

GPHIN Daily Report for 2020-10-01

Special section on Coronavirus

Canada

Areas in Canada with cases of COVID-19 as of 30 September 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	158,758	14,490	9,297
Newfoundland and Labrador	274	2	3
Prince Edward Island	59	2	0
Nova Scotia	1,088	1	65
New Brunswick	200	6	2
Quebec	74,288	5,890	5,834
Ontario	51,710	4,955	2,848
Manitoba	1,993	599	20
Saskatchewan	1,913	139	24
Alberta	18,062	1,582	267
British Columbia	9,138	1,313	234
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

Statement from the Chief Public Health Officer of Canada on September 30, 2020

From: [Public Health Agency of Canada](#)

Statement

On September 30, 2020, Dr. Theresa Tam, Canada's Chief Public Health Officer, issued the following statement on COVID-19.

September 30, 2020 | Ottawa, ON | Public Health Agency of Canada

In lieu of an in-person update to the media, Dr. Theresa Tam, Canada's Chief Public Health Officer, issued the following statement today:

"There have been 156,961 cases of COVID-19 in Canada, including 9,291 deaths. Labs across Canada tested an average of 71,000 people daily over the past week with 1.7% testing positive. An average of 1,471 cases have been reported daily across Canada during the most recent seven days.

As we know, the health impacts of the pandemic are far-reaching and go beyond those with COVID-19. Most public health authorities across Canada are reporting significant increases in opioid-related harm, including deaths. For example, from March to July, British Columbia reported 754 deaths from overdose, the highest number ever recorded. Sadly, many other jurisdictions have also reported record numbers of opioid-related harms. Across the country, local health authorities are working with communities to reverse this trend.

During the month of September, cities, organizations and people across Canada mark Recovery Days. Through virtual events, communities showed their support for people in recovery from substance use disorder.

Keeping case numbers at manageable levels is crucial to supporting Canadians both struggling with and in recovery from substance use disorder. While distancing, keeping in-person contact bubbles small and other public health measures are effective ways to reduce the spread of COVID-19, they can also increase feelings of isolation and create barriers for people who want and need access to recovery services.

That is why it is more important than ever to take care of ourselves. If you are struggling with substance use issues or other mental health concerns, there is help. You can find a full range of resources through the [Wellness Together Canada](#) mental health and substance use support portal. You can also access the portal through Canada.ca/coronavirus and the Canada COVID-19 App.

Substance use disorder is not a choice; it is a treatable medical condition with many pathways to recovery and wellness. It is always important that those in recovery be met with the compassion, understanding and support they need. If you know someone who is in recovery, reach out and remind them that they are not alone.

To get through the pandemic, we all need to recommit to supporting each other as we adhere to individual protective measures, including practising physical distancing and good hand hygiene; wearing [non-medical masks as recommended](#); limiting in-person contacts as much as possible to a small, consistent and trusted contacts bubble; and following the golden rule of staying home and isolating from others if experiencing any [symptoms](#), even mild ones.

Let's all do our part to help each other."

[APG]

<https://www.canada.ca/en/public-health/news/2020/09/statement-from-the-chief-public-health-officer-of-canada-on-september-30-2020.html>

Canada

Canada extends ban on international travelers

ID: 1007947924

Source: japantoday.com

Canada on Wednesday extended a ban on non-essential international entries until the end of October as the country was gripped by a surge in coronavirus cases.

The extension comes amid a second wave of infections caused in part by the return to school or work of millions of Canadians after summer breaks.

"We are extending the existing restrictions on non-U.S. international travel into Canada until October 31, 2020," Public Safety Minister Bill Blair said in a Twitter post.

The restriction, which has been in force since mid-March, makes an exception for spouses, children, parents or guardians of Canadian citizens or permanent residents.

The U.S. has a separate relationship with Canada under which non-essential travelers aren't allowed into Canada but essential workers can get across the border. That arrangement expires on October 21.

<https://japantoday.com/category/world/canada-extends-ban-on-international-travelers>

Canada

COVID-19 cases rising in Indigenous communities

Source: National Post

GPHIN ID: 1007944585

OTTAWA — Indigenous Services Minister Marc Miller says Indigenous communities have been facing an alarming rise in COVID-19 cases during the last few weeks.

Miller says 673 COVID-19 cases have been reported in First Nations communities in all, and about 130 of them are active cases now.

He says Indigenous communities were successful in facing the first wave of COVID-19 with measures that limited the spread of the virus.

The measures included closing communities to outsiders, imposing local restrictions on gatherings and making sure that people were observing basic health and hygiene protocols.

Reopening schools and businesses and places where physical distancing is not possible are all factors in the rise.

Perry Bellegarde, the national chief of the Assembly of First Nations, says First Nations communities are among the most vulnerable populations in Canada and need more assistance to keep them safe.

"First Nations face unique realities that require unique approaches," Bellegarde said. "Those living in poverty or in rural areas need more support and resources, including social and health supports for families."

Dr. Evan Adams, the deputy chief medical officer of health at Indigenous Services Canada, said the biggest concern is ensuring that the more than 650 Indigenous communities are ready for potential COVID-19 outbreaks.

<https://nationalpost.com/pmnn/news-pmn/canada-news-pmn/covid-19-cases-rising-in-indigenous-communities>

Canada

COVID-19 has left B.C. nurses emotionally exhausted, anxious and depressed: Survey

Source: Vancouver Sun

GPHIN ID: [1007940933](https://www.gphn.ca/record/1007940933)

COVID-19 has left B.C. nurses emotionally exhausted, anxious and depressed: Survey

For Farinaz Havaei, head researcher of the survey and an assistant professor at the UBC nursing school, the key concern is that the worsening emotional health of nurses could impact their ability to provide effective patient care.

"If I'm not at 100 per cent, if I'm feeling down and not focused, if I'm constantly worried, am I able to think critically and care for my patients at the best of my ability?" Havaei said. "The implication here is beyond the nursing workforce. It certainly includes the nursing workforce, but it's also about the ... health and safety of the general public that requires nursing care and services."

The survey found 41 per cent of nurses are depressed, an increase of 10 per cent from the results from a year before. And nearly as many, 38 per cent, experienced anxiety — also up 10 per cent from the year before. A 10-per-cent spike represents an additional 5,000 nurses, given that the workforce is about 50,000 strong, Havaei said.

Emotional exhaustion has also crept up since last year, with 60 per cent of those surveyed reporting feeling it. That was up from 56 per cent in 2019.

About 86 per cent of nurses say they're extremely concerned about bringing COVID-19 home, and 80 per cent think they'll contract it on the job.

Meanwhile, about half of nurses don't believe their personal protective equipment is high quality, and two-in-five believe there isn't enough access to it to perform their work safely.

"A large majority of nurses in the province are direct-care providers — they're in direct one-to-one contact with patients," Havaei said. "When I see these numbers, (I think), What does that do to nurses' decisions to stay at work? We already know there's a shortage of nurses in the province."

More than half of the nurses surveyed reported inadequate staffing, and one-quarter said they had been told to work despite possible or confirmed exposure to COVID-19.

About 41 per cent of nurses said they believed there had been poor transparency around organizational pandemic decisions and 27 per cent said they had experienced changes to COVID-19-related protocols on a daily, or more frequent, basis.

<https://vancouversun.com/news/local-news/covid-19-has-left-nurses-emotionally-exhausted-anxious-and-depressed-survey>

Canada

Northwestern Ontario in 'different situation than southern Ontario,' says NWHU medical officer of health

Source: CBC | Thunder Bay News

GPHIN ID: [1007944792](#)

As the number of new COVID-19 cases continues to surge across Ontario, the head of the Northwestern Health Unit believes this part of the province is in a different situation than southern Ontario.

Ontario reported its highest single day total of new cases on Monday, along with another more than 550 confirmed COVID-19 cases on Tuesday.

But Northwestern Health Unit medical officer of health Dr. Kit Young Hoon said the spike in other parts of the province hasn't been experienced in the Kenora and Rainy River districts.

"I think the epidemiology is quite different from southern Ontario," Young Hoon said during the health unit's weekly media briefing on Tuesday.

"We've got a small number of cases, we're not seeing community transmission and there's no outbreaks in any specific settings. It is a different situation from southern Ontario."

There have been two new COVID-19 cases in the health unit's catchment area in the past week, Young Hoon said. One of those is in the health unit's Dryden and Red Lake region, which Young Hoon said was linked to travel. The other case is in the health unit's Rainy River area, which Young Hoon said has no

known exposure at this point.

Young Hoon recommended against any non-essential travel outside of northern Ontario, and cautioned people who do travel to avoid public transit or situations where it's difficult to physically distance. She said people who do travel should monitor themselves for symptoms for 14 days upon their return.

With Thanksgiving approaching, Young Hoon said she is not recommending against people travelling within northern Ontario. But public health guidelines should continue to be followed, she said.

"Often when people are travelling to meet family members it may be challenging to physically distance," Young Hoon said. "But you need to recognize you have a relatively small social bubble which includes your household or a maximum of 10 people and that social bubble should not change."

The first positive COVID-19 case in a northwestern Ontario school was at the Golden Learning Centre in the Red Lake area earlier this month, after one student tested positive.

Young Hoon said contact tracing has been completed and there haven't been any further cases.

"That's really good news and it does indicate that a school setting can be a safe place as long as everyone tries to follow public health measures," Young Hoon said.

<https://www.cbc.ca/news/canada/thunder-bay/northwestern-health-unit-covid-1.5743723?cmp=rss>

Canada

Prime Minister co-chairs high-level meeting to address economic devastation caused by COVID-19 and announces new funding to fight the pandemic

Source: pm.gc.ca

Unique ID: [1007945862](https://pm.gc.ca)

Ottawa, Ontario

Summary Ottawa, Ontario Today, the Prime Ministers Justin Trudeau of Canada and Andrew Holness of Jamaica, and United Nations Secretary-General António Guterres convened the second High-Level event on Financing for Development in the Era of COVID-19 and Beyond. Heads of state, governments, and international organizations met to discuss how to bolster and urgently accelerate our global response to the immediate significant...

Today, the Prime Ministers Justin Trudeau of Canada and Andrew Holness of Jamaica, and United Nations Secretary-General António Guterres convened the second High-Level event on Financing for Development in the Era of COVID-19 and Beyond.

Heads of state, governments, and international organizations met to discuss how to bolster and urgently accelerate our global response to the immediate significant economic and human impacts of COVID-19, and advance concrete solutions to international development over the medium and long-term.

During the meeting, Prime Minister Trudeau announced an additional \$400 million in international development funding this year. This new funding will go to trusted partners on the ground fighting COVID-19, and will enable Canada to support the recovery and resilience of developing countries. It will also address short-term humanitarian and development needs caused by the pandemic and other crises. The ultimate objective is to ensure that the development gains made over the past decade are not lost, and ensure that 2030 Agenda and the achievement of the Sustainable Development Goals (SDGs) are not at risk. Canada will make sure that women and girls, who have been disproportionately impacted by the consequences of COVID-19, benefit from this new funding.

The pandemic has caused immense social and economic distress throughout the globe but it has acutely affected low- and middle- income countries. Through the High-Level event, the global community is coming together to enable recovery and build a future that is inclusive, sustainable and resilient.

The Government of Canada continues to further global leadership on financing for international development and is investing more while supporting developing countries on their economic recoveries and resilience. The Government of Canada recently committed \$220 million through the COVAX Advance Market Commitment to purchase vaccine doses for low- and middle-income countries, because we cannot beat this virus unless we end it everywhere.

Quote

"Global cooperation is crucial to protect people, save lives and defeat COVID-19. Our investments will also help preserve the hard-won development gains we have made collectively that have lifted millions of people out of poverty these past decades."

Quick Facts

The meeting was a follow-up to the first High-Level event held on May 28, in which participants were

asked to develop proposals to overcome challenges in six areas of action, including:

The need to expand liquidity in the global economy and maintain financial stability to safeguard development gains.

The need to address debt vulnerabilities for all developing countries to save lives and livelihoods for billions of people around the world.

The need to create a space in which private sector creditors can proactively engage in effective and timely solutions.

Prerequisites for enhancing external finance and remittances for inclusive growth and creating jobs.

Measures to expand fiscal space and foster domestic resource mobilization by preventing illicit financial flows.

Ensuring a sustainable and inclusive recovery by aligning recovery policies with the Sustainable Development Goals.

The proposals considered at the High-Level event will inform discussions and mobilize additional action at high-level meetings such as the World Bank and International Monetary Fund annual meetings and the G20 Leaders' Summit, taking place later in 2020.

More than 60 Heads of State and Government participated in the virtual event, which took place on the margins of the 75th session of the UN General Assembly.

The High-Level event follows the September 8 convening of Finance Ministers, during which close to 40 Ministers and Vice-Ministers of Finance from around the world met to discuss a menu of policy options to identify people-centered solutions to the global economic fallout from COVID-19.

<https://pm.gc.ca/en/news/news-releases/2020/09/29/prime-minister-co-chairs-high-level-meeting-address-economic>

Canada

World leaders to focus on key actions to assist countries battered by the financial crisis caused by COVID-19

Source: pm.gc.ca

Unique ID: [1007945861](#)

Summary Ottawa, Ontario Leaders from governments and international organizations will consider specific actions to help countries and people address the devastating financial and socioeconomic impacts caused by COVID-19 at a virtual high-level meeting on 29 September. Convened by United Nations Secretary-General António Guterres, together with the Prime Minister of Canada, Justin Trudeau, and the Prime Minister of Jamaica...

Ottawa, Ontario

Leaders from governments and international organizations will consider specific actions to help countries and people address the devastating financial and socioeconomic impacts caused by COVID-19 at a virtual high-level meeting on 29 September.

Convened by United Nations Secretary-General António Guterres, together with the Prime Minister of Canada, Justin Trudeau, and the Prime Minister of Jamaica, Andrew Holness, the High-Level Meeting of Heads of State and Government will reflect the work done over the last five months by finance ministries, the UN and other international organisations and some of the world's leading economists to find the policy options and solutions that can advance comprehensive multilateral response to the devastating social and economic impacts of COVID-19.

Of the US\$11 trillion that has been spent globally to respond to the financial impacts of the pandemic so far, 88% has been disbursed by high-income countries, compared to only 2.5% by emerging and developing economies.

The COVID-19 pandemic, which has claimed almost one million lives and resulted in more than 32 million confirmed cases, has gone beyond a health and humanitarian crisis to also become an unprecedented global development emergency. The pandemic is expected to drive close to 100 million to extreme poverty, the first such increase since 1998. An estimated additional 265 million people could face acute food shortages by the end of 2020. By the end of this year, 12 000 people could die from COVID-19 related hunger. The International Labour Organization estimates the equivalent of 500 million jobs have been lost so far this year. This has widened economic inequalities, disproportionately impacting developing countries and vulnerable groups.

Even for developing countries that have not been directly affected by the virus, the COVID-19 pandemic has exacerbated the financial distress as export, tourism and remittance receipts have all dried up,

threatening their ability to service existing debt payments.

The Secretary-General said the Meeting on Financing for Development in the Era of COVID-19 and Beyond will bring world leaders together to find solutions to the financial crisis. Developed countries have provided enormous relief for their own societies, the Secretary-General told countries at the opening of the UN General Assembly. “They can afford it. But we need to ensure that the developing world does not fall into financial ruin, escalating poverty and debt crises. We need a collective commitment to avoid a downward spiral.”

“We have come together, the largest gathering of world leaders in the context of COVID-19, to inspire a global response to the pandemic and maintain momentum towards the 2030 Agenda for Sustainable Development and the SDGs,” said Prime Minister Justin Trudeau. “At this moment, we have the opportunity to reimagine our economic systems, reaffirm our common understanding of a more sustainable and inclusive recovery and re-establish momentum toward achieving the SDGs to build back better. Only together can we lay the foundations of a better world.”

Meanwhile, Prime Minister of Jamaica, the Most Honourable Andrew Holness, said societies of the world must come together in a deliberate way to drive the rebuilding efforts so that collectively we will rebound stronger from the far-reaching impacts of the global COVID-19 pandemic. He said, “We are at a critical point where now, more than ever, global cooperation and collaboration are essential to recovery. Our approach must therefore be purposeful and strategic. Excellent work has been done so far. We must be prepared to build on this foundation by taking bold, well-reasoned actions that will ensure the broadest positive impact at global and national levels, with people always at the center. Clear achievable objectives, timelines and systems must be defined if we are to achieve truly resilient, inclusive and sustainable recovery.”

Meeting the challenges

Following the High-Level Meeting on 28 May, six Discussion Groups were created to produce a menu of policy recommendations and solutions to help countries survive the crisis in the short-term and recover better in the long-term by laying the groundwork for a resilient, inclusive, and sustainable future.

Discussion Groups focused on producing actionable policies related to external finance, jobs, remittances, and inclusive growth; recovering better for sustainability; global liquidity and financial stability; debt vulnerability; private sector creditors engagement; and illicit financial flows. During the meeting, highlights from these options selected by the Discussion Groups will be presented to Heads of State and Government.

This process has highlighted a number of possible avenues for high-impact actions that leaders can take. These include:

Ensuring equitable access to the COVID-19 vaccine—mobilize the resources to fund the COVAX Initiative to accelerate the development and manufacture of COVID-19 vaccines and guarantee fair and equitable access for all countries around the world.

Ensuring that countries have access to sufficient liquidity—support a new US\$650 billion general allocation of Special Drawing Rights and a US\$100 billion voluntary redistribution of Special Drawing Rights to developing and vulnerable countries, including Middle-Income Countries.

Providing more time for distressed countries to make bilateral debt payments—by extending and expanding the Debt Service Suspension Initiative (DSSI). In addition, address the debt overhang, especially in Middle-Income Countries and Small Island Developing States, directly by having all bilateral creditors, as well as private creditors, agree to a common framework for resolving debt solvency issues as quickly as possible. It is only through such a commonly agreed framework that countries facing debt solvency issues will be helped through this crisis, and through which every creditor will be asked to play their respective part in solving the looming debt crisis.

Strengthening support from international financial institutions—encourage multilateral development banks to proactively support developing economies by ensuring net new financing flows compared to 2019, in a timely manner and where possible on concessional terms consistent with their countercyclical role.

Enhancing focused funding to alleviate COVID-19 either by supporting existing funds and facilities and/or by creating new funds to provide sustainable concessional finance and investments to developing countries.

Investing in jobs for all—immediately in gender-sensitive, equitable and sustainable jobs by supporting the ILO’s 100% decent work initiative and strengthening social protection systems and mechanisms.

Lowering costs of remittances—continue to support the reduction of transaction costs of remittances.

Clamping down on illicit financial flows—take immediate action to support domestic resource mobilisation

by tackling enablers and vested interests that benefit from them, preventing profit-shifting by multinationals, and bolstering the availability, transparency and exchange of data on beneficial ownership. Including climate risk disclosures—continue to support the Task Force on Climate-related Financial Disclosures' (TCFD) climate disclosure standards and encourage their adoption.

Aligning national and local budgets with the SDGs and the Paris Agreement to bridge short-term emergency response measures with longer-term objectives of recovering better for sustainability.

Following opening remarks by the United Nations Secretary-General and the Prime Ministers of Canada and Jamaica, we will hear from remaining speakers in the opening segment, including the Deputy Secretary-General who will highlight the work of the six Discussion Groups and outcomes of the Ministerial meeting. Heads of State and Government and High-Level speakers from international financial institutions and partners will intervene. The meeting will conclude with closing remarks from the co-conveners.

Webcast: <http://webtv.un.org/>

Associated Link

Event website: <https://www.un.org/en/coronavirus/financing-development>

<https://pm.gc.ca/en/news/news-releases/2020/09/29/world-leaders-focus-key-actions-assist-countries-battered-financial>

Canada

Canada's public health agency seeking help distributing COVID vaccines

Source: iPolitics

Unique ID: [1007945274](#)

The Public Health Agency of Canada is looking for help distributing vaccines against COVID-19 across the country, once they're approved.

The agency is leading the national response to the pandemic, and is responsible for providing Health Canada, the department it falls under, information about vaccines and immunization. It's up to Health Canada to then assess whether vaccines are safe and to approve them. Ultimately, the responsibility of circulating vaccines belongs to the provincial and territorial health authorities. Individual health providers, including family physicians, are typically those who provide immunizations.

In the case of COVID-19, the federal health agency is planning to coordinate and facilitate a distribution and monitoring plan in collaboration with Health Canada, its provincial partners, and the World Health Organization.

"PHAC (Public Health Agency of Canada) has an interest in ensuring that vaccines secured by the federal government in response to COVID-19 are managed and monitored to achieve the highest level of transparency in the equitable distribution and access, including post-marketing assessment of effectiveness and safety," reads a recently published request-for-information tender on the federal government's procurement website.

The tender describes some of PHAC's early plans.

The health agency is looking for companies that specialize in biological, pharmaceutical or diagnostic product-supply chains to advise it on how to ship and distribute COVID-19 vaccines across the country.

READ MORE: Public health agency plans to convince Canadians to get COVID-19 vaccine

PHAC says "Canada may require dedicated third-party logistics supplier(s) to import, warehouse and distribute COVID-19 vaccines across Canada."

The agency says it's specifically interested in companies with experience moving products in climate-controlled conditions, including products that are refrigerated, frozen or "ultra-frozen," meaning temperatures as low as 80 degrees below zero.

"Distribution may include remote regions of Canada, inclusive of air and/or land transport options," the tender reads. "Distribution may also require ancillary clinic supplies (e.g. needles, gauze) to accompany vaccine distribution."

PHAC also plans to use existing supply chains, wherever possible, to distribute the vaccines.

According to PHAC's publicly available response plan to COVID-19, the agency is expecting guidance from the National Advisory Committee on Immunization on what groups to target for early vaccinations this fall.

To prepare for an eventual vaccination campaign, the federal government has also been stocking up on supplies like needles and syringes.

In its pandemic response plan, PHAC says “Canadians need to be aware that the vaccine will not be offered to all Canadians at the same time,” in part because shipments of vaccines might need to be staggered.

READ MORE: Canada signs deal with AstraZeneca for 20M doses of COVID vaccine candidate
The Canadian government has now reached deals with six companies that are in the process of testing their vaccine candidates. Canada has also contributed \$220 million to the COVID-19 Vaccine Global Access Facility, which is led in part by the World Health Organization to ensure equitable global access to eventual vaccines.

In total, Canada has secured access to roughly 300 million doses of potential COVID-19 vaccines. Canada’s chief public health officer, Dr. Theresa Tam, has maintained that a vaccine approved in Canada will be tested “extensively among thousands of volunteers.”

“It will meet high standards of safety and efficacy before it is approved for use in Canada,” Tam said in a statement earlier this month.

<https://ipolitics.ca/2020/09/29/canadas-public-health-agency-seeking-help-distributing-covid-vaccines/>

Canada

Health Canada approves rapid coronavirus test after feds put 7.9M on order

ID: 1007947374

Source: globalnews.ca

September 30, 2020 4:19 pm

Health Canada has approved a rapid novel coronavirus test that can detect the respiratory illness in as few as 13 minutes.

The news comes one day after the federal government announced it had signed a deal securing up to 7.9 million Abbott ID Now COVID-19 rapid tests once they were approved by Canadian health officials.

When the tests will be in the hands of health professionals — and how they will be distributed — is not yet known.

Public Services and Procurement Minister Anita Anand said on Tuesday the swab-based tests were “point of care” tests that can then be run outside of major laboratories to provide faster results at clinics or hospitals.

STORY CONTINUES BELOW ADVERTISEMENT

Ontario Premier Doug Ford welcomed the news Tuesday of the procurement efforts by federal officials, calling the deal “a game changer.”

“There’s no one that’s been jumping up and down screaming for the rapid tests more than I have,” Ford said during a press conference Tuesday.

Ontario coronavirus cases have spiked in recent weeks, a worrisome trend also seen in Quebec and western provinces.

Conservative MP Michelle Rempel Garner grilled Liberals on rapid testing delays on Tuesday.

“People around the world have access to at-home testing or rapid testing and nobody in Canada does,” she said.

Deputy Prime Minister Chrystia Freeland said last week political intervention to pressure the government into rushing rapid tests could have “dangerous consequences,” adding Canada would be “ready to pounce” once the tests had earned approval.

Meanwhile, health officials said they were in the process of reviewing antigen tests for the country.

“We have a number of them under review at the moment — it is our priority,” Supriya Sharma, senior medical advisor for Health Canada, said at a media briefing Tuesday.

“For some of them we are, I think, very close to having a final decision.”

Abbott began distributing the test in the U.S. this week and said in a statement Friday it would begin ramping up manufacturing to 50,000 tests per day.

This is the fourth rapid test approved by Health Canada. Earlier Tuesday, the federal government also approved the Hyris bCUBE-based test kit, which can provide results in 90 minutes.

“It can provide human COVID-19 test results at the same level as a hospital laboratory, without the requirement for a lab, also reducing the time needed for diagnosis,” Hyris said in a release.

<https://globalnews.ca/news/7369046/health-canada-approves-rapid-coronavirus-test/>

Canada

Ontario Puts \$2 Billion To Fortify Healthcare for Future Waves

ID: 1007947302

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

September 30, 2020

TORONTO — “For months, our government has been developing one of the most robust and comprehensive COVID-19 fall preparedness plans in the entire country,” said Premier Ford. “We are making an unprecedented investment of over \$2 billion to fortify the frontlines of our health care system and ensure we are prepared for future waves of this virus, while ensuring patients and long-term care residents continue to receive the absolute best care from our top-notch health care professionals and their loved ones.”

“Ontario is seeing a doubling of the number of cases every ten days,” says the Premier.

“Over the past week, we have unveiled key pillars of our fall preparedness plan which sets out specific investments and actions to protect the health and well-being of Ontarians,” said Minister Elliott. “As the number of cases continue to increase, we cannot afford to let our guard down. It remains critically important for everyone to continue to follow public health advice and measures as we implement this plan. Everyday actions like physical distancing, wearing a face covering and staying home when you are ill will help us protect each other and the most vulnerable as we continue our fight to stop this virus.”

The Ontario government has developed a \$2.8 billion COVID-19 fall preparedness plan to ensure the province’s health care, long-term care and education systems are prepared for the immediate challenges of the fall, including a second wave of COVID-19 and the upcoming flu season. Keeping Ontarians Safe: Preparing for Future Waves of COVID-19 will enable the province to quickly identify, prevent and respond to surges and waves of the virus to protect the health and safety of all Ontarians.

The full plan was delivered today by Premier Doug Ford, Christine Elliott, Deputy Premier and Minister of Health, and Dr. David Williams, Chief Medical Officer of Health.

“With today’s release of the updated modelling, it shows that we need to be ready for all possibilities,” said Dr. Williams. “By implementing this plan and reminding everybody to continue following public health advice and measures, we will be prepared to respond to any scenario.”

The Keeping Ontarians Safe plan focuses on six key areas to rapidly identify and respond to COVID-19

outbreaks and surges, build health system capacity, and reinforce the province's health care workforce. These areas are:

Maintaining strong public health measures, including continued expansion of testing and case and contact management:

Ontario is investing \$1.376 billion to enhance and expand efforts to test, trace and isolate new cases of COVID-19. As part of this funding, \$1.07 billion will expand laboratory capacity, reduce testing backlogs, support existing assessment centres, and add more testing locations and capacity. The province is working with Ontario Health, local public health units and hospitals to expand testing locations based on local needs, while also offering more convenient and less invasive testing options and increasing testing capacity. Up to 80 pharmacies in Ontario are currently offering free COVID-19 testing by appointment only. The province has also added over 1,700 staff to assist with case and contact management.

Implementing the largest flu immunization campaign in Ontario's history:

Ontario is investing nearly \$70 million to purchase and distribute flu vaccines to deliver a robust and expanded campaign this year. In addition, Ontario is investing \$26.5 million to purchase and administer additional flu vaccine doses if required and \$2 million to purchase additional antiviral medication to support outbreak management of influenza in institutions. Flu vaccinations help reduce emergency department visits and wait times during flu season and help to preserve hospital capacity for any surges in COVID-19 patients. Ontario is prioritizing early distribution of the flu vaccine for vulnerable populations in long-term care homes, hospitals and retirement homes. In addition, the province is making it easier for seniors to receive high-dose flu vaccines by making them available at participating pharmacies, as well as primary care providers and public health units. The flu shot will be available in the coming weeks at primary care provider offices and public health units for anyone over the age of six months, and at participating pharmacies for anyone five years of age or older.

Quickly identifying, managing and preventing COVID-19 outbreaks:

Ontario is investing \$30 million to build on its efforts to rapidly identify and contain any COVID-19 outbreaks. Under the leadership of Dr. Dirk Huyer, Coordinator of the Provincial Outbreak Response, the province is working to prevent, minimize and manage outbreaks in a number of sectors, including education, child care, agriculture and health care. Ontario has also developed a COVID-19 surveillance strategy to monitor the virus and detect cases and outbreaks quickly.

Accelerating efforts to reduce health service backlogs:

Ontario is investing \$283.7 million to assist the health system's ongoing efforts to reduce surgery backlogs by supporting extend hours for additional priority surgeries and diagnostic imaging. The government is also adding 139 critical care beds and 1,349 hospital beds in hospitals and alternate health facilities across the province to support more surgical procedures. This investment is in line with the guidance framework released in May 2020, A Measured Approach to Planning for Surgeries and Procedures During the COVID-19 Pandemic. These efforts will support a resilient system that can safely continue to provide services during potential future outbreaks and surges.

Preparing for surges in COVID-19 cases:

Ontario is investing \$457.49 million to ensure that the health system is prepared to respond to any waves or surges of COVID-19 without interrupting routine health services. This includes helping up to 850 alternate levels of care patients access the proper care in a home or community setting to help add more capacity in hospitals; expanding digital health and virtual services; improving access to mental health and

addictions services and supports with a \$26.75 million investment; and increasing home and community care service by adding 484,000 nursing and therapy visits and 1.4 million personal support worker hours.

Recruiting, retaining, training and supporting health care workers, while also continuing to engage families and caregivers:

Ontario is investing a total of \$52.5 million to recruit, retain and support over 3,700 more frontline health care workers and caregivers to ensure the health care system can meet any surge in demand, while continuing to provide safe and high-quality care to patients and long-term care residents. This includes \$18 million for Ontario's Nursing Graduate Guarantee program, which provides full-time salary and benefits for over 600 nurses; up to \$8 million to add over 800 nurses to the health system in areas of need across the province; and \$10.3 million into the new Personal Support Worker Return of Service Program, to recruit and retain 2,000 recently graduated personal support workers (PSW) to work in long-term care homes and in the home and community care sectors.

Supporting Long-Term Care Homes:

To support the six key areas of focus of Ontario's COVID-19 fall preparedness plan, the province also released COVID-19: Long-term care preparedness, a plan that includes nearly \$540 million in long-term care investments to prepare long-term care homes for future waves of COVID-19. Ontario's investments in long-term care will help homes enhance infection prevention and control, support adequate staffing, manage operating costs related to COVID-19, and help people on the long-term care waitlist stay in their own homes longer through an innovative community paramedicine program in development.

This funding includes \$405 million to help homes with operating pressures related to COVID-19; \$61.4 million for minor capital repairs and renovations in homes to improve infection prevention and control; \$40 million to support homes that have been impacted by the changes in occupancy numbers due to COVID-19; \$30 million to allow long-term care homes to hire more infection prevention and control staffing; and \$2.8 million to extend the High Wage Transition Fund.

"We are working in partnership across government and doing everything we can to protect Ontarians from COVID-19," said Dr. Merrilee Fullerton, Minister of Long-Term Care. "We have made tremendous progress to fortify our long-term care homes, so they have the physical and human resources they need to ensure the safety and well-being of all residents and staff."

Supporting Schools and Child Care Centres:

Earlier this month, Ontario released a \$1.3 billion plan to reopen schools safely and provided \$234.6 million through the federal Safe Restart Agreement for child care and early years settings, which complements existing provincial and federal investments to help keep children and families safe.

For schools, this includes funding to hire more teachers to keep class sizes small, funding to hire additional nurses to facilitate public health and preventative measures, including screening, testing, tracing and mitigation strategies, and funding to hire 1,300 custodians to enhance cleaning in schools and buses. The government is also continuing to ensure personal protective equipment is delivered to all schools, and masks continue to be sent to all Ontario child care centres to ensure they can operate safely.

Ontario has also developed a COVID-19 surveillance strategy to monitor the virus and detect cases and outbreaks quickly in schools. This includes launching a voluntary, simple and fast online COVID-19 School Screening Tool for families, school staff and essential visitors, and providing daily public reporting of cases at schools and child care centres. To provide rapid-response support to schools and boards, and

facilitate public health measures, the province is investing \$62.5 million to hire 625 public health nurses to monitor for COVID-19 outbreaks in schools.

“Our comprehensive plan prepares us for every possible scenario and adds new layers of protection as we follow the guidance of leading health experts to ensure our schools and child care settings are safe,” said Stephen Lecce, Minister of Education. “We are making unprecedented investments to support health and safety measures including hiring more staff, purchasing more cleaning supplies, improving ventilation, and expanding access to technology and mental health supports.”

<http://www.netnewsledger.com/2020/09/30/ontario-puts-2-billion-to-fortify-healthcare-for-future-waves/>

Canada

New mobile COVID-19 testing site opens today

ID: 1007947301

Source: winnipeg.citynews.ca

POSTED SEP 30, 2020 1:44 PM CDT

WINNIPEG – Winnipeggers can now be tested for the coronavirus at a new mobile testing site on Portage Avenue.

The testing site, which opened Wednesday, will be open from 8 a.m. to 4 p.m. seven days a week and will live on Portage Ave. near Wall Street for the time being.

The province says the new site will allow for additional testing capacity while drive-thru sites are set up across the city.

Once the drive-thrus are operational, the province will use public health information to determine where the mobile site will be sent.

In the event of an outbreak in smaller Manitoba communities, the mobile site can be deployed to help accommodate a spike in cases.

Three drive-thru sites will be set up in Winnipeg as well as ones in Brandon, Winkler, Portage, and Dauphin.

<https://winnipeg.citynews.ca/2020/09/30/new-mobile-covid-19-testing-site-opens-today/>

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

United States

BULLETIN—NIAID Stops Enrollment of Severely Ill COVID-19 Participants in Clinical Trial of Investigational Treatments

Source: NIH: National Institute of Allergy and Infectious Diseases

Unique ID: [1007945769](https://www.cdc.gov/media/releases/2020/s0930-covid-19-clinical-trial.html)

ACTT-3 Study Will Continue for Hospitalized Participants with Less Severe Illness The Adaptive COVID-19 Treatment Trial 3 (ACTT-3), sponsored by the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health, will no longer enroll hospitalized participants with severe COVID-19 requiring high-flow oxygen, and will not begin to enroll patients requiring non-invasive or...

ACTT-3 Study Will Continue for Hospitalized Participants with Less Severe Illness

The Adaptive COVID-19 Treatment Trial 3 (ACTT-3), sponsored by the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health, will no longer enroll hospitalized participants with severe COVID-19 requiring high-flow oxygen, and will not begin to enroll patients requiring non-invasive or invasive mechanical ventilation. This action is being taken after an interim review of safety data by the study's Data and Safety Monitoring Board (DSMB) found an imbalance of serious adverse events among patients on high-flow oxygen/non-invasive mechanical ventilation who received interferon beta-1a versus those who did not receive interferon beta-1a. The DSMB noted no safety concerns among study participants with less severe COVID-19. Therefore, the study will continue to enroll hospitalized patients on low-flow oxygen and those not requiring supplemental oxygen. The DSMB will continue monitoring the trial to ensure participant well-being and safety, as well as study integrity.

ACTT-3, which began August 5, is the third iteration of a randomized, controlled adaptive trial, designed to test therapeutics for people who are hospitalized with COVID-19. The study was designed to evaluate the safety and efficacy of a combination of remdesivir, an investigational broad-spectrum antiviral developed by Gilead Sciences, Inc. (Foster City, California), and subcutaneous interferon beta-1a, a drug approved for multiple sclerosis manufactured by Merck KGaA, Darmstadt, Germany. Prior data from laboratory studies, observational studies, as well as two small randomized controlled trials, suggested that interferon beta-1a may benefit patients with COVID-19. However, before ACTT-3, this combination of remdesivir and interferon beta-1a had not yet been tested in a large, randomized controlled clinical trial. ACTT-3 study investigators will enroll approximately 1,000 hospitalized adults with COVID-19 in up to 100 hospitals across the United States and internationally. Upon enrollment into the study, participants are randomized to receive remdesivir and either a subcutaneous injection of interferon beta-1a or a placebo injection. Researchers are evaluating whether participants' time to recovery is shorter in the combination therapy group relative to the remdesivir-only group. At the time of the September 4 DSMB interim review of the ACTT-3 data, 266 participants were enrolled in the study.

<https://www.niaid.nih.gov/news-events/bulletin-niaid-stops-enrollment-severely-ill-covid-19-participants-clinical-trial>

United States

Cruise Ship No Sail Order Extended Through October 31, 2020

Media Statement

For Immediate Release: Wednesday, September 30, 2020

Contact: Media Relations

(404) 639-3286

The Centers for Disease Control and Prevention (CDC) announced today the extension of a [No Sail Order](#) for cruise ships through October 31, 2020. This order continues to suspend passenger operations on cruise ships with the capacity to carry at least 250 passengers in waters subject to U.S. jurisdiction. Cumulative surveillance data reported to CDC from March 1 through September 29, 2020, shows at least 3,689 COVID-19 or COVID-like illness cases on cruise ships in U.S. waters, in addition to at least 41 reported deaths. We recognize these numbers are likely incomplete and an underestimate.

Recent outbreaks on cruise ships overseas provide current evidence that cruise ship travel continues to transmit and amplify the spread of SARS-CoV-2, the virus that causes COVID-19,—even when ships sail at reduced passenger capacities—and would likely spread the infection into U.S. communities if passenger operations were to resume prematurely in the United States.

The challenges described in the No Sail Order highlight the need for further action before cruise ships can safely resume passenger operations in the United States. Recent passenger voyages in foreign countries continue to have outbreaks, despite cruise ship operators having extensive health and safety protocols to prevent the transmission of SARS-CoV-2 on board and spread to communities where passengers disembark. When health and safety protocols were apparently observed, resuming passenger operations significantly burdened public health authorities by creating the need for additional SARS-CoV-2 testing, isolation of infected travelers, contact tracing, and quarantine of exposed people. The continued spread of the COVID-19 pandemic worldwide, risk of resurgence in countries that have suppressed transmission, ongoing concerns related to restarting of cruising internationally, and need for additional time to assess industry measures to control potential SARS-CoV-2 transmission on board

cruise ships with passengers without burdening public health, support continuation of the No Sail Order at this time.

On cruise ships, passengers and crew share spaces that are more crowded than most urban settings. Data show that when only essential crew are on board, ongoing spread of SARS-CoV-2 still occurs. If unrestricted cruise ship passenger operations were permitted to resume, passengers and crew on board would be at increased risk of SARS-CoV-2 infection and those that work or travel on cruise ships would place substantial unnecessary risk on healthcare workers, port personnel and federal partners (i.e., Customs and Border Protection and the U.S. Coast Guard), and the communities they return to. This Order will remain in effect until the earliest of:

1. The expiration of the Secretary of Health and Human Services' declaration that COVID-19 constitutes a public health emergency,
2. The CDC Director rescinds or modifies the order based on specific public health or other considerations, or
3. October 31, 2020.

CDC will continue to update its guidance and recommendations to specify basic safety standards and public health interventions based on the best scientific evidence available. For more information about COVID-19 and cruise ships, please visit www.cdc.gov/coronavirus/2019-ncov/travelers/cruise-ship/what-cdc-is-doing.html. To view the No Sail Order, go to www.cdc.gov/quarantine/cruise.

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[U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES](#)[external icon](#)

CDC works 24/7 protecting America's health, safety and security. Whether disease start at home or abroad, are curable or preventable, chronic or acute, or from human activity or deliberate attack, CDC responds to America's most pressing health threats. CDC is headquartered in Atlanta and has experts located throughout the United States and the world.

<https://www.cdc.gov/media/releases/2020/s0930-no-sail-order.html>

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

Iran

Third wave of COVID-19 begins in Tehran

Source: Iran Energy Economy Review

GPHIN ID: 1007944673

A third wave of COVID-19, a disease caused by the novel coronavirus, has begun on the territory of the Tehran province in Iran, Alireza Zali, head of Iran's national anti-coronavirus task force, informed.

"Statistical data over the past days shows that a third wave has begun in Tehran," ISNA news agency quotes him as saying. Zali added that very little time had passed between the second and third waves of the coronavirus.

"We have sent a letter to the health minister on behalf of the anti-coronavirus task force in Tehran with the request to reinstate the restrictions related to the virus. This especially includes a return to working from home," he said.

In recent days, Iran has documented a new rise in coronavirus cases. On August 31, the daily COVID-19 cases in Iran reached their lowest point at 1,642. However, the amount of cases begun to increase again in September, surpassing 3,000 twice in the past three days.

On July 15, Iran officially declared the second wave of COVID-19.

United Kingdom

Swansea superspreader blamed for entire Covid outbreak after infecting 32 at uni house party

Source: The Sun

GPHIN ID: 1007944933

A CORONAVIRUS superspreader has been blamed for an entire university's outbreak after 32 new infections were linked to a house party in Swansea.

All of the uni's cases have been traced back to a gathering attended by just one infected person, it has been revealed.

△□ Read our coronavirus live blog for the latest news & updates

Now students have been warned they'll be kicked off their courses if they're caught flouting Covid-19 rules.

The university's registrar Andrew Rhodes told Wales Online: "What we have seen on coronavirus is that almost all of the cases stem from before the main arrival of the students.

"Cases are stemming from the same party.

"One infected person who came from outside the area caused the transmission of the virus.

"In terms of all those who had positive test results, there were 32 - all of those students were from a particular party."

However, all of those newly-infected with the virus are in private accommodation, with no cases on the campus, he said.

"The vast majority are connected to the same event on September 12 when there was a cluster of parties," Mr Rhodes added.

"There are some students who have enjoyed themselves more than they should have done - but the vast majority have been brilliant."

Swansea University has a 23,000-strong student population.

Of that number, 15,000 students are in private accommodation.

Staying in Wales, a major coronavirus outbreak has erupted at a hospital in Rhondda Cynon Taf with cases doubling in a week to 82.

And I'm A Celebrity - due to start filming at Gwrych Castle in Conwy in the next few weeks - is now under threat after being hit by new lockdown rules.

More than 500,000 people in North Wales have been put in local lockdown with most of the country now banned from visiting family and friends.

Meanwhile, across the country, thousands of students are imprisoned in halls.

More than 500 cases have been reported across 30 sites, forcing students to be isolated in areas rife with the virus.

Manchester's Metropolitan University has been particularly badly hit, with 1,700 students trapped after 127 infections.

In Glasgow, angry students self-isolating inside halls at Murano Street Student Village put messages in their windows.

And this week, hundreds of students were filmed gathering at a late-night party in Coventry.

At least 200 students were videoed climbing on top of ping pong tables and raving at Arundel House, close to Coventry University's main campus.

The University and College Union called the situation "the latest catastrophe in a week where wholly predicted Covid outbreaks have caused havoc on campuses across the UK".

General secretary Jo Grady said: "We warned of the problems with moving thousands of students across the country.

"The time has come for urgent action to protect staff and students."

Driving home for Christmas?

Downing Street has vowed to get students home for the festive break.

Health Secretary Matt Hancock had warned youngsters could be forced to stay on campus as virtual prisoners for Christmas.

But the PM's official spokesman has now promised anxious mums and dads he would not wreck their Christmas plans.

He said: "We would expect all students to be able to go home at Christmas."

But he dodged growing calls for youngsters to get some of their £9,000-a-year tuition fees refunded amid the chaos.

He said: "Universities are autonomous and they set their own fees.

"What we would expect is that they continue to deliver a high quality curriculum to their students."

Mr Rhodes said: "When you think of Manchester Met and Glasgow, that's not our current experience at all.

"Our students are not locked in their rooms, they are free to move around.

"All our facilities are still open, our libraries are open, people are in halls and are free to move around the campus."

Manchester Met University students on Christmas fears as they're forced to isolate in their accommodation after coronavirus outbreak

<https://www.thesun.co.uk/news/12806440/swansea-superspreader-uni-outbreak-32-party/>

WHO - PAHO

Health Ministers commit to maintain, expand sustained actions to fight COVID-19 pandemic - PAHO/WHO

Source: Pan American Health Organization

Unique ID: [1007945008](#)

Summary The Americas will most likely experience recurring epidemic waves and outbreaks of COVID-19, interspersed with periods of low-level transmission over the next 24 months, pending a safe vaccine Washington, D.C., 30 September 2020 (PAHO/WHO) – Health ministers from countries in the Americas yesterday committed to maintain and expand sustained actions to fight the COVID-19 pandemic, and asked the Pan American Health...

The Americas will most likely experience recurring epidemic waves and outbreaks of COVID-19, interspersed with periods of low-level transmission over the next 24 months, pending a safe vaccine Washington, D.C., 30 September 2020 (PAHO/WHO) – Health ministers from countries in the Americas yesterday committed to maintain and expand sustained actions to fight the COVID-19 pandemic, and asked the Pan American Health Organization (PAHO) to continue supporting them in their fight to control it.

PAHO "assumes that the Region will experience recurring epidemic waves and outbreaks interspersed with periods of low-level transmission over the next 24 months, pending development of a safe, efficacious, and equitably accessible COVID-19 vaccine and achievement of appropriate population coverage," said a report presented to the 58th Directing Council.

In a resolution passed during a virtual session, the countries requested that PAHO Director Carissa F. Etienne "continue providing evidence-based technical cooperation to Member States, promote innovation and sharing of experiences, to resume and maintain uninterrupted operations and interventions of the health system in all relevant aspects necessary for responding to the COVID-19 pandemic."

The ministers specifically highlighted PAHO's Revolving Fund for Access to Vaccines, and its Regional Revolving Fund for Strategic Public Health Supplies for "improving equitable access to, and appropriate use of, affordable, safe, efficacious and quality vaccines, therapeutics, diagnostics, biomedical equipment, and personal protective equipment that can improve health outcomes and reduce the impact of the pandemic."

They also asked PAHO to maintain the regional network for the surveillance of influenza and other respiratory viruses, to expand these through the creation of a Regional Genomic Surveillance Network, and to support countries in engaging with global initiatives, such as the Access to COVID-19 Tools Accelerator, for vaccines, diagnostics and therapeutics, as well as other initiatives for the development and access to essential health technologies for COVID-19.

In addition, the countries urged that all comply with the provisions of the International Health Regulations (IHR), in particular those related to the timely submission of information.

During the virtual session, PAHO provided an update on the COVID-19 pandemic and the organization's response and presented a report with suggestions "on how to strengthen and support responsive and adaptive health systems in the face of risks from this pandemic so that the health and well-being of societies, as well as social and economic development in the Region, can be sustained."

Dr. Jarbas Barbosa, PAHO's Assistant Director, highlighted the impact that the pandemic has had on essential health services, including immunization, with a 24 percent reduction in the number of MMR vaccinations applied. Negative impacts on mental health were also reported by many countries, along with disruptions to services for noncommunicable diseases, although countries have increased telemedicine services to help overcome these disruptions, he said.

Countries must learn from the pandemic by ensuring access to health services, strengthening information systems and advancing the digital transformation in health, to improve social protection systems, and to reduce dependence on imported products, which caused shortages of medical supplies, Barbosa added.

Dr. Ciro Ugarte, who heads PAHO's Health Emergencies program, said transmission of COVID-19 in the

Region of the Americas continues to be very active but there have been improvements in response, including a 99% increase in Intensive Care beds in eight key countries. The deployment of 15 Emergency Medical Teams and creation of 184 alternative medical sites also helped reduce burdens on health systems, Ugarte said.

Key challenges ahead include improving surveillance, rapid response, and expanding capacity for case investigations, along with limited numbers of tests available for national laboratories and limited supplies of personal protective equipment. Dr. Ugarte also underscored the need to have enough staff to maintain essential health services while ensuring safe and decent working conditions, with good infection prevention and control.

Overall, measures like lockdowns and restrictions have worked to flatten the epidemic curve and delay its peak, but “people are getting a false sense of security and we are in danger of losing the advantages we have gained,” Ugarte said. Adjusting restrictive measures is a challenge for countries, requiring leadership and collaboration along with good epidemic intelligence, he said. Ugarte also emphasized that reopening ports to tourism and commerce will be challenging and the health sector has limited input in these decisions, which can affect the course of the pandemic.

An update provided separately by PAHO on the COVID-19 pandemic noted that there were now more than 16.4 million cases reported in the Americas, with more than 550,000 deaths.

The Directing Council of the Pan American Health Organization (PAHO) brings together ministers of health and high-level delegates from PAHO/WHO member countries to discuss and analyze regional health policies, and to set priorities for technical cooperation and cross-country

<https://www.paho.org/en/news/30-9-2020-health-ministers-commit-maintain-expand-sustained-actions-fight-covid-19-pandemic>

PAHO

People over 60 have been hardest hit by COVID-19 in the Americas

30 Sep 2020

PAHO calls on countries to adapt health systems to better meet the needs of older adults

Washington D.C., September 30, 2020 (PAHO) – Health systems in the Americas are not adequately responding to the needs of older adults and must be adapted in light of the COVID-19 pandemic, say experts at the Pan American Health Organization (PAHO). For the International Day of Older Persons on October 1, the organization is calling for comprehensive, person-centered, integrated care and primary health services that are responsive to older people’s needs.

How each individual older person might be affected by COVID-19, or any other disease, depends on their overall physical and mental health, so care and treatment should always take this into consideration.

While everyone is at risk of contracting COVID-19, older persons are far more likely to experience severe disease following infection, with those over 80 years old dying at five times the average rate. A United Nations Report “The Impact of COVID-19 on Older Persons” suggests that this may be due to underlying conditions, which affect 66% of those aged 70 and over.

This is also the case in the Americas, where most COVID deaths occur in those aged 70 and over, followed by people between the ages of 60-69 years.

While older persons receiving long term care have been hardest hit, accounting for 40-80% of COVID-19 deaths worldwide, in the Americas where the care of older adults is more likely to take place in the home, physical distancing is a particular challenge.

“The COVID-19 pandemic has really emphasized the needs and vulnerabilities that older persons have when it comes to their right to health,” said Carissa F. Etienne, PAHO/WHO Director. “Too often, we are

not hearing their voices and perspectives when it comes to their care. Older people have the same right to care as anyone else. No lives are more valuable than others.”

Healthy aging is about developing and maintaining functional abilities that enable well-being in old age.

Even before the COVID-19 pandemic, up to 50% of older populations in some low- and middle-income countries lacked access to some essential health services - an issue that the pandemic has only exacerbated.

But guaranteeing that older adults have access to essential health services isn't enough, noted Enrique Vega, head of the Healthy Life Course Unit at PAHO. Services must also be adapted to the specific needs of older people.

"How each individual older person might be affected by COVID-19, or any other disease, depends on their overall physical and mental health, so care and treatment should always take this into consideration," he added.

The Decade of Healthy Aging

The year 2020 marks the start of the Decade of Healthy Aging, which highlights the need for governments, civil society, international agencies, the media and others to work together to improve the lives of older people, their families and their communities, and to tackle ageism and stigma. .

"Healthy aging is about developing and maintaining functional abilities that enable well-being in old age," said Vega. "COVID-19 has exposed not only the fragility of older adults, but also that of the systems and settings that support them."

By numbers

- It is estimated that by 2050, the number of people over 60 years of age globally and in the Region of the Americas will double. In 2025, persons aged 60 and older will account for 18.6% of the total population of the Region.
- Latin America and the Caribbean is the second fastest growing region in terms of numbers of people over the age of 60, behind Africa. However, increased life expectancy does not translate to quality of life.
- Brazil reported that 76% of COVID-19 related deaths during February to September 2020 were in adults aged 60 years and older.
- In Peru, people over the age of 70 years had the highest COVID-19 mortality rates during March-May 2020
- Estimates from Canada show that more than 80% of COVID-19 deaths have occurred in long-term-care facilities.

<https://www.paho.org/en/news/30-9-2020-people-over-60-have-been-hardest-hit-covid-19-americas>

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

United States

Early results promising for RNA COVID vaccine in older adults

ID: 1007947296

Source: CIDRAP

Sep 30, 2020

Researchers studying Moderna's SARS-CoV-2 mRNA-1273 vaccine report that its safety profile and immune response in older people is comparable to that in the younger population they tested earlier, according to phase 1 trial results published yesterday in the New England Journal of Medicine (NEJM).

The messenger RNA vaccine is one of only a few COVID-19 vaccines being studied specifically in older patients, despite their vulnerability during the pandemic.

While the original study pool for the mRNA-1273 vaccine was for adults ages 18 to 55, the researchers expanded the study to include adults ages 56 to 70 and 71 and older, with 20 participants in each age-group. The vaccine is designed to trigger a protective immune response by introducing RNA from the SARS-CoV-2 spike protein (S-2P) into the body.

Higher dosage tied to stronger response

Half (10) of the participants in each age-group received two 25-microgram (μg) doses of the candidate vaccine 27 days apart, and half (10) received two 100- μg doses.

Day 57 results for those who received 25- μg doses showed an anti-S-2P geometric mean titer (GMT) of 323,945 for those 56 to 70 years of age and a GMT of 1,128,391 for those 71 years or older. For those who received 100- μg doses, the GMT was 1,183,066 and 3,638,522, respectively.

All of these were above the GMT of the study's donated convalescent serum, which was 138,901. The vaccine also seemed to evoke a strong CD4 cytokine response with type 1 helper T cells.

Adverse effects were generally mild or moderate and most commonly included fatigue, chills, headache, myalgia and pain at the injection site. All but two instance of moderate systemic adverse effects happened after the second injection, and the researchers reported only two cases of severe systemic effects, also after the second injection. One was fever in the 56-to-70-year-old 25- μg dose subgroup, and the other was fatigue in the 71-and-older 100- μg subgroup.

The authors, from a number of universities across the United States, write, "Important limitations of this study include the small numbers of participants and the limited ethnic diversity. In addition, at the time of this interim report, the long-term durability of immunogenicity could not be assessed, although the magnitude of antibody, cellular, and memory responses will be followed for 12 months after the second vaccination."

The study was partially funded by the National Institutes of Health.

Last month Pfizer published phase 1 data involving adults aged 65 to 85 for its candidate COVID vaccine, and last week Johnson & Johnson posted data on phase 1/2a trials that included 15 people 65 and older. As opposed to findings in the NEJM study, those data were not published in a peer-reviewed journal.

More age-inclusive studies needed

While this is one of the few studies that has focused on older populations, a preliminary literature review of COVID treatment and vaccine trials suggests that more are needed.

In a study published this week in JAMA Internal Medicine, US researchers not involved in the NEJM study surveyed the 847 trials listed on [clinicaltrials.gov](https://www.clinicaltrials.gov) and concluded that older adults at high risk have been excluded from more than 50% of COVID-19 clinic trials and 100% of vaccine trials thus far.

The authors looked at direct age cut-offs in study populations—which affected 195 (23%) of the trials—and indirect exclusions that could have a greater impact on older adults, the most cited being compliance and consent concerns, affecting 213 (25%) of the trials. Other common exclusions included broad

nonspecified exclusions, specific comorbidities, and technology requirements. (Trials could have more than one exclusion.)

The authors caution that, without more inclusion of older adults, any potential COVID-19 vaccine's effectiveness, use, and adverse effects may not be fully realized or understood.

"Some have argued that only vaccination of younger populations is needed to achieve herd immunity (67% level of immunity), and therefore, vaccination of older adults is not essential," the authors write. "However, the high level of immunity required, coupled with the fact that many settings (eg, nursing homes) are comprised nearly exclusively of older adults, highlights the imperative for their inclusion in COVID-19 vaccine trials."

<https://www.cidrap.umn.edu/news-perspective/2020/09/early-results-promising-rna-covid-vaccine-older-adults>

United States (study)

Experimental infection of domestic dogs and cats with SARS-CoV-2: Pathogenesis, transmission, and response to re-exposure in cats

Source: PNAS

GPHIN ID: 1007941656

Significance

SARS-CoV-2 is an emerging pathogen that has already had catastrophic consequences on the health and well-being of people worldwide. As a zoonotic virus, the implications for animal populations are largely unknown. This manuscript describes a pilot study in which domestic cats and dogs were assessed for their susceptibility to infection. While neither species developed clinical disease in this study, cats shed infectious virus for up to 5 d and infected naive cats via direct contact, while dogs do not appear to shed virus. Cats that were reinfected with SARS-CoV-2 mounted an effective immune response and did not become reinfected. These studies have important implications for animal health and suggest that cats may be a good model for vaccine development.

Abstract

The pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has reached nearly every country in the world with extraordinary person-to-person transmission. The most likely original source of the virus was spillover from an animal reservoir and subsequent adaptation to humans sometime during the winter of 2019 in Wuhan Province, China. Because of its genetic similarity to SARS-CoV-1, it is probable that this novel virus has a similar host range and receptor specificity. Due to concern for human–pet transmission, we investigated the susceptibility of domestic cats and dogs to infection and potential for infected cats to transmit to naive cats. We report that cats are highly susceptible to infection, with a prolonged period of oral and nasal viral shedding that is not accompanied by clinical signs, and are capable of direct contact transmission to other cats. These studies confirm that cats are susceptible to productive SARS-CoV-2 infection, but are unlikely to develop clinical disease. Further, we document that cats developed a robust neutralizing antibody response that prevented reinfection following a second viral challenge. Conversely, we found that dogs do not shed virus following infection but do seroconvert and mount an antiviral neutralizing antibody response. There is currently no evidence that cats or dogs play a significant role in human infection; however, reverse zoonosis is possible if infected owners expose their domestic pets to the virus during acute infection. Resistance to reinfection holds promise that a vaccine strategy may protect cats and, by extension, humans.

The coronavirus disease (COVID-19) pandemic, caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), originated in the Wuhan province of China in late 2019 and within 4 mo

spread to nearly every country in the world. Sequence analysis and epidemiological investigations suggest that the virus was of animal origin, possibly bat, and was potentially first introduced into the human population via an intermediate animal host in the Huanan seafood market in Wuhan, China (1, 2). The virus quickly adapted to humans, and human-to-human transmission became the almost immediate source of subsequent infections, with direct contact and aerosol droplets as the primary routes of infection (3). Early indications suggested that SARS-CoV-2, much like SARS-CoV-1, infects host cells by binding to the angiotensin-converting enzyme 2 (ACE2), a receptor that is expressed in many animal species, although notably not in mice or rats (4). Thus, while humans are almost certainly the sole source of infection to other humans, multiple early studies suggest other animals are susceptible to infection as well (5–7).

The first report of reverse zoonosis, or transmission from human to animal, was reported from Hong Kong, where a COVID-19 patient's dog tested PCR-positive for SARS-CoV-2 multiple times (5). In following weeks, other instances of domestic pets becoming infected following exposure to humans were documented, including another dog in Hong Kong and a cat with clinical disease in Belgium (6). Serologic studies so far have failed to identify domestic dogs and cats as a primary source of human infection (8). Importantly, a survey of veterinary students with confirmed COVID-19 infection was unable to identify SARS-CoV-2 antibodies in their pets (9). Despite the low probability of pet-to-human or human-to-pet transmission, it remains important to clarify what role, if any, that domestic pets play in SARS-CoV-2 transmission.

The first published study involving cat experimental infections showed that cats could become infected by SARS-CoV-2 and potentially transmit virus to other cats via aerosols, as determined by PCR-positive fecal samples from cats in cages in the same room as directly infected cats. This study also described pathology and mortality in juvenile cats euthanized at 3 and 7 days post infection (DPI) (7). Additional communications described viral shedding and direct contact transmission in cats as well as seroconversion in cats exposed to infected humans (10, 11). The experiments described herein expand upon existing work by providing shedding kinetics in cats over time, assessing virus neutralization, seroconversion, assessing pathology, and exploring transmission. This is the first report of protective immunity against SARS-CoV-2 in cats following repeated exposure. These studies indicate that cats may serve as a suitable animal model for studying SARS-CoV-2 infection and for furthering the development of vaccines and therapeutics for use in both animals and humans. We also confirm an earlier report that dogs do not replicate virus in the upper respiratory tract (7), but document evidence of antiviral neutralizing activity in postexposure canine sera. The role of cats in zoonotic transmission remains an open question, but relatively short duration of shedding and resistance to reinfection suggests risk of this is very low, particularly when cats are kept indoors and thus have limited contact with humans or other susceptible animals.

Materials and Methods

Virus.

SARS-CoV-2 virus strain WA1/2020WY96 was obtained from BEI Resources, passaged twice in Vero E6 cells and stocks frozen at -80°C in Dulbecco's Modified Eagle Medium (DMEM) with 5% fetal bovine serum and antibiotics. Virus stock was titrated on Vero E6 cells using standard double-overlay plaque assay (12), and plaques were counted 72 h post infection to determine plaque-forming units (pfu) per mL.

Animals.

Seven adult (1 male, 6 female, 5–8 y old) cats were obtained from a closed breeding colony held at Colorado State University in a pathogen-free environment in an Association for Assessment and Accreditation of Laboratory Animal Care International accredited animal facility. Cats were screened negative for feline enteric coronavirus antibody prior to transfer. Three dogs (female, 5–6 y old) were

obtained from Ridgland Farms (Blue Mounds, WI). Cats and dogs were transferred to the Animal Disease Laboratory, an Animal Biosafety Level-3 facility at Colorado State University, group-housed, and fed dry/wet food mix with access to water ad libitum. Animals were allowed several days to acclimate before temperature-sensing microchips (Lifechips, Destron-Fearing) were inserted s.c. in the dorsum. Baseline weights, body temperatures, clinical evaluation, and oral swabs were obtained prior to inoculation. All animals were in apparent good health at the onset of the study.

Virus Challenge.

Cats were lightly anesthetized with 30–50 mg s.c. ketamine hydrochloride (Zetamine), and dogs were sedated with 1–3 mg xylazine prior to SARS-CoV-2 inoculation (day 0). Virus diluted in phosphate buffered saline (PBS) was administered to both species via pipette into the nares (500 μ L/nare) for a total volume of 1 mL; animals were observed until fully recovered from anesthesia. Virus back-titration was performed on E6 cells immediately following inoculation, confirming that cats received 3.0E5 pfu and dogs received 1.4E5 pfu.

Sampling.

Cat cohort 1 ($n = 3$).

Oropharyngeal swabs were collected on 1–5, 7, 10, and 14 DPI using a polyester-tipped swab applicator. Swabs were placed in BA-1 medium (Tris-buffered MEM containing 1% bovine serum albumin) supplemented with gentamicin, amphotericin B, and penicillin/streptomycin. Nasal flushes were performed on 1, 3, 5, 7, 10, and 14 DPI by instilling 1 mL BA-1 dropwise into the nares of awake or lightly anesthetized cats and collecting nasal discharge into a sterile Petri dish by allowing the wash fluid to be sneezed out or dripped onto the dish. Blood (5 mL into serum separator tubes) was collected prior to inoculation and on 7, 14, 21, 28, 35, and 42 DPI. At 28 DPI, cats were reinoculated with 3.0E5 pfu of homologous virus. Oronasal sample collection was performed 1, 3, 5, 7, 10, and 14 d after reinoculation (days 29, 31, 33, 35, 38, and 42 post initial inoculation), at which time cats were euthanized and tissues collected for histopathology.

Cat cohort 2 ($n = 4$).

Two of the four cats were lightly anesthetized and challenged with SARS-CoV-2 as for cohort 1. Forty-eight hours post infection, two naive cats were introduced into the room with the infected cats and sampled on the same schedule as before. The two directly challenged cats were euthanized on 5 DPI and the following tissues collected for virus isolation and histopathology: nasal turbinates, trachea, esophagus, mediastinal lymph node, lung, liver, spleen, kidney, small intestine, uterus, and olfactory bulb. Tissues were collected into BA-1 frozen at -80°C and homogenized prior to plaque assay. Additional tissues collected for histopathology included heart, colon, pancreas, hemilung lobe, and mesenteric lymph nodes. Thoracic radiographs were also obtained for these two cats prechallenge and just prior to euthanasia. The remaining two cats were euthanized at 30 DPI and necropsied; these cats will be referred to as contact cats hereafter.

Dogs ($n = 3$).

Dogs were sampled at the same frequency and using the same methods as cats in cohort 1 for 42 DPI. Dogs were not rechallenged.

Clinical Observations.

Body temperatures were recorded daily at approximately the same time each morning for the duration of the study using the thermal microchips. Cats and dogs were observed twice daily for the first 7 d post challenge and at least once daily for the duration of the study. Body weights were obtained weekly. Thoracic radiographs (3-view) were taken prechallenge and at 5 DPI just prior to euthanasia for the experimentally inoculated cats in cohort 2 and reviewed by several veterinarians. Clinical evaluation included temperament and assessment for presence of any clinical signs of disease including ocular discharge, nasal discharge, ptyalism, coughing/sneezing, dyspnea, diarrhea, lethargy, anorexia, moribund. None of the animals exhibited clinical signs of disease characterized by any of these symptoms at any time during the study.

Viral Assays.

Virus isolation was performed on all oral swab, nasal flush, and 5-DPI tissue samples by double-overlay plaque assay on Vero E6 cells as previously described (12). Briefly, 6-well plates with confluent monolayers of cells were washed once with PBS and inoculated with 100 μ L of serial 10-fold dilutions of samples, incubated for 1 h at 37 °C, and overlaid with a 0.5% agarose in MEM containing 2% fetal bovine serum and antibiotics/antifungal agents. A second overlay with neutral red dye was added at 48 h, and plaques were counted at 72 h. Viral titers were reported as the \log_{10} pfu per mL.

Plaque reduction neutralization assays (PRNT) were performed as previously described (13). Serum was heat-inactivated for 30 min at 56 °C, and twofold dilutions prepared in BA-1 starting at a 1:5 dilution were aliquoted onto 96-well plates. An equal volume of virus was added to the serum dilutions and incubated for 1 h at 37 °C. Following incubation, serum–virus mixtures were plated onto Vero E6 plates as described for virus isolation assays. Antibody titers were recorded as the reciprocal of the highest dilution in which >90% of virus was neutralized.

ELISA.

Serum samples from cats were heat-inactivated and tested by plaque assay to verify samples were noninfectious prior to conducting ELISA analysis. Positive control antibodies to the receptor-binding domain (RBD) and full-length spike protein were human mAb CR3022 antibody (Absolute Antibody) and human IgG whole molecule (Jackson Immuno Research). Positive control for the nucleocapsid ELISA was SARS-CoV nucleoprotein rabbit monoclonal antibody (Sino Biological, Inc.). Negative controls were reagent-grade human sera (compared to mAb CR3022). Nonpooled cat sera from two specific pathogen-free, naive experimental animals and five field isolate bioarchived samples obtained prior to 2019 were used as negative controls for assay validation (14, 15). ELISA protocols were adapted from protocols for SARS-CoV-2 ELISA described by Amanat et al. (16). ELISA plates (Thermo) were coated at 2 μ g/mL with spike glycoprotein RBD from SARS-CoV-2, WuHan-Hu-1 recombinant from HEK293T cells (BEI), or spike glycoprotein (Stabilized) from SARS-CoV-2, Wuhan-Hu-1, recombinant from Baculovirus (BEI). SARS-CoV-2 Spike RBB-His and 2019-nCoV spike protein S1+S2 ectodomain (ECD) (Sino Biological) were used on plates used to test dog seroreactivity. SARS-CoV-2 nucleocapsid protein was a gift of Brian Geiss (Colorado State University, Fort Collins, CO). Prior to running experimental cat sera, the assay was optimized using positive and negative control sera described above. Samples and controls were diluted 1:50 in ELISA diluent (1X PBS, tween, milk powder) and run in duplicate. Human sera controls were developed using anti-human IgG horse radish peroxidase (HRP) (Thermo), cat sera was developed using anti-cat IgG HRP (Thermo) or anti-cat IgM (Novus Biologicals), dog sera was developed using anti-dog IgG HRP (Sigma), and rabbit monoclonal antibody (mAb) SARS-CoV nucleocapsid protein (NP) was detected by anti-rabbit IgG HRP (Thermo). Secondary antibodies were diluted 1:3,000, and SigmaFast o-phenylenediamine dihydrochloride (OPD) was prepared in water for injection and added to wells. Plates were read at 490 nm using a Multiskan Spectrum spectrophotometer (Thermo Fisher). The mean of negative control sera OD490 plus three times the SD of the negative control readings were used to determine cutoff values for each plate.

qRT-PCR.

Plaques were picked from culture plates from each cat to confirm SARS-CoV-2 viral shedding. RNA extractions were performed per the manufacturer's instructions using Qiagen QiaAmp Viral RNA mini kits. RT-PCR was performed as recommended using the E_Sarbeco primer probe sequence as described by Corman and colleagues (17) and the SuperScript III Platinum One-Step qRT-PCR system (Invitrogen), with the following modification; the initial reverse transcription was at 50 °C. Standard curves were obtained by serial dilution of stock viral RNA from the original WA1/2020WY96 SARS-CoV-2 isolate.

Histopathology.

Tissues from cats were fixed in 10% buffered formalin for 12 d and transferred to 70% ethanol prior to sectioning for hematoxylin and eosin (H&E) staining. Slides were read by a board-certified veterinary pathologist.

Results

Clinical Disease.

None of the cats in either cohort displayed any clinical signs of disease, and all remained afebrile (temperature < 39.5 °C) throughout the study. Body weights were maintained over time. No evidence of lung involvement or any other radiographically detectable abnormalities were noted (images not shown). Similarly, dogs inoculated with SARS-CoV-2 remained clinically normal and afebrile.

Viral Shedding.

In cohort 1, all three cats shed virus both orally and nasally for up to 5 DPI, with peak titers achieved from nasal shedding at day 3. Nasal titers were ~1 log higher than oral swabs collected at the same time (Fig. 1). There was some variability in titer over the course of infection that is likely attributable to sample collection (i.e., number of sneezes), but overall the data demonstrate clear presence of infectious virus in both the nasal cavity and the oropharynx for multiple days post infection. In cohort 2, the two directly inoculated cats shed virus for 5 DPI both orally and nasally, with a similar pattern to cohort 1. The contact cats, however, shed infectious virus orally by 24 h post exposure, and the duration of shedding was prolonged compared to the inoculated cats, with peak shedding occurring at 7 d post exposure (Fig. 1). Virus was isolated from trachea, nasal turbinates, and esophagus from cats in cohort 2 necropsied on day 5. Infectious virus was not found in the lung or other organs of either cat. Viral shedding was not detected by plaque assay from any of the dogs at any point post infection.

Pathology.

Gross lesions were not observed in any of the necropsied cats or dogs. Histologically, in both cats sacrificed at 5 DPI from cohort 2, moderate ulcerative, suppurative lymphoplasmacytic rhinitis was observed in the nasal turbinates along with mild lymphoplasmacytic tracheitis (Fig. 2 A–C). These cats also had minimal alveolar histiocytosis with edema. Both cats from cohort 2 which were introduced at 2 DPI and sacrificed at 28 DPI had moderate lymphoplasmacytic rhinitis with rare fibroplasia. All three cats from cohort 1 sacrificed 42 DPI had mild lung changes, including mild interstitial lymphocytic pneumonia with peribronchiolar and perivascular lymphocytic cuffing and alveolar histiocytosis (Fig. 2D). Two of these cats also had minimal tracheitis and mild rhinitis, but largely the lesions in the upper respiratory tract appear decreased in comparison to the early timepoint cats, while lung pathology was more evident in these animals compared to those sacrificed during acute infection.

SARS-CoV-2 exposure results in acute upper respiratory inflammation and mild lung infiltrates during later courses of infection. (A) Cat 4, cohort 2, trachea 5 DPI. The submucosa is expanded by edema (arrows) and abundant lymphocytic inflammatory infiltrates (asterisks) which dissect and disrupt submucosal glands. H&E stain, 100× magnification. (B) Cat 5, cohort 2, nasal turbinates, 5 DPI. Normal thickness respiratory mucosa is present in the section (open arrow). Nasal respiratory epithelium ranges from hyperplastic (filled black arrow) to ulcerated (arrowhead). The submucosa in regions of ulceration is edematous and infiltrated by scattered neutrophils and mononuclear cells. H&E stain, 40× magnification. (C) Cat 5, cohort 2, nasal turbinates, 5 DPI. Nasal respiratory epithelium ranges from attenuated (arrow) to ulcerated (arrowhead) with overlying remnant cellular debris. The submucosa (asterisk) in regions of ulceration is edematous and infiltrated by scattered neutrophils and mononuclear cells. H&E stain, 100× magnification. (D) Cat 1, cohort 1, lung, 42 DPI. Alveolar spaces (“A”) contain scattered mononuclear cells (arrows). The alveolar wall is expanded by mixtures of mononuclear cells and occasional neutrophils (asterisk). H&E stain, 400× magnification.

Seroconversion.

All animals were seronegative against SARS-CoV-2 at the time of infection (<50% viral neutralization at 1:10 serum dilution). Cats in both cohort 1 and the direct contact cats developed neutralizing activity as measured by PRNT as early as 7 DPI. Neutralizing titers in all cats reached or exceeded 1:2,560 by 14 DPI and either maintained or increased in titer between 28 and 42 DPI. Cats reinoculated at 28 DPI displayed a moderate increase in PRNT titer in the 14 d following exposure ([Table 1](#)). Dogs developed neutralizing antibodies by 14 DPI and peaked at 21 DPI with titers between 1:40 and 1:80 ([Table 1](#)).

Table 1.

Antibody titers (PRNT90) for cats and dogs infected with SARS-CoV-2. NT, not tested

IgG antibody responses exceeding OD490 cutoff values were detected at 7 DPI against both the complete spike glycoprotein and RBD in all experimentally inoculated cats, and seroconversion against NP was detected in 2 of 3 cats at this time. By day 14 all five cats had optical density (OD) values that neared the upper limit of detection in the spike ELISA; RBD and NP OD saturation was obtained by day 21 and did not increase following reexposure ([Fig. 3A](#)). Rates of seroconversion and absorbance levels were similar between contact cats and experimentally infected cats. Seroconversion to spike protein was most rapid and robust, and the specificity of response to RBD exceeded that of NP. Seroconverted cat OD values for all three antigens exceeded absorbances of specific pathogen free (SPF) or field domestic cats, and background was highest for NP. IgM antibodies against RBD were detected at days 7 and 14 but not at day 28. IgG responses were much more robust than IgM ([Fig. 3B](#)). Dogs seroconverted against RBD and spike antigens starting day 14, but OD values were significantly lower than for cats and varied over time ([Fig. 3C](#)).

Cats and dogs infected with SARS-CoV-2 rapidly develop antibodies against viral antigens. (A) Sera from cats with intranasal inoculation of SARS-CoV-2 ($n = 3$, ‘E1’) or exposed to inoculated cats ($n = 2$, ‘C’) were evaluated for seroreactivity to RBD, Spike, or NP for 30–42 d post exposure. IgG reactivity to Spike and RBD was evident at day 7, and all animals had clearly seroconverted by day 14. (B) IgM against RBD was transiently detected at low levels relative to IgG on days 7 and 14 post exposure in cats (experimentally inoculated animals, $n = 3$). Bars represent 1 SE of the mean. Dogs infected with SARS-CoV-2 seroconvert versus Spike and RBD antigen with lower reactivity than cats (C). Sera tested on days indicated. IgG reactivity was evident by day 14 but plateaued and/or waned by day 42. Dashed lines indicate cut off values for seropositive diagnosis. Colors correspond to RBD (red), Spike (blue), or Nucleocapsid (green) ELISAs.

Reinfection.

Rechallenged cats in cohort 1 were sampled for oral and nasal shedding for 7 d post exposure by viral isolation, and shedding was not detected by plaque assay in any cat at any timepoint following rechallenge.

Discussion

The COVID-19 pandemic has affected virtually every country in the world and is the most significant outbreak of an emerging zoonotic pathogen in the current century. The SARS-CoV-2 virus is one of three emergent zoonotic coronaviruses capable of causing significant disease in humans in the last two decades, following SARS-CoV-1 and Middle East respiratory syndrome coronavirus (MERS-CoV) (18). The overall trend of disease emergence favors viral spillover from animals to humans, and land use and wildlife encroachment are just two of the factors contributing to this phenomenon (19). The continued presence of live animal markets provides optimal conditions for emergence of zoonoses (20). As with SARS-CoV-1 and MERS-CoV, SARS-CoV-2 is of probable bat origin based on phylogenetic analysis (2), but unlike its predecessors, SARS-CoV-2 has rapidly evolved for highly efficient human-to-human transmission (21). While animals, including domestic animals and pets, are frequently implicated as the source of emerging pathogens, reverse zoonosis of SARS-CoV-2 is more probable, as human cases are far more prevalent than domestic animals and there is no evidence to date of infected cats or dogs transmitting SARS-CoV-2 to humans. Similar results were seen with SARS-CoV-1, where domestic cats exposed to the virus by infected humans became infected, and cats experimentally infected shed virus for several days (22, 23). There have been several cases of pets becoming infected by SARS-CoV-2 following exposure to infected humans in New York, Hong Kong, Belgium, Germany, Spain, France, and Russia (5, 24–29). Other animal exposures from infected humans include farmed mink, which display respiratory signs, gastrointestinal signs, and even sudden death following infection (30). In several of these cases, including nondomestic felids at the Bronx Zoo and pet cats in New York and Europe, animals displayed signs of respiratory disease and/or conjunctivitis. None of the cats or dogs in this study exhibited any clinical signs of disease, but individual animal health status, age, and comorbidities may be responsible for this variability. Two other studies assessing experimental infection in cats have reported variation in respiratory sign; thus, further studies relating to clinical disease expression in cats are warranted (7, 10). Pathological changes in cats suggest that mild subclinical disease in otherwise healthy animals can occur. This is not altogether different from human infections, where the majority of cases are relatively mild but more severe disease tends to occur in older patients with significant comorbidities (31). In a recent serosurvey of cats in Wuhan, China, nearly 14.7% of sampled animals were seropositive for SARS-CoV-2 by RBD ELISA, suggesting that the cat population in areas with high human transmission is also likely to be exposed to the virus (11). Considering that the number of human infections has reached the millions and yet only a handful of animals have tested PCR-positive, it seems unlikely that domestic pets are a significant source of infection or are at serious risk for developing severe disease. Importantly, infected cats shed for no more than 5 d following exposure, suggesting that cats, if exposed to infected humans, will develop and clear infection rapidly. In comparison, humans typically have an incubation period of ~5 d and can shed virus for more than 3 wk (32, 33). Thus, if symptomatic humans follow appropriate quarantine procedures and stay home with their pets, there is minimal risk of a potentially exposed cat infecting another human. Infected pet cats should not be allowed to roam freely outdoors to prevent potential risk of spreading infection to other outdoor cats or wildlife. More research into the susceptibility of wildlife species and potential for establishment of infection in outdoor cat populations is necessary to identify risk factors and mitigation strategies to prevent establishment of reservoir infections in feral cats or other wildlife.

The development of animal models for studying SARS-CoV-2 is an important step in research methodologies. Rhesus macaques, hamsters, and ferrets are all suitable models for replicating asymptomatic or mildly clinical disease and, while not often used as a traditional animal model, this work demonstrates that cats may serve as an alternative model (34–36). The cats in this study developed subclinical pathological changes in the upper respiratory tract early in the course of infection with more lower respiratory tract pathology later following viral clearance, which suggests that, while subclinical, viral infection of cats is not completely benign and may make their utility as an animal model more relevant to mild human disease. Additionally, the relatively high-titer viral shedding produced by cats and the rapidity of transmission may make them an ideal model for simulation of aerosols. As such, cat models may be quite instrumental for understanding the shed/spread kinetics of SARS-CoV-2. Perhaps most importantly, cats develop significant neutralizing antibody titers and are resistant to reinfection, although the duration

of immunity is not currently known. This could prove a useful measurement for subsequent vaccine trials for both human and animal vaccine candidates.

Data Availability.

All study data are included in the article and *SI Appendix*.

Acknowledgments

We thank Todd Bass and the histology laboratory at Colorado State University for preparation of tissue cassettes and slides for histopathology and Dr. Brian Geiss for providing the SARS-CoV-2 nucleocapsid protein. This work was funded by the Animal Models Core, Colorado State University. SARS-Related Coronavirus 2, Isolate USA-WA1/2020 (NR-52281) was deposited by the Centers for Disease Control and Prevention and obtained through BEI Resources, National Institute of Allergy and Infectious Diseases (NIAID), NIH. The following reagents were produced under HHSN272201400008C and obtained through BEI Resources, NIAID, NIH: Spike Glycoprotein RBD from SARS-Related Coronavirus 2, Wuhan-Hu-1, Recombinant from HEK293 cells, NR-52306, and Spike Glycoprotein (Stabilized) from SARS-Related Coronavirus 2, Wuhan-Hu-1, Recombinant from Baculovirus, NR-52396

<https://www.ctvnews.ca/health/coronavirus/cats-could-help-researchers-unlock-a-covid-19-vaccine-research-suggests-1.5125849>

<https://www.pnas.org/content/early/2020/09/28/2013102117>

Australia

Flight-Associated Transmission of Severe Acute Respiratory Syndrome Coronavirus 2 Corroborated by Whole-Genome Sequencing

Source: CDC

GPHIN ID: 1007945267

A study published in the *Emerging Infectious Diseases Journal* on 30 September 2020 indicated that to investigate potential transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) during a domestic flight within Australia, researchers performed epidemiologic analyses with whole-genome sequencing. Eleven passengers with PCR-confirmed SARS-CoV-2 infection and symptom onset within 48 hours of the flight were considered infectious during travel; nine had recently disembarked from a cruise ship with a retrospectively identified SARS-CoV-2 outbreak. The virus strain of those on the cruise and the flight was linked (A2-RP) and had not been previously identified in Australia. For 11 passengers, none of whom had traveled on the cruise ship, PCR-confirmed SARS-CoV-2 illness developed between 48 hours and 14 days after the flight. Eight cases were considered flight associated with the distinct SARS-CoV-2 A2-RP strain; the remaining three cases (1 with A2-RP) were possibly flight associated. All 11 passengers had been in the same cabin with symptomatic persons who had primary, culture-positive, A2-RP cases. This investigation provides evidence of flight-associated SARS-CoV-2 transmission.

https://wwwnc.cdc.gov/eid/article/26/12/20-3910_article?ACSTrackingID=USCDC_333-DM39408&ACSTrackingLabel=Latest%20Expedited%20Articles%20-%20Emerging%20Infectious%20Diseases%20Journal%20-%20September%2029%2C%202020&deliveryName=USCDC_333-DM39408

Oxford to study anti-inflammatory drug Humira as potential COVID-19 treatment

Source: National Post

GPHIN ID: 1007944413

LONDON — Oxford University said on Wednesday it would study whether the world's best-selling prescription medicine, adalimumab, was an effective treatment for COVID-19 patients – the latest effort to repurpose existing drugs as potential coronavirus therapies.

Adalimumab, which is sold under the brand name Humira by AbbVie, is a type of anti-inflammatory known as an anti-tumor necrosis factor (anti-TNF) drug. Recent studies have shown that COVID-19 patients already taking anti-TNF drugs for inflammatory bowel disease and inflammatory arthritis are less likely to be admitted to hospital, Oxford said in a statement.

Oxford's trial, called AVID-CC, will be aimed at treating people in the community, especially in care homes, the university said. It will enroll up to 750 patients from community care settings throughout Britain.

Humira is used to treat a range of conditions including rheumatoid arthritis, Crohn's disease, ulcerative colitis and psoriasis.

The availability of biosimilar versions of the medicine would make it affordable and accessible if the trial is successful, Oxford said. Novartis makes one of the alternatives, Hyrimoz.

Research has identified some treatments for hospitalized COVID-19 patients, including Gilead's remdesivir as well as the generic steroid drug dexamethasone.

<https://nationalpost.com/pmnh/health-pmn/oxford-to-study-anti-inflammatory-drug-humira-as-potential-covid-19-treatment-2>

Canada

A coronavirus 'game changer': Canadian company claims it can detect virus in the air

Source: Global News

GPHIN ID: 1007945277

A company in southwestern Ontario claims to have developed game-changing technology that can detect COVID-19 particles in the air.

Kontrol Energy Corp. specializes in indoor air quality and its monitoring equipment is typically used to scan for dangerous gases in industrial facilities. But when COVID-19 arrived, company CEO Paul Ghezzi wondered if their technology could be repurposed for the pandemic.

"In March, we asked the question: Could we measure for COVID like we do these very small particulates that we're looking for in industrial facilities, including volatile organic compounds? We had no idea," Ghezzi told Global News outside the company's headquarters in Vaughan, Ont.

Working with two microbiology labs in London, Ont., including a research lab at Western University where COVID-19 samples are stored, the company developed a device called BioCloud.

Story continues below advertisement

The wall-mounted unit resembles a commercial hand dryer — but instead of pushing air outwards, BioCloud's fan draws air into its chamber where it's then analyzed for COVID-19 particles.

"We believe our technology will flag an alert for COVID and then you can properly test each individual (in the room)," Ghezzi said.

Placed in an indoor space of up to 1,000 square feet, such as a classroom or office, Ghezzi said the device cycles through all of the air inside the room multiple times per hour.

The company received \$50,000 in federal funding from the National Research Council of Canada to support its research. Testing on the device was overseen by David Heinrichs, a professor of microbiology and immunology at Western University.

"There's no doubt in my mind that this technology can quickly and effectively detect an array of airborne pathogens, including the virus that causes COVID-19," Heinrichs said in a press release for Kontrol Energy Corp .

"Our results are absolutely conclusive."

A mockup image of a BioCloud device in a classroom setting.

Kontrol Energy Corp.

The company plans to begin selling the BioCloud devices in November for approximately \$12,000 each and is working to produce 20,000 units per month.

"We're getting calls from all over the world," Ghezzi said.

"Classrooms, offices, long-term care facilities, hospitals and mass transportation; anywhere where people congregate and they need to feel safe," Ghezzi said.

“We feel very good about being part of the solution.”

Ontario doctors weigh in on how to get through second coronavirus wave

The test results and details of exactly how the BioCloud device operates have not been made public, to protect the company’s proprietary technology. As a result, some experts are reacting to the company’s claims with skepticism.

“I was quite happy to see these new technologies coming up, but as a scientist then the questions start coming up,” said Dasantila Golemi-Kotra, an associate professor of molecular, cellular and chemical biology at York University in Toronto.

Golemi-Kotra notes COVID-19 would be difficult to detect in the air, in part because the particle is fragile and can resemble other viruses.

“What is the level of sensor sensitivity? How selective is the device against this particular virus, the novel coronavirus? How accurate is it? It is a technology that one needs to look at carefully,” she said.

Experts are also divided over the extent to which COVID-19 can travel through the air, though studies suggest it can linger for hours in a poorly ventilated room.

“If (students) are in the classroom for three to six hours at a time with poor ventilation, eventually the virus will build up and up and up,” said Julian Tang, an honorary associate professor of respiratory sciences at the University of Leicester.

Story continues below advertisement

“You may well pick up some virus using that (BioCloud) device in that environment.”

Read more: Scientists find coronavirus in the air — but experts say this won’t yet change how we fight it
Similar technologies are being developed in several other countries. In Israel, scientists at Ben-Gurion University of the Negev are using graphene technology to build filtration systems that can purportedly protect against COVID-19 particles.

Researchers at Colorado State University are also developing a virus detector similar to the BioCloud.

Their device captures particles in the air and wraps them in a small protective liquid, to determine whether they’re COVID-19.

“The Aerosol Devices system that we’re working with now, they can very gently collect virus particles. And that allows my group and I to take those samples and, in real time, actually tell you whether or not there is virus in there,” said Brian Geiss, associate professor in the department of microbiology, immunology and pathology.

Geiss and his team hope to have a prototype ready for market in six to eight months. They’re also working to train the systems to detect other airborne and respiratory viruses, including influenza.

“There’s absolutely huge potential for this type of technology to be used,” he said.

<https://globalnews.ca/news/7367826/coronavirus-biocloud-detect-virus-in-air/>

United States

Investigational COVID-19 vaccine well-tolerated and generates immune response in older adults

Source: National Institutes of Health (NIH)

GPHIN ID: 1007941407

What

A Phase 1 trial of an investigational mRNA vaccine to prevent SARS-CoV-2 infection has shown that the vaccine is well-tolerated and generates a strong immune response in older adults. A report published today in the *New England Journal of Medicine* describes the findings from the study, which was supported by the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health. SARS-CoV-2 is the virus that causes COVID-19 disease.

The experimental vaccine, mRNA-1273, was co-developed by researchers at NIAID and Moderna, Inc. of Cambridge, Massachusetts. The Phase 1 trial [began on March 16](#), 2020, and was expanded to enroll [older adults](#) about one month later. Older adults are more vulnerable to complications of COVID-19 and are an important population for vaccination. Understanding how the vaccine affects older adults is a critical part of measuring its safety and efficacy.

The trial was conducted at Kaiser Permanente Washington Health Research Institute (KPWHRI) in Seattle, Emory University in Atlanta, and NIAID's Vaccine Research Center (VRC) clinic at the NIH Clinical Center in Bethesda, Maryland. Julie Ledgerwood, D.O., deputy director and chief medical officer at the VRC, oversaw the study at the NIH site. The Coalition for Epidemic Preparedness Innovations (CEPI) supported the manufacturing of the vaccine candidate for this trial. This trial is supported by the [Infectious Diseases Clinical Research Consortium \(IDCRC\)](#) through NIAID.

In its expansion to include older adults, the trial enrolled 40 healthy volunteers: 20 adults ages 56 to 70 years, and 20 adults ages 71 years and older. Ten volunteers in each age group received a lower dose of the vaccine (25 µg), and 10 volunteers in each age group received a higher dose (100 µg). After approximately one month, volunteers then received a second dose of the same vaccine at the same dosage. Throughout the study, volunteers attended clinic visits to track their responses to the vaccine and assess safety.

Overall, the researchers found that the investigational vaccine was well-tolerated in this older age group. Although some volunteers experienced some transient adverse effects, including fever and fatigue after vaccination, the researchers found that they also exhibited a good immune response to the vaccine: the blood of vaccinated volunteers contained robust binding and neutralizing antibodies against SARS-CoV-2. Importantly, the immune response to the vaccine seen in older volunteers was comparable to that seen in younger age groups.

The study will continue to follow the older volunteers for approximately a year after second vaccination to monitor the long-term effects of the vaccine. According to the researchers, these Phase 1 trial results further support testing of the investigational vaccine in older adults [in an ongoing large Phase 3 trial](#).

For more details on the trial, please see NIAID's [March 16 press release](#), NIAID's [March 27 statement](#), or visit [ClinicalTrials.gov](https://clinicaltrials.gov) and search identifier [NCT04283461](#).

Article

Anderson *et al.* Safety and immunogenicity of SARS-CoV-2 mRNA-1273 vaccine in older adults. *New England Journal of Medicine* DOI: 10.1056/NEJMoa2028436 (2020).

<https://www.nih.gov/news-events/news-releases/investigational-covid-19-vaccine-well-tolerated-generates-immune-response-older-adults>

Russian Federation

Russia completes clinical trials of second potential COVID-19 vaccine.

Source: RIA News

GPHIN ID: 1007944746

MOSCOW — Russia has completed clinical trials of a second potential vaccine against COVID-19, developed by Siberia's Vector Institute, the RIA news agency cited Russian consumer safety watchdog Rospotrebnadzor as saying on Wednesday. The institute completed early-stage human trials, known as Phase II, earlier this month.

<https://nationalpost.com/pmn/health-pmn/russia-completes-clinical-trials-of-second-potential-covid-19-vaccine-ria>

Domestic Events of Interest

Canada

Committee on the Epidemic of Opioid Overdoses – Latest National Opioid-Related Harms Data

From: [Public Health Agency of Canada](#)

Statement

The opioid overdose crisis continues to have a devastating impact on the lives of many Canadians, their families and communities. New national data released today show that between January 1, 2016 and March 31, 2020, 16,364 people died of an apparent opioid-related overdose in Canada, with 1,018 deaths and 1,067 opioid-related poisoning hospitalizations occurring in the first three months of 2020.

September 30, 2020 | Ottawa, ON | Public Health Agency of Canada

Ottawa, ON - Today, the co-chairs of the federal, provincial and territorial Special Advisory Committee on the Epidemic of Opioid Overdoses - Dr. Theresa Tam, Chief Public Health Officer of Canada and Dr. Jennifer Russell, New Brunswick's Chief Medical Officer of Health - issued the following statement on the release of [new data on opioid-related harms in Canada](#), from January 1, 2016 to March 31, 2020.

The opioid overdose crisis continues to have a devastating impact on the lives of many Canadians, their families and communities. New national data released today show that between January 1, 2016 and March 31, 2020, 16,364 people died of an apparent opioid-related overdose in Canada, with 1,018 deaths and 1,067 opioid-related poisoning hospitalizations occurring in the first three months of 2020.

Sadly, since March 2020, several provinces and territories have reported the highest numbers of opioid-related harms, including deaths, since they began monitoring the crisis. This could be attributed to a growing unpredictable and toxic street drug supply, limited access to services available for people who use substances, and feelings of isolation and anxiety that may be a result of COVID-19 and the public health measures implemented to reduce the impact of the pandemic in Canada. As a consequence, more people are using drugs alone, putting them at increased risk of overdose and death.

We must continue to build broad understanding that substance use disorder is not a choice, but a treatable medical condition that requires a broad range of care and treatment options. [Reducing the stigma associated with substance use, and providing people with services and supports that best meet their needs, and reduce harm is more important now than ever.](#) This includes collaboration across sectors to address the underlying drivers of this crisis - such as mental illness, socioeconomic factors (e.g., housing, employment), social inclusion and access to health services - that put Canadians at increased risk.

Safer drug supply initiatives are one of the tools available to help prevent overdoses and are a critical part of a comprehensive approach to the opioid overdose crisis. These life-saving programs provide prescription medications as an alternative to the toxic illegal drug supply for people struggling with substance use disorders. They are also a lifeline, connecting patients with important health and social services, including treatment and mental health supports, which may be more difficult to access during COVID-19.

COVID-19 has been part of our daily reality for more than six months now, with many more months ahead of us. We recognize its tragic impact on people who use substances, their families, and communities. We must all come together to increase health and social supports, including harm reduction measures, treatment and prevention, and provide compassionate care.

Canadians can be assured that responding to the overdose crisis remains a top priority for Chief Medical Officers of Health and senior public health officials in governments throughout Canada.

Dr. Theresa Tam
Chief Public Health Officer of Canada
Co-chair, Special Advisory Committee on the Epidemic of Opioid Overdoses

Dr. Jennifer Russell
Chief Medical Health Officer, New Brunswick
Co-chair, Special Advisory Committee on the Epidemic of Opioid Overdoses

<https://www.canada.ca/en/public-health/news/2020/09/joint-statement-from-the-co-chairs-of-the-special-advisory-committee-on-the-epidemic-of-opioid-overdoses--latest-national-opioid-related-harms-data.html>

Canada

Community group sounding alarm over rising drug overdoses in Sudbury.

Source: CBC News
GPHIN ID: 1007944830

A grassroots community group says the city is not doing enough to help solve the opioid crisis in Greater Sudbury.

Bob Johnston, who leads a group called Tomorrow's Hope, says he believes there have been overdoses and overdose deaths that have gone unreported by the city and the community drug strategy.

Johnston says back in the spring he warned the city that the drug situation was getting worse. Since then he says he's seen the numbers increase.

"Until we all get together and come up with some good ideas and follow them through — and I'm not talking office-level, I'm talking ground-level, out on the street, everybody working together — it's not going to get any better," he said.

Johnston says just recently five people died of drug overdoses in a six-day time period.

Sudbury Police confirm that there have been 67 suspected opiate deaths this year, 12 of which were this month.

Tomorrow's Hope has been working to help individuals at the street level since March. Johnston says he hasn't seen much action from the city.

"The response hasn't been the greatest so far," he said.

"The numbers are just growing and growing, and [the people are] just getting younger and younger. I met with two [city] councillors out of the 12. The mayor hasn't reached out to me ... It seems like no one really wants to step up to the plate."

Johnston speculates that the Canada Emergency Response Benefit has not helped the situation.

"That \$2,000 a month it wasn't properly controlled and basically anybody could that could reach out and grab it."

He also says the pandemic has severely disrupted families.

"The parents who were out working, the children were basically left alone," Johnston said.

"Domestic abuse ... started rising too ... [kids] had no no recreational sports or anything to do."

The answers to the problem are in the community, he notes.

"All the organizations have to get together. This is a team effort. This is not one organization trying to outdo the other. This is life. Let's all get together. Let's do what we can for these people. It's all addictions and so on. And we have to be educating them," he said.

"The homeless and the addicts, not all of them walk around with phones and computers and so on. So how do we educate them? Well, we got to get out on the street. We have to do the one-on-one basis and treat them like our second family and pull all this together."

New provincial numbers

A new report on opioids by the Ontario Provincial Police says that overdose-related deaths went up 34 per cent in the province between 2018 and 2019.

According to the report, 1,163 Ontarians died due to opioid-related causes between January and September 2019.

OPP Commissioner Thomas Carrique notes that's a rate of one opioid-related death every 4.7 hours in the province.

The report also says that the OPP responded to 897 overdose occurrences in 2017, 1,381 in 2018, and 1,625 in 2019. That represents an 81 per cent increase over a three-year period. Since being equipped with naloxone in September 2017, OPP officers have saved 108 lives, according to the report.

The OPP say they laid 102 charges in 12 overdose-related death investigations in 2019, a 500 per cent increase over 2018 in an effort to hold drug traffickers responsible.

<https://www.cbc.ca/news/canada/sudbury/opioid-overdose-sudbury-surge-1.5743256>

International Events of Interest

United States

NYC reports 1st West Nile virus death since 2018

ID: 1007941379

Source: outberaknewstoday.co

September 29, 2020

Six New Yorkers have been diagnosed with West Nile virus infections: two from Queens, two from Manhattan, and one each from Staten Island and Brooklyn, the first such cases of 2020.

All six were admitted to the hospital; five were discharged and one person has died. The decedent was over 65 years old and age is a well-known risk factor for severe West Nile virus outcomes. This is the first death from West Nile virus infection in New York City since 2018.

The West Nile virus was first detected in New York City 20 years ago. Since 1999, the number of human cases has ranged from three to 47 annually. Ten New Yorkers were diagnosed with West Nile virus during the 2019 season. Of the 434 New Yorkers diagnosed with West Nile virus since 1999, 47 (11%) have died due to their infection.

In individuals over 50 or with a weakened immune system, West Nile virus can cause severe illness, including meningitis and encephalitis, sometimes resulting in permanent or long-term complications such as muscle weakness, fatigue, confusion and depression. Others may experience milder symptoms, which include headache, fever, fatigue, and rash.

<http://outbreaknewstoday.com/nyc-reports-1st-west-nile-virus-death-since-2018/>

India

Mysterious' disease has taken 13 lives in a Malkangiri village

Source: Orissa Post

GPHIN ID: 1007945214

Padia: After a 'mysterious' disease claimed lives of 13 people within a month at Sodiguda village under Mathili block in Malkangiri, two people have allegedly died of the same disease at Puruna Niliguda under Podia block, it was reported Monday.

In the last few days, a total of five people have died in the village. With deaths occurring one after another, panic has gripped the tribal pocket. The health officials have been on their toes to ferret out the cause.

The deceased were identified as Irma Padiami, Adme Madhi, Muke Madhi, Nnadakishore Madhi, and Singa Madhi.

Villagers say the disease starts with swelling and aching of the body before killing its victims.

A team of health officials visited the village and started to ascertain the cause of the disease.

Manas Madkami, chairperson of the special development council, demanded that the Health department take necessary step to check the disease.

It may be noted here that Sodiguda village under Mathili block has lost 13 precious lives in the last one and a half months. Among the victims of the mysterious disease are Baman Madhi, Adma Sodhi, Midia

Sodhi, Jasa Madhi, Laxmi Kabasi, Irma Kabasi and Mangala Madkani.
Two children like Sanmati Madhi and Padma Madhi have lost their lives to the mysterious disease too.
<https://www.orissapost.com/mysterious-disease-has-taken-13-lives-in-a-malkangiri-village/>

United Kingdom

HAIRS risk assessment: Usutu virus

Source: GOV.UK

The geographic distribution of Usutu virus has increased since its first incursion into Europe in the early 2000s.

In August 2020, Usutu virus RNA was detected in samples from a small number of wild birds in England. This is regarded as the first detection of Usutu virus in wild birds in the UK.

This risk assessment was carried out to determine the level of risk Usutu virus presents to the UK population.

<https://www.gov.uk/government/publications/hairs-risk-assessment-usutu-virus>

DR Congo

DR Congo: Humanitarian information note - Ebola virus disease epidemic in Ecuador September 29, 2020, report # 93

ID: 1007947595

Source: reliefweb.int

Sep 30, 2020

KEY FIGURES AND FACTS

- A new health zone affected by Ebola
STATISTICS SINCE THE BEGINNING OF THE EPIDEMIC
125 cases reported including 119 confirmed and 6 probable
41 health areas affected, spread over 13 health zones
67 healed
50 deaths including 44 confirmed and 6 probable
33,286 people vaccinated since the onset of the disease.

OVERVIEW OF THE SITUATION

A new case of Ebola virus disease (EVD) was confirmed on September 28 in the health zone of Makanza. The latter thus notifies its first case of Ebola, in the health area of Lusengo. This brings the number of health zones affected by the disease to 13, out of the 18 in the province.

Multidisciplinary response teams will be deployed in the area this Wednesday, September 30 to support the efforts of local teams. The Makanza health zone borders that of Bomongo, which had already notified two cases of Ebola.

This new, confirmed case of EVD reveals several challenges to the current response. Samples from this case were collected on September 19, 2020, but test results came out nine days later. The isolation and difficult communication with the village of Lusengo delayed the delivery of samples.

The Governor of the province of Equateur chaired a meeting of the Provincial Coordinating Committee Covid-19 / MVE (CPC) to discuss the challenges of the response. At the end of this meeting, in which the partners also took part, the CPC decided to set up a commission made up of the provincial authorities and partners in order to propose recommendations that could strengthen the payment process for providers in the province.

<https://reliefweb.int/report/democratic-republic-congo/rd-congo-note-d-information-humanitaire-epid-mie-de-la-maladie-88>

Canada

OPP identify 34 per cent increase in overdose related deaths for 2019

Source: BradfordToday.ca

GPHIN ID: 1007944818

NEWS RELEASE

ONTARIO PROVINCIAL POLICE

ORILLIA – The Ontario Provincial Police (OPP) have released the 2019 Opioids and Overdoses: Impacts and Strategies report, highlighting statistics, trends and impacts in relation to opioids in OPP policed communities. The report contains information outlining opioid seizures, overdoses and relevant strategies as well as a progress report on previous priorities.

The OPP have prepared this report in an effort to remain transparent and provide the citizens of Ontario with an accurate depiction of the impacts opioids continue to have within our province. The 2019 Opioids and Overdoses: Impacts and Strategies reviews statistics from across Canada, the Province of Ontario as well as in OPP specific areas of responsibility.

Key findings in 2019:

The OPP has identified a 34 per cent increase in overdose-related deaths in 2019 as compared to overdose-related deaths in 2018;

Since September 2017, OPP officers have saved 177 lives by administering naloxone (as of date of this release);

In an effort to promote the Good Samaritan Drug Overdose Act (GSDOA), the OPP conducted a very comprehensive public awareness campaign that spanned the country;

Holding drug traffickers, responsible for overdose related deaths, accountable - the OPP laid 102 charges in 12 overdose-related death investigations in 2019, a 500 per cent increase over 2018.

The focus of the OPP over the past year has been to establish foundational elements and reliable data ensuring a balanced and evidence based approach. New partnerships have been forged in an effort to share information more effectively, positioning the OPP to continue its proactive and layered response to the opioid crisis.

The 2019 Opioids and Overdoses: Impact and Strategies report can be found at here.

LEARN MORE

To find out more about the dangers of fentanyl and short term antidotes, we encourage everyone to visit here, part of an awareness campaign supported by the Ontario Association of Chiefs of Police (OACP).

QUOTE

"There are no excuses in today's environment for these harmful drugs to be distributed through our communities. One person is dying every 4.7 hours in Ontario from opioids. We will continue to pursue those who are knowingly trafficking harmful opioids, such as fentanyl, and we will hold them responsible for their actions. We will do this while supporting our social and health services partners in a collective effort to help those impacted by this crisis" - OPP Commissioner Thomas Carrique

<https://www.bradfordtoday.ca/police-beat/opp-identify-34-increase-in-overdose-related-deaths-for-2019-2751598>

United States

Two novel investigational drugs targeting antibiotic-resistant infections move into advanced development with HHS

ID: 1007947596

Source: CIDRAP, phe.gov

BARDA to fund two new antibacterial drug candidates

The Biomedical Advanced Research and Development Authority (BARDA) today announced advanced funding for two new drug candidates that target bacterial infections.

The two drug candidates are VE303, a live biotherapeutic product developed by Vedanta Biosciences that focuses on restoring the normal balance of beneficial bacteria in the digestive tract to prevent recurrence of *Clostridioides difficile*, a bacterial infection associated with antibiotic use. The other is Locus Biosciences' LBP-EC01, which uses CRISPR-Cas3 technology and bacteriophages to treat urinary tract infections caused by *Escherichia coli*, including those that are antibiotic resistant.

BARDA, part of the Department of Health and Human Services (HHS) Office of the Assistant Secretary for Preparedness and Response, will provide an initial \$7.36 million and up to \$76.9 million over 9.5 years to Vedanta to support development of VE303 and an initial \$11 million and up to \$77 million to Locust for LBP-EC01. The funding will support phase 2 and phase 3 trials of the drugs.

The Centers for Disease Control and Prevention has identified *C difficile* and antibiotic-resistant *E coli* as serious and urgent health threats.

"Healthcare providers need tools at-the-ready to prevent or combat secondary bacterial infections, particularly those that impact a patient's successful recovery following antibiotic usage in a public health emergency," BARDA Acting Director Gary Disbrow, PhD, said in a press release. "Infections associated with long-term antibiotic use are a growing concern and are often costly to treat which makes developing novel drugs and technologies for prevention and treatment all the more urgent for U.S. health security." <https://www.cidrap.umn.edu/news-perspective/2020/09/stewardship-resistance-scan-sep-30-2020>

<https://www.phe.gov/Preparedness/news/Pages/carbX-grads-30sept2020.aspx>