

GPHIN Daily Report for 2020-10-16**Special section on Coronavirus****Canada****Areas in Canada with cases of COVID-19 as of 15 October 2020 at 19:00 pm EDT**

Source: Government of Canada

Province, territory or other	Number of confirmed cases	Number of active cases	Number of deaths
Canada	191,732	20,543	9,699
Newfoundland and Labrador	284	9	4
Prince Edward Island	65	5	0
Nova Scotia	1,092	3	65
New Brunswick	292	89	2
Quebec	89,963	8,491	6,005
Ontario	62,196	5,883	3,022
Manitoba	3,098	1,527	38
Saskatchewan	2,232	271	25
Alberta	21,443	2,738	288
British Columbia	11,034	1,527	250
Yukon	15	0	0
Northwest Territories	5	0	0
Nunavut	0	0	0
Repatriated travellers	13	0	0

A detailed [epidemiologic summary](#) is available.<https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html#a1>**Canada – Coronavirus disease (COVID -19) Outbreaks and Outcomes (Official and Media)****Canada****COVID-19: B.C. confirms first case of childhood inflammatory syndrome**

Source: vancouversun.com

ID: 1008052621

Provincial health officer Dr. Bonnie Henry spoke on COVID-19 at a daily briefing on Thursday afternoon, where she said the province's first case of multi-system inflammatory syndrome (MIS-C) had been detected in a young child under the age of 5.

Provincial health officer Dr. Bonnie Henry spoke on COVID-19 at a daily briefing on Thursday afternoon, where she said the province's first case of multi-system inflammatory syndrome (MIS-C) had been detected in a young child.

MIS-C is a condition that causes the heart, lungs, kidneys, brain, skin, eyes or gastrointestinal organs to become inflamed. Symptoms of MIS-C include fever, abdominal pain, vomiting, diarrhea, neck pain, rash, bloodshot eyes and feeling tired.

It's unknown what causes the syndrome though the syndrome has been linked to the virus that causes COVID-19, and some children with MIS-C have been exposed to COVID-19 though not all test positive for the virus.

"We first heard about it back in April with children out of Italy and in New York City," said Henry, adding that there had been a worldwide effort to understand the links between MIS-C and COVID-19.

"There was a small number of children, some of whom had antibodies or had tested positive for COVID, so there was a worldwide effort to see if we can quantify this and understand it."

Henry said the child, who is under the age of 5, **was found to have MIS-C and later tested positive for COVID-19 but has since recovered.**

On Thursday, Henry reported 142 new cases of COVID-19, including three epidemiologically linked cases. The province's total number of reported COVID-19 cases is now 11,034, with 3,974 in Vancouver Coastal Health, 9,800 in Fraser Health, 239 in Vancouver Island Health, 587 in Interior Health, 345 in Northern Health and 89 people who are non-residents of Canada.

There remain 1,494 active cases throughout the province, 74 of which are in hospital. Of those, 24 remain in critical care. There are no new deaths, leaving the death toll of the virus at 260.

Still 3,683 continue to be monitored by public health officials as a result of contact tracing, and 9,257 people who are recovered.

There are no new health care facility outbreaks, though there remain 19 active outbreaks. There is also one new community cluster at a Kelowna FedEx depot, in the Interior Health region.

Henry also encouraged the public to get their flu shots this year, adding that the province will have enough influenza vaccine to go around around, though the deliveries may arrive in B.C. at different times. <https://vancouver.sun.com/news/local-news/covid-19-b-c-confirms-first-case-of-childhood-inflammatory-syndrome>

Canada

Nova Scotia is last Atlantic province to adopt federal COVID Alert smartphone app

Source: thestar.com

ID: 1008052695

HALIFAX - Nova Scotia is the latest province to adopt the federal government's COVID-19 exposure-notification app for smartphones.

Premier Stephen McNeil said today in a news release Nova Scotians can immediately download the free and voluntary application onto their phones.

Health authorities will give people who test positive for COVID-19 a unique code to input into the application.

The COVID Alert app will then notify anyone who has been within two metres of the infected person for at least 15 minutes.

Health officials say COVID Alert does not collect personal or health information and doesn't track the location, name, or contacts of users.

Nova Scotia is the last Atlantic province to adopt the federal app, which it says has been downloaded by more than four million Canadians.

McNeil said his province has shown a "steadfast commitment" to flattening the curve and keeping COVID transmission low.

"As we learn to live with the virus, COVID Alert is another tool that will help keep ourselves and our communities safe and healthy."

<https://www.thestar.com/news/canada/2020/10/15/nova-scotia-is-last-atlantic-province-to-adopt-federal-covid-alert-smartphone-app.html>

Canada

COVID-19: Hospitalizations rising, 100 being treated across Alberta

Source: edmontonjournal.com

Unique ID: [1008049626](https://www.thestar.com/news/canada/2020/10/15/nova-scotia-is-last-atlantic-province-to-adopt-federal-covid-alert-smartphone-app.html)

Alberta hospitals are treating 100 COVID-19 patients, a day after reaching a record 102 patients in care with the virus. Alberta Health spokesman Tom McMillan said outbreaks at the Misericordia Hospital in Edmonton and the Foothills Medical Centre in Calgary are driving those numbers up. With 1,473 active cases, the Edmonton Zone, which includes the capital and surrounding communities, continues to be the epicentre of the pandemic in Alberta.

Alberta hospitals are treating 100 COVID-19 patients, a day after reaching a record 102 patients in care with the virus.

Numbers released online show 86 patients are in general care while 14 are in intensive care units (ICU). Alberta Health spokesman Tom McMillan said outbreaks at the Misericordia Hospital in Edmonton and the Foothills Medical Centre in Calgary are driving those numbers up.

"We are watching our province's health system capacity closely. Health officials continue to monitor the spread," said McMillan in an email. "While any increase is concerning, hospitalizations and ICU admissions remain safely within our provincial capacity."

He noted the peak for COVID-19 ICU admissions in the province is 22, which occurred on May 1.

"We must continue working together and protecting each other. Our collective action is powerful," said McMillan. "By following the public health measures as closely as we can, every day, we can lower our rate of transmission."

Article content continued

Alberta's chief medical officer of health Dr. Deena Hinshaw said Tuesday the province has 70 ICU beds set aside for COVID-19 patients. She said mandatory restrictions would come into place should 50 per cent of those beds become occupied.

McMillan announced one additional COVID-19 related death Wednesday, a woman in her 30s in the Edmonton Zone. She is the fourth person in Alberta under the age of 50 to die with the virus. A total of 287 Albertans have died with COVID-19.

The province reported 243 new cases Wednesday after completing 14,881 tests. There are 2,689 active cases in the province, the highest since May 3 when there were 2,780.

With 1,473 active cases, the Edmonton Zone, which includes the capital and surrounding communities, continues to be the epicentre of the pandemic in Alberta. The capital region also accounts for 48 people in hospital, including six who are in intensive care.

By comparison, the Calgary Zone has the second-highest number of cases, with 791, and hospitalizations, with 39. The North Zone has 124 cases, while Central Alberta and Southern Alberta

have 108 and 177 respectively.

There have been 21,199 confirmed cases and 18,223 recoveries since the start of the pandemic. The city of Edmonton currently has 1,235 cases and every area of the city is under the province's 'enhanced' classification.

Hinshaw announced voluntary measures in the Edmonton Zone last week, including limiting of cohorts and the size of private gatherings. She said those measures were put in place to help ensure the province did not reach mandatory restriction triggers.

Article content continued

An outbreak at the Millwoods Shepherd's Care Centre has been linked to 60 positive cases among residents and 31 among staff members, show numbers on the foundation's website. Eight residents have died from COVID-19.

Edmonton Catholic Schools announced an outbreak at the LINC program at the One World One Centre.

Edmonton Public Schools announced an outbreak at Vernon Barford School.

There are 53 Edmonton Schools that are currently in an outbreak or under watch, shows the provincial list.

Across the country, there are 19,741 active cases and 9,654 have died with COVID-19, show latest numbers from Health Canada. Globally, there have been 38,002,699 confirmed cases and 1,083,324 deaths.

<https://edmontonjournal.com/news/local-news/covid-19-hospitalizations-rising-100-being-treated-across-alberta>

Canada

N.B. outbreaks of COVID-19 don't pose increased risk to Nova Scotians: Strang

Source: CBC News

Unique ID: [1008049476](#)

Nova Scotia has no plans to close the border with neighbouring New Brunswick, despite the growing number of confirmed COVID-19 cases in that province.

Dr. Robert Strang, Nova Scotia's chief medical officer of health, said Wednesday the outbreaks in New Brunswick do not pose an increased risk to Nova Scotians at this time because there is no evidence of community spread.

Strang joined Premier Stephen McNeil in delivering an update about the evolving situation in Moncton and Campbellton, N.B. That province announced eight new cases Wednesday, bringing the total number of active COVID-19 cases to 90.

"It's a stark reminder to all of us, COVID is still on the move and is looking for a home," said McNeil.

Strang said there's no evidence yet of any community spread in New Brunswick. Public health officials in that province have said their cases are linked to specific outbreaks, including one at a long-term care home in Moncton. Another cluster in Campbellton includes schools and a special care home.

No community spread in N.B.

Individuals who've been testing positive in New Brunswick are close contacts of other infected people or people linked directly to the outbreaks, said Strang.

"What they're not seeing, fortunately, is unexplained cases — that there's no way to explain their exposure," he said.

"So there's nothing to suggest that if you or I travelled to Moncton or Campbellton tomorrow ... that we're putting ourselves at any increased risk."

Nova Scotia's government is the only one inside the Atlantic bubble that has not yet issued special guidelines for travellers from New Brunswick's two hot spots.

Officials in New Brunswick, P.E.I., and Newfoundland and Labrador are discouraging travel to and from Moncton and Campbellton.

To close the border with New Brunswick, Strang said there would need to be a "significant risk" of COVID-19 being brought into Nova Scotia.

McNeil said the province has offered to help New Brunswick as needed and encouraged Nova Scotians to send positive energy to that province "because we all know kindness matters."

Some nursing homes in Nova Scotia, particularly in the northern region, have started new screening protocols for staff and families who may have travelled to New Brunswick.

"It is deeply concerning to our entire sector," Michele Lowe, managing director with the Nursing Homes of

Nova Scotia Association, said in an email.

"While we have been hugely successful in this province, we know that COVID is close to [Nova Scotia] and we continue to take every precaution necessary to keep it out."

Trick-or-treating during a pandemic

During Wednesday's update, McNeil and Strang also touched on Halloween as the end of the month draws closer.

Strang said trick-or-treating and parties can go ahead but with all the right precautions.

For adults throwing a house party, he said the rule of 10 people without physical distancing still applies and it should ideally be kept to family and close friends. Guests shouldn't share bowls, plates or cups if food and drink are being offered.

Strang also said a Halloween mask does not replace a non-medical one, since many have breathing holes which defeat the purpose.

For trick-or-treaters, Strang encouraged kids to stay outside, not yell or sing, and knock on doors with their knuckles rather than pressing doorbells or using doorknobs. They should also be in small groups up to 10.

People giving out candy should be in masks, and kids should wash their hands before digging into piles of sweets.

Rules won't be loosened over business group concerns

Strang also addressed concerns brought up by the business community, including the Halifax Chamber of Commerce, about what happens if cases spike in Nova Scotia again.

He said his team is developing a "walk-back plan" around how and when businesses may need to close in another COVID-19 outbreak that may apply to specific communities or broader areas.

That plan will be presented to the business sector for feedback, Strang said, since it might have creative ways to keep certain businesses open while allowing appropriate safety measures.

Whatever plan is created, Strang said it needs to have flexibility to respond to how the virus appears in the province.

Although the chamber of commerce has also called for some restrictions to be eased in Nova Scotia, like restaurant capacity and no physical distancing in elevators, Strang said "loosening is not the thing to do" right now.

He said he's stressed to the business community that good public health is good economics. If Nova Scotia can minimize a second wave, Strang said the economy recovers faster.

McNeil said he could not, "in all good conscience," ask Strang to loosen protocols knowing that what the province is doing is working well.

"We'll be consistent on that until we have a vaccine, and see the way that we can function with this virus," McNeil said.

Nova Scotia reports zero new cases

No new cases of COVID-19 were reported in Nova Scotia on Wednesday after the province completed 401 tests for the virus.

There are currently four active cases of COVID-19 in Nova Scotia and one person is hospitalized in the ICU.

The latest cases of the virus in Nova Scotia were reported on Saturday. Two of those cases were related to travel and a third was a close contact of the travellers, according to the Department of Health and Wellness. All three have been self-isolating.

The latest numbers from around the Atlantic bubble are:

New Brunswick had eight new cases on Wednesday, and there are a total of 90 active cases of COVID-19 in the province.

P.E.I. had no new cases reported on Tuesday. There are three active cases on P.E.I.

Newfoundland and Labrador reported no new cases of COVID-19 on Wednesday and has eight known active cases.

Symptoms

Anyone with one of the following symptoms of COVID-19 should visit the COVID-19 self-assessment website or call 811:

Fever.

Cough or worsening of a previous cough.

Anyone with two or more of the following symptoms is also asked to visit the website or call 811:

Sore throat.

Headache.
Shortness of breath.
Runny nose.

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<https://www.cbc.ca/news/canada/nova-scotia/covid-19-nova-scotia-cases-public-health-new-brunswick-1.5761673>

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

United States

FDA Reissues Emergency Use Authorization for Certain Non-NIOSH-Approved Filtering Face-Piece Respirators Manufactured in China

Source: FDA

ID: 1008052154

Today, the U.S. Food and Drug Administration (FDA) reissued the Emergency Use Authorization (EUA) for certain filtering face-piece respirators (FFRs) that are manufactured in China and are not approved by the Centers for Disease Control and Prevention's (CDC) National Institute for Occupational Safety and Health (NIOSH).

Under the June 6, 2020 version of this EUA, a respirator was authorized if it met any of three predetermined eligibility criteria. Effective immediately, the reissued EUA no longer includes the three eligibility criteria, meaning the FDA will no longer review requests nor add to the list of authorized respirators—known as Appendix A—of this EUA based on those criteria.

The FDA recognizes there is still a shortage of FFRs, and to provide additional capacity as needed, the agency is continuing the emergency use authorization of respirator models that are already included in Appendix A of this reissued EUA.

“Since the beginning of the COVID-19 public health emergency, we have taken appropriate actions to support the personal protective equipment needs of our health care personnel by issuing EUAs. As part of our continuing work to meet the demands of this public health emergency, we undertook and completed a shortage assessment and concluded that reissuing this EUA was appropriate to reflect the current U.S. demand for these products,” said Suzanne Schwartz, M.D. M.B.A., Director of the FDA’s Office of Strategic Partnerships and Technology Innovation in the Center for Devices and Radiological Health.

To further inform the EUAs, the FDA completed a respirator shortage assessment to understand current product availability for both NIOSH-approved N95s and KN95 respirators and use practices for each. The assessment shows that the KN95 respirator models authorized by this EUA meet the demand for these respirators. As part of this assessment, the agency heard directly from health care personnel that the KN95 design has limited adoption in health care settings; from distributors that imported, non-NIOSH-approved product from China is sitting in warehouses unused; and from manufacturers that NIOSH-approved N95 production is increasing. Additionally, CDC/NIOSH continues to issue more N95 approvals.

The FDA is reissuing this EUA to authorize only those respirators the FDA had already authorized and that are presently listed in Appendix A. As outlined in the reissued EUA, FDA has removed the previous eligibility criteria and, therefore, no additional respirator models will be added to Appendix A under those criteria. As such, the FDA is no longer reviewing requests submitted based on the June 6, 2020 EUA’s criteria.

As a result of this EUA's reissuance, FDA expects that staff and agency resources that were devoted to reviewing those submissions can instead focus on other critical needs during the COVID-19 public health emergency, including continuing to work with CDC/NIOSH to help facilitate the availability of respiratory protection that meets the applicable standards and demands of health care personnel. The FDA is committed to refining our policies and approaches as appropriate to further facilitate the development and availability of these devices for health care personnel.

<https://www.fda.gov/news-events/press-announcements/fda-reissues-emergency-use-authorization-certain-non-niosh-approved-filtering-face-piece-respirators>

United States

US warned Nevada not to use Chinese COVID tests from UAE

Source: apnews.com

ID: 1008051920

DUBAI, United Arab Emirates (AP) — U.S. diplomats and security officials privately warned the state of Nevada not to use Chinese-made coronavirus test kits donated by the United Arab Emirates over concerns about patient privacy, test accuracy and Chinese government involvement, documents obtained by The Associated Press show.

The documents illustrate how the U.S. government actively — if quietly — tried to keep the state out of a project involving the Chinese firm BGI Group, which is the world's largest genetic sequencing company and which has expanded its reach during the coronavirus pandemic.

U.S. intelligence agencies have warned that foreign powers like China could exploit samples to discover the medical history, illnesses or genetic traits of test takers, though they have not offered any public evidence. Internal emails and documents obtained by the AP from the Nevada governor's office through a public records request show U.S. authorities expressing such concerns specifically about BGI.

"I hope the Nevada COVID-19 task force leadership is aware of this so they can make an educated decision and know some of the U.S. Government's concerns," William Puff, a Homeland Security regional attaché at the U.S. Embassy in Abu Dhabi, wrote in an email forwarded to Nevada officials.

The warnings from the Department of Homeland Security and the State Department led the office of Nevada Gov. Steve Sisolak in April to direct a Nevada hospital not to use any of the donated 250,000 test kits as officials turned down an offered laboratory deal.

Geopolitics could play a role in the U.S. warning. President Donald Trump and his administration have been locked in a trade war with China and also have actively lobbied its allies not to use telecommunication equipment from Chinese firm Huawei, for instance, citing security concerns.

The donation offer to Nevada also involved a shadowy Emirati company called Group 42, which partnered with Shenzhen-based BGI to create a rapid-testing system in the United Arab Emirates. G42 and government officials in the UAE did not respond to multiple requests for comment.

In response to queries from the AP, BGI said in an email that G42 made the donation to Nevada on its own without BGI's knowledge and that BGI never had direct contact with the state. BGI's COVID-19 tests have approval from the U.S. Food and Drug Administration for use on an emergency basis and are used in some labs in the United States — but "BGI has no access to either patient samples or patient data," it said.

In April, the UAE announced its interest in donating an estimated \$20 million worth of coronavirus testing kits to Nevada.

The unusual offer came at a time when Nevada, like other states, were in a mad scramble amid mounting COVID-19 cases and a shortage of test kits. Nevada had shut down the Las Vegas casinos that power

the state's economy as it rushed to set up temporary hospitals, stockpile ventilators and assemble test kits.

The UAE's oil-fueled sovereign wealth funds and state-owned enterprises long have eyed Las Vegas as an investment opportunity. In its biggest investment, a state-owned Dubai firm partnered with MGM Resorts to build Las Vegas' \$9.2 billion multi-resort CityCenter development.

Former MGM chairman Jim Murren heads Nevada's COVID-19 Response, Relief and Recovery Task Force, appointed by Sisolak as part of a public-private partnership to seek funding and aid for the state.

In late March, Murren forwarded to the governor's office an email from Peng Xiao, the CEO of G42, pitching his company's help. Murren wrote that the Emiratis were making the offer "both as a public service and because they see this as a future investment opportunity for them."

Full Coverage: Virus Outbreak

"They have unlimited capital and would be incredibly flexible on terms- I will handle that part," he wrote.

Murren told the AP that the initial G42 proposal was to set up a "turnkey" high-capacity lab processing COVID-19 tests.

G42 and BGI partnered to create a similar lab in Abu Dhabi in March, part of a mass testing campaign in the Emirates that has conducted over 11 million tests in a nation of 9 million people.

Along with its sale of tests, BGI has expanded into multiple countries by offering such turnkey labs, which it says can analyze 10,000 to 50,000 tests a day. It has set up such labs in multiple Chinese cities and in countries like Angola, Australia, Brunei, Kazakhstan, Saudi Arabia, Serbia and Togo. Those labs use BGI equipment, which the U.S. government fears could be a means of spying by the Chinese government.

The proposed lab in Nevada would rapidly process samples from polymerase chain reaction, or PCR, tests. Those genetic tests, using long cotton swabs that collect samples from deep inside a person's nose and throat, detect an active case of the coronavirus.

Days after G42 announced its aid to Nevada, the U.S. government broached its concerns with the state.

In an email sent to Nevada officials on April 20, Puff, the Homeland Security attaché, alleged without offering evidence that G42's tests were "closer to 60% accurate" rather than the 90% claimed by the firm. BGI long has maintained its PCR tests have high accuracy, though factors like "the sampling process, storage and transportation of samples" can affect results.

Puff also raised concerns about the potential risks of Americans sharing medical samples with BGI.

"The embassy has concerns with G42's relationship with the Chinese government and BGI, and patient privacy concerns," Puff wrote. "The guidance we received from the U.S. Department of State is we should decline testing from G42."

Asked for comment by the AP, Puff said: "I think it's probably best I don't."

The same day, the Nevada governor's chief of staff, Michelle White, emailed the University Medical Center, which received the G42 supplies.

"Based on the information communicated to me by Homeland Security, we highly recommend that you discontinue these tests and any usage of testing equipment immediately," she wrote.

Sisolak's office did not respond to phone and email messages from the AP seeking comment. Murren said state health officials ultimately decided they wanted to build their own high-capacity lab.

The University Medical Center used 20,000 specimen collection kits offered by G42, which are comprised of nasal swabs and tubes to store samples, spokesman Scott Kerbs said. UMC did not use the donated 250,000 analysis kits because they were “not compliant with UMC’s laboratory technology,” he said.

Kerbs said the collection kits “helped us to support local testing at a time when specimen collection materials were scarce in our community.” He did not respond to questions from AP about the warnings. “UMC always appreciates the generosity of donors,” he said.

Since then, the casinos, along with much of Nevada’s shuttered economy, have reopened. Coronavirus testing now is widely available. Nevada has now performed more than 1.1 million tests for COVID-19 and has reported more than 85,000 cases and 1,600 deaths.

Notably, even as U.S. authorities warned Nevada, they did not alert the 75,000 Americans living in the United Arab Emirates about any concerns over the BGI tests used by the Emirati firm, even though the same tests are used widely in the country. The UAE insists all genetic data is kept private and is not shared with BGI.

The State Department told the AP that it shares information to Americans abroad “regarding safety and security threats that might affect them. ... In this case, the Department did not deem the use of BGI COVID-19 tests to be a threat to safety.”

The push to convince Nevada not to use the BGI tests comes amid the increasingly antagonistic relationship between the U.S. and China under the Trump administration that has witnessed an ongoing trade war and the expulsions of diplomats and journalists.

U.S. intelligence agencies worry China’s genetic research could provide it a way to spy on or leverage American sources.

In May, the U.S. National Counterintelligence and Security Center issued a warning to state health officials about “potential threats posed by foreign powers in connection with COVID tests.” It did not specify BGI, though it did link to a news report on Israel’s largest health care plan declining to work with BGI.

In June, The Washington Post reported that California’s health department decided to steer clear of offers by BGI and G42 to provide testing and test lab facilities. The report said the decision was taken on the advice of the state’s coronavirus test task force advisers, in part because of concerns over China gaining access to private patient information.

The U.S. Embassy in Abu Dhabi quietly declined an offer by the Emirati government to conduct free coronavirus testing of its diplomats because of concerns about Chinese involvement. It did not publicize that decision. The UAE also is home to some 5,000 American troops and Dubai’s Jebel Ali port, the U.S. Navy’s busiest port of call outside of the U.S.

Efforts by the United Arab Emirates — a hereditarily ruled country where political parties and unions remain illegal — to fight the pandemic have renewed concerns about its mass surveillance programs.

Officials at G42 have refused to identify who owns the company, though many suspect it links back to Abu Dhabi’s ruling family.

G42’s CEO, Peng Xiao, previously ran Abu Dhabi-based firm DarkMatter’s “big data” application, which could pool hours of surveillance video to track anyone. DarkMatter’s hiring of former CIA and National Security Agency analysts has raised concerns, especially as the UAE has harassed and imprisoned human rights activists.

According to the Nevada emails, among G42's marketing and communications staff is Giacomo Ziani, who told the AP in January he was the co-creator of a video and voice calling app suspected of being a spying tool of the UAE — though he denied the accusation. Ziani did not answer requests for comment.

BGI formed in 1999 as a state-backed lab to work on the Human Genome Project. It later became a private company and has found itself as a foremost force among companies worldwide in coronavirus testing.

China's ruling Communist Party hopes companies like BGI and Huawei will boost the country into becoming a global technology leader.

In its email to the AP, BGI said it is not owned or funded by the Chinese government and "has no government capital." A U.S. Trade Office report in 2018 said the company has "evident links to the government" as its leadership includes individuals who previously held positions in the Chinese government and Communist Party.

Two BGI subsidiaries have been sanctioned by the U.S. Commerce Department for allegedly "conducting genetic analyses used to further the repression of Uighurs and other Muslim minorities" in China. BGI said one subsidiary had done no business while the other was not involved in work that "includes personally identifiable information or violations of privacy or human rights."

When asked about the perceived danger from China's influence in the Nevada testing kit offer, the State Department referenced a February speech given by Secretary of State Mike Pompeo.

"What China does in Topeka and Sacramento reverberates in Washington, in Beijing and far beyond," Pompeo said then. "Competition with China is happening. It's happening in your state."
https://apnews.com/article/virus-outbreak-technology-dubai-nevada-united-arab-emirates-0755b0ed4a9a750bcac432300ca69275?utm_campaign=SocialFlow&utm_medium=AP&utm_source=Twitter

Additional health measures in relation to the COVID-19 outbreak

Announcement Displayed From : Friday, October 16, 2020 - 13:34

16 October 2020

Official statements by States Parties to the International Health Regulations (2005) (IHR)

On 30 January 2020, the Director-General determined that the outbreak of 2019-nCoV, constitutes a Public Health Emergency of International Concern (PHEIC) and issued Temporary Recommendations[1].

On 11 March 2020 the Director-General characterized the COVID-19 situation as a pandemic[2].

Following the 4th IHR Emergency Committee for COVID-19 on 31 July 2020, the Director-General confirmed that the COVID-19 pandemic continues to constitute a PHEIC and issued the following Temporary Recommendations for States Parties:

- 1.Share best practices, including from intra-action reviews, with WHO; apply lessons learned from countries that are successfully re-opening their societies (including businesses, schools, and other services) and mitigating resurgence of COVID-19.
- 2.Support multilateral regional and global organizations and encourage global solidarity in COVID-19 response.
- 3.Enhance and sustain political commitment and leadership for national strategies and localized response activities driven by science, data, and experience; engage all sectors in addressing the impacts of the pandemic.
- 4.Continue to enhance capacity for public health surveillance, testing, and contact tracing.
- 5.Share timely information and data with WHO on COVID-19 epidemiology and severity, response measures, and on concurrent disease outbreaks through platforms such as the Global Influenza Surveillance and Response System.

6. Strengthen community engagement, empower individuals, and build trust by addressing mis/disinformation and providing clear guidance, rationales, and resources for public health and social measures to be accepted and implemented.
7. Engage in the Access to COVID-19 Tools (ACT) Accelerator, participate in relevant trials, and prepare for safe and effective therapeutic and vaccine introduction.
8. Implement, regularly update, and share information with WHO on appropriate and proportionate travel measures and advice, based on risk assessments; implement necessary capacities, including at points of entry, to mitigate the potential risks of international transmission of COVID-19 and to facilitate international contact tracing.
9. Maintain essential health services with sufficient funding, supplies, and human resources; prepare health systems to cope with seasonal influenza, other concurrent disease outbreaks, and natural disasters.

In line with provisions of Article 43, WHO is sharing the information officially provided to WHO by States Parties and, since 12 March 2020 also information published by country government websites to reduce the gap between the information reported through the IHR mechanism and the one published by countries on official sources.

As of 16 October 2020, there has been no new State Party that reported on additional health measures that significantly interfere with international traffic since the last announcement published on 09 October 2020. A total of 194 out of 196 States Parties reported to date with Mexico and Nicaragua not reporting any measure.

Moreover, 29 countries provided updates to their previously implemented measures. The distribution by WHO Regions is as follows: AFR: 0 (3 updates), AMR: 0 (0 updates), EMR: 0 (0 updates), EUR: 0 (22 updates), SRO: 0 (4 updates), WPR: 0 (0 updates). See table 1.

Regional links below provide for more details on the measures. The information is divided by region, cumulative since the beginning of the EIS updates on travel measures and by country in alphabetical order. Text highlighted in red represents updates to the previously published EIS.

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

Europe

Europe's daily Covid deaths could reach five times April peak, says WHO

Source: theguardian.com

ID: 1008052248

Hans Kluge says epidemic could worsen drastically, but latest controls could save lives

Daily coronavirus deaths in Europe could reach four or five times their April peak within months without effective countermeasures, the World Health Organization has said, as nine more countries reported record numbers of new infections.

Dr Hans Kluge, the WHO's regional director for Europe, said on Thursday that Europe had recorded its highest weekly number of new Covid-19 cases as the virus again spread rapidly across the continent.

"The evolving epidemiological situation in Europe raises great concern: daily cases are up, hospital admissions are up and Covid is now the fifth leading cause of deaths" in the region, killing more than 1,000 people a day, he said.

But Kluge said there was cause for optimism because the situation was not the same as during the first wave of the pandemic, and tighter controls introduced by many European countries this week could save hundreds of thousands of lives.

“We are recording two to three times more cases per day compared with April, but five times fewer deaths, and hospital admissions are taking two to three times longer to double,” he said. “The pandemic today is not the pandemic yesterday – not only in terms of its transmission dynamic, but in the ways we are now equipped to face it.”

Kluge said confirmed cases in the organisation’s 53 European member states had climbed from 6m to more than 7m in 10 days, with records set on 9 and 10 October, when daily totals exceeded 120,000 cases for the first time.

But he said an increase in testing was partly responsible for the rise in confirmed cases, while greater transmission among younger, less vulnerable people, plus hospitals’ improved ability to manage severe cases, was helping to lower the mortality rate.

There was plainly “a realistic potential” for the epidemic to worsen drastically, however, if the disease spread back into older and more vulnerable age groups “as a result of more intense social contacts between generations”.

Models suggested that if governments loosened restrictions for any length of time, daily Covid deaths could reach five times their previous highs by January next year, Kluge said. But the models also showed that simple measures could dramatically slow the trend.

“The systematic and generalised wearing of masks, at a 95% rate rather than the 60% rate today, together with strict controls on social gatherings in public or private spaces, could save up to 281,000 lives by 1 February,” he said.

Tighter restrictions announced by several European countries – from the Netherlands to Spain and France and the Czech Republic – were “good because absolutely necessary”, Kluge said.

“They are appropriate and necessary responses to what the data is telling us: transmission and sources of contamination occur in homes and indoor public places, and within communities complying poorly with self-protection measures.”

<https://www.theguardian.com/world/2020/oct/15/europe-records-highest-ever-weekly-covid-cases-says-who-expert>

WHO

Young, Healthy People May Not Receive COVID-19 Vaccine Until 2022

Source: voanews.com

ID: 1008051909

The World Health Organization says the young and healthy may have to wait until 2022 to get a COVID-19 vaccine. WHO chief scientist Soumya Swaminathan said Thursday health authorities will likely prioritize health care and frontline workers such as law enforcement and emergency responders, then the elderly.

Swaminathan said she hoped there would at least be one safe and effective vaccine against the novel coronavirus by 2021, but said it would only be available in “limited quantities.”

Over 170 potential COVID-19 vaccines are in various stages of testing around the world, including 10 that have entered late-stage, wide scale human testing. U.S. pharmaceutical giants Johnson & Johnson and AstraZeneca have recently halted late-stage trials of their experimental vaccines after a volunteer in each study became ill.

The race to develop a coronavirus vaccine comes amid a surge of new infections across Europe, sparking fears the continent is on the verge of a second wave of the outbreak as the winter season nears.

German Chancellor Angela Merkel and governors of the country's 16 states have agreed to impose a new round of nationwide restrictions after posting a record-high 6,638 new cases on Wednesday, including the early closure of bars and restaurants and limiting the number of people allowed to gather in public.

French President Emmanuel Macron on Wednesday announced a 9 p.m. to 6 a.m. curfew for the region of Paris and at least seven other cities, including Lyon, Grenoble, Aix-en-Provence, Montpellier, Lille, Rouen and Saint-Étienne. The curfew will take effect on Saturday and will remain in effect for at least four weeks.

Northern Ireland is taking even more drastic measures, announcing a nationwide four-week lockdown on Wednesday, with schools closed for two weeks and all pubs and restaurants closed for the full month, except for pickup and delivery of food.

And news reports out of London say the British capital is about to be put under the second level of the government's new three-tiered coronavirus alert system, which designates areas as medium, high and very high risk. The city of Liverpool has been placed under the third and highest tier, forcing officials to close all restaurants and bars.

Liverpool is one of several northern British cities experiencing a dramatic surge of new COVID-19 cases, including Merseyside, Manchester and Newcastle.

The United States is also undergoing a steady rise of new coronavirus cases, averaging well over 50,000 new cases a day in recent weeks. One of those new cases was Barron Trump, the son of President Donald Trump and his wife Melania, who were diagnosed with the disease nearly two weeks ago.

Melania Trump announced the news in a letter released by the White House Wednesday in which she discussed her illness. She said the couple's teenage son had tested positive shortly after she and the president were diagnosed, but was fortunately asymptomatic. Mrs. Trump said Barron has since tested negative for COVID-19.

Another prominent new coronavirus case is Nick Saban, the head coach of the University of Alabama Crimson Tide football team. The school announced Wednesday that Saban has tested positive along with Greg Byrne, the school's athletic director. Saban has led the Crimson Tide, one of the most storied college football programs in the U.S., to five national championships.

<https://www.voanews.com/covid-19-pandemic/young-healthy-people-may-not-receive-covid-19-vaccine-until-2022>

WHO

New electronic survey manual supports countries to combat micronutrient deficiencies

Source: WHO

ID: 1008051912

A new Micronutrient survey manual (2020) and toolkit, developed in collaboration by WHO, CDC, UNICEF and Nutrition International were published today to meet the demand of countries interested in assessing the micronutrient status of their populations.

Addressing micronutrient malnutrition is one of the greatest global health challenges. Surveys assessing micronutrient status provide a basis for policy makers and programme implementers to understand the magnitude of micronutrient deficiencies and to gather the evidence needed to improve programming. Guidance on how to evaluate the impact of interventions to improve micronutrient status is also included in the manual.

This user-friendly resource enables programme managers, government officials and researchers alike to access the entire knowledge library of best practices and resources for conducting micronutrient surveys through an interactive website.

Certain population groups, especially women and children, are at greater risk of micronutrient deficiencies. Micronutrients are critical for a well-functioning immune system, which is of utmost importance during the COVID-19 pandemic. If a population has poor status for key micronutrients, such as vitamin A, zinc or vitamin D, then they may be less well equipped to mount a proper immune response when exposed to viral or bacterial infections than if they had adequate micronutrient status.

The manual emphasizes the use of indicators recommended by WHO and other internationally recognized agencies for assessing vitamin and mineral status, for classifying deficiencies at the individual and population levels, for defining public health problems and for monitoring progress toward preventing and eliminating micronutrient deficiencies.

There is also a downloadable platform that functions like the website such that resources can be accessible to users offline. The content includes 16 modules of information and more than 200 tools, examples and resources in a searchable platform.

The manual and website are an update of the 2007 publication, Indicators and methods for cross-sectional surveys of vitamin and mineral status of populations and its associated online survey toolkit. <https://www.who.int/news/item/15-10-2020-new-electronic-survey-manual-supports-countries-to-combat-micronutrient-deficiencies>

Russia

Results of Studies of 3rd Russian Vaccine against COVID-19 Expected by Mid-December

Source: UrduPoint News

ID: 1008051923

MOSCOW (UrduPoint News / Sputnik - 16th October, 2020) **Results of studies on the third domestic vaccine against the coronavirus infection are expected by mid-December, Russian Health Minister Mikhail Murashko said on Thursday.**

"The third vaccine, research is currently underway on it, and we expect results on it by mid-December," Murashko told the Rossiya 1 broadcaster.

He clarified that lists of those categories of people that should be vaccinated were being formed now.

<https://www.urdupoint.com/en/world/results-of-studies-of-3rd-russian-vaccine-aga-1058275.html>

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

Study

Warning from a pandemic data dump? Ottawa sewage shows 'alarming' spike in COVID-19 virus

Source: Toronto Star

Unique ID: [1008048955](#)

Epidemiologists have warned that upheaval in the province's testing system — difficulty accessing assessment centres, backlogs of swabs, and changes to testing criteria — mean that any apparent flattening in Ontario's case curve should be considered suspect. And so from our perspective here in Ottawa, where we have the highest rate per hundred thousand people of COVID at the moment, this is a really important measure of the effectiveness of our public health regulation." A novel method of sampling sewage for COVID-19 is showing an "alarming" surge in viral transmission in Ottawa, researchers say — a detection process that belies flattening case counts registered by the province's strained testing system. Warning from a pandemic data dump? Ottawa sewage shows 'alarming' spike in COVID-19 virus By Kate Allen Science and Technology Reporter

Thu., Oct. 15, 2020timer5 min. read

A novel method of sampling sewage for COVID-19 is showing an "alarming" surge in viral transmission in Ottawa, researchers say — a detection process that belies flattening case counts registered by the province's strained testing system.

Toronto is set to get its own poop report within weeks.

Because people with COVID-19 shed the virus in their stool, the presence of viral fragments in municipal wastewater has been successfully used as an early-warning system in different cities. In Ontario, scientists at the Children's Hospital of Eastern Ontario (CHEO) and the University of Ottawa have been at the forefront of this technique.

After remaining low all summer, the virus levels in Ottawa's wastewater doubled over the month of September, the researchers say. Then, in the first half of October, it doubled again. Tuesday's measurements were particularly concerning.

"This morning, we can see rather alarmingly that it's three to six times higher than it was back on Oct. 8. So it seems to be tracking up," says Dr. Alex MacKenzie, a pediatrician and senior scientist at CHEO Research Institute.

"It's going up, and it's going up faster, which is something to take note of," said Rob Delatolla, a professor of civil engineering at the University of Ottawa.

Epidemiologists have warned that upheaval in the province's testing system — difficulty accessing assessment centres, backlogs of swabs, and changes to testing criteria — mean that any apparent flattening in Ontario's case curve should be considered suspect.

Ottawa's seven-day average of new cases dropped from 117 on Sunday to 98 on Tuesday, according to the public health unit's monitoring dashboard. Both Premier Doug Ford and Chief Medical Officer of Health Dr. David Williams have recently referenced signs the Ontario curve is flattening.

But testing in Ottawa has also dropped since the switch to appointment-based booking, according to data from the Ottawa COVID-19 Testing Taskforce. Across the city's five assessment centres, the weekday swab average fell from 2,686 in the week before the change to 2,184 the week afterwards, a drop of 19 per cent.

"What is innovative and important is that this is an indicator that is not based on the effectiveness of the testing system at any given point in time," says Alex Munter, CHEO's president and CEO.

"I do think it is really useful information ... that can help guide policy-making and help the community understand where things are at. And so from our perspective here in Ottawa, where we have the highest rate per hundred thousand people of COVID at the moment, this is a really important measure of the effectiveness of our public health regulation."

Across the province and country, researchers are already providing sewage samples to municipalities to use as part of their COVID-19 monitoring arsenal.

At Ryerson University in Toronto, Kimberley Gilbride, a professor of chemistry and biology, and Claire J. Oswald, an associate professor in the department of geography and environmental studies, are part of a national COVID-19 Wastewater Coalition through the non-profit Canadian Water Network.

It's taking them a little longer than their counterparts in Ottawa, given the size of Toronto. But they hope to have results within the next weeks to month, Oswald said, which they will first share with Toronto Public Health.

"This could be an additional source of information that's made public," she said, perhaps even on TPH's online dashboard, alongside other indicators such as hospitalizations and new daily cases.

Oswald said they are looking at the west side of the city and have "initial results" from the wastewater treatment plant that serves that area.

As it's so "time and money intensive" to get the samples and analyze them, they decided to keep the scope tight, but this includes the hard-hit northwest corner of the city.

They're using early results to "refine the method right now," in collaboration with groups like the one working in Ottawa, and doing quality assurance.

They are also working to get sampling sites set up "upstream" of the wastewater treatment plant, so they can see different branches of the sewage system at the community level.

The virus has a relatively long incubation period of up to two weeks. Some people don't show symptoms at all, others don't for a while, and not everyone will get tested.

But they shed virus in feces, and everyone's goes down the drain whether they know they have COVID-19 or not.

The RNA fragments of the SARS-CoV-2 virus, like a fingerprint, can tell scientists that the virus was there. It's known as an "envelope virus" because it has a layer of fat around it that doesn't make it into sewage, so it's not infectious at that point.

Sewage epidemiology can't replace classic outbreak tools of testing, contact tracing and isolation. But it can be a complement to those tools and serve as an early warning system for spikes in cases, regardless of limitations on testing.

Toronto Water is also participating in two other “independent research initiatives” on the virus in wastewater, according to a spokesperson: with Statistics Canada/Public Health Agency of Canada (National Microbiology Laboratory), and with the Ministry of Environment, Conservation and Parks/University of Guelph.

“Toronto Water’s contribution is limited to the collection and supply of wastewater samples to the researchers. Timelines and research results may be available through the respective research teams,” the spokesperson said in an email.

Toronto’s Public Health head Dr. Eileen de Villa was asked about the status of these projects at the daily COVID press conference, Wednesday. She said the agency is “actively participating in those research endeavours and engaging with the researchers on their findings.”

Similar projects are also underway at campuses, including McMaster and the University of Guelph, and an official with Peel Region said they plan to publish findings from sewage tracking there online, on Friday.

Dr. Barbara Yaffe, Ontario’s associate chief medical officer of health, said at the province’s daily news briefing that this kind of surveillance can be “an alarm bell,” as research has shown it’s possible to “identify an increase in the sewage probably two-to-four days earlier than you start to see an increase in cases.”

This kind of data is being collected “sort of on a pilot basis” across the province, she said.

CHEO Research Institute’s MacKenzie warned that Ottawa’s wastewater surge this week came from infections that occurred before the long weekend, “so let’s hope everyone behaved over Thanksgiving.”

Kate Allen is a Toronto-based reporter covering science and technology for the Star. Follow her on Twitter: @katecallen

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<https://www.thestar.com/news/gta/2020/10/14/ottawa-sewage-shows-alarms-spike-in-covid-19-transmission.html>

WHO

Remdesivir has 'little effect' on COVID-19 death risks, WHO study finds

Source: Health News | Mail Online

ID: 1008051927

Remdesivir does not improve COVID-19 survival odds, a large World Health Organization (WHO) trial of it and three other treatments has ruled.

More than 11,200 hospitalized COVID-19 patients around the world were treated with remdesivir - an antiviral - lopinavir, hydroxychloroquine, interferon or a placebo for the WHO's massive SOLIDARITY trial. None of the drugs 'substantially affected' mortality risks, the dismal report found.

It's a blow to hopes that the world is getting better at treating people sickened by the pandemic that has claimed the lives of more than a million people globally, including more than 217,000 in the US.

SOLIDARITY's findings are particularly grim news for the US, where remdesivir is one of just two treatments to have gotten emergency Food and Drug Administration (FDA) authorization.

US government research suggested the drug improved survival odds and shortened recovery times.

The federal government has already amassed a stockpile of the drug, and regulators revoked emergency approval for another drug found ineffective for treating coronavirus by the WHO trial, hydroxychloroquine, in June.

https://www.dailymail.co.uk/health/article-8845241/Remdesivir-little-effect-COVID-19-death-risks-study-finds.html?ns_mchannel=rss&ns_campaign=1490&ito=1490

Study

2 studies suggest blood type O at less COVID-19 risk

Source: AA

Unique ID: [1008050113](#)

A Danish study, conducted by 11 researchers based on information of 473,654 individuals tested for COVID-19, found that blood group O was associated with a decreased risk of coronavirus infection. Two medical studies have suggested that people with blood type O may be at lower risk of contracting the

novel coronavirus. Danish, Canadian researchers find blood group O less susceptible to coronavirus infection

2 studies suggest blood type O at less COVID-19 risk

Danish, Canadian researchers find blood group O less susceptible to coronavirus infection

Ovunc Kutlu | 15.10.2020

Two medical studies have suggested that people with blood type O may be at lower risk of contracting the novel coronavirus.

A Danish study, conducted by 11 researchers based on information of 473,654 individuals tested for COVID-19, found that blood group O was associated with a decreased risk of coronavirus infection.

"We demonstrate that blood group O is significantly associated with reduced susceptibility to SARS-CoV-2 infection," said the study published Wednesday on Blood Advances, a peer-reviewed medical journal of the American Society of Hematology.

The research indicated that individuals with blood types A, B, and AB were also at higher risk of exhibiting thrombosis -- the clotting of blood inside a blood vessel -- and cardiovascular diseases, which are significant co-occurring conditions among hospitalized COVID-19 patients.

Similar results were found by a Canadian medical study conducted by 14 researchers based on data collected from intensive care unit patients in six metropolitan Vancouver hospitals.

"COVID-19 patients with blood group A or AB appear to exhibit a greater disease severity than patients with blood group O or B," found the study, which was published in the same journal, adding that individuals with blood group O were reported to be "less susceptible to SARS-CoV-2 infection."

The study also noted that COVID-19 patients of blood group A or AB had a higher risk of requiring mechanical ventilation and longer duration in intensive care, compared to those with blood group O or B.

While 84% of patients with blood groups A or AB required mechanical ventilation in SARS-CoV-2 infection, that level was 61% for patients with blood types O or B, according to the research.

The median length of staying in intensive care units was 13.5 days for patients with A or AB blood types, while it was only nine days for patients with O or B blood types, the study found.

Number of COVID-19 cases in the world stood around 38.5 million and deaths close to 1.1 million on Thursday, according to Johns Hopkins University data.

<https://www.aa.com.tr/en/health/2-studies-suggest-blood-type-o-at-less-covid-19-risk/2007619>

Study

Until a coronavirus vaccine is ready, pneumonia vaccines may reduce deaths from COVID-19

Source: [medicalxpress.com](https://www.medicalxpress.com)

Unique ID: [1008049593](https://www.medicalxpress.com/1008049593)

I have reached my insight by juxtaposing two seemingly unrelated puzzles: Infants and children get SARS-CoV-2, the virus that causes COVID-19, but very rarely become hospitalized or die; and case numbers and death rates from COVID-19 began varying greatly from nation to nation and city to city even before lockdowns began. As someone who had previously investigated other pandemics such as the Great Flu Pandemic of 1918-19 and AIDS, and who has worked with vaccines, I had a strong background for tracking down the relevant data to test my hypothesis. My examination of disease trends and vaccination rates leads me to believe that broader use of the pneumococcal and Hib vaccines could guard against the worst effects of a COVID-19 illness.

The yearly influenza season threatens to make the COVID-19 pandemic doubly deadly, but I believe that this isn't inevitable.

There are two commonly given vaccines—the pneumococcal vaccine and the Hib vaccine—that protect against bacterial pneumonias. These bacteria complicate both influenza and COVID-19, often leading to death. My examination of disease trends and vaccination rates leads me to believe that broader use of the pneumococcal and Hib vaccines could guard against the worst effects of a COVID-19 illness.

I am an immunologist and physiologist interested in the effects of combined infections on immunity. I have reached my insight by juxtaposing two seemingly unrelated puzzles: Infants and children get SARS-CoV-2, the virus that causes COVID-19, but very rarely become hospitalized or die; and case numbers and death rates from COVID-19 began varying greatly from nation to nation and city to city even before lockdowns began. I wondered why.

One night I woke up with a possible answer: vaccination rates. Most children, beginning at age two months, are vaccinated against numerous diseases; adults less so. And, both infant and adult vaccination

rates vary widely across the world. Could differences in the rates of vaccination against one or more diseases account for differences in COVID-19 risks? As someone who had previously investigated other pandemics such as the Great Flu Pandemic of 1918-19 and AIDS, and who has worked with vaccines, I had a strong background for tracking down the relevant data to test my hypothesis.

Pneumococcal vaccination rates correlate with lower COVID-19 cases and deaths

I gathered national and some local data on vaccination rates against influenza, polio, measles-mumps-rubella (MMR), diphtheria-tetanus-pertussis (DTP), tuberculosis (BCG), pneumococci and Haemophilus influenzae type B (Hib). I correlated them with COVID-19 case rates and death rates for 24 nations that had experienced their COVID-19 outbreaks at about the same time. I controlled for factors such as percentage of the population who were obese, diabetic or elderly.

I found that only pneumococcal vaccines afforded statistically significant protection against COVID-19. Nations such as Spain, Italy, Belgium, Brazil, Peru and Chile that have the highest COVID-19 rates per million have the poorest pneumococcal vaccination rates among both infants and adults. Nations with the lowest rates of COVID-19—Japan, Korea, Denmark, Australia and New Zealand—have the highest rates of pneumococcal vaccination among both infants and adults.

A recent preprint study (not yet peer-reviewed) from researchers at the Mayo Clinic has also reported very strong associations between pneumococcal vaccination and protection against COVID-19. This is especially true among minority patients who are bearing the brunt of the coronavirus pandemic. The report also suggests that other vaccines, or combinations of vaccines, such as Hib and MMR may also provide protection.

These results are important because in the U.S., childhood vaccination against pneumococci—which protects against Streptococcus pneumoniae bacteria—varies by state from 74% to 92%. Although the CDC recommends that all adults 18-64 in high risk groups for COVID-19 and all adults over the age of 65 get a pneumococcal vaccination, only 23% of high-risk adults and 64% of those over the age of 65 do so. Similarly, although the CDC recommends at all infants and some high-risk adults be vaccinated against Haemophilus influenzae type B (Hib), only 80.7% of children in the U.S. and a handful of immunologically compromised adults have been. Pneumococcal and Hib vaccination rates are significantly lower in minority populations in the U.S. and in countries that have been hit harder by COVID-19 than the U.S. Based on these data, I advocate universal pneumococcal and Hib vaccination among children, at-risk adults and all adults over 65 to prevent serious COVID-19 disease.

How pneumococcal vaccination protects against COVID-19

Protection against serious COVID-19 disease by pneumococcal and Hib vaccines makes sense for several reasons. First, recent studies reveal that the majority of hospitalized COVID-19 patients, and in some studies nearly all, are infected with streptococci, which causes pneumococcal pneumonias, Hib or other pneumonia-causing bacteria. Pneumococcal and Hib vaccinations should protect coronavirus patients from these infections and thus significantly cut the risk of serious pneumonia.

I also found that pneumococcal, Hib and possibly rubella vaccines may confer specific protection against the SARS-CoV-2 virus that causes COVID-19 by means of "molecular mimicry."

Molecular mimicry occurs when the immune system thinks one microbe looks like another. In this case, proteins found in pneumococcal vaccines and, to a lesser degree, ones found in Hib and rubella vaccines as well look like several proteins produced by the SARS-CoV-2 virus.

Two of these proteins found in pneumococcal vaccines mimic the spike and membrane proteins that permit the virus to infect cells. This suggests pneumococcal vaccination may prevent SARS-CoV-2 infection. Two other mimics are the nucleoprotein and replicase that control virus replication. These proteins are made after viral infection, in which case pneumococcal vaccination may control, but not prevent, SARS-CoV-2 replication.

Either way, these vaccines may provide proxy protection against SARS-CoV-2 infection that we can implement right now, even before we have a specific virus vaccine. Such protection may not be complete. People might still suffer a weakened version of COVID-19 but, like most infants and children, be protected against the worst effects of the infection.

Fighting influenza-related pneumonias during the COVID-19 pandemic

While the specific protection these other vaccines confer against COVID-19 has not yet been tested in a clinical trial, I advocate broader implementation of pneumococcal and Hib vaccination for one additional, well-validated reason.

Pneumococcal and Hib pneumonias—both caused by bacteria—are the major causes of death following viral influenza. The influenza virus rarely causes death directly. Most often, the virus makes the lungs

more susceptible to bacterial pneumonias, which are deadly. Dozens of studies around the world have demonstrated that increasing rates of pneumococcal and Hib vaccination dramatically lowers influenza-related pneumonias.

Similar studies demonstrate that the price of using these vaccines is balanced by savings due to lower rates of influenza-related hospitalizations, intensive care unit admissions and deaths. In the context of COVID-19, lowering rates of influenza-related hospitalizations and ICU admissions would free up resources to fight the coronavirus, independent of any effect these vaccines might have on SARS-CoV-2 itself. In my opinion, that is a winning scenario.

In short, we need not wait for a SARS-CoV-2 vaccine to slow down COVID-19.

I believe that we can and should act now by fighting the coronavirus with all the tools at our disposal, including influenza, Hib, pneumococcal and perhaps rubella vaccinations.

Preventing pneumococcal and Hib complications of influenza and COVID-19, and perhaps proxy-vaccinating against SARS-CoV-2 itself, helps everyone. Administering these already available and well-tested pneumococcal and Hib vaccines to people will save money by freeing up hospital beds and ICUs. It will also improve public health by reducing the spread of multiple infections and boost the economy by nurturing a healthier population.

Provided by The Conversation

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<https://medicalxpress.com/news/2020-10-coronavirus-vaccine-ready-pneumonia-vaccines.html>

Study

New tool enables easy, effective disease tracking

Source: medicalxpress.com

Unique ID: [1008049545](https://doi.org/10.1008049545)

IDseq, an open source, cloud-based metagenomic analysis platform, identifies both novel and existing disease-causing pathogens from a human, animal or parasite sample to provide an actionable report of what is happening on the ground in labs and clinics anywhere in the world. A partnership between the Chan Zuckerberg Biohub, the Chan Zuckerberg Initiative (CZI), and the Bill and Melinda Gates Foundation enabled the researchers to sequence and confirm the country's first case of COVID-19 in a matter of days—not the weeks it could typically take. In their study, the scientists used various approaches to demonstrate that the IDseq tool can reliably identify emerging pathogens, among them, as proof of principle, a nasal swab from a COVID-19 patient in Cambodia.

A new open source, cloud-based tool called IDseq can rapidly detect, identify and track emerging pathogens such as SARS-CoV-2. It can identify pathogens before there is an available complete genome sequence, and can therefore be used for current infectious disease outbreaks and emerging diseases. The developers have published a related article in the journal *GigaScience*

The coronavirus pandemic demonstrates the importance of global infectious disease monitoring. Finding the cause of an infectious disease outbreak is challenging, especially if it stems from a previously unknown pathogen. IDseq, an open source, cloud-based metagenomic analysis platform, identifies both novel and existing disease-causing pathogens from a human, animal or parasite sample to provide an actionable report of what is happening on the ground in labs and clinics anywhere in the world.

"IDseq can be thought of as an early warning radar for emerging or novel infectious agents," said Joe DeRisi, Ph.D., co-president of the Chan Zuckerberg Biohub. He contributed to the identification of the SARS coronavirus in 2003 and his research lab at the University of California, San Francisco, initiated the IDseq tool. It is designed to enable the global health community to leverage the ever-decreasing cost of sequencing for tracking and identifying infectious disease in essentially any sample.

"At the beginning of the coronavirus pandemic, researchers in Cambodia used IDseq to help confirm and sequence the whole genome of the country's first case of COVID-19 in a matter of days, and in California, we're providing critical SARS-CoV-2 genomic data to public health officials to inform contact tracing and intervention strategies," says DeRisi.

In their study, the scientists used various approaches to demonstrate that the IDseq tool can reliably identify emerging pathogens, among them, as proof of principle, a nasal swab from a COVID-19 patient in Cambodia. A partnership between the Chan Zuckerberg Biohub, the Chan Zuckerberg Initiative (CZI), and the Bill and Melinda Gates Foundation enabled the researchers to sequence and confirm the

country's first case of COVID-19 in a matter of days—not the weeks it could typically take. The results demonstrate that IDseq can detect the presence of an emerging pathogen prior to the existence of a full reference genome. IDseq also now contains a new workflow for building SARS-CoV-2 consensus genomes.

"Metagenomic sequencing (mNGS) is an incredibly useful tool for pathogen detection because of its highly sensitive and hypothesis-free nature," said Katrina Kalantar, computational biologist at CZI. "We've seen labs that are using IDseq for existing mNGS studies rapidly pivot their focus to more targeted sequencing of SARS-CoV-2, which has helped researchers better understand coronavirus transmission patterns."

In Cambodia, researchers uploaded the genome sequence to the open source pathogen data repository Global Initiative on Sharing All Influenza Data and to Nextstrain. Using the system, scientists anywhere can see the full genome sequence of the SARS-CoV-2 coronavirus and study it within the broader context of SARS-CoV-2 coronavirus sequences uploaded globally. Researchers at the Cambodian National Center for Parasitology, Entomology and Malaria Control (CNM) and the National Institute of Allergy and Infectious Diseases (NIAID) partnered with the Institut Pasteur Cambodia to complete this research. Unlike tests that are specific for a known agent, such as the SARS-CoV-2 PCR test, mNGS is a universal method that can detect novel disease-causing pathogens, which can be especially useful in cases where researchers may not know what is causing an infection, or what pathogens are circulating in a particular area. An mNGS experiment starts with mass-amplifying DNA traces of pathogens from a patient's sample, resulting in millions of small bits of DNA sequences, or reads. This enormous dataset must then be analyzed and interpreted using bioinformatic techniques. The aim is to assign individual DNA fragments from the clinical sample to specific pathogens by leveraging knowledge from sequence databases.

Analyzing the massive amount of data from a typical mNGS experiment often requires a battery of specialized bioinformatic tools, including highly specialized expertise and expensive commercially licensed software—making mNGS a hard-to-access method. The new user-friendly IDseq software is open source and freely available to the global health community, reducing the barrier of entry to metagenomics. Researchers can reuse and build upon the code, which works via a cloud-based service and a web application designed for collaboration and data sharing. The pipeline starts with raw sequencing data as the input, and then goes through steps of filtering, quality control, alignment, and reporting and visualization.

<https://academic.oup.com/gigascience/article/9/10/giaa111/5918865>

Provided by GigaScience

<https://medicalxpress.com/news/2020-10-tool-enables-easy-effective-disease.html>

Study

Chinese company offers coronavirus vaccine to students

Source: 660 NEWS

Unique ID: [1008049534](#)

She said other students said she might need to travel to Beijing, the national capital, or Wuhan, where the outbreak emerged in December, to receive the vaccine. They are part of a global race to develop a vaccine that, if they are successful, offers the fledgling Chinese industry the potential for prestige and worldwide sales. More than 168,000 people signed up to receive the vaccine via an online survey and more than 91,000 are being considered, CNBG said on its website.

TAIPEI, Taiwan — A Chinese drug developer is offering an experimental coronavirus vaccine to students going abroad in a strategy health experts say raises safety and ethical concerns.

China National Biotech Group has two vaccine candidates out of five from Chinese developers that are in the final stages of clinical trials. They are part of a global race to develop a vaccine that, if they are successful, offers the fledgling Chinese industry the potential for prestige and worldwide sales.

CNBG's vaccine has been given to medical workers and employees of Chinese companies being sent abroad under an emergency authorization for people in high-risk categories.

Now, CNBG says it will provide the vaccine for free to Chinese students who study abroad.

More than 168,000 people signed up to receive the vaccine via an online survey and more than 91,000 are being considered, CNBG said on its website. That page had been removed by Tuesday.

A student who is due to go to Britain said she signed up via the online link after classmates said they received the vaccine.

The student, who would give only her English name, Sally, said she started to hear in September that the vaccine was available to people such as her. She said other students said she might need to travel to Beijing, the national capital, or Wuhan, where the outbreak emerged in December, to receive the vaccine.

The ruling Communist Party declared victory over the outbreak in March following anti-virus measures that isolated cities with a total of 60 million people. The country has reported 4,634 deaths and 85,622 confirmed cases.

If the vaccine works, it might help protect students going to Europe or the United States, where the pandemic is still raging, medical experts said. But they said developers need to make clear it is unproven and keep track of what happens to people who receive it.

If the vaccine doesn't work, then "this is giving people a false sense of security," said Sridhar Venkatapuram, a specialist in bioethics at King's College London's Global Health Institute.

Chinese developers have announced plans to test vaccines in Indonesia, Morocco and other countries. But their approach also has prompted concern.

Papua New Guinea turned back a flight carrying 180 Chinese mine workers in August after they received a vaccine in a possible unauthorized trial. The Papuan government demanded an explanation from Beijing.

"The manufacturer has an obligation to obtain follow-up information" from people who receive a vaccine, K. Arnold Chan, a National Taiwan University expert on drug regulation, said in an email.

Failing to do that "is irresponsible and not compliant with international standards," he wrote.

It was unclear whether Chinese students were being offered the CNBG vaccine under the same emergency authorization.

The agency that oversees drug and vaccine approvals, the National Medical Products Administration, did not respond to questions sent by fax. CNBG did not respond to a request for comment.

A business news website named Star Market Daily reported Monday that anyone could sign up on CNBG's webpage to receive the vaccine. It said students who plan to study overseas would get priority.

"Currently, it seems Chinese students going abroad have a strong desire to take the vaccine," a CNBG employee was quoted as saying by a state-owned newspaper, the Paper, based on the survey results in September.

However, a separate report by the Health Times, another state-owned newspaper, cited unidentified sources in the company as denying anyone could sign up to receive a vaccine in Beijing or Wuhan.

The final stage of clinical trials, conducted on larger groups, is used to find any rare side effects and study the effectiveness of a treatment. The first and second stage trials are meant to determine whether a vaccine or treatment is safe.

CNBC has given the vaccine to 350,000 people outside its clinical trials, a company executive said in September. The trials have about 40,000 people enrolled.

More than 600,000 Chinese students studied abroad before the pandemic, according to Ministry of Education figures. They make up a large share of the foreign student body in the United States, Britain, Australia and some other countries.

Western universities are "not protecting their students," Venkatapuram said. "The company is basically offering its citizens protection going outside of China, which in essence is what any country would ideally be doing."

Huizhong Wu, The Associated Press

<https://www.660citynews.com/2020/10/15/chinese-company-offers-coronavirus-vaccine-to-students/>

Study

Scientists develop extremely rapid diagnostic test for COVID-19

Source: medicalxpress.com

Unique ID: [1008049472](#)

Dr. Nicole Robb, formally a Royal Society Fellow at the University of Oxford and now at Warwick Medical School, says: "A significant concern for the upcoming winter months is the unpredictable effects of co-circulation of SARS-CoV-2 with other seasonal respiratory viruses; we have shown that our assay can reliably distinguish between different viruses in clinical samples, a development that offers a crucial advantage in the next phase of the pandemic." Professor Achilles Kapanidis, at Oxford's Department of Physics, says: "Unlike other technologies that detect a delayed antibody response or that require expensive, tedious and time-consuming sample preparation, our method quickly detects intact virus particles; meaning the assay is simple, extremely rapid, and cost-effective." DPhil student Nicolas Shiaelis, at the University of Oxford, says: "Our test is much faster than other existing diagnostic technologies; viral diagnosis in less than five minutes can make mass testing a reality, providing a proactive means to control viral outbreaks."

Scientists from Oxford University's Department of Physics have developed an extremely rapid diagnostic test that detects and identifies viruses in less than five minutes.

The method, published on the preprint server MedRxiv, is able to differentiate with high accuracy SARS-CoV-2, the virus responsible for COVID-19, from negative clinical samples, as well as from other common respiratory pathogens such as influenza and seasonal human coronaviruses.

Working directly on throat swabs from COVID-19 patients, without the need for genome extraction, purification or amplification of the viruses, the method starts with the rapid labeling of virus particles in the sample with short fluorescent DNA strands. A microscope is then used to collect images of the sample, with each image containing hundreds of fluorescently-labeled viruses.

Machine-learning software quickly and automatically identifies the virus present in the sample. This approach exploits the fact that distinct virus types have differences in their fluorescence labeling due to differences in their surface chemistry, size, and shape.

The scientists have worked with clinical collaborators at the John Radcliffe Hospital in Oxford to validate the assay on COVID-19 patient samples which were confirmed by conventional RT-PCR methods.

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The researchers aim to develop an integrated device that will eventually be used for testing in sites such as businesses, music venues, airports etc., to establish and safeguard COVID-19-free spaces.

They are currently working with Oxford University Innovation (OUI) and two external business/finance advisors to set up a spinout, and are seeking investment to accelerate the translation of the test into a fully integrated device to be deployed as a real-time diagnostic platform capable of detecting multiple virus threats.

They hope to incorporate the company by the end of the year, start product development in early 2021, and have an approved device available within six months of that time.

More information: Nicolas Shiaelis et al. Virus detection and identification in minutes using single-particle imaging and deep learning, (2020). DOI: 10.1101/2020.10.13.20212035

<https://www.medrxiv.org/content/10.1101/2020.10.13.20212035v1>

Provided by University of Oxford

<https://medicalxpress.com/news/2020-10-scientists-extremely-rapid-diagnostic-covid-.html>

Study

Ct values can be used to estimate epidemic dynamics

Source: [news-medical.net](https://www.news-medical.net)

Unique ID: [1008049427](https://www.news-medical.net/1008049427)

Virologic testing for the SARS-CoV-2 virus has been central to the COVID-19 pandemic response, but understanding the trends in incidence and positive tests and hence the epidemic trajectory is limited by variations in testing practices. Chan School of Public Health, Harvard Pilgrim Health Care Institute, and Brigham and Women's Hospital, Boston, MA; and Vassar College, Poughkeepsie, NY, recently showed that the varying population distribution of Cycle threshold (Ct) values from positive SARS-CoV-2 samples could help infer epidemic dynamics. However, the varying symptoms and non-specific incubation periods of coronavirus disease 2019 (COVID-19), the limited availability of testing, and the delay in case reporting or confirmed deaths make these approaches limited and non-reliable in mapping the infection trajectory. Tracking the trajectory of an outbreak during a pandemic is essential for making key decisions related to public health response measures. Understanding the trends of infection can help decision-makers plan the deployment of public health resources, the need for non-pharmaceutical interventions, and the optimal use of hospital beds for patients and personal protective equipment for health workers. This is also true for the current severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic. The key epidemiological parameters such as $R(t)$ - the time-varying effective reproductive number - are usually estimated using positive test percentage, daily case counts, or death counts, confirmed by reverse-transcription quantitative polymerase chain reaction (RT-qPCR) testing. However, the varying symptoms and non-specific incubation periods of coronavirus disease 2019 (COVID-19), the limited availability of testing, and the delay in case reporting or confirmed deaths make these approaches limited and non-reliable in mapping the infection trajectory. Also, in many countries, changes in case counts are dependent on their changing testing protocols, and hence may not necessarily reflect a real increase or decline in cases. This has significant health, economic, and political ramifications.

Using viral load distribution to interpret epidemic dynamics

Researchers from the Harvard T. H. Chan School of Public Health, Harvard Pilgrim Health Care Institute, and Brigham and Women's Hospital, Boston, MA; and Vassar College, Poughkeepsie, NY, recently showed that the varying population distribution of Cycle threshold (Ct) values from positive SARS-CoV-2 samples could help infer epidemic dynamics. Their study has been published on the preprint server medRxiv*.

The team showed that the viral load distribution in positive samples at one point in time could help estimate the trajectory of an epidemic accurately. This subverts the need for repeated case count estimations that fluctuate with changes in testing capacity.

"Our results demonstrate that this method can be used to estimate epidemic growth rates based on data collected at a single time point, and independent of assumptions about the intensity of testing."

Novel approach helps estimate the position of a community in the epidemic curve

Virologic testing for the SARS-CoV-2 virus has been central to the COVID-19 pandemic response, but understanding the trends in incidence and positive tests and hence the epidemic trajectory is limited by variations in testing practices.

The researchers identified a link between the population-level, cross-sectional distribution of Ct values, and the epidemic growth rate in the study. This demonstrated that the change in skewness and median of

detectable Ct values are purely a mathematical epidemiologic rule without any change in individual viral load kinetics or testing.

Although the individual-level variation in measurement can complicate Ct values' interpretation in the clinical setting, the authors hypothesize that population-level findings reflect the underlying epidemic dynamics.

In agreement with these theoretical findings, they also observed a robust relationship between $R(t)$ and Ct distribution in positive specimens analyzed in Massachusetts. Their novel method can be used to estimate the position of a community in the epidemic curve, as defined by the growth rate, based on a single cross-sectional analysis of virologic testing data.

They used the observed links to develop a novel method that helps accurately infer the epidemic growth rate using the Ct distribution values observed at a single cross-section in time. This, unlike estimates based on case counts, is less prone to biases caused by test result delays and changing testing protocols.

According to the authors, their findings show that by incorporating viral loads into public health data streams, a new approach can be devised that allows for real-time resource allocation and assessment of outbreak mitigation strategies, even in the absence of repeat incidence data. They think that it would help if testing centers regularly report ct values or similar viral load data to public health officials, and these data are incorporated into outbreak monitoring systems.

The researchers hope that future research studies will evaluate how to incorporate these data into an overall inferential framework for real-time epidemic trajectory monitoring.

"By using Ct values to determine the growth rate of incident cases and using virologic positivity rates to assess prevalence of infection, as well as potentially incorporating measured covariates and symptom status, a richer picture of the path and likely future of an outbreak can be realized from one or more virologic surveys."

*Important Notice

medRxiv publishes preliminary scientific reports that are not peer-reviewed and, therefore, should not be regarded as conclusive, guide clinical practice/health-related behavior, or treated as established information.

<https://www.news-medical.net/news/20201014/Ct-values-can-be-used-to-estimate-epidemic-dynamics.aspx>

United States

Covid-19 herd immunity, backed by White House, is a 'dangerous fallacy,' scientists warn

Source: NBC News

Unique ID: [1008048973](#)

But while Wednesday's letter published in The Lancet acknowledges that "ongoing restrictions have understandably led to widespread demoralization and diminishing trust among the public," such restrictions may be necessary, at least in the short term. The letter, signed by 80 researchers from the fields of public health, epidemiology, virology, infectious diseases and others, said relying on immunity among people who have recovered from Covid-19 is a flawed strategy. The declaration, according to one administration official, means that dealing "with this pandemic is something that centers on aggressive protection of the vulnerable, opening all schools, opening businesses and society, and ending the prolonged lockdowns."

Covid-19 herd immunity, backed by White House, is a 'dangerous fallacy,' scientists warn

An open letter was published in a major medical journal and signed by dozens of researchers and scientists.

The Mississippi State Fair opens with Covid-19 restrictions in Jackson on Oct. 7. Rory Doyle / Reuters
Oct. 14, 2020, 10:47 PM UTC

By Erika Edwards

Dozens of scientists from around the world warned against a "herd immunity" approach to curbing the spread of Covid-19 in a letter published Wednesday in the medical journal The Lancet .

Herd immunity, which occurs when enough people become immune to a contagious disease to make further spread unlikely, is a "dangerous fallacy unsupported by the scientific evidence," the scientists wrote.

Full coverage of the coronavirus outbreak

The letter, signed by 80 researchers from the fields of public health, epidemiology, virology, infectious diseases and others, said relying on immunity among people who have recovered from Covid-19 is a flawed strategy.

"There is no evidence for lasting protective immunity to SARS-CoV-2 following natural infection," they wrote, adding that "the consequence of waning immunity would present a risk to vulnerable populations for the indefinite future." SARS-CoV-2 is the virus that causes Covid-19.

Senior White House officials briefed reporters two days ago on a call in which one official highlighted an online movement called the "Great Barrington Declaration," which favors herd immunity.

Those in support of the declaration appear to favor reopening the country over lockdowns. The declaration, according to one administration official, means that dealing "with this pandemic is something that centers on aggressive protection of the vulnerable, opening all schools, opening businesses and society, and ending the prolonged lockdowns."

Health Fauci, Paul clash over Covid-19 herd immunity

But while Wednesday's letter published in The Lancet acknowledges that "ongoing restrictions have understandably led to widespread demoralization and diminishing trust among the public," such restrictions may be necessary, at least in the short term.

"The purpose of these restrictions is to effectively suppress SARS-CoV-2 infections to low levels that allow rapid detection of localized outbreaks and rapid response through efficient and comprehensive find, test, trace, isolate, and support systems so life can return to near-normal without the need for generalized restrictions," the authors wrote.

Those trained in infectious diseases say at least 60 percent of a population needs to have been exposed to a virus to reach herd immunity. Indications so far are that just 10 percent of the world's population has been infected with the coronavirus.

WHO chief warns against using herd immunity to protect against Covid-19

Oct. 13, 2020 1:16

Tedros Adhanom Ghebreyesus, director-general of the World Health Organization, said Monday that a herd immunity strategy is "scientifically and ethically problematic."

"Never in the history of public health has herd immunity been used as a strategy for responding to an outbreak, let alone a pandemic," Tedros said during a news briefing.

Tedros said scientists do not yet fully understand how strong Covid-19 immunity is or how long it lasts after an infection. He also cited rare reports of Covid-19 reinfections.

"Letting the virus circulate unchecked therefore means allowing unnecessary infections, suffering and death," Tedros said.

Download the NBC News app for full coverage of the coronavirus outbreak

Last month, Sen. Rand Paul, R-Ky., and Dr. Anthony Fauci, the government's top infectious disease specialist, sparred over the issue of herd immunity during a hearing of the Senate Committee on Health, Education, Labor and Pensions.

Paul suggested that people have "pre-existing, cross-reactive immunity to coronavirus," meaning that because most of us have been exposed to other coronaviruses, such as those that cause the common cold, our immune systems may already be trained to recognize SARS-CoV-2.

While some research backs the theory, other research finds no evidence of pre-existing immunity from other coronaviruses.

Indeed, if humans had even a low level of immunity to SARS-CoV-2, the pandemic might not exist. As of Wednesday, more than 38 million cases of Covid-19 had been reported worldwide. More than 1 million people have died, including more than 217,000 in the U.S.

Some sections of the country are experience additional surges of the virus . "The arrival of a second wave and the realization of the challenges ahead has led to renewed interest in a so-called herd immunity approach, which suggests allowing a large uncontrolled outbreak in the low-risk population while protecting the vulnerable," the authors of the letters wrote in The Lancet.

"The evidence is very clear: controlling community spread of Covid-19 is the best way to protect our societies and economies until safe and effective vaccines and therapeutics arrive within the coming months," the authors wrote.

"It is essential that we act urgently based on the evidence."

<https://www.nbcnews.com/health/health-news/covid-19-herd-immunity-backed-white-house-dangerous-fallacy-scientists-n1243415>

United Kingdom

Brain and nerve complications are more common than expected in younger patients with severe COVID-19

Source: evidence.nihr.ac.uk

ID: 1008051907

People aged under 60 who are hospitalised with COVID-19 are more likely than expected to experience severe psychiatric symptoms. Research found that altered mental states such as psychosis are being reported in these younger patients. It confirmed that strokes and other neurological symptoms are common in severe COVID-19.

An initial study included 153 cases reported by stroke physicians, neurologists and psychiatrists in the UK in April 2020. It found that most strokes occurred in people aged over 60. But about half the cases of altered mental state such as psychosis or swelling of the brain (encephalitis) were in younger people.

These complications may reflect damage to the brain and nervous system caused by the coronavirus. In the study, 'altered mental state' included any sudden change in personality, behaviour, thinking abilities, or consciousness. Neurological symptoms included any symptoms involving the nerves or muscles. Strokes included blood clots or bleeds in the brain.

Further research may help researchers work out how the virus causes these complications. This in turn may help them develop appropriate treatment pathways.

What's the issue?

Psychiatric and neurological symptoms were reported after previous outbreaks of viral illness, including H1N1 swine flu, although they were not common.

Early reports of neurological symptoms associated with COVID-19 came from China and Italy. They led UK neurologists to think that the symptoms could be more common than expected with COVID-19. Alternatively, there could be so many cases of COVID-19 that even rare complications were being seen often. Doctors were reporting symptoms caused by brain inflammation, similar to that in previous infectious diseases, but also strokes and new psychiatric disorders.

The clinical scientists involved in this research wanted to reach beyond neurologists and study a wider group of patients. They set up online portals via professional bodies, to allow doctors to register brief details of UK patients showing these symptoms. This paper reports on the analysis of the first 153 cases reported to portals by April, 2020.

What's new?

Complete data was available for 125 patients with confirmed or probable COVID-19 infection and psychiatric or neurological symptoms. The numbers of reports rose in line with the rise in COVID-19 cases overall. This suggests that these complications arose at the time of the infection, rather than weeks or months later.

Of the 125 cases:

77 (62%) had a stroke (three quarters of whom had ischaemic stroke caused by blood clotting, which may be a feature of COVID-19)

39 (31%) had an altered mental state

6 (5%) had symptoms affecting the peripheral nerves such as numbness, weakness and pain, and three had other neurological symptoms

More than half (23 of 39) patients with altered mental state were diagnosed with a psychiatric disorder such as psychosis, a dementia-like condition, catatonia (unresponsiveness), anxiety or depression. Of the others, 16 had been diagnosed with damage or inflammation to the brain.

Half of the patients with altered mental state were younger than 60. Most of those who had a stroke (82%) were older than 60.

The reports were made via online portals set up by the Association of British Neurologists, British Association of Stroke Physicians and Royal College of Psychiatrists and others. Only brief information was requested so that doctors had time to report while the pandemic was in its early stages.

Cases were identified as confirmed COVID-19 if the patient had tested positive (92%), probable if they had chest scan or x-ray suggesting the disease but no positive test result (4%), and possible if the disease was suspected by the doctor but there was no positive test (4%).

Why is this important?

This first study is small, but it shows that younger people (under 60) may be as likely as older people to show symptoms such as psychosis after infection. This is important as younger people have been thought less likely to have serious complications from COVID-19. It confirms previous reports that strokes are relatively common after COVID-19, especially in older people. It suggests that COVID-19 may be linked to brain inflammation or damage.

If the patients in this study can be fully investigated, scientists may discover more about the causes of these neurological complications. For example, they could be caused by immune response, the virus entering the brain, inflammation in the blood vessels of the brain, or multi-infarcts in the brain (when blood clots stop the blood supply).

Better understanding of the causes could enable doctors to recommend appropriate treatments. Some people may benefit from anticoagulant drugs to prevent blood clots; others may benefit from steroids to reduce inflammation.

What's next?

The authors are gathering and analysing more detailed clinical information about the patients reported in this study, and others reported since (540 are now included). They are seeking funding for a further study to include more clinical investigations such as analysis of spinal fluid, blood and brain imaging.

Author Benedict Michael is co-chairing a World Health Organisation commissioned task force which will consider how to use the information from the ongoing research project in guidance for clinicians.

The task force will consider whether people with new-onset altered mental state or another acute neurological problem should be tested for COVID-19. Some patients with few respiratory signs present with this symptom.

They will consider which tests and investigations people with COVID-19 and neurological symptoms should undergo. Doctors need to be sure COVID-19 is the cause of the symptoms, and to know how patients should be managed.

You may be interested to read

The full paper: Michael B, and others. Neurological and neuropsychiatric complications of COVID-19 in 153 patients: a UK-wide surveillance study. *The Lancet Psychiatry* 2020;7:875-882

A blog from the study authors collating new research on this topic: The Neurology and Neuropsychiatry of COVID-19

<https://evidence.nihr.ac.uk/alert/brain-and-nerve-complications-are-more-common-than-expected-in-younger-patients-with-severe-covid-19/>

China

Novel antiviral strategy for treatment of COVID-19

Source: Top Health News -- ScienceDaily

ID: 1008052143

A research team led by Professor Hongzhe SUN, Norman & Cecilia Yip Professor in Bioinorganic Chemistry, Department of Chemistry, Faculty of Science, and Professor Kwok Yung YUEN, Henry Fok Professor in Infectious Diseases, Department of Microbiology, Li Ka Shing Faculty of Medicine of the University of Hong Kong (HKU), has discovered a novel antiviral strategy for treatment of COVID-19. They discovered that a class of metallodrugs currently used in the treatment of other infectious diseases is showing efficacy to potentially suppress SARS-CoV-2 replication and relieve viral-associated symptoms in an animal model.

The findings provide a new and readily available therapeutic option with high clinical potential for infection with SARS-CoV-2. This ground-breaking work has been published online in a top-class scientific journal *Nature Microbiology*. A related patent has been filed in the US.

Background

SARS-CoV-2 is an emerging coronavirus that has caused over 30 million laboratory-confirmed cases and more than 1 million deaths globally of COVID-19 since December 2019. As the process of developing an effective vaccine is still ongoing, another approach for prevention and treatment of the disease is to identify anti-COVID-19 agents from existing virus-specific antiviral drugs to repurpose their uses to target the new virus. Remdesivir, a broad-spectrum antiviral drug, has been reported to show efficacy towards SARS-CoV-2. However, global shortage of the drug, its relatively high price and lack of significant clinical benefits in severe cases, are factors that have limited its wider applications. Clinical trials on a series of antiviral agents are still ongoing which have yet to demonstrate therapeutic efficacies. Therefore, greater efforts are needed to extend the evaluation to cover a wider spectrum of clinically approved drugs, which hopefully could open the way to alternative treatment strategies against the disease through some readily available channels.

Study method and findings

Generally, metal compounds are used as anti-microbial agents; their antiviral activities have rarely been explored. After screening a series of metallodrugs and related compounds, the research team identified ranitidine bismuth citrate (RBC), a commonly used anti-ulcer drug which contains the metal Bismuth for treatment of *Helicobacter pylori*-associated infection, as a potent anti-SARS-CoV-2 agent, both in vitro and in vivo.

RBC targets the vital non-structural protein 13 (Nsp13), a viral helicase essential for SARS-CoV-2 to replicate, by displacing the crucial zinc(II) ions in the zinc-binding with Bismuth-ions, to potentially suppress the activity of the helicase.

RBC has been demonstrated to greatly reduce viral loads by over 1,000-folds in SARS-CoV-2-infected cells. In particular, in a golden Syrian hamster model, RBC suppresses SARS-CoV-2 replications to reduce viral loads by ~100 folds in both the upper and lower respiratory tracts, and mitigates virus-associated pneumonia. RBC remarkably diminishes the level of prognostic markers and other major pro-inflammatory cytokines and chemokines in severe COVID-19 cases of infected hamsters, compared to the Remdesivir-treated group and control group.

RBC exhibits a low cytotoxicity with a high selectivity index at 975 (the larger the number the safer the drug), as compared to Remdesivir which has a low selectivity index at 129. The finding indicates a wide window between the drug's cytotoxicity and antiviral activity, which allows a great flexibility in adjusting its dosages for treatment.

The team investigated the mechanisms of RBC on SARS-CoV-2 and revealed for the first time the vital Nsp13 helicase as a druggable target by RBC. It irreversibly kicks out the crucial zinc(II) ions in the zinc-binding domain to change it to bismuth-bound via a distinct metal displacement route. RBC and its Bi(III) compounds dysfunctionalised the Nsp13 helicase and potentially inhibited both the ATPase (IC₅₀=0.69 μM) and DNA-unwinding (IC₅₀=0.70 μM) activities of this enzyme.

The research findings highlight viral helicases as a druggable target, and the high clinical potential of bismuth(III) drugs and other metallodrugs for treatment of SARS-CoV-2 infections. Hopefully, following this important breakthrough, more antiviral agents from readily available clinically approved drugs could be identified for potential treatment of COVID-19 infections. They can be in the form of combination regimens (cocktails) with drugs that exhibit anti-SARS-CoV-2 activities including RBC, dexamethasone and interferon-β1b.

<https://www.sciencedaily.com/releases/2020/10/201015101807.htm>

Canada

New pink fentanyl causing overdoses across Ontario, prompting public health warnings

Source: CBC News

Unique ID: [1008049504](#)

And each one of them, as they sell it, wants to make a little more money out of it, so as such, they put some type of cut, as we would call it, into it, whether it be prescription drugs, some type of powder, to be able to make it a greater volume," he said. A new red and pink street drug that causes more overdoses has arrived in Hamilton, prompting warnings from local public health officials. Michelle Baird, director of epidemiology, wellness and communicable disease control with Hamilton Public Health, said there have been 17 EMS calls related to opioid overdoses between Sept.

A new red and pink street drug that causes more overdoses has arrived in Hamilton, prompting warnings from local public health officials.

Michelle Baird, director of epidemiology, wellness and communicable disease control with Hamilton Public Health, said there have been 17 EMS calls related to opioid overdoses between Sept. 28 and Oct. 14, prompting an alert to community agencies.

"We heard this earlier in August as well, that there was potentially a new substance that was being used that had a reddish hue, if you will," she said.

"We are being told anecdotally by individuals who use it, or through agencies, [that] it requires more naloxone than usual to respond to an overdose associated with this product, which is the main part of the lethality."

Fentanyl is an opioid far more toxic than most.

Pink fentanyl found in Ontario cities

Ontario Provincial Police made an arrest in Simcoe at the end of June where they found pink fentanyl. A drug with the same description also appeared in Thunder Bay and Niagara in August.

Some of the nicknames for the drug include pink, pinky, pink down or pink dizzy.

Det. Insp. John Fennell with Thunder Bay police previously told CBC News they also warned the city about the drug.

"It's unregulated, so the dealers don't care what you're putting into your system, they only care about making money ... And each one of them, as they sell it, wants to make a little more money out of it, so as such, they put some type of cut, as we would call it, into it, whether it be prescription drugs, some type of powder, to be able to make it a greater volume," he said.

"We know that vulnerable people are not going to just stop taking drugs because we put out an alert ... Our hope is to make sure that if they are going to do it, to at least take some sort of precaution."

In Hamilton, paramedics responded to 410 incidents related to suspected opioid overdoses from Jan. 1 to Oct. 4. Of those, 153 have come since July. Baird said from July to September, public health saw a higher number of overdoses compared to the same period last year.

"This has sort of been a building trend for us and a concerning trend," she said.

Even before the summer, Hamilton worried about a new potent street drug — a mix of fentanyl and benzodiazepines.

Dr. Kerry Beal, lead physician of the Shelter Health Network in Hamilton, said it's a deadly combination because while someone is overdosing, "they're still having difficulty breathing no matter how much naloxone you give them because the benzos are suppressing respiration."

Don't use pink fentanyl alone

The COVID-19 pandemic has also exasperated the issue.

"A lot of the agencies or supports that normally would be working with people who use drugs might not be operating to their full scope. There are fewer drop-in locations," Baird said.

"People are more isolated at home. We all are."

With a clear risk attached to the drug, Baird says it is important never use the drug alone.

She also offered other advice, including:

If using the drug, ensure you have naloxone present.

If using the drug, start with a small amount to test the effect.

If someone is overdosing, use naloxone and call 911.

<https://www.cbc.ca/news/canada/hamilton/pink-fentanyl-ontario-new-drug-overdose-1.5761775?cmp=rss>

Canada

Food Recall Warning - Raschera DOP (cheese) recalled due to Salmonella

Source: HPE Public Health (@HPEPublicHealth)

ID: 1008051245

Ottawa, October 14, 2020 - Taste for Luxury is recalling Raschera DOP (cheese) from the marketplace due to possible Salmonella contamination. Consumers should not consume the recalled products described below.

The following products have been sold in Ontario and Quebec as indicated in the table below.

Recalled products

- Distributed in Ontario and Quebec
- None – sold by Eataly
- Sold from September 29, 2020 to October 9, 2020 inclusively
- Sold at Eataly, 55 Bloor Street West, Toronto, Ontario
- Yannick Fromagerie
- Sold from September 27, 2020 to October 5, 2020 inclusively
- Distributed in Quebec

What you should do

If you think you became sick from consuming a recalled product, call your doctor.

Check to see if you have the recalled products in your home. Recalled products should be thrown out or returned to the store where they were purchased.

Food contaminated with Salmonella may not look or smell spoiled but can still make you sick. Young children, pregnant women, the elderly and people with weakened immune systems may contract serious and sometimes deadly infections. Healthy people may experience short-term symptoms such as fever, headache, vomiting, nausea, abdominal cramps and diarrhea. Long-term complications may include severe arthritis.

https://www.inspection.gc.ca/food-recall-warnings-and-allergy-alerts/2020-10-14/eng/1602716853194/1602716859333?utm_source=r_listserv

Canada

Outbreak of Salmonella infections linked to peaches from the U.S. declared over

Source: lavalnews.ca

ID: 1008052136

The Public Health Agency of Canada said on Thursday that an investigation it opened recently into an outbreak of salmonella infections linked to peaches imported from the United States has been closed.

According to the PHAC, the investigation findings identified exposure to peaches from Prima Wawona from the United States as a likely source of the outbreak.

The Canadian Food Inspection Agency (CFIA) issued a consumer advisory for peaches recalled by Prima Wawona, sold from June 1, 2020 to August 22, 2020 in Canada.

These peaches included yellow, white and organic peaches and were sold under various brand names:

- Extrafresh
- Harvest Sweet
- Prima
- Sweet 2 Eat
- Sweet O
- Sweet Value
- Wawona
- Wegmans

The PHAC says it collaborated with federal and provincial public health partners, the United States Centers for Disease Control and Prevention (U.S. CDC), and the U.S. Food and Drug Administration to investigate the outbreak that occurred in two provinces. “Given that Salmonella illness reporting linked to this outbreak has significantly decreased over the last four weeks, the outbreak appears to be over and the investigation has been closed,” the PHAC said in a statement.

Investigation summary

In total, there were 57 confirmed cases of Salmonella Enteritidis illness linked to this outbreak in two provinces: Ontario (41) and Quebec (16).

Individuals became sick between June and August 2020. Twelve individuals were hospitalized. No deaths were reported. Individuals who became ill were between 0 and 91 years of age. The majority of cases (60%) were female.

The Canadian Food Inspection Agency (CFIA) issued a related consumer advisory for peaches recalled by Prima Wawona. More information on products recalled by Prima Wawona from the United States is available on CFIA’s website.

The U.S. CDC also investigated an outbreak of Salmonella Enteritidis illnesses with a similar genetic fingerprint to illnesses reported in this outbreak.

Symptoms

Symptoms of a Salmonella infection, called salmonellosis, typically start 6 to 72 hours after exposure to Salmonella bacteria from an infected animal, person or contaminated product.

Symptoms include:

- fever
- chills
- diarrhea
- abdominal cramps
- headache
- nausea
- vomiting

The symptoms usually last for 4 to 7 days. In healthy people, salmonellosis often clears up without treatment, but sometimes antibiotics may be required. In some cases, severe illness may occur and hospitalization may be required. People who are infected with Salmonella bacteria can be infectious from several days to several weeks. People who experience symptoms, or who have underlying medical conditions, should contact their health care provider if they suspect they have a Salmonella infection. Canadians are advised not to eat any recalled products or any foods containing recalled products.

Peaches grown in Canada were not associated with this outbreak.

<https://www.lavalnews.ca/outbreak-of-salmonella-infections-linked-to-peaches-from-the-u-s-declared-over/>

International Events of Interest

IHR Announcement

Polio myelitis (Circulating vaccine-derived poliovirus and Wild Poliovirus) – Global update

Announcement Displayed From : Friday, October 16, 2020 - 12:52

16 October 2020

Between 1 January and 14 October 2020, there have been several countries affected by poliomyelitis including circulating vaccine-derived poliomyelitis type 1 and 2 (cVDPV1 and cVDPV2) and wild poliovirus type 1 (WPV1) globally. This announcement is a weekly update on the status of cVDPV and WPV1 in these affected countries.

Between 8 and 14 October 2020, there have been four WPV1 in Acute Flaccid Paralysis (AFP) cases and four WPV1 positive environmental samples reported in Afghanistan and Pakistan. During the same period, there have been 23 cVDPV2 in AFP cases reported in Burkina Faso, Côte d'Ivoire, Guinea, Mali and Niger, and 21 cVDPV2 positive environmental samples reported in Afghanistan and Pakistan. Below is the description of the reported cases by country:

- Afghanistan: one WPV1 in AFP case, one WPV1 positive environmental sample and 11 cVDPV2 positive environmental samples
- Pakistan: three WPV1 in AFP cases, three WPV1 positive environmental samples and 10 cVDPV2 positive environmental samples
- Burkina Faso: one cVDPV2 in AFP case
- Côte d'Ivoire: four cVDPV2 in AFP cases
- Guinea: eleven cVDPV2 in AFP cases
- Mali: four cVDPV2 in AFP cases
- Niger: three cVDPV2 in AFP cases

Please find below the link to the weekly global polio update published by the global polio eradication initiative (GPEI) that includes an update on polio (WPV 1, cVDPV1, and cVDPV2) case count for this week (between 8 and 14 October 2020) and cumulative case count by country since 1 January 2020.

<http://polioeradication.org/polio-today/polio-now/this-week/>

Public Health Response

The Global Polio Eradication Initiative (GPEI) is continuing to support countries in their response implementation, including field, virologic, and epidemiological investigations, strengthening surveillance for acute flaccid paralysis and evaluating the extent of virus circulation. GPEI staff in countries are supporting on adjusting routine immunization and outbreak response to the prevailing COVID-19 situation.

In 2019 and early 2020, the Global Polio Eradication Initiative developed the Strategy for the Response to Type 2 Circulating Vaccine-derived Poliovirus 2020-2021, an addendum to the Polio Endgame Strategy 2019-2023 to more effectively address the evolving cVDPV2 epidemiology, which will drive outbreak response in 2020 and 2021. Necessary adaptations of delivery strategy and timelines are continuously being made.

Accelerating the development of novel oral polio vaccine type 2 (nOPV2) and enabling its use is an important step forward for GPEI. The new vaccine is anticipated to have a substantially lower risk of seeding new type 2 vaccine-derived polioviruses compared to mOPV2.

WHO risk assessment

The continued spread of existing outbreaks due to circulating vaccine-derived poliovirus type 2 as well as the emergence of new type 2 circulating vaccine-derived polioviruses points to gaps in routine immunization coverage as well as the insufficient quality of outbreak response with monovalent oral polio vaccine type 2. The risk of further spread of such strains, or the emergence of new strains, is magnified by an ever-increasing mucosal-immunity gap to type 2 poliovirus on the continent, following the switch from trivalent to bivalent oral polio vaccine in 2016.

The detection of cVDPV2s underscores the importance of maintaining high routine vaccination coverage everywhere to minimize the risk and consequences of any poliovirus circulation. These events also underscore the risk posed by any low-level transmission of the virus. A robust outbreak response is needed to rapidly stop circulation and ensure sufficient vaccination coverage in the affected areas to prevent similar outbreaks in the future. WHO will continue to evaluate the epidemiological situation and outbreak response measures being implemented.

The COVID-19 pandemic is continuing to affect the global polio eradication effort. Given that operationally polio vaccination campaigns are close-contact activities, they are incompatible with the current global guidance on physical distancing regarding the COVID-19 response efforts. As such, the programme has taken a very difficult decision to temporarily delay immunization campaigns. The overriding priority is to ensure the health and safety of health workers as well as communities. All GPEI recommendations are in line with those on essential immunization and are available [here](#).

The programme has implemented a two-pronged approach to minimize the risk of an increase in polio cases, particularly in areas which are affected by the disease and possibly a spread of the virus to other areas.

- i) The programme will continue, to the extent possible, its surveillance activities to monitor the evolution of the situation.
- ii) The programme aims to return to action in full strength including with vaccination campaigns, as rapidly as is safely feasible. The timing will depend on the local situation and the programme will then need to operate in the context of the respective countries national health systems risk assessments and priorities. Comprehensive, context-specific plans to resume efforts are being developed, to be launched whenever and wherever the situation allows.

In many countries, polio assets (e.g., personnel, logistics, operations) are assisting national health systems to respond to the COVID-19 pandemic and help ensure the crisis is dealt with as rapidly and effectively as possible.

WHO advice

It is important that all countries, in particular those with frequent travels and contacts with polio-affected countries and areas, strengthen surveillance for acute flaccid paralysis (AFP) cases in order to rapidly detect any new virus importation and to facilitate a rapid response. Countries, territories and areas should also maintain uniformly high routine immunization coverage at the district level to minimize the consequences of any new virus introduction.

WHO's International Travel and Health recommends that all travellers to polio-affected areas be fully vaccinated against polio. Residents (and visitors for more than 4 weeks) from infected areas should receive an additional dose of OPV or inactivated polio vaccine (IPV) within 4 weeks to 12 months of travel.

As per the advice of an Emergency Committee convened under the International Health Regulations (2005), efforts to limit the international spread of poliovirus remains a Public Health Emergency of International Concern (PHEIC). Countries affected by poliovirus transmission are subject to Temporary Recommendations. To comply with the Temporary Recommendations issued under the PHEIC, any country infected by poliovirus should declare the outbreak as a national public health emergency and consider vaccination of all international travelers.

Sudan

Activists: 'Rift Valley Fever epidemic' in Sudan's Northern State

Source: Radio Dabanga

Unique ID: [1008050388](#)

Summary He indicated that, after two weeks from now, field surveys for the disease will be made, and after three months, field vaccination for the disease will be considered in accordance with the plan and guidelines of the World Organisation for Animal Health. The United Resistance Coordination of Merowe in the Northern State announced that the number of deaths from Rift Valley Fever* has risen to 79, while the number of recorded cases has reached 1,962, including three cases of nervous system complications. On Wednesday, the Northern State Ministry of Health briefed the state government, headed by Governor Amal Ezzeldin on the overall health conditions and the official and popular efforts made to confront fevers in the localities of Merowe and Ed Debba.

The United Resistance Coordination of Merowe in the Northern State announced that the number of deaths from Rift Valley Fever* has risen to 79, while the number of recorded cases has reached 1,962, including three cases of nervous system complications. 4,578 miscarriages and deaths have been recorded among livestock.

The Coordination calls on the Sudanese Ministry of Health and the Ministry of Animal Resources to declare an epidemic of Rift Valley Fever and to open the door for international and voluntary organisations to intervene and assist.

In a statement on Wednesday, the Merowe activists expressed their regret about “the Ministry of Health’s concealment of the Rift Valley Fever epidemic despite taking samples since September 19.”

They warned the Northern State government against being lax in dealing with the disease so that it would not spread to other areas.

They further called on people from Merowe and others from Northern State living in Khartoum to join the protest vigil in front of the Ministry of Health in Khartoum today.

On Wednesday, the Northern State Ministry of Health briefed the state government, headed by Governor Amal Ezzeldin on the overall health conditions and the official and popular efforts made to confront fevers in the localities of Merowe and Ed Debba.

According to the Ministry, the total cases of fevers in Merowe and Ed Debba in the Northern State reached 1,493, including 63 deaths.

Doctor Abuzir Idris, Director General of the Ministry of Health in the Northern State, confirmed in a press conference held on Wednesday in Dongola that “the health situation in the state has stabilised”.

He indicated that, after two weeks from now, field surveys for the disease will be made, and after three months, field vaccination for the disease will be considered in accordance with the plan and guidelines of the World Organisation for Animal Health.

In the past, ‘fevers accompanied by bleeding’ turned out to be chikungunya, a mosquito-borne fever that can cause death. Two years ago, dozens of people died in Kassala as a result of chikungunya infections. Last week, 41 cases of chikungunya were reported in West Darfur.

*Rift Valley Fever – Key facts:

Rift Valley fever (RVF) is a viral zoonosis that primarily affects animals but can also infect humans.

The majority of human infections result from contact with the blood or organs of infected animals.

Human infections have also resulted from the bites of infected mosquitoes.

To date, no human-to-human transmission of RVF virus has been documented.

The incubation period (the interval from infection to onset of symptoms) for RVF varies from 2 to 6 days.

Outbreaks of RVF in animals can be prevented by a sustained programme of animal vaccination.

Radio Dabanga’s editorial independence means that we can continue to provide factual updates about political developments to Sudanese and international actors, educate people about how to avoid outbreaks of infectious diseases, and provide a window to the world for those in all corners of Sudan.

Support Radio Dabanga for as little as €2.50, the equivalent of a cup of coffee.

<https://www.dabangasudan.org/en/all-news/article/activists-rift-valley-fever-epidemic-in-sudan-s-northern-stare>

St Vincent & the Grenadines and St Lucia

Residents warned of next emerging pandemic

Source: Antigua Observer Newspaper

Unique ID: [1008049571](#)

With hundreds of recorded dengue cases and several deaths already recorded in neighbouring St Vincent & the Grenadines and St Lucia, Sharon Martin, the Chief Health Inspector at the Central Board of Health

(CBH) has sounded the alarm that “dengue is fast emerging as a pandemic around the Caribbean countries”. The chief health inspector is asking adults, in particular, to be more responsible by implementing measures like covering water containers so that they will not be accessible to mosquitoes. The CMO supported Martin who made an impassioned plea to householders to work with the CBH to stop the breeding of the *Aedes Egypti* mosquito which carries the dengue virus.

With hundreds of recorded dengue cases and several deaths already recorded in neighbouring St Vincent & the Grenadines and St Lucia, Sharon Martin, the Chief Health Inspector at the Central Board of Health (CBH) has sounded the alarm that “dengue is fast emerging as a pandemic around the Caribbean countries”.

According to the country’s Chief Medical Officer (CMO), Dr Rhonda Sealey-Thomas, Type 3 dengue is circulating in Antigua and Barbuda. Already, two people have contracted the mosquito-borne viral infection that causes a severe flu-like illness.

“There are different strains of dengue and the type that we have seen circulating so far in Antigua and Barbuda is Type 3”, she said, while declaring that, “dengue is a serious disease”.

The CMO supported Martin who made an impassioned plea to householders to work with the CBH to stop the breeding of the *Aedes Egypti* mosquito which carries the dengue virus.

The chief health inspector is asking adults, in particular, to be more responsible by implementing measures like covering water containers so that they will not be accessible to mosquitoes.

Martin explained that it takes only two to three days for an adult mosquito to emerge and mate before they find a blood meal.

“Who do they get the blood meal from? Us the householders. So we need to know our role and play our part. Assist us,” she appealed.

She is also advocating for persons to use kerosene or cooking oil to kill the larvae, commonly known as wrigglers.

“Once you see wrigglers, that’s a sign of mosquitoes in the making and we all know wrigglers. You tap the side of the drum, they will wiggle to the bottom but they have to come back up to breathe. They get oxygen from the air that dissolves on the surface of the water,” Martin said.

Her advice is to pour the oil in the water, which will then form a film on the surface. That film, she said, will block the absorbed oxygen on the water’s surface and in turn deprive the larvae of oxygen. Residents are also being asked to check the vases where they keep flower and dish racks to ensure that they do not retain water that will allow mosquitoes to breed.

“Make water inaccessible to mosquitoes and we wouldn’t have the preponderance of mosquitoes once we can fight them.

“I’ve never seen mosquitoes attending classes in school, college or university [but] we do, so how come we’re allowing them to win the battle over us?” she questioned

Martin said residents need to stop depending on fogging alone to get rid of the mosquitoes, because the insects are learning to adapt and survive even with the fogging.

Her stern warning is not to allow mosquitoes to get to water.

Meanwhile, the CMO is advising residents to avoid getting beaten and to know the signs of dengue.

Dengue can cause joint pain, muscle pain but can escalate to severe additional symptoms like vomiting and bleeding, which can lead to shock and even death.

<https://antiguaobserver.com/residents-warned-of-next-emerging-pandemic/>

Researches, Policies and Guidelines

ECDC

External quality assessment (EQA) of performance of laboratories participating in the European Antimicrobial Resistance Surveillance Network (EARS-Net), 2019

Source: ECDC

This report provides an analysis of the external quality assessment (EQA) for the antimicrobial susceptibility testing (AST) performance of laboratories participating in the European Antimicrobial Resistance Surveillance Network (EARS-Net) in 2019. A total of 952 laboratories (1–95 per country) from 30 EU/EEA countries participated in the EQA exercise.

<https://www.ecdc.europa.eu/en/publications-data/antibiotic-resistance-external-quality-assessment-laboratories-earsnet>

Germany

German researchers report *C difficile* pacemaker infection

Source: CIDRAP

ID: 1008052618

In a case study yesterday in *Open Forum Infectious Diseases*, German researchers reported what they say is the first documented case of a pacemaker infection caused by *C difficile*, a pathogen typically associated with intestinal infections.

The case involved a 75-year-old man who underwent pacemaker implantation at a hospital in Munich following an acute ischemic stroke and treatment for aspiration pneumonia. No specific antibiotic prophylaxis was used for the procedure because the patient was still on antibiotics (piperacillin/tazobactam) for pneumonia. The patient was discharged to a rehabilitation facility 4 days after the procedure, then readmitted to the hospital 7 days later with fever and a reddened pacemaker incision site.

Blood cultures and swab samples from the pacemaker, the leads connected to the device, and the pocket where the leads were implanted all came back positive for *C difficile*, as did stool samples tested to detect intestinal colonization. One toxigenic strain, RT014, was found in both the stool and the blood samples, but the patient showed no signs of gastrointestinal problems or diarrhea. Antibiotic treatment was switched to intravenous (IV) vancomycin and oral metronidazole, with oral antibiotic therapy switched to vancomycin after 3 days. After 42 days of IV and oral vancomycin, the pacemaker was reimplanted.

Although the route of infection is unclear, the authors of the study suggest the *C difficile* bacteria could have been on the patient's skin or in the hospital environment. Given the high numbers of asymptomatic *C difficile* carriers and the growing use of implantable cardiac devices, they say they're surprised there haven't been more reports of extra-intestinal *C difficile* infections.

"With rising numbers of implanted cardiac electronic devices and the high incidence of *C. difficile* infections and colonisations, bloodstream and device infections with *C. difficile* might be a potentially growing issue," they wrote. "Recommendations for management of extra-intestinal *C. difficile* infection risk and treatment are needed."

C difficile is the leading cause of hospital-acquired diarrhea in the United States and Europe
<https://www.cidrap.umn.edu/news-perspective/2020/10/stewardship-resistance-scan-oct-15-2020>

South Korea

Overprescribing Antibiotics for Toddlers Can Cause Child Obesity

Source: Be Korea-savvy

Unique ID: [1008049627](#)

Toddlers who were prescribed more than five kinds of antibiotics, for instance, are 42 percent more likely to suffer from child obesity than those who have been prescribed a single kind. The team showed that child obesity is more likely if toddlers under 24 months old are prescribed more varieties of antibiotics at an earlier age for an extended period of time. A research team from Seoul National University Hospital conducted a study of 31,733 toddlers who received periodic health checks between 2008 and 2012 to arrive at their conclusion.

SEOUL, Oct. 15 (Korea Bizwire) — a recent study has revealed that prescribing excessive amounts of antibiotics to toddlers can cause not only resistant bacteria, but also child obesity.

A research team from Seoul National University Hospital conducted a study of 31,733 toddlers who received periodic health checks between 2008 and 2012 to arrive at their conclusion.

Child obesity can lead to high blood pressure, diabetes, hyperlipidemia, and metabolic syndrome in later years.

The team showed that child obesity is more likely if toddlers under 24 months old are prescribed more varieties of antibiotics at an earlier age for an extended period of time. Toddlers who were prescribed more than five kinds of antibiotics, for instance, are 42 percent more likely to suffer from child obesity than those who have been prescribed a single kind. Toddlers on antibiotics for more than 180 days were 40 percent more likely to suffer from child obesity than those using antibiotics for less than 30 days. It was also important to consider when antibiotics were first used on the toddler. Toddlers who were prescribed antibiotics less than six months after birth were 33 percent more likely to suffer from child obesity than those receiving antibiotics prescriptions between 18 and 24 months after birth. The research team pointed to the gut microbiome as a primary factor, arguing that excessive doses of antibiotics hurt microorganisms in the gut. In other words, using antibiotics to get rid of bad bacteria is instead killing off good ones as well. Lina Jang (linajang@koreabizwire.com) <http://koreabizwire.com/overprescribing-antibiotics-for-toddlers-can-cause-child-obesity/171951>