology Consortium](#) and Public Health England, studied 100 non-hospitalized people who had been infected with Covid-19, but experienced mild symptoms or remained asymptomatic, and found robust T cell responses to SARS-CoV-2 even six months after their infection. According to the authors, this study [may be the first to show that a robust cellular memory against the virus](#) persists for this long. None of the patients whose blood and serum samples were studied had been hospitalized with Covid-19.
- [A study of the lungs of 41 people who died from COVID-19 in Italy has revealed extensive damage](#), persistent distortion of the normal organ structure, scarring of respiratory tissue, and massive blood clotting of the arteries and veins, which may help explain why it takes some people so-called long haulers months to recover from fatigue and shortness of breath. The results were published in [The Lancet's EBioMedicine journal](#). While the researchers also examined brain, heart, and kidney tissues, those organs showed no signs of damage or viral replication. The study involved analysis of the lungs from February to April, finding that all 41 patients had extensive lung damage, while 36 of 41 (88%) had massive abnormal blood clotting in the lung arteries and veins. According to the researchers, the persistence of the virus-infected cells and unique molecular features of the coronavirus spike protein set COVID-19 apart from other pneumonias. The findings indicate that COVID-19 is not simply a disease caused by the death of virus-infected cells but is likely the consequence of these abnormal cells persisting for long periods inside the lungs.
- According to researchers from Parel's Haffkine Research Institute and BJ Medical College, Pune, India, [a single shot of the Bacillus Calmette--Guérin \(BCG\) vaccine could resolve breathlessness and prevent severity in moderately ill Covid-19 patients](#). According to the authors, it is probably the first study to examine the use of the century-old vaccine, typically given to children against TB, as treatment for Covid-19 unlike trials that have studied BCG's role in prevention. Conducted in 60 Covid-19 patients hospitalised with breathlessness and pneumonia, half of who received the vaccine dose, the researchers claimed to have found reduction in oxygen requirement decreasing from third or fourth day and improved x-rays and CT scan from day 7-15. The findings that were published on [medrxiv](#) a pre-print server and are yet to be peer reviewed, found that the vaccinated group had higher Covid-19 antibody levels. The paper summed up that BCG was a safe, cost-effective treatment that can be introduced as a standard of care in moderate Covid-19 patients. The study showed a significant improvement in oxygen saturation status within 3-4 days.
- [New findings from researchers at Washington University School of Medicine in St. Louis](#) suggest the eye's cornea can resist infection from the novel coronavirus. Although the herpes simplex virus can infect the cornea and spread to other parts of the body in patients with compromised immune systems, and Zika virus has been found in tears and corneal tissue, SARS-CoV-2, the virus that causes COVID-19, does not appear to replicate in the human cornea. The researchers have yet to determine, however, whether other tissue in and around the

cornea, such as the tear ducts and the conjunctiva, are vulnerable to the virus. The new findings are published November 3rd in the [journal Cell](#).

- [The latest World Economic forum/Ipsos survey on vaccine confidence](#) shows that on average, across 15 countries, vaccination intent is down by 4 points since August. Aside from the challenges of manufacturing a vaccine and then ensuring its fair distribution, one of the great obstacles is vaccine confidence, itself. The survey shows that on average, across 15 countries, 73% of adults strongly or somewhat agree with the statement “if a vaccine for COVID-19 were available, I would get it”. 3 months ago, that figure was 77%. Vaccination intent has declined in 10 of the 15 countries, most of all China, Australia, Spain, and Brazil. More than four in five in India, mainland China, South Korea, and Brazil; however, say they would get a vaccine if available – compared to just over half in France and about two in three in the US, Spain, Italy, South Africa, Japan, and Germany.
- [Research finds that Social media analytics now a valuable tool](#) in understanding the thoughts and actions of the public during a pandemic As global cases of COVID-19 fast approach 50 million, a team of Australian, Afghan, Iranian and Italian researchers examined more than 35,000 tweets and say social media analytics can capture the attitudes and perceptions of the public during a pandemic. They also suggest social media is now the best way to encourage people to follow measures and restrictions which have, in turn, triggered an increase in the use of digital technologies and platforms.

## Domestic Events of Interest

### [Canada- Canada's opioid crisis killed 13 people a day in 2018, prevention report shows \(Media\)](#)

About 13 people a day in Canada died as a result of opioids in 2018, according to a new report that shines a spotlight on preventable poisonings. Released on November 5th, the report by Parachute, a Canadian charity dedicated to injury prevention, and the Injury Prevention Centre at the University of Alberta's School of Public Health focused on poisoning — the toxic effects of substances such as medication, cleaning products or gas vapour — on the body. The report's authors found that in 2018, opioids were responsible for 4,614 deaths in Canada, equating to about 13 lives lost per day, based on data from the Public Health Agency of Canada. It also breaks down the top 10 pharmaceutical and top 5 non-pharmaceutical causes behind cases at Canada's five poison control Centres. Individuals using illicit substances can be at increased risk of poisoning despite using their usual amount because of the growing degree of contamination of the drug supply with fentanyl and other ultrapotent opioids, the report said. Co-author and epidemiologist, associate director of the Injury Prevention Centre at the U of A, said Western Canada has been hit hard, with British Columbia seeing 1,542 deaths related to illicit drug use in 2018. Of these, fentanyl was detected in 87 per cent. When researchers crunched the numbers, they found that twice as many people now die of unintentional poisonings than traffic-related injuries — the leading cause of unintentional injury deaths for children and teens for nearly 20 years. They also pointed to a 2018 study in Alberta that showed the increase in death and disease accompanying the opioid crisis was largely due to unintentional poisoning rather than intentional self-harm or suicide by poisoning.

### [Canada \(Quebec\) - After a death, Montreal issues alert about blue 'counterfeit' Percocet new to city's black market \(Media\)](#)

Montreal's public health department says someone in the city recently died after taking a blue pill that may be sold on the black market as Percocet, but whose contents are actually "more potent than fentanyl." However, after an analysis, the city determined it was "counterfeit" and contained something called isotonitazene, the city said in a press release. Like fentanyl, naloxone can be used to reverse the effects of an isotonitazene overdose if it's done immediately. In August, Montreal police said they collected 2,000 isotonitazene pills as part of a major drug bust that included 20,000 tablets, mostly black-market Xanax. The same compound has shown up in the last year in the American midwest and in Alberta and has been linked to several deaths.

## International Events of Interest

### **IHR Notification: China | Influenza due to identified avian or animal influenza virus**

On October 18, 2020, the National Health Commission of the People's Republic of China notified WHO of one confirmed case of human infection with avian influenza A(H9N2) virus detected through Influenza-like Illness Surveillance (ILI). The case is a 3-year-old female from Zhuhai, Guangdong Province, China, who had exposure to domestic poultry. The case developed mild symptoms on October 12, 2020 and was admitted to a hospital on the same day. As of October 18<sup>th</sup>, no further cases were detected in her family members. This is the seventh case of avian influenza A(H9N2) reported from China in 2020. A total of 35 cases of human infection with avian influenza A(H9N2) have been officially reported from China to WHO since December 2015. This case does not change the current WHO recommendations on public health measures and surveillance of influenza.

### **IHR Notification - Lao People's Democratic Republic (the) | Influenza due to identified avian or animal influenza virus**

On 31 October 2020, the Ministry of Health Lao PDR notified WHO of one confirmed case of human infection with avian influenza A(H5N1) virus. The case was detected through routine severe acute respiratory infection (SARI) surveillance in Saravane, the province borders Vietnam. This is the third A(H5N1) case reported to WHO from Lao PDR since 2007.

#### **[WHO - UNICEF and WHO call for emergency action to avert major measles and polio epidemics](#) (Official)**

On November 5, 2020, UNICEF and the World Health Organization (WHO) issued an [urgent call to action](#) to avert major measles and polio epidemics as COVID-19 continues to disrupt immunization services worldwide, leaving millions of vulnerable children at heightened risk of preventable childhood diseases. The two organizations estimate that US\$655 million (US\$400 million for polio and US\$255 million for measles) are needed to address dangerous immunity gaps in [non-Gavi eligible countries](#) and target age groups. Poliovirus transmission is expected to increase in Pakistan and Afghanistan and in many under-immunized areas of Africa. Failure to eradicate polio now would lead to global resurgence of the disease, resulting in as many as 200,000 new cases annually, within 10 years. New tools, including a next-generation novel oral polio vaccine and the forthcoming Measles Outbreak Strategic Response Plan are expected to be deployed over the coming months to help tackle these growing threats in a more effective and sustainable manner, and ultimately save lives. The Plan is a worldwide strategy to quickly and effectively prevent, detect and respond to measles outbreaks.

#### **[ECDC - Ninth external quality assessment scheme for typing of Shiga toxin-producing \*Escherichia coli\*](#) (Official)**

On November 5, 2020, the European centre for disease Prevention and Control issued a report that presents the results of the ninth round of the external quality assessment (EQA-9) scheme for typing of Shiga toxin-producing *Escherichia coli* (STEC). This EQA was organised for National Public Health Reference Laboratories (NPHRLs) to provide data to the Food- and Waterborne Diseases and Zoonoses Network (FWD-Net) managed by the European Centre for Disease Prevention and Control (ECDC). Since 2012, the unit of Foodborne Infections at Statens Serum Institut (SSI) in Denmark has arranged this EQA under a framework contract with ECDC. EQA-9 contains serotyping, detection of virulence genes and molecular typing-based cluster analysis.

#### **[Nigeria \(Update\) - Death Toll Hits 57 As Unidentified Disease Sweeps Through Enugu Communities](#) (Media)**

At least 57 persons have died at Ette and Umuopu communities in Igbo-Eze North Local Government Area of Enugu State following the outbreak of a strange disease in the affected communities. According to the Disease Surveillance and Notification Officer in the council area, the cause of the strange deaths is not yet known. However, the Enugu State Ministry of Health has been alerted and specimen of the affected persons in the communities were collected for proper diagnosis and treatment. The disease broke out at Ette at the beginning of September 2020, and spread to the border community of Umuopu, where 20 persons have died, including four casualties recorded on November 4<sup>th</sup>. The victims presented symptoms such as convulsion, diarrhoea before vomiting blood. Lassa fever or cholera are suspected.

#### **[Sudan \(Update\) - Haemorrhagic fevers on the rise in Darfur, Northern State](#) (Media)**

Sudan is witnessing an increase in haemorrhagic fevers in various parts of the country, mainly North Darfur and the Northern State. The North Darfur Ministry of Health reported four new cases of dengue fever in El Fasher locality. The cases were confirmed by the National Laboratory in Khartoum after testing 19 samples of suspected cases. According to the Director of the Emergency and Epidemiology Department at the Ministry of Health in North Darfur, dengue fever is one of the haemorrhagic fevers transmitted by the *Aedes aegypti* mosquito, and is known in the area as Tagwa Bereima. The official reported, out of the 15 recently recorded cases of dengue fever in the state, five were found in El Fasher, three in Mellit locality, four in El Kuma locality, two in Um Keddada locality, and two in Saraf Omra locality. The minister also reported a high incidence of malaria infections (11,493 cases) in the localities of El Fasher, El Kuma, Um Keddada, Dar El Salam, and Tawila this week. The rise in mosquito-borne diseases after the unusually heavy rainy season was also reflected in the increase in chikungunya cases, which caused the government to declare a State of Health Emergency in West Darfur. According to the Director of Animal Resources in El Borgeig locality, 10 new suspected cases of haemorrhagic fever were recorded in the Northern State. This brings the total number of suspected cases in El Borgeig to 86, including 21 deaths.

#### **[China \(Update\) - Brucellosis outbreak grows in China, more than 6,000 cases](#) (Media)**

More than 6,000 people have tested positive for the bacterial disease called Brucellosis in Lanzhou, the capital of Gansu Province in northwest China. According to a media report, on November 5<sup>th</sup>, the Chinese government reported that the cases are the result of a one-year outbreak caused by a leak at a vaccine plant. The factory used expired disinfectants from July to August 2019 to make brucellosis vaccines, leaving the bacteria in its contaminated waste gas. In turn, contaminated waste gas then formed aerosols, which were transported by wind to the Lanzhou Veterinary Research Institute, where the outbreak was first recorded in November last year, the health commission said. The brucellosis vaccine production workshop closed in December last year and dismantled in October, adding the source. The Government has examined 55,725 people in the city, of whom 6,000 620 are positive for brucellosis as of now, the report says.

### **[Peru \(Update\): Peru to Vaccinate Around 80,000 People Due To Diphtheria Outbreak \(Media\)](#)**

On November 5<sup>th</sup>, the Peruvian Health Ministry stated that the health authorities will vaccinate about 80,000 people after detecting several cases of diphtheria in Lima's La Victoria district. On October 27<sup>th</sup>, a new case of diphtheria was reported in Peru for the first time in 20 years. Deputy Minister announced that there would be a broad vaccination in the La Victoria district where nearly 80,000 people are expected to be vaccinated. The National Epidemiology Center declared a national epidemiological alert so that all health services were attentive to any detected case of diphtheria.

## **Researches, Policies and Guidelines**

### **[Brazil- Chikungunya virus can cause neurological infections: Study \(Study\)](#)**

A study, published in the *Clinical Infectious Diseases* and conducted by an international team of researchers with FAPESP's support, shows that infection by chikungunya virus can produce even more severe manifestations than the typical symptoms of the disease, such as acute fever, headache, rash, and intense joint and muscle pain. The analysis was performed by 38 researchers affiliated with the Federal University of Ceará (UFC), the University of São Paulo (USP) and the Ministry of Health in Brazil, and with Imperial College London and Oxford University in the United Kingdom. The main discovery was that chikungunya can infect the central nervous system and impair cognitive and motor functions. The study not only confirmed that the virus can infect the central nervous system but also found the disease to be more deadly for young adults, rather than children and the elderly. The study also showed that during the acute or subacute phase of the disease [20-90 days after infection] patients with diabetes appear to die seven times more frequently than non-diabetics. The study was based on a retrospective analysis of clinical and epidemiological data as well as blood, cerebrospinal fluid, and tissue samples from patients who died during the 2017 outbreak in the state of Ceará, Brazil, the worst chikungunya outbreak in the Americas. Ceará notified 194 chikungunya-related deaths and 105,229 suspected cases (1,166 per 100,000 inhabitants) in 2017. All the evidence gleaned from the laboratory tests and clinical records showed that in most cases of suspected death from chikungunya, the patient had a central nervous system infection.

### **[Bangladesh - Nipah Virus: Study suggests more widespread than previously thought \(Study\)](#)**

EcoHealth Alliance, a non-profit working at the intersection of animal, environmental, and human health on a global scale, released on November 2<sup>nd</sup>, the results of a major six-year study to understand how Nipah virus outbreaks begin and how to prevent them. Nipah virus, a distant relative of measles, has no vaccine and no proven medical countermeasures. In annual outbreaks throughout Bangladesh, Nipah virus kills around 70 percent of the people it infects. Outbreaks typically occur within what is known as the Nipah belt, which stretches along Bangladesh's western border with India. But EcoHealth Alliance scientists found that bats throughout Bangladesh had relatively similar patterns of Nipah virus infection. The research is published in the journal *Proceedings of the National Academy of Sciences*.

### **[Hong Kong - Drug used to treat rheumatism could also boost effectiveness of antibiotics against superbugs, Hong Kong study finds \(Study\)](#)**

A study by [Hong Kong's top university](#) suggests that the auranofin, the drug used to treat rheumatism, could also boost effectiveness of antibiotics against superbugs. Auranofin can resurrect the efficacy of last-resort antibiotics to kill superbugs in an animal model. The findings of the research, led by University of Hong Kong (HKU) scientists and published in *Nature Communications* in November 2020, could make existing antibiotics more effective in killing bacteria that are resistant to conventional treatments and can prove fatal. The study also found that the drug could boost the potency of antibiotics, allowing them to achieve the same level of effectiveness against the superbug *E. coli* with a lower dose. The scientists have filed a patent in the US and hope to begin clinical trials soon.

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

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