

GPHIN Daily Report for 2020-09-24

Special section on Coronavirus

Canada

Areas in Canada with cases of COVID-19 as of 23 September 2020 at 07:00 pm EDT

Source: Government of Canada

Province, territory or other	Number of confirmed cases	Number of active cases	Number of deaths
Canada	147,753	10,722	9,243
Newfoundland and Labrador	272	1	3
Prince Edward Island	58	1	0
Nova Scotia	1,087	1	65
New Brunswick	197	4	2
Quebec	69,088	3,593	5,809
Ontario	48,087	3,652	2,835
Manitoba	1,674	418	18
Saskatchewan	1,830	133	24
Alberta	17,032	1,520	260
British Columbia	8,395	1,399	227
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

Government of Canada signs new agreements to secure additional vaccine candidate and treatment for COVID-19

Source: Public Services and Procurement Canada

ID: 1007891979

News release

September 22, 2020 - Gatineau, Quebec - Public Services and Procurement Canada

The Government of Canada is protecting the health and safety of all Canadians, while ensuring a safe and sustainable economic recovery. This includes taking steps to ensure that Canadians can access future vaccines and treatments, and that the healthcare system has the tools required for effective deployment.

The Honourable Anita Anand, Minister of Public Services and Procurement, today announced that the Government of Canada has signed agreements with Sanofi and GlaxoSmithKline (GSK) to secure up to 72 million doses of their COVID-19 adjuvanted recombinant protein-based vaccine candidate.

Based on recommendations from the COVID-19 Vaccine Task Force, the Government of Canada is signing agreements with a number of leading pharmaceutical companies to establish a guaranteed supply base of potential vaccine candidates. Agreements have previously been signed with Pfizer, Moderna, Johnson & Johnson and Novavax, and negotiations continue for access to other leading vaccine candidates.

Currently, no vaccines have been approved to prevent COVID-19 in Canada. Many vaccines are in clinical trials or under development domestically or internationally. Once vaccines are ready, companies will need to make submissions for authorization to Health Canada. Health Canada will review the evidence of safety, efficacy and manufacturing quality for each vaccine to determine whether individual vaccines will be approved for use in Canada before they are made available to Canadians.

At the same time, the National Advisory Committee on Immunization, an external advisory group of vaccine and public health experts, will provide federal, provincial and territorial governments with guidance for safe and effective vaccine use for Canadians.

While significant work is underway to develop vaccines to prevent the spread of COVID-19, the Government of Canada is also focused on therapeutics to treat Canadians who have contracted the virus.

Minister Anand announced that the Government of Canada has signed an agreement with Gilead Sciences and McKesson Canada to secure a supply of up to 150,000 vials of remdesivir, with deliveries beginning this month and continuing into early 2021. Currently, remdesivir is the only known anti-viral drug that has been shown to be effective in treating COVID-19 patients.

The Government of Canada has also signed two contracts with SiO2 International Inc. to purchase syringes and vials for use in filling up to 80 million doses of vaccine, with deliveries beginning this month.

Quotes

“On behalf of the Public Health Agency of Canada, and based on recommendations from the COVID-19 Vaccine Task Force, we are looking to the future and readying Canada for a vaccine to enable us to emerge from this pandemic. These agreements signed to date include the three main types of vaccine candidates – known as mRNA, Protein Subunit and Viral Vector. Having a diverse portfolio of vaccines from multiple supply sources will provide assured access to safe and effective COVID-19 vaccines when they become available. We have also signed a number of contracts for the supplies necessary to eventually distribute vaccines, including syringes, vials, and alcohol swabs. When a vaccine is ready, Canada will be ready.”

The Honourable Anita Anand
Minister of Public Services and Procurement

“The announcement of additional vaccine candidate agreements will help us to provide a vaccine to as many Canadians as possible when one is approved by Health Canada and proven to be safe and

effective. In the meantime, we will be working with provinces and territories to distribute the 150,000 vials of remdesivir to healthcare providers to treat their COVID-19 patients who need it most.”

The Honourable Patty Hajdu
Minister of Health

<https://www.canada.ca/en/public-services-procurement/news/2020/09/government-of-canada-signs-new-agreements-to-secure-additional-vaccine-candidate-and-treatment-for-covid-19.html>

Canada

Trudeau says Canada is in second wave of pandemic, urges renewed caution

Source: Financial Post
ID: 1007901146

OTTAWA — **Canada has entered a second wave of the coronavirus pandemic, Prime Minister Justin Trudeau said on Wednesday, warning that the country was on the brink of a surge if people did not follow public health guidelines.**

In a rare national address, Trudeau said the country “is at a crossroads” as a second wave emerges in four large provinces, adding that the government would do whatever it took to help the country recover from the pandemic.

“We’re on the brink of a fall that could be much worse than the spring,” he said.

Canada’s COVID-19 cases have spiked in recent days, with an average of 1,123 new cases reported daily over the past week, compared with a daily average of 380 cases in mid-August.

“We have the power to get this second wave under control. I know we can do it, because we’ve already done it once before,” Trudeau added.

Canadians are now more worried about COVID-19 than they have been since April, an Abacus Data poll showed.

Earlier, the government made the commitments in the so-called Speech from the Throne, which lays out its agenda for the next parliamentary session, and promised to recover more than a million jobs lost during the crisis.

Total infections reached 147,753, while 9,243 people have died, according to latest government data.

<https://financialpost.com/pm/business-pmn/trudeau-says-canada-is-in-second-wave-of-pandemic-urges-renewed-caution>

Canada

Statement from the Chief Public Health Officer of Canada (Epi Report) on September 23, 2020

Source: Canada News Centre - Public Health Agency of Canada
ID: 1007899776

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 146,663 cases of COVID-19 in Canada, including 9,234 deaths. 87% of people have now recovered. Over the past week, there has been a marked increase in laboratory testing, with an average of almost 70,000 people tested daily across Canada and 1.4% of these testing positive.

Since our last modelling update in mid-August, the national daily case count has been increasing at an accelerated rate. Over the past seven days, an average of 1,123 cases were reported daily, compared to 380 cases reported daily in mid-August.

Canada is at a crossroads with the COVID-19 epidemic trajectory. At the current rate of growth, our epidemiological analysis and modelling studies indicate that unless public health and individual protective measures are strengthened and we work together to slow the spread of the virus, the situation is on track for a big resurgence in a number of provinces.

Throughout the summer, infection rates have been highest among young adults aged 20-39 years. While COVID-19 tends to be less severe among young people, ongoing circulation of the virus in younger, more mobile and socially connected adults builds a reservoir for the virus. This not only increases the risk for spread to individuals and populations at higher risk for severe outcomes, but it threatens our ability to keep COVID-19 at manageable levels. As well, it is important to know that young adults are not immune to the direct impacts of COVID-19, as serious or prolonged illness can occur at any age.

Yesterday I ended my remarks with a message to young adults and today I want to reiterate that now more than ever, we need your cooperation, your creativity and your drive to help reduce the spread of COVID-19. In fact, we can't get back on the slow burn track without your help. This is your generation, this is your time, let's work together to get this done.

To make this work, we all need to commit to strictly adhering to individual protective measures including physical distancing, hand hygiene, 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 if mild.

The challenge we all face is to stay the course no matter how weary we may feel. We have done this before and we know that working together we can do it again. Let's get back on the slow burn track together. Find more COVID-19 information and resources here .”

<https://www.canada.ca/en/public-health/news/2020/09/statement-from-the-chief-public-health-officer-of-canada-epi-report-on-september-23-2020.html>

Canada

Quebec school bus drivers want to know if students are diagnosed with COVID-19

Source: Montreal Gazette

Unique ID: 1007897452

The union representing 3,500 school bus drivers in Quebec wants schools to inform their members if any of the children they are transporting have been diagnosed with COVID-19.

In a statement issued Wednesday, the **Fédération des employées et employés de services publics (FEESP-CSN)** noted that schools are already informing students and school personnel if a case has been detected.

However, suppliers to schools — a classification that includes school bus transportation — are not obliged to be informed.

The union notes that drivers are exposed to their passengers for long periods of time, in many cases at a distance of less than two metres, and that children are only obliged to wear masks once they are in Grade 5.

It would be easy to provide the information, the union argues, thanks to a computerized system that keeps track of students on each bus route.

Union president Stephen P. Gauley noted that many drivers are elderly and more vulnerable to the effects of the virus.

<https://montrealgazette.com/news/local-news/quebec-school-bus-drivers-want-to-know-if-students-are-diagnosed-with-covid-19>

Canada

COVID-19 antibody testing finds 'significant' number of cases in Downtown Eastside

Source: CBC News

Unique ID: 1007897167

Since the earliest days of the COVID-19 pandemic, there has been a heightened level of concern for what might happen to residents of Vancouver's Downtown Eastside if the neighbourhood was exposed to an outbreak of the disease.

Many of the members of the community live with limited resources, and poverty, drug use and other issues have left a trail of underlying health conditions.

Yet, while more than 8,200 British Columbians — nearly 3,000 of them within the Vancouver Coastal Health region — have tested positive for the virus, the Downtown Eastside appears to have avoided a major outbreak.

But now, according to the Vancouver Infectious Disease Centre (VIDC) — an independent nonprofit that provides clinical services, research and outreach on infectious diseases in the Downtown Eastside — it's clear that the neighbourhood hasn't been spared.

Bloodwork from area residents taken by the VIDC and sent to the B.C. Centre for Disease Control (BCCDC) for testing indicate that many have had the disease, VIDC medical director Dr. Brian Conway says.

"Our preliminary results suggest that a significant number of residents of the Downtown Eastside carry antibodies to COVID-19, indicating that they were infected at some point," Conway said.

Conway launched a series of free community "pop-up clinics" to test blood for telltale coronavirus antibodies among Downtown Eastside DTES residents over the summer. The clinics were approved by Health Canada and staffed and funded by the VIDC, he said.

Of the few hundred residents Conway's team tested, a couple of dozen have the antibodies, he said.

There appears to be high levels of infection, at least in shelter environments where there is limited ability to maintain physical distancing, he added.

Conway's work is progressing to the contact tracing phase on Tuesday, as he and his team begin to meet with some of the people who tested positive to try to determine how they experienced the disease, when they had it, where they were, and to whom they might have transmitted COVID-19.

Few reported DTES cases

Few cases have been publicly reported in the Downtown Eastside. The Salvation Army confirmed a case at its Vancouver Harbour Light facility in early April, Vancouver Coastal Health advised of a possible exposure at the West Pub between Aug. 20 and Sept 8, and on Monday the United Gospel Mission (UGM) confirmed a tenant at its transitional housing had tested positive.

According to Conway, individuals released from the Matsqui Correctional Institution in Abbotsford, where an outbreak took place, were found to be infected at the First United shelter in the Downtown Eastside.

The BCCDC publishes reports that detail the number of cases in different areas within health authority regions. The most recent available report up until July 31 shows that 48 people within the region that includes the Downtown Eastside have tested positive — well below most of the other local areas.

But that timeframe doesn't include the period in which the province, generally, has seen a major surge in cases of the virus, and not much is known how the neighbourhood has fared in the past several weeks.

Vancouver Coastal Health has deferred to the BCCDC reporting, while the BCCDC told CBC News that Vancouver Coastal Health manages the cases and follow-ups in its region.

Micheal Vonn, CEO of the PHS Community Services Society, maintains that the number of cases in the Downtown Eastside is relatively low.

"There are cases throughout the entire service continuum in the Downtown Eastside, but they're very, very, very spare," Vonn said on Monday.

She declined to comment on cases within her large organization, be it staff, residents, or patients.

Conway concedes that hospitalizations and intensive care admissions have been very low in the Downtown Eastside, but the infection rate is cause for concern.

"Up until now it has been sort of thought that the disease really didn't penetrate that neighbourhood,"

Conway said. "It is incorrect to say that this neighbourhood was spared of COVID-19."

Do you have more to add to this story? Email rafferty.baker@cbc.ca

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<https://www.cbc.ca/news/canada/british-columbia/downtown-eastside-viru-antibody-testing-1.5733501>

Canada

Federal Conservatives make use of a COVID-19 test not sanctioned by Health Canada

Source: CBC News

Unique ID: 1007897210

The Ontario caucus of the federal Conservative Party made use of a COVID-19 serological test that has not yet been approved by Health Canada, according to Conservative MP Scot Davidson.

Davidson, the Ontario caucus chair, said the caucus used the device "for safety" prior to a recent caucus retreat. COVID-19 cases are rising sharply in parts of the country, including Ontario, and party leader Erin O'Toole, his wife and at least one of his staffers have all tested positive for the virus.

O'Toole's wife, Rebecca, received a positive test result late Monday after developing symptoms over the weekend.

Bloc Québécois Leader Yves-François Blanchet also has tested positive and his entire caucus is now in self-isolation.

A spokesperson for O'Toole said the Ontario caucus sat through a presentation by a Canadian company that is seeking approvals from Health Canada to distribute its serological test.

Interested MPs were given the chance to take the test after they were lobbied by the company promoting the testing device, she said. The spokesperson said the test already has received approvals from the U.S. Food and Drug Administration.

"We had all our MPs tested that came to our Ontario caucus retreat," Davidson told reporters ahead of the Conservative caucus meeting this morning.

"We had an unapproved test that's waiting for approval from Health Canada so we need to see the government take action and speed up the process to approve these tests. We tested 28 MPs in 39 minutes with the results."

O'Toole's spokesperson said that Conservatives, "like all Canadians ... are concerned about the Trudeau government's delays in approving new testing methods."

A serological or antibody test like the one used by the Ontario caucus is not typically used to diagnose an active coronavirus infection.

Antibodies are made by the immune system in response to an infection. Antibodies can take several days or weeks to develop after infection and may stay in the blood for several weeks or more after recovery. So antibody tests — which use a blood sample from a finger prick — usually are reserved for people looking to learn whether they've been infected by coronavirus at some point in the past.

The FDA warns that these tests can't "diagnose active coronavirus infection at the time of the test, or show that you do not have COVID-19."

Health Canada says it is "not aware of any serological-based test that has been validated for diagnosing COVID-19."

"However, serological tests will play an important role in Canada's overall testing strategy, providing evidence in assessing the true extent of COVID-19 in the general population."

A number of public health experts have urged the federal government to make more tests available in Canada at a time when many people, notably in Ontario and Quebec, are facing hours-long waits for testing through the conventional lab-based process.

Dr. David Naylor, a co-chair of the federal government's COVID-19 task force, has said he'd like to see more rapid testing in Canada that could be administered at pharmacies, schools and other high-risk workplaces to alleviate the growing burden on hospital-run testing centres.

Unlike serological testing, rapid antigen testing has been used in some places like the U.S. to produce diagnostic test results in as little as 15 minutes.

Canada has not yet approved any rapid or antigen testing devices.

Health Minister Patty Hajdu said last week that Health Canada is not yet satisfied with any of the options it has been reviewing for rapid COVID-19 testing devices — and they will not be deployed across the country until regulators are sure they meet a certain standard.

While the U.S. Food and Drug Administration approved two antigen testing devices months ago, Health Canada is not ready to put its stamp of approval on such tests, Hajdu said.

The rapid antigen tests — which, depending on the device, use matter collected from a nasal or a throat swab — don't require the use of a lab to generate results.

While much faster, these tests are considered by some to be less accurate than the "gold standard" — the polymerase chain reaction (PCR) testing process currently in use across Canada.

If administered properly, PCR tests are highly accurate, identifying positive cases nearly 100 per cent of the time. Antigen tests are also considered highly accurate but they are not as sensitive as molecular PCR tests run through a lab.

<https://www.cbc.ca/news/politics/tories-serological-test-health-canada-1.5733955>

Canada

Report blames fatal outbreak at CHSLD Herron on 'organizational negligence'

Source: CBC | Montreal News

ID: 1007900058

An investigation into one of the province's hardest-hit long-term care homes, CHSLD Herron, has concluded it suffered from "organizational negligence."

The report was released Wednesday alongside another into CHSLD Sainte-Dorothée, which was also ravaged by COVID-19.

In that case, the investigation found that problems stemmed from, among other things, a shortage of personnel.

The two reports, ordered by former Health Minister Danielle McCann, offer further details in what unfolded at the two locations, both before the pandemic struck and in the weeks and months that followed.

"It is clear to us that the pandemic alone does not justify what happened," Marguerite Blais, the province's minister responsible for seniors, said in a statement.

"We learned from the first wave to make sure we never relive human dramas like the ones we experienced last spring."

She said the reports will be used to improve care for seniors and "our vulnerable populations in CHSLDs Herron, Sainte-Dorothée and in all areas of life in Quebec."

A separate, wide-ranging public inquiry was ordered by Quebec's chief coroner into the province's long-term care homes, private seniors' residences and other residential institutions for vulnerable people over the first six weeks of the pandemic.

<https://www.cbc.ca/news/canada/montreal/chsld-herron-sainte-dorothee-reports-1.5735921?cmp=rss>

Canada

Province Cautiously Optimistic About Early Days Of School - DiscoverMooseJaw.com

Source: DiscoverMooseJaw.com

ID: 1007899961

Cases of COVID-19 may be on the rise in Saskatchewan overall, but the rise has been gradual enough that the provincial government isn't panicking over it just yet. With almost two full weeks of classes down, they're reasonably pleased with early returns on back-to-school.

"So far, we have seen no evidence of the virus being spread within the schools," said Premier Scott Moe. "The protocols the schools have put in place are working, and I would say they are working quite well. So, I would say thank you to the students, to the teachers, and to all of the staff for everything you are doing to ensure that our classrooms are safe."

As of last Thursday, the province has begun tracking cases in schools separately and will release that information on a weekly basis. The data for the first week back (albeit a shortened week due to the long weekend) was promising. That wasn't to suggest schools were out of the woods as cases climbed outside them, however.

"If there are more cases in our community, it only stands to reason that some of those cases are going to be students and some will be teachers," said Moe. "That's how the virus will enter our schools. That's what we have seen in a few schools in Saskatoon."

The cases in Saskatoon, some of which stem from a large social gathering and others of which stem from an outbreak at a local business, have been a cause for some concern. They have not yet led to outbreaks in the schools, however.

"This is our second week back of in-class learning," said Saskatchewan's Chief Medical Health Officer, Dr. Saqib Shahab. "While six schools have had a single case each, and the week before opening there was a staff member who was symptomatic... schools reopening overall is going smoothly. As long as children and staff who are unwell stay home, the proper protocols are followed, while we expect to see the occasional case or cluster in schools, we look forward to schools continuing as they are."

Both Moe and Dr. Shahab stressed that whenever community transmission rises, schools become higher-risk environments, so they asked the people of Saskatchewan to maintain their physical distancing and keep up with the good habits they've largely been practicing since the pandemic began.

<https://discovermoosejaw.com/local/province-cautiously-optimistic-about-early-days-of-school>

Canada

B.C. teachers worried by inconsistent COVID-19 school exposure info

Source: NEWS 1130

ID: 1007899872

VANCOUVER (NEWS 1130) — The B.C. teacher's union says it's concerned about inconsistent reporting of COVID-19 exposures in schools and a lack of transparency from one health region in particular.

Since the province announced COVID-19 exposure alerts in schools would be made available online, Vancouver Coastal Health has faced criticism for the way it has handled its alerts. The health authority had only posted one exposure at a school, despite there being others.

BC Teachers' Federation President Teri Mooring says it's frustrating and it seems there are different criteria for schools issuing potential exposure notifications and making them public on health authority's websites.

"There's a real time-lag, it seems to me, especially in terms of the contact tracing," she says. "And that's causing a lot of alarm because we know the learning groups and the cohort model is to enable quick and efficient contact tracing."

She feels as if the procedure of informing school communities across B.C. isn't the same, and there is "also the lack of consistency generally with the local health authorities in terms of how they are contacting individuals."

She says it isn't clear why there is a difference in speed for when school districts are given authority to send notifications out.

Provincial Health Officer Dr. Bonnie Henry has said updating health region's websites applies to all of B.C.

"We expect that Vancouver Coastal would adhere to what everyone else is doing, as well as our provincial standard," she said Monday during the daily briefing.

She added the risk of transmission remains low even if there is an outbreak.

The BCTF plans to send a letter with their concerns to provincial health officials.

However, VCH's Chief Medical Health Officer Dr. Patricia Daly reassures that those who need to know about exposures are being informed, even if it isn't online.

Spoke to @VCHhealthcare CMO Dr Daly: says website notifications posted if entire class potentially exposed. One so far: Sentinel.

I'll keep compiling school notices. Latest York House.

Note: school mbr testing positive is NOT school transmission. #bcpoli #covid19 @NEWS1130 #bced pic.twitter.com/APtP8juOXZ

— LizaYuzda (@LizaYuzda) September 23, 2020

"That's not the primary way that parents will be notified. They'll be notified directly by public health," she says. "We're not hiding anything. Some principals have sent out letters to reassure that they've heard rumours of cases that they will be notified directly."

Daly explains if there were close contacts to an infected person, they would be notified by public health authorities.

"If there has been an exposure in a classroom, that warrants a letter to the whole class, then we will post that to our public website in addition."

As of Wednesday morning, more than 30 potential exposures but no school transmissions have happened so far.

A teacher in West Vancouver became the first to make a complaint with WorkSafeBC after contracting COVID-19.

<https://www.citynews1130.com/2020/09/23/bctf-wants-transparency-covid-19/>

Canada

Ontario considers shortening list of possible COVID-19 symptoms that require kids to stay home from school

Source: CBC | Toronto News

ID: 1007899854

Ontario's education minister says he's considering shortening the list of COVID-19 symptoms that require kids to stay home from school — shortly after British Columbia announced it's doing the same.

Stephen Lecce **says he's working with the province's medical officials to consider possible changes to the list, which right now includes sore throat, nasal congestion and abdominal pain.**

Those three symptoms are among the 10 that B.C. opted to remove from its checklist, "given the very low probability of these symptoms by themselves indicating COVID," the ministry said in an emailed statement.

The British Columbia health ministry also says since the symptoms are "very common" in kids, "there are concerns that it would unnecessarily exclude children."

Ontario's school reopening plan requires parents to screen their children for a list of COVID-19 symptoms and keep them home if they display signs of the novel coronavirus.

They're allowed to return to class when they no longer display symptoms.

'Conservative approach' best, says doctor

Two experts contacted by CBC Toronto expressed concern about making any changes to Ontario's list at this point, given the province's recent increase in cases.

"Because the community transmission issues have not been resolved we are going to see more cases in schools," said Prachi Srivastava, an associate professor in global education at Western University.

Srivastava says schools need to do everything they can to keep COVID-19 out, given that some of the major ways to reduce transmission — like substantially reducing classroom sizes and doing thorough updates to ventilation systems — haven't happened.

Dr. Dina Kulik, a pediatrician and emergency room physician, agrees it's not the right time to revisit the symptom list.

"I personally believe that as we see rising numbers, the conservative approach is the better way to go," she said.

"We do know that COVID-19 can present with just a runny nose in kids."

So far this fall, there have been 180 COVID-19 cases in Ontario schools, 77 of which are students. Two schools have had to close due to outbreaks.

A recent analysis by CBC News of Canadian COVID-19 cases shows that runny nose, cough and sore throat are among the most common symptoms in people under the age of 19.

'Clear guideline' for parents would be helpful

But Kulik does say there is room for improvement when it comes to communication around which kids should get tested or stay home, and for how long.

"I think people would appreciate having a clear guideline where there wouldn't be any ambiguity," she said.

Kulik described speaking with parents who have been confused by shifting or unclear rules, giving the example of two families who had their kids tested on the same day.

One was told by the tester that if the result was negative, the child could return to school the next day, the other was told that they would have to stay home for two weeks.

Ottawa parent Cameron Grant has direct experience with that kind of confusion.

This past weekend, he took his three-year-old son to get tested for COVID-19 after the boy developed a runny nose. His son's test returned negative and he went back to school on Monday.

But, while at school, his nose started running again — and Grant was called in to pick him up based on advice from Ottawa Public Health.

The confusion came when Grant read another set of rules — ones posted to the school door — which indicated that the child should only be sent home again if new symptoms develop.

"It's not a new symptom if [he has] a runny nose," said Grant.

"If they're being kept out of school when we know they don't have COVID-19 that might not be a good use of parents' time."

"I don't know about getting rid of it as a symptom. I'll leave that to the doctors," he continued.

"But I'd say there's definitely a little more nuance to it available."

<https://www.cbc.ca/news/canada/toronto/ontario-symptoms-students-covid-19-1.5735850?cmp=rss>

Canada

Emergency crews called to U of S after vaccine lab receives suspicious package

Source: CBC News

Unique ID: 1007897324

The Saskatoon Police Service's explosives unit and the fire department were called to a vaccine lab at the University of Saskatchewan Tuesday after the facility received a suspicious package.

The university says the package was sent to the Vaccine and Infectious Disease Organization International Vaccine Centre (VIDO-InterVac) through the campus mail service.

VIDO-InterVac is one of many research facilities in the world currently working to find a vaccine for COVID-19.

The wing of the building where the package was located was cleared of all staff and closed.

The explosives unit was investigating the package as of 4 p.m. CST.

Access to VIDO-InterVac by Perimeter Road and Veterinary Road was shut down and the public was advised to stay away.

<https://www.cbc.ca/news/canada/saskatchewan/u-of-s-vaccine-lab-receives-suspicious-package-1.5734768>

Canada

Ontario Set to Employ the Largest Number of Labour Inspectors in Provincial History

Source: Government of Ontario

Unique ID: 1007897964

New Inspectors will help Keep Workers Safe on the Job during COVID-19

TORONTO - The Ontario government is launching a recruitment campaign to increase its team of frontline health and safety inspectors by 98 and help ensure workplaces across the province are doing their part to prevent the spread of COVID-19. With these new hires, there will be more labour inspectors on the ground than ever before in the province's history.

"Our government is taking the steps necessary to protect Ontario workers on the job and keep our economy on the road to full recovery," said Minister of Labour, Training and Skills Development Monte McNaughton. "By adding more inspectors to our team, we can respond faster to situations as they arise and help make sure that every office, plant, store and job site in this province is safe, during COVID-19 and beyond.

The hiring of these new workers will see the number of active inspectors in the province increase from 409 to 507, an increase of 24 per cent. Training is set to begin later this fall.

The new inspectors will play a key role in protecting workers by checking and enforcing that workplaces are following occupational health and safety legislation. They will have broad powers to:

- inspect any workplace and ensure they have COVID protections in place;
- investigate any potentially hazardous situation, critical injury, fatality and work refusal;
- order compliance with the legislation;
- stop unsafe work from being performed; and
- recommend and initiate prosecutions.

The full-year cost for the new inspectors will be \$11.6 million. Recruitment of the inspectors will begin in early October 2020. Applicants will have one month to apply.

"Nothing is more important than protecting the health and safety of our workers," said Minister McNaughton. "By building the largest labour inspectorate in history, we're in the best position to do just that."

To help ensure that employers have the resources and equipment they need to keep their employees safe, including Personal Protective Equipment (PPE), the government launched the Ontario Together PPE Directory. With listings for masks, sanitization, eye protection, gowns, gloves and sneeze guards, the directory is another tool to help keep everyone safe while on the job.

<https://news.ontario.ca/en/release/58482/ontario-set-to-employ-the-largest-number-of-labour-inspectors-in-provincial-history>

Canada

Kitchener drive-thru COVID-19 testing clinic closed for safety concerns

Source: Global News

Unique ID: 1007898128

The drive-thru COVID-19 testing centre in Kitchener has closed for the day due to safety concerns, a Grand River Hospital (GRH) spokesperson confirmed to Global News.

"We finished testing the people who are waiting to be tested and have closed to new drive-ins and walk-ups at this time for today," GRH's Cheryl Evans told Global News Wednesday morning shortly after 9 a.m.

The first person had lined up for testing at 2:30 a.m. and the line grew from there, with the testing centre reaching capacity by the time it had opened at 7:30 a.m., Evans confirmed. Within an hour, the decision was made to pull the plug for the day.

She said that police were called in to help with a burgeoning traffic nightmare which had sprawled across the Belmont area of Kitchener.

"We had a serious traffic situation on all of the side streets, so Glasgow (Street) had a significant amount of cars backed up, as did Belmont and Park (streets)," Evans explained. "So we had to call in police to help us with the traffic issue and ensure the safety of all."

[Sign up for our Health IQ newsletter for the latest coronavirus updates]

There were also some unruly people who were causing issues as well.

"We had to protect our staff from some fairly aggressive behaviours and, you know, the safety of our staff and the residents who are being tested come first," Evans said.

The clinic was initially intended to test about 350 people per day but over the past week, it has been testing between 550 and 650 people per week.

The hospital intends to take some time to look for ways to deal with the overwhelming demand.

"We're going to take the day to take a look at our model to see what we can do to alleviate some of that strain in the morning and reopen tomorrow," Evans said.

Once a decision is made on how testing will proceed, Evans says those who are in need of testing will be able to get information through GRH's website or social media.

"Just be patient as we sit here, figure out this process, that would be helpful for everyone," she said.

<https://globalnews.ca/news/7352680/kitchener-covid-19-clinic-closed/>

Canada

Resident of Garry J. Armstrong tests positive for COVID-19

Source: OttawaMatters.com

Unique ID: 1007898383

For the first time during this pandemic, a resident at the City of Ottawa-run Garry J. Armstrong long-term care home has tested positive for COVID-19.

Even though the facility entered its fourth outbreak on September 14, it had always been staff at the home dealing with the virus. Ottawa Public Health (OPH) says one staff member is also currently fighting COVID-19.

Meantime, three staff members at Centre d'accueil Champlain have tested positive for COVID-19. That long-term care home has been in outbreak status since a staff member tested positive for the virus on September 11. The Peter D. Clark Long-Term Care Centre also remains in outbreak status due to positive staff results last week. There are currently no active positive cases at Carleton Lodge.

<https://www.ottawamatters.com/local-news/resident-of-garry-j-armstrong-tests-positive-for-covid-19-2735585>

Canada

Two deaths now linked to Foothills outbreak as cases grow

Source: Calgary Herald

Unique ID: 1007897203

Another COVID-19 death has been connected with the growing outbreak at Calgary's Foothills Medical Centre, which is now linked to at least 22 cases, two deaths and has forced 88 into isolation.

Alberta Health Services said Tuesday that 16 patients and six staff members have been infected. The outbreak remains limited to two cardiac units.

"(Foothills) remains a safe place to visit and to receive care," AHS said in a statement. "There is no increased risk to patients coming to the hospital."

The provincial health authority said there are no shortages as a result of isolated staff and the hospital is using overtime and the reassignment of workers to cover shifts as needed.

"In addition to enhanced screening, cleaning and restricted visitation on the affected units, (Foothills) has set up multiple staff swabbing sites at the hospital to increase testing capacity for staff on outbreak units," said AHS, adding that any positive case will be isolated and treated in designated rooms.

<https://calgaryherald.com/news/local-news/two-deaths-now-linked-to-foothills-outbreak-as-cases-grow>

Canada

Ontario reports 335 new COVID-19 cases, marking considerable drop from last 2 days

Source: CBC News

Unique ID: 1007898879

Ontario reported another 335 cases of COVID-19 on Wednesday, a marked departure from new daily case counts observed earlier this week.

The figure comes as the province's labs processed 35,400 test samples for the novel coronavirus, according to Health Minister Christine Elliott.

The new cases are once again mostly concentrated in Toronto, Peel and Ottawa, with 102, 79 and 65 respectively.

Three other public health units saw double-digit increases as well:

York Region: 30

Halton: 15

Waterloo Region: 13

In a series of tweets, Elliott noted that some 69 per cent of newly confirmed infections are in people under 40 years old, consistent with trends in recent weeks.

The relative drop in new daily cases comes after more than 400 were reported on four of the last five days. The 478 infections in yesterday's provincial report were the most on any single day since May 2, just after community spread of the virus was considered to have peaked in Ontario.

Despite today's figure, the five-day rolling average of new daily cases, a measure that smooths peaks and valleys in data, has been trending steadily upward since mid-August. Those increases have accelerated considerably over the last 10 or so days.

Meanwhile, the provincial government says it will hire 98 new labour inspectors this fall as part of efforts to prevent the spread of COVID-19 in workplaces.

Labour Minister Monte McNaughton says the government will begin to recruit the workers in October.

The hiring blitz will increase the number of government inspectors from 409 to 507 and will cost \$11.6 million.

McNaughton says the inspectors will allow the government to respond faster to situations that may arise during the pandemic.

Labour inspectors investigate workplace hazards, injuries, fatalities and work refusals.

They also have the power to stop unsafe work, order employers to comply with the law, and initiate prosecutions.

<https://www.cbc.ca/news/canada/toronto/covid-19-coronavirus-ontario-september-23-fall-plan-part-2-1.5735266>

Canada

First COVID-19 outbreak in Edmonton's homeless community reported at Hope Mission shelter

Source: Edmonton Journal

Unique ID: 1007899055

Six people in Edmonton's homeless population have tested positive for COVID-19, linked to an outbreak at the Hope Mission Emergency Shelter.

This is the first reported COVID-19 outbreak among the city's homeless community.

Alberta Health Services spokeswoman Holly Budd confirmed the outbreak to Postmedia Tuesday evening and said anyone deemed to be at risk of contracting the virus has been referred to Edmonton's isolation shelter.

This shelter, with an undisclosed location, was set up in mid-August as a place to isolate for those experiencing homelessness and nowhere else to go. It replaced the previous isolation wing of the Edmonton Expo Centre, which also served as a daytime drop-in site for residents until the end of July.

"Alberta Health Services is working closely with community partners, after a positive case of COVID-19 was identified in an individual experiencing homelessness in Edmonton," Budd said in a statement.

"Contact tracing was immediately undertaken and is continuing, along with swabbing for those who may have been exposed."

<https://edmontonjournal.com/news/local-news/first-covid-19-outbreak-in-edmontons-homeless-community-reported-at-hope-mission-shelter>

Canada

Coronavirus hits more schools amid growing fears of pandemic's second wave

Source : CTV News

Unique ID: [1007899170](#)

TORONTO -- More than 400 schools in Quebec and another 153 in Ontario are reporting at least one case of coronavirus disease.

The figures from the group COVID Ecoles Quebec and the Ontario government come as authorities across Canada battle a second wave of COVID-19.

Data from Ontario show cases among people in their 20s have risen sharply in recent months.

One expert attributes the increase among younger Canadians in part to the reopening of schools and universities.

Several provinces and universities have warned of stiff fines for violating anti-COVID restrictions.

However, Quebec says it will not allow police to enter homes without a warrant to break up gatherings that violate the measures.

In all, COVID has killed about 9,250 people in Canada, as the cumulative case count edged toward the 150,000 mark.

Quebec, with more than 69,000 cases, has accounted for about 48 per cent of the total cases but 63 per cent of the deaths. Ontario's more than 48,000 reported cases account for 33 per cent nationally, and 31 per cent of fatalities

On Wednesday, Quebec reported 471 new cases. Another four reported deaths from the novel coronavirus brought the province's total fatalities to 5,809.

Ontario, which has shown a steady increase in new cases since mid-August after months of declines, reported 335 new cases of COVID-19 on Wednesday and another three deaths. Almost 70 per cent of the new cases were in people under the age of 40, the province's health minister, Christine Elliott, said.

Concern is also mounting as more long-term care homes in Ontario, brutally hit by the virus earlier in the year, report outbreaks. Almost 70 per cent of fatalities have been among those aged 80 and older and another 27 per cent were 60 to 79 years of age.

While older people and those with underlying health conditions are generally more susceptible to severe illnesses from SARS-CoV-2, younger people can spread the contagious disease -- often before showing any symptoms.

Ontario data indicate the number of new cases among people in their 20s has reached similar levels to those seen among people in their 80s in mid-April. Along with school reopenings, Dr. Brian Ward, a professor of medicine at McGill University, cited bars and parties as key factors, along with a "general sense of invulnerability" among younger people.

"COVID fatigue also clearly plays a role," Ward said.

The worrisome upward trend in new cases -- particularly among younger people -- comes as the federal Liberal government gets set to lay out its plan to take on a second wave of COVID-19 as part of its speech from the throne Wednesday. Public health officials have warned a return to strict lockdowns might be required to curb a pandemic resurgence.

Stringent lockdowns implemented in the spring caused unprecedented economic disruption, prompting the federal government to spend tens of billions of dollars on wage and other business supports as unemployment skyrocketed. Some of those spending programs, however, are set to end but the government has promised replacements.

This report by The Canadian Press was first published Sept. 23, 2020.

<https://www.ctvnews.ca/health/coronavirus/coronavirus-hits-more-schools-amid-growing-fears-of-pandemic-s-second-wave-1.5116858>

Canada

Ontario Expands COVID-19 Testing to Pharmacies

Source: Government of Ontario

Unique ID: 1007899169

HUNTSVILLE — The Ontario government is providing people with convenient and timely access to free COVID-19 testing at pharmacies in the province. As of Friday, 25 September 2020, up to 60 pharmacies in Ontario will begin offering testing by appointment only, with further locations coming online in the

coming weeks. This initiative will expand testing capacity well beyond the province's 150 assessment centres.

Details were provided today by Premier Doug Ford and Christine Elliott, Deputy Premier and Minister of Health.

"We rely on our pharmacists for our flu shots, prescriptions, and important health advice for ourselves and our families. It makes sense to engage them as key partners in delivering more COVID-19 testing," said Premier Ford. "I have to thank Shoppers Drug Mart, Rexall, and the independent pharmacies who have stepped up in a big way to help expand testing to more people in the province. With everyone pitching in, we are well on our way to reaching our goal of 50,000 tests a day and stopping the spread of COVID-19."

Pharmacies may choose to provide testing for Ontarians who have no COVID-19 symptoms. Individuals, within provincial testing guidance, will be able to visit select pharmacies by appointment only, and they will be pre-screened and then tested at no charge. When visiting a pharmacy Ontarians should continue to follow COVID-19 public health measures, including wearing a face covering, frequent handwashing, and maintaining physical distance from those outside their household or social circle.

"As part of our plan to ensure that we are ready for future waves of COVID-19, our government is working with pharmacies to help expand testing for Ontarians," said Minister Elliott. "With a recent increase in the number of cases, we are making sure people have more options for testing to identify cases of COVID-19 early. We must not let our guard down. Our best defense is still to follow all public health measures like practising physical distancing, wearing face masks and staying home when ill, so we can stop the spread of COVID-19."

The expansion of COVID-19 testing to pharmacies is part of the province's comprehensive plan to prepare the health system for a second wave of COVID-19. Keeping Ontarians Safe: Preparing for Future Waves of COVID-19 will help the province quickly identify, prevent and respond to any scenario in order to protect communities.

The Keeping Ontarians Safe plan will:

- Maintain strong public health measures, including continued expansion of testing and case and contact management;
- Quickly identify, manage and prevent COVID-19 outbreaks;
- Accelerate efforts to reduce health service backlogs;
- Prepare for surges in COVID-19 cases;
- Recruit, retain, train and support health care workers, while also continuing to engage families and caregivers; and
- Implement the largest flu immunization campaign in Ontario's history.

Given the size and complexity of the Keeping Ontarians Safe plan, the province will continue to release details over the coming days.

In addition, Women's College, Mount Sinai and University Health Network—Toronto Western Hospital assessment centres will be offering saliva testing this week. More assessment centres will offer this less invasive method in the coming weeks, giving Ontarians more options to access testing for COVID-19. <https://news.ontario.ca/en/release/58492/ontario-expands-covid-19-testing-to-pharmacies>

Canada

As Quebec rolls out COVID-19 ad campaign, experts wonder if it will reach target audience

Source: 660citynews.com

ID: 1007900328

MONTREAL — Quebec has begun rolling out a COVID-19 advertising campaign aimed at putting a human face on the deadly virus and reaching those who discount its severity.

The ads — the first of which was released Tuesday night — include testimonials of those impacted directly by COVID-19.

In the first spot, the camera focuses on Francis, a general contractor who recounts spending 45 days in hospital, including 12 in a coma. He underwent a tracheotomy and now breathes through an opening in his neck.

Francis explains the virus was contracted after chatting with a friend in a doorway. Three days later, symptoms set in: fever, fatigue and difficulty breathing, and now he's no longer able to work.

"Believe me," he concludes, "COVID-19 is serious."

With public health officials saying the province hit hardest by COVID-19 is experiencing a second wave, efforts have intensified to reach a segment of the population that has felt the virus's risk is overhyped.

But some marketing experts do not believe the government is striking the right tone or that the message will reach the right people.

"Fear is not a good motivator," said Benoit Duguay, a professor in the Universite du Quebec a Montreal's school of management.

"You're going to scare the wrong people. You are going to scare the people who are already scared, and the people who are not scared, it will not change their attitude or behaviour in any way, form or fashion."

Robert Soroka, a marketing professor at Concordia University's John Molson School of Business, says the ad would have been more effective with an accompanying message at the end.

"Fear appeals work, but they are most effective when you provide the audience with a solution," Soroka said.

The other issue is that the recent spike in infections has been most pronounced among younger people, who won't necessarily see themselves in the first advertisement featuring a middle-aged contractor.

"They absolutely need to hear it from social influencers, from people who are respected by that segment of the population," Soroka said. "Right now, for that group, they're not drinking the Kool-Aid ... and certainly their peers are not reinforcing the message the government is trying to convey."

Those influencers or celebrities that would best reach those age groups don't necessarily want to dilute their own brands and dissuade activities that generate income for them, Soroka said.

Premier Francois Legault shared the 30-second spot featuring Francis on Twitter, stressing that he is not an actor. "He is a Quebecer, like you and me, who caught COVID-19 and got very sick," he wrote.

Laurette Dube, a marketing professor at McGill University's Desautels faculty of management, noted that many of those skeptical of the government responded negatively to the premier's tweet of the ad.

"The research on fear typically kind of says two things: not enough doesn't get attention, too much, you get this reaction that is not processed," Dube said.

She said that if attitudes are very polarized, people at one extreme are already convinced. And with those at the other extreme, "you can have the reaction I've read in those tweets (responding to Legault)."

Duguay said that if the province's goal is to stop large gatherings, a more effective advertisement would show what gatherings that follow the rules look like.

"It is preferable to have positive than negative appeals in advertising," he said. "Fear has never been a proven change factor."

<https://www.660citynews.com/2020/09/23/as-quebec-rolls-out-covid-19-ad-campaign-experts-wonder-if-it-will-reach-target-audience/>

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

United States

US health officials cite progress against coronavirus

Source: CIDRAP

ID: 1007900324

As the United States enters into an uncertain new phase of the COVID-19 pandemic amid controversies about political meddling in the federal response, the nation's leading health officials today told lawmakers that the country is making some progress against the coronavirus, but they urged Americans to continue mitigation efforts as they await a vaccine.

At a hearing held by the Senate Health, Education, Labor & Pensions Committee, Admiral Brett Giroir, MD, assistant secretary for health at the Department of Health and Human Services (HHS), **said the number of new COVID cases in the country is down since the post-Memorial Day peaks, while the number of people hospitalized with COVID-19 has fallen 54% and the number of COVID-associated deaths is down 32%.**

"But let me emphasize that to sustain these gains, we must continue our disciplined mitigation efforts," Giroir told the committee in prepared remarks. "Especially wearing masks when we cannot physically distance, avoiding crowds, particularly indoors, and increasing our screening and surveillance testing."

Centers for Disease Control and Prevention (CDC) Director Robert Redfield, MD, while acknowledging the tragedy of more than 200,000 US COVID-19 deaths to date, said the mortality rate in COVID-19 patients, particularly in the elderly, has been improving.

"These improvements, however, do not mean that we can let our guard down," Redfield said. "Over the last week, we had an average of over 40,000 cases and nearly 800 daily deaths."

Younger groups affected

Redfield also emphasized the shifting trends in the age of new COVID-19 cases, pointing out that 18- to 25-year-olds now account for over 26% of new infections, more than any other group.

That shift in the age of who is getting infected was highlighted today by the CDC in its latest Morbidity and Mortality Weekly Report. An analysis of age trends by the CDC COVID-19 Response Team found that, from June to August, COVID-19 incidence was highest among people aged 20 to 29, a trend seen in all regions of the country. Nationwide, the median age of COVID-19 cases declined from 46 years in May to 37 years in July and 38 years in August.

"It's imperative that these young adults recognize that even though they are unlikely to get seriously ill from this virus, they are major contributors to the spread of COVID-19 in our country at this time," Redfield said.

The US currently stands at 6,925,840 confirmed COVID-19 cases and 201,617 deaths, according to the Johns Hopkins COVID-19 dashboard.

FDA chief says science will guide vaccine approval

The status of COVID-19 vaccine candidates, and how soon a vaccine could be approved and distributed, were among the topics discussed during the hearing. **Food and Drug Administration (FDA) Commissioner**

Stephen Hahn, MD, sought to assure the public that a coronavirus vaccine will not be approved, or receive an emergency use authorization, until data from a phase 3 trials have demonstrated safety and efficacy in a "clear and compelling manner," and that politics will not play a role in the process.

"FDA will not authorize or approve any COVID-19 vaccine before it has met the agency's rigorous expectations for safety and effectiveness," Hahn said. "Decisions to authorize or approve any such vaccine or therapeutic will be made by the dedicated career staff at FDA, through our thorough review processes, and science will guide our decisions."

When asked by Senator Lamar Alexander (R-Tenn.) about who makes decisions on safety and efficacy of vaccines and therapeutics at the FDA, Hahn said those decisions are made by career scientists at the agency.

"I have expressed on multiple occasions my intention, and have done so during COVID-19, to make sure those decisions are made by career scientists," Hahn said.

Hahn, Redfield, Giroir, and National Institute of Allergy and Infectious Diseases Director Anthony Fauci, MD, all said they would feel confident taking an FDA-authorized vaccine and recommending it to their family.

Redfield also stood by comments he made to Congress last week about when a COVID-19 vaccine, if approved before the end of the year, could be widely distributed. "I think it's going to be April, May, June, possibly July, to get the entire American public completely vaccinated," Redfield said.

After Redfield presented that timeline last week, he was rebuked by President Trump, who said the CDC director had incorrect information.

Fauci said he believes that we'll know by the end of the year whether one of the vaccine candidates is safe and effective. But he noted that even with a vaccine, the public health measures that have been taken to slow the spread of the coronavirus will still be necessary.

"The vaccine availability will go a giant step to controlling the infection, but you're not going to completely eradicate or eliminate it, particularly if you have a vaccine that is even moderately effective," Fauci said. "If you don't have a vaccine that's 98% effective, even if everybody takes it, you're still going to have vulnerable people in the population."

The vaccine discussion came as drug maker Johnson & Johnson announced that it has begun a multi-country phase 3 study for its COVID-19 vaccine candidate, and plans to enroll 60,000 volunteers. Unlike other vaccine candidates currently in phase 3 trials, the Johnson & Johnson vaccine may require only one dose and does not need to be stored at sub-zero temperatures.

Concerns about political interference

Another topic Redfield addressed during the hearing was the political pushback he's received from President Trump on various aspects of the coronavirus.

"I will continue to present science and data as I see it, and it's not going to be modulated by whether individuals really appreciate what I say or don't appreciate what I say," Redfield said.

In interviews with The Hill, several current CDC officials, speaking anonymously, said the administration's antagonistic relationship with the agency, and political meddling in CDC communications and recommendations, has taken a substantial toll on the morale of CDC employees. Last week it was reported that changes made to CDC guidance on who should get tested for the coronavirus had been made by political appointees within the Trump administration, over the objections of CDC scientists.

That political interference is the target of legislation introduced yesterday by 33 Democratic senators. The Science and Transparency Over Politics (STOP) Act, co-sponsored by Senator Chuck Schumer (D-N.Y.)

and Senator Patty Murray (D-Wash.), would create a task force to investigate any political interference in decisions made by scientific agencies within the Department of Health and Human Services.

Increases in NYC

In other US developments:

The New York City Department of Health said today that six neighborhoods are experiencing COVID-19 increases, with four composing a group officials are calling the "Ocean Parkway Cluster." City officials say they're concerned that the increases could lead to more widespread community transmission in New York City, which currently has a 1.1% infection rate and is in the process of reopening schools.

The New York Metropolitan Opera announced today that it is cancelling its entire season and will not return until September 2021. The Met Opera is the nation's largest performing arts organization.

NPR reports that several national education organizations have teamed up with groups representing charter and independent schools to create an online dashboard that tracks confirmed and suspected COVID-19 cases in K-12 schools in 47 states. Current data on the dashboard show 230 cases per 100,000 students, and 490 per 100,000 staff members.

<https://www.cidrap.umn.edu/news-perspective/2020/09/us-health-officials-cite-progress-against-coronavirus>

United States

Administration Announces \$200 million from CDC to Jurisdictions for COVID-19 Vaccine Preparedness

Source: HHS Press Office

The Department of Health and Human Services (HHS) is announcing upcoming action by the Centers for Disease Control and Prevention (CDC) to provide \$200 million to jurisdictions for COVID-19 vaccine preparedness.

Funding from the Coronavirus Aid, Relief, and Economic Security Act (CARES) will provide critical infrastructure support to existing grantees through CDC's immunization cooperative agreement. CDC is awarding \$200 million to 64 jurisdictions through the existing Immunizations and Vaccines for Children cooperative agreement. These funds, along with the previous support CDC has provided, will help states prepare for the COVID-19 vaccine.

"By building on close partnerships with the states and other jurisdictions we have worked with for years on vaccination programs, we have the ability to begin distributing and administering safe and effective COVID-19 vaccines as soon as they are authorized and available," said HHS Secretary Alex Azar. "With these \$200 million in new funds, jurisdictions can develop and update plans for the eventual distribution and administration of the safe and effective vaccines that will help bring this pandemic to an end. The federal government, including experts from CDC and the Department of Defense, is ready to assist where necessary."

"CDC has worked for decades with state and local jurisdictions to deliver tens of millions of doses of vaccine every year" said CDC Director Robert Redfield. "CDC is working closely with these jurisdictions to refine and update vaccination plans in preparation for the upcoming COVID-19 vaccine program."

Notices of Awards will be issued on September 23, 2020, and all 64 jurisdictions will receive funding, with the amount each jurisdiction receives determined by a population-based formula.

The funding is intended for jurisdictions to plan for and implement COVID-19 vaccination services.

For more information about CDC's ongoing support to States, please visit this CDC website:

<https://www.cdc.gov/coronavirus/2019-ncov/downloads/php/funding-update.pdf> - PDF

<https://www.hhs.gov/about/news/2020/09/23/administration-announces-200-million-from-cdc-jurisdictions-covid-19-vaccine-preparedness.html>

United States

Virtual Town Hall Series - Immediately in Effect Guidance on Coronavirus (COVID-19) Diagnostic Tests

Source: FDA

Summary:

The U.S. Food and Drug Administration (FDA) will host a virtual Town Hall for clinical laboratories and commercial manufacturers that are developing or have developed diagnostic tests for SARS-CoV-2. The purpose of this Town Hall is to help answer technical questions about the development and validation of tests for SARS-CoV-2.

Background:

The FDA plays a critical role in protecting the United States from threats such as emerging infectious diseases, including the Coronavirus Disease 2019 (COVID-19) pandemic. The FDA is committed to providing timely guidance to support response efforts to this pandemic.

The immediately in effect guidance "Policy for Coronavirus Disease-2019 Tests During the Public Health Emergency (Revised)" includes policies specific to this public health emergency. This guidance was issued on February 29, 2020 and subsequently updated on March 16, 2020, May 4, 2020, and May 11, 2020.

Stakeholder Call Details:

Registration is not necessary.

Time: 12:15 p.m. - 1:15 p.m.

To ensure you are connected, please dial in 15 minutes prior to the start of the call.

U.S. Callers Dial:

888-455-1392

Conference Number: RWXW1646987

Passcode: 9493939

International Callers Dial:

1-773-799-3847

Conference Number: RWXW1646987

Passcode: 9493939

To view the slide presentation during the webinar:

<https://www.mymeetings.com/nc/join.php?i=RWXW1646987&p=9493939&t=c>

<https://www.fda.gov/medical-devices/workshops-conferences-medical-devices/virtual-town-hall-series-immediately-effect-guidance-coronavirus-covid-19-diagnostic-tests-09302020>

United States

Coronavirus (COVID-19) Update: Daily Roundup September 23, 2020

Source: FDA

The U.S. Food and Drug Administration today announced the following actions taken in its ongoing response effort to the COVID-19 pandemic:

- FDA Commissioner Stephen M. Hahn, M.D., testified before the Senate Committee on Health, Education, Labor and Pensions at a hearing entitled, "COVID-19: An Update on the Federal Response."
- FDA today posted a document summarizing updated evidence to support the emergency use of COVID-19 Convalescent Plasma. The agency will continue to review the circumstances and

appropriateness of the authorization for emergency use. To make this information accessible to the public, the document posted on the web presents FDA's review in relatively plain language.

- Testing updates:
 - As of today, 252 tests are authorized by FDA under EUAs; these include 202 molecular tests, 46 antibody tests, and 4 antigen tests.

<https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-daily-roundup-september-23-2020>

United States

Coronavirus (COVID-19) Update: FDA Authorizes First Point-of-Care Antibody Test for COVID-19

Source: FDA

Today, the U.S. Food and Drug Administration issued an emergency use authorization (EUA) for the first serology (antibody) point-of-care (POC) test for COVID-19. The Assure COVID-19 IgG/IgM Rapid Test Device was first authorized for emergency use by certain labs in July 2020 to help identify individuals with antibodies to SARS-CoV-2, indicating recent or prior COVID-19 infection. Today, that EUA is being reissued to authorize the test for POC use using fingerstick blood samples. This authorization means that fingerstick blood samples can now be tested in POC settings like doctor's offices, hospitals, urgent care centers and emergency rooms rather than having to be sent to a central lab for testing.

"Authorizing point-of-care serology tests will enable more timely and convenient results for individuals who want to understand if they have previously been infected with the virus that causes COVID-19," said FDA Commissioner Stephen M. Hahn, M.D. "Until today, serology test samples were generally only able to be evaluated in a central lab, which can be time consuming and use additional resources to transport samples and run the test. As more and more point-of-care serology tests are authorized, they will help conserve those resources and may help reduce processing time for other types of COVID-19 tests, as less time is spent on serology tests."

Nearly 50 serology tests have been granted an EUA since the start of the pandemic. The Assure test is a lateral flow assay and is authorized for use with venous whole blood, serum, plasma and fingerstick whole blood. This serology POC test, unlike POC COVID-19 diagnostic tests, uses a blood sample from the fingertip to run the test.

The FDA wants to remind patients that it is unknown how long antibodies persist following infection and if the presence of antibodies confers protective immunity, so they should not interpret results from a serology test as telling them they are immune, or have any level of immunity, from the virus. Due to these unknowns, the FDA cautions patients against using the results from these tests, or any serology test, as an indication that they can stop taking steps to protect themselves and others, such as stopping social distancing, discontinuing wearing masks or returning to work.

The FDA also wants to remind the public that serology tests should not be used to diagnose an active infection, as they only detect antibodies the immune system develops in response to the virus – not the virus itself. It is also important to remember that in a population with low prevalence, even high-performing antibody tests may produce as many or more false results as true results because the likelihood of finding someone who has been infected is very small. Thus, it is necessary to consider that the results from two serology tests may be needed to generate reliable results.

The Assure COVID-19 IgG/IgM Rapid Test Device is currently the only FDA authorized COVID-19 POC serology test and is available by prescription only. The FDA continues to work with test developers to expand access to COVID-19 testing.

<https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-first-point-care-antibody-test-covid-19>

United States

COVID-19 Science Update released: September 22, 2020

Source: CDC

Epidemiology
PEER-REVIEWED

Substantial underestimation of SARS-CoV-2 infection in the United States [external icon](#). Wu et al. Nature Communications (September 9, 2020).

Key findings:

By April 18, 2020, the estimated cumulative SARS-CoV-2 incidence in the US was ~2%.

The number of estimated cumulative SARS-CoV-2 infections was 8.6 times the number of confirmed infections: 6,454,951 vs 751,245.

84% of the difference between estimated cumulative and reported confirmed cases was due to incomplete testing and 16% was due to test inaccuracy.

The estimated cumulative infection rate (range: 3.1 to 65.0/1,000) and ratio of estimated cumulative to reported confirmed SARS-CoV-2 infections (range: 5 to 33) varied widely by state (Figure).

Differences among states were driven by different transmission rates, testing rates, and test positivity rates in each state rather than modeling assumptions.

Methods: Analysis using data from the COVID Tracking Project [external icon](#) to assess estimated cumulative SARS-CoV-2 infections by state and evaluate contributions of incomplete testing and imperfect test performance. Used daily test counts and confirmed SARS-CoV-2 positive tests in each state from February 28 to April 18, 2020. The 2019 projected state populations from the 2010 US Census were used to calculate rates. Simulation intervals (2.5th and 97.5th percentiles) were computed from the distribution of estimated infections. Limitations: States with very low testing rates; positive test probabilities might not predict overall population incidence (e.g., if testing was restricted to patients with severe symptoms); county-level data not available.

Implications: Estimated cumulative SARS-CoV-2 infections were greater than confirmed reported infections, due in part possibly to challenges with testing. Monitoring underestimation of reported confirmed cases can provide more accurate estimates of the cumulative burden of SARS-CoV-2 infection.

Figure:

Confirmed COVID-19 cases vs estimated cases up to April 18, 2020. A: Gray bars indicate the median of estimated infections. B: Ratios in each state by quintile in descending order, with the darkest shade of blue indicating the largest quintile, and the lightest shade of green indicating the lowest quintile. [resize iconView Larger](#)

Note: From Wu et al. A: Gray bars indicate the median rate of estimated infections. B: Ratios of estimated infections to confirmed cases in each state by quintile in descending order, with the darkest shade of blue indicating the largest quintile, and the lightest shade of green indicating the lowest quintile. Horizontal black lines indicate simulation intervals (2.5th and 97.5th percentiles). Licensed under CC-BY 4.0.

Assessment of mental health of Chinese primary school students before and after school closing and opening during the COVID-19 pandemic. [external icon](#) Zhang et al. JAMA Network (September 11, 2020).

Key findings:

The prevalence of depression and suicidality increased significantly among students after school closing (Wave 2) from levels before school closing (Wave 1) (Figure).

Methods: Longitudinal cohort study of 1,241 Chinese schoolchildren in grades 4 through 8 comparing physical and mental health factors before the COVID-19 outbreak (Wave 1, early November 2019) with 2 weeks after school reopening (Wave 2, mid-May 2020) in a low risk area of China. Limitations: Response and recall bias; unmeasured confounders and measurement errors in mental health outcomes; limited representativeness of the sample.

Implications: School closures adversely affected mental health of students. Healthcare and government agencies need to plan for the impact of prolonged school closures and be prepared to provide increased level of mental health services to the children and their families.

Figure:

Incidence of mental health symptoms and suicide behaviors in Wave 1 before school closures and Wave 2 after school reopening.

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Note: Adapted from Zhang et al. Incidence of mental health symptoms and suicide behaviors in Wave 1 before school closures and Wave 2 after school reopening. a $p < 0.001$; b $p = 0.09$. Licensed under CC-BY.

Convalescent Plasma

Convalescent plasma (CP) therapy is under evaluation as treatment of COVID-19 and is obtained from persons who have recovered from prior COVID-19. However, not all persons develop the same antibody profile or adequate neutralizing antibody (NAb) titers after SARS-CoV-2 infection. There is a need to determine levels of NAb in CP that are optimal for treatment and prevention. As assays to measure neutralization are complex, determining if other antibody titers such as those to the receptor binding domain (RBD) or the spike protein may be used as a marker of high neutralizing activity is important. The following two studies present recent findings on characteristics of CP.

PEER-REVIEWED

A. Convalescent plasma anti-SARS-CoV-2 spike protein ectodomain and receptor binding domain IgG correlate with virus neutralization external icon. Salazar et al. Journal of Clinical Investigation (September 10, 2020).

Key findings:

Most CP donors (43/68; 63%) had high NAb titers ($\geq 1:160$).

High NAb titers were associated with dyspnea, hospitalization, and severity at the time of illness in the donor (Figure 1).

Anti-RBD antibodies and anti-spike ectodomain (ECD) antibodies were strongly correlated with NAb ($p < 0.001$ for each).

80% of CP donors had NAb titer $\geq 1:160$ when their anti-RBD or anti-spike ectodomain (ECD) titer (part of the spike protein) was $\geq 1:1,350$ (Figure 2).

In a separate survey of antibodies levels in 73 asymptotically infected persons, 27 had anti-RBD or anti-spike ECD titers of $\geq 1:1,350$.

Methods: Retrospective assessment of anti-ECD IgG, anti-RBD IgG, and SARS-CoV-2 NAb titers from 68 CP donors who had symptomatic SARS-CoV-2 infection. Dyspnea, hospitalization, and a severity score at the time of illness were recorded. IgG titers were also measured in a separate sample of 73 asymptomatic, seropositive individuals. Limitations: Assessed IgG only; findings may not be applicable to all antibody testing platforms or other sample types; relatively small sample size.

Figure 1

Boxplots of interquartile range, showing the \log_2 transformed antibody neutralization titer by category in 68 CP donors.

resize iconView Larger

Note: Adapted from Salazar et al. Boxplots of interquartile range, showing the \log_2 transformed antibody neutralization titer by category in 68 CP donors. Black dots are outliers, whisker bars are upper and lower quartiles. Severity- highest severity score during illness. Open access journal; all content freely available.

Prevalence of CP donors with NAb titer $\geq 1:160$ by IgG titers of anti-spike ECD and anti-RBD. Dashed line is a curve fitted to probability values. Standard error bars are shown.

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Note: Adapted from Salazar et al. Prevalence of CP donors with NAb titer $\geq 1:160$ by IgG titers of anti-spike ECD and anti-RBD. Dashed line is a curve fitted to probability values. Standard error bars are shown. Open access journal; all content freely available.

SARS-CoV-2 antibody avidity responses in COVID-19 patients and convalescent plasma donorsexternal icon. Benner et al. Journal of Infectious Diseases (September 10, 2020).

Key findings:

Among hospitalized patients, antibody avidity as well as anti-spike and anti-nucleocapsid IgG titers increased from days 10 to 20 after symptom onset (Figure 1).

Among CP donors, age correlated with antibody avidity (strength of binding between antibody and antigen) for men ($p = 0.008$) but not women ($p = 0.872$) (Figure 2A).

CP donors who were hospitalized had stronger anti-spike IgG avidity than donors who were not hospitalized (Figure 2B).

Neutralizing antibody titers had a positive correlation with anti-spike IgG avidity (Spearman's $\rho = 0.386$; $p < 0.001$) and anti-spike IgG binding (Spearman's $\rho = 0.772$, $p < 0.001$).

Methods: Samples from hospitalized patients ($n = 16$) with confirmed SARS-CoV-2 infection and CP donors ($n = 130$) were assessed for anti-spike IgG, anti-nucleocapsid IgG titers, and antibody avidity.

Limitations: Different methods used for anti-spike IgG versus anti-nucleocapsid IgG antibody titers; antibody assays were semi-quantitative; may not be applicable to mild or asymptomatic infections; short observation period.

Figure 1

A: IgG antibody levels and B: Antibody avidity against the SARS-CoV-2 spike protein in hospitalized patients.

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Note: Adapted from Benner et al. A: IgG antibody levels. B: Antibody avidity against the SARS-CoV-2 spike protein in hospitalized patients. DC50 – 50% dissociation constant. Colored lines indicate individual patients. Because assays used were semi-quantitative, units used were proxies for quantitative measures. Licensed under CC BY 4.0.

Figure 2

Cross-sectional sampling of recovered hospitalized patients by age tested for IgG antibody avidity against the SARS-CoV-2 spike by age (A) and hospitalization status (B).

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Note: Adapted from Benner et al. Cross-sectional sampling of recovered patients by age tested for IgG antibody avidity against the SARS-CoV-2 spike protein by age (A) and hospitalization status (B). DC50 – 50% dissociation constant. Licensed under CC BY 4.0.

Implications for 2 studies (Salazar et al & Benner et al): Effect of CP in the treatment of COVID-19 likely depends on numerous characteristics including antibody level, avidity, and target as well as neutralization activity. Understanding how to best screen CP donors to identify those with NAb titers and characteristics that may optimize use of CP as treatment may be important.

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Clinical Treatment & Management

PEER-REVIEWED

Reduced maximal aerobic capacity after COVID-19 in young adult recruits, Switzerland, May 2020.external icon Cramer et al. Eurosurveillance (September 10, 2020).

Key findings:

[APG]

The VO₂ max (a measure of ability to perform aerobic exercise) was lower in recovered recruits with symptomatic COVID-19 compared with recruits who had not had COVID-19 ($p = 0.02$). In recovered recruits, there was a significant decrease in VO₂ max compared with a baseline measure obtained prior to illness (Figure).

19% of recruits with symptomatic COVID-19 had a loss of >10% VO₂

Methods: Cross-sectional study of 199 Swiss Army recruits tested by RT-PCR in May 2020 during a COVID-19 outbreak and divided into 3 groups: RT-PCR positive, symptomatic, RT-PCR positive, asymptomatic, and RT-PCR negative. Endurance and aerobic capacity, including VO₂ max, were measured in all recruits at baseline (coincidentally 3-months prior to COVID-19 outbreak). Complete data at baseline and after the COVID-19 outbreak were available for 139 (70%) of the recruits and assessed for differences. Limitations: Timing of testing after the outbreak was unclear.

Implications: A decrease in pulmonary aerobic capacity was observed among military recruits who recovered from COVID-19. Long-term effects on lung function have been noted after mild to moderate influenza infection and may also be present after COVID-19. Additional research to understand the incidence of any long-term consequences is needed.

Figure:

Difference in predicted maximal aerobic capacity before and after COVID-19 outbreak
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Note: Adapted from Cramer et al. Difference in predicted maximal aerobic capacity before and after COVID-19 outbreak ($n = 139$). Licensed under CC BY 4.0

Effect of recombinant human granulocyte colony-stimulating factor for patients with coronavirus disease 2019 (COVID-19) and lymphopenia: A randomized clinical trialexternal icon.external icon Cheng et al. JAMA Internal Medicine (September 10, 2020).

Key findings:

Treatment of COVID-19 patients experiencing lymphopenia (lower than normal white blood cell levels) with recombinant human granulocyte colony-stimulating factor (rhG-CSF) to promote production of lymphocytes did not affect time to clinical improvement (12 with lymphopenia vs 13 days without, $p = 0.06$).

Among patients with peripheral blood lymphocytes ≤ 400 per μL , rhG-CSF treatment reduced time to clinical improvement) compared with the usual care group (12 vs 14 days respectively, $p = 0.003$) (Figure).

The rhG-CSF treatment group were less likely to progress to critical illness (2% vs 15%, difference -13%) and had lower mortality rates (2% vs 10%, hazard ratio 0.19) at Day 21.

Methods: An open-label, randomized clinical trial at three sites in China between February 18 and April 10, 2020 testing the effects of treatment of PCR-confirmed COVID-19 patients with rhG-CSF ($N = 100$) on days 0, 1, and 2 vs usual care ($N = 100$). Eligibility requirements were pneumonia, a blood lymphocyte cell count of 800 per μL or lower, and no comorbidities. Time to clinical improvement, progression to critical conditions and mortality was measured. Limitations: Small size and short observational time frame; exclusion of patients with co-morbidities.

Implications: rhG-CSF appears to prevent progression to severe disease and death in COVID-19 patients with lymphocytopenia ≤ 400 lymphocytes/ μL ; larger studies with broader patient inclusion are needed.

Figure:

Note: Adapted from Cheng et al. Improvement in patients with peripheral blood lymphocyte counts of $\leq 400/\mu\text{L}$ (A) or $>401-800/\mu\text{L}$ (B). Reproduced with permission from JAMA Intern Med. doi: 10.1001/jamainternmed.2020.5503. Copyright©2020 American Medical Association. All rights reserved.

Phylogenetic Analysis
PEER-REVIEWED

The emergence of SARS-CoV-2 in Europe and North America [external icon](#). [external icon](#) Worobey et al. Science (September 10, 2020).

Key findings:

Epidemic simulations suggest multiple independent entries of SARS-CoV-2 into the US occurred (Figure 1).

Models could not identify a scenario in which the viral sequence of the Washington State outbreak beginning February 15, 2020 could have derived from the first known US SARS-CoV-2 case (January 15, 2020).

Phylogenetic reconstruction also suggests independent viral introduction from China to both Germany and Italy (Figure 2).

Methods: Using 294 SARS-CoV-2 viral genomes from Washington State collected from January 15 to March 15, 2020 through community surveillance for influenza, epidemic simulations were performed to model emergence of mutations of SARS-CoV-2 genome in the US. To determine if Italy's outbreak was initiated by a virus imported from the German outbreak, additional phylogeographic analyses were conducted. Limitations: Constraints placed on doubling time; genetic sequence data not available from all countries.

Implications: This study highlights that community-level respiratory virus surveillance combined with genomic analyses can be a useful tool to help distinguish sustained community transmission vs importation of new strains, which helps identify origin of clusters, delineate time and place of outbreak origins and define optimal mitigation measures for potential future outbreaks.

https://www.cdc.gov/library/covid19/092220_covidupdate.html

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

Europe

ECDC launches new COVID-19 situation dashboard

Source: ECDC

Unique ID: 1007898394

ECDC has launched a new COVID-19 situation dashboard, providing users with a simpler, more user-friendly platform to explore the latest available COVID-19 data from Europe and worldwide.

The ECDC COVID-19 situation dashboard, first launched in March 2020, has been improved with a simplified design and enhanced functionality enabling users to easily monitor the COVID-19 pandemic at the European and global level.

Through interactive maps, graphs and tables, users are able to easily view, compare and export data on COVID-19 cases and deaths by region or country, and within a specified timeframe.

The dashboard also allows users to view and export data on subnational levels of transmission in the EU/EEA and the UK, as well as enhanced data on subsets of cases, including age, gender, hospitalisation and admission to intensive care.

Since the beginning of the pandemic, ECDC's Epidemic Intelligence team has been collecting data on COVID-19 at the European and global level on a daily basis. The COVID-19 situation dashboard is updated every day to visualise and disseminate this data.

Visit the new COVID-19 situation dashboard

Situation dashboard - COVID-19 cases in Europe and worldwide

<https://www.ecdc.europa.eu/en/news-events/ecdc-launches-new-covid-19-situation-dashboard>

<https://gap.ecdc.europa.eu/public/extensions/COVID-19/COVID-19.html#global-overview-tab>

Europe

Positive about flying? Airlines look to COVID tests that give results in minutes

Source: National Post

Unique ID: 1007898097

ZURICH/MILAN — European airlines are pinning hopes on pre-flight COVID-19 tests that deliver results as fast as pregnancy tests to help restore passengers' confidence in taking to the skies in confined spaces with shared air.

Germany's Lufthansa, at the mercy of government bailouts for survival, is in talks with Swiss drugmaker Roche over deploying so-called antigen tests, according to two people familiar with the discussions, as the airline aims to make them available next month.

Italian operator Alitalia, meanwhile, told Reuters that from Wednesday it would add two flights from Milan to Rome, to the two it is already offering from Rome to Milan, exclusively for passengers with negative tests.

The tests are administered by health authorities at the airports and included in ticket prices. If they prove popular and safe, these antigen-tested flights will be expanded to more domestic, and later international, routes, the airline said.

Unlike laboratory-based molecular tests that have been the staple of health authorities in the pandemic, antigen tests do not require machines to process. Much like pregnancy tests, they can produce results in about 15 minutes.

However the tests require an uncomfortable nasal swab and are not as accurate as the molecular, or PCR, tests. They generally produce more "false negatives" which could mean sick people could slip through the cracks and onto planes.

<https://nationalpost.com/pmnh/health-pmnh/positive-about-flying-airlines-look-to-covid-tests-that-give-results-in-minutes>

Saudi Arabia

Saudi Arabia to gradually resume Umrah pilgrimage | Saudi Arabia

Source: Al Jazeera

Unique ID: 1007898103

Saudi Arabia will allow pilgrims living inside the country to undertake the Umrah pilgrimage, beginning on October 4, after a seven-month pause due to the coronavirus pandemic, state news agency Saudi Press Agency has reported.

In March, the country had declared a freeze on Umrah, which is an Islamic pilgrimage to the holy cities of Mecca and Medina undertaken any time of the year, attracting 19 million people last year.

Saudi Arabia will now allow 6,000 citizens and residents inside the kingdom to perform Umrah daily, representing 30 percent of a revised capacity of 20,000 that takes into account precautionary health measures, SPA said.

That will expand to 75 percent of capacity on October 18. Beginning on November 1, the kingdom will allow visitors from specific countries deemed safe to perform Umrah at 100 percent of the revised capacity, until the end of the pandemic, SPA added.

The Ministry of Hajj and Umrah is developing a mobile application that will be available a week before the Umrah resumes, so that pilgrims can register and book on it. They will also need to follow the health guidelines provided in the app.

The decision to resume Umrah came after the kingdom organised the smallest Hajj in modern history in late July, with only up to 10,000 Muslims allowed to take part in total – a far cry from the 2.5 million who participated last year.

Health authorities said no coronavirus cases were reported at the holy sites during the Hajj, one of the five pillars of Islam and a must for able-bodied Muslims at least once in their lifetime.

Hajj pilgrims circled the sacred Kaaba – a cubic structure inside Mecca's Grand Mosque towards which Muslims around the world pray – along socially distant paths.

The kingdom has sought to contain a spike in infections, which have now risen to more than 330,000 cases – the highest in the Gulf – and at least 4,500 deaths.

But Saudi Arabia has also reported a high rate of recoveries, which surpassed 312,000 on Tuesday.

Last week, Saudi Arabia partially lifted its suspension on international flights, six months after travel curbs were imposed due to the pandemic.

Official data show Hajj and Umrah earn the kingdom about \$12bn a year.

<https://www.aljazeera.com/news/2020/9/23/saudi-arabia-to-lift-ban-on-mecca-pilgrimage-amid-virus>

France

France to raise Covid-19 alert to highest level in Paris and other big cities

Source: france24.com

ID: 1007900266

France is set to raise the coronavirus alert level in Paris and other top cities to "scarlet", the highest level, as part of efforts to stem a continuing rise in the daily number of infections, a government source told AFP.

Health Minister Olivier Véran will announce new measures later on Wednesday as he holds his weekly press conference to chart the outbreak's progression, the source said.

France has reported a surge in daily cases, prompting officials to urge people to limit social gatherings and wear masks in public at all times.

In the larger Paris Ile-de-France area, the incidence rate of infection has risen to 204 per 100,000 inhabitants, higher than in other hard-hit cities such as Lyon and Marseille, which have already tightened measures to curb virus transmission.

The capital had a positive coronavirus test rate of 9.9 percent last week, compared to a national rate of 6.1 percent Tuesday. On Tuesday, Lyon became the latest city to limit attendance at major outdoor events including festivals to 1,000 people and prohibit the sale and consumption of alcohol outdoors from 8pm.

The new rules for Lyon, France's third largest city, followed similar measures in Marseille, Bordeaux and Nice as the coronavirus resurges across the country and the testing system buckles under heavy demand.

<https://www.france24.com/en/20200923-france-to-raise-covid-19-alert-to-highest-level-in-paris-and-other-big-cities>

China

Up to 70% of KN95 masks imported from China don't meet filtration standards,

Source: usatoday.com

ID: 1007900263

A shortage of N95 masks forced hospitals to find alternatives to protect health care workers tending COVID-19 patients. Cue the KN95 mask.

As its name advertises, the KN95 mask is meant to filter out 95% of aerosol particles. However, nonprofit patient safety organization ECRI issued a high-priority hazard alert against these masks after an analysis found that up to 70% of KN95 masks imported from China did not meet these filtration standards.

U.S. hospitals purchased hundreds of thousands of KN95 masks produced in China over the past six months.

"We're finding that many aren't safe and effective against the spread of COVID-19," said Dr. Marcus Schabacker, ECRI's president and chief executive office. "Using masks that don't meet U.S. standards puts patients and front-line health care workers at risk of infections."

ECRI tested nearly 200 masks from 15 different manufacturer models purchased by some of the largest health systems in the country. Schabacker said there was not only variability among the different brands but also inconsistencies among masks made by the same manufacturer.

"We are concerned about the safety of health care workers and patients when using KN95s in high-risk procedures, and that's why we sent out the hazard alert," he said. "We don't use this lightly; we reserve that for immediate risk."

In April, the Food and Drug Administration issued an umbrella emergency use authorization for masks that are manufactured in China and not approved by the National Institutes of Occupational Safety and Health (NIOSH). The agency reissued the order in June.

Besides the filtration concerns, public health experts criticized KN95 masks for their inability to create a tight seal on someone's face. N95 masks have head and neck straps; KN95s have ear loops.

"What's important to realize is that it's the tight-fitting seal on your face that gives the N95 superior protection, other than the actual high-quality filtering properties of the mask itself," said Robert Glatter, an emergency physician at Lenox Hill Hospital in New York City.

Schabacker said the ECRI analysis controlled for the KN95's inferior ear loops by taking them off and creating a seal when testing the models. This means that even if the KN95 mask had head and neck straps, it still wouldn't protect health care workers to the degree that an N95 mask would.

He clarified that this applies only to KN95 masks manufactured in China. Some KN95s are imported from South Korea.

'Thank the horseshoe crab': Crabs have a vital role in the development of a coronavirus vaccine

Is it safe to fly? Two new studies indicate COVID-19 can spread on long airline flights, promote distancing

Schabacker said health care providers should consider testing KN95 masks before using them. He suggested extending the use of N95 masks.

Schabacker and Glatter said quick fixes won't resolve the overall shortage of personal protective equipment in the USA, and they advocate for a more centralized approach to production and distribution so hospitals have the equipment they need.

"Nearly nine months into the pandemic, we need a national plan to ensure the safety and health of all first responders and health care workers," Glatter said. "We need to create a trusted and continuous supply of PPE ... so we don't have to rely on other countries."

<https://www.usatoday.com/news/>

PAHO

PAHO urges countries to plan early for COVID-19 vaccinations to reduce deaths

Source: PAHO

PAHO Director warned that it may take time before people are vaccinated and said countries should continue public health measures such as social distancing, handwashing and wearing masks in public

Washington D.C., September 23, 2020 (PAHO) – Countries should not wait for a COVID-19 vaccine to be developed before they start planning and preparing for its arrival, Pan American Health Organization (PAHO) Director, Carissa F Etienne, said today. In the meantime, they must also continue other recommended public health measures to contain the virus.

"Frontline health workers, first responders and those caring for the elderly should be vaccinated first, followed by vulnerable groups such as adults with pre-existing conditions, especially those over 65 years of age," Etienne said. "The challenge lies in identifying these groups early and determining how to best reach them."

In a news briefing today PAHO Director warned that even as a vaccine is rolled out "This virus will continue to spread, and people will continue to get sick. So, we cannot pin all our hope on vaccines alone."

“We’ll still need diagnostics to identify those who are sick and better treatments to care for those that fall ill. We’ll continue to rely on traditional public health measures like tests, contact tracing and quarantines to minimize the spread of this virus. And we’ll continue to count on people exercising social distancing, washing their hands often and wearing masks in public to protect others from getting sick,” the PAHO Director said.

When vaccines become available, the COVAX Facility, convened by GAVI, the Coalition for Epidemic Preparedness Innovations (CEPI) and WHO, “will afford countries in our region the best opportunity to fast-track access to COVID-19 vaccines and reduce the impact of the pandemic on people’s lives and our economies. The COVAX facility offers access to a basket of 15 possible vaccines,” she said.

Etienne said nearly 200 COVID-19 vaccine candidates are being studied. “And we hope that one or more of these will prove to be effective, but there is no guarantee. Early vaccines may only provide partial protection or may not work for everyone. We don’t yet know which vaccine will be found safe and effective and how it will work. But we do know that if we don’t prepare now, we will miss the opportunity to benefit from it quickly. The truth is countries can’t wait to have all of the answers before they start planning and preparing to deliver a COVID vaccine.”

The COVAX facility, including the Advanced Market Commitment financing instrument, has signed up 64 self-financing countries and 92 countries eligible for support through that instrument, she said. Through COVAX, participating countries will be guaranteed initial doses to cover at least 3% of their population in the first phases of deployment, as supplies catch up with global demand, eventually reaching 20% of their population – enough to protect those at higher risk for severe COVID-19, Etienne explained.

“Our region has a strong legacy of immunization programs that give us a leg up as we plan for the future,” added Etienne.

PAHO is well prepared to offer technical cooperation to countries so they can prepare and implement their vaccination campaigns – “from planning and forecasting to communications, from regulations to the training of health personnel. Another benefit to our member states is that they can rely on our Revolving Fund, the biggest regional mechanism for self-financing countries, for the purchase and delivery of vaccines,” she said.

“So, I urge countries around the world to prepare for a coronavirus vaccine, but also to remain realistic, knowing that these preparations do not replace everything else we must do to save lives today,” Etienne concluded.

<https://www.paho.org/en/news/23-9-2020-paho-urges-countries-plan-early-covid-19-vaccinations-reduce-deaths>

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

Study

Asymptomatic COVID in healthcare workers points to risk of silent spread

Source: CIDRAP

ID: 1007900322

A study released this week shows a 40% asymptomatic rate among healthcare workers (HCW) testing positive for SARS-CoV-2 at the time of screening—meaning they had no symptoms compatible with a COVID-19 diagnosis—raising concerns about silent transmission of SARS-CoV-2 in healthcare settings.

A systematic review of 97 studies presented online at the European Society of Clinical Microbiology and Infectious Diseases (ESCMID) Conference on Coronavirus Diseases and published in the American Journal of Epidemiology found that 10% of HCW were positive via polymerase chain reaction testing and 7% by antibody tests. Nurses accounted for the most infections (48% of those infected), followed by

physicians (25%) and other healthcare workers (23%). Five percent of healthcare workers with COVID-19 went on to develop severe clinical complications, and 0.5% subsequently died.

An analysis of the 15 studies that screened HCW irrespective of symptoms and reported the percent testing positive found that 40% did not report any COVID-19-compatible symptom during screening.

The authors write, "HCW suffer a significant burden from COVID-19, with HCW working in hospitalization/non-emergency wards and nurses being the most infected personnel." The high prevalence of SARS-CoV-2 infection among nurses may reflect greater time spent with direct patient care, the authors say, while the higher rates of infection in hospitalization/non-emergency settings could demonstrate differences in personal protective equipment use.

To improve early detection and prevent transmission, the authors advocate for inclusion of additional symptoms in screenings of healthcare workers. In SARS-CoV-2-positive healthcare workers who were symptomatic at the time of screening, the most common symptoms were fever, anosmia (loss of smell), and myalgia (muscle aches). The authors conclude that screening only for fever, cough, shortness of breath, and sore throat "might have missed 17% of symptomatic HCW at the time of illness onset."

The researchers conclude, "Universal screening for all exposed HCW regardless of symptoms should be the standard strategy to reduce transmission of SARS-CoV-2 in a hospital setting." In an ESCMID news release, coauthor Oscar H. Franco, MD, PhD, of the University of Bern, Switzerland, adds, "It is clear that providing healthcare workers with adequate personal protective equipment and training is essential."
https://www.eurekalert.org/pub_releases/2020-09/esoc-sst092220.php
<https://www.cidrap.umn.edu/news-perspective/2020/09/covid-19-scan-sep-23-2020>

United States

Routine blood test predicts COVID-19 mortality risk, study finds

Source: CIDRAP

ID: 1007900299

A study today in JAMA shows that a routine blood test predicts increased risk of COVID-19 death in hospitalized patients. The study points to elevated red blood cell (RBC) distribution width (RDW), a measure of RBC volume variation and a standard part of a routine complete blood count test, as a tool to identify patients at higher risk of COVID-19 complications.

Senior author John M. Higgins, MD, of Massachusetts General Hospital (MGH), said in an MGH news release, "We wanted to help find ways to identify high-risk COVID patients as early and as easily as possible—who is likely to become severely ill and may benefit from aggressive interventions, and which hospitalized patients are likely to get worse most quickly."

The study tracked RDW for 1,641 adults admitted to one of four Boston-area hospitals from Mar 4 to Apr 28. Patients with high RDW at the time of hospital admission (RDW > 14.5%), or whose RDW increased during their hospital stay, had a higher mortality rate than patients with normal RDW.

Patients who had RDW values above the normal range on hospital admission had a 2.7-times higher risk of dying, with a mortality rate of 31%, compared with 11% in patients who had normal RDW values. The association of RDW and increased mortality risk was observed across all age-groups and independent of demographic factors and comorbidities.

Although the mechanism behind COVID-19-elevated RDW is yet unclear, the authors suggest that it "may reflect a clinical state in which RBC production and turnover have slowed in the setting of increased production and turnover of leukocytes or platelets such as would occur in inflammation."

While the study shows value for RDW as a diagnostic indicator for higher risk of complications, conclusions are limited by the small number of younger adults included in the study, its restriction to hospitalized patients, and the failure to capture socioeconomic data, the authors write. They say more

research is needed to better determine its utility, but they conclude, "RDW may be helpful for patient risk stratification."

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2770945>

<https://www.cidrap.umn.edu/news-perspective/2020/09/covid-19-scan-sep-23-2020>

United States

Fourth Large-Scale COVID-19 Vaccine Trial Begins in the United States

Trial Evaluating Investigational Janssen COVID-19 Vaccine

Source: NIH

ID: 1007897219

People 18 years of age and older who are interested in participating in this trial can visit coronaviruspreventionnetwork.org(link is external) or [ClinicalTrials.gov](https://clinicaltrials.gov)(link is external) and search identifier NCT04505722(link is external) for details. Please do not contact the NIAID media phone number or email to enroll in this trial.

Read the Related Questions & Answers

Gloved hand holding a vial of Johnson and Johnson COVID-19 vaccine candidate

Vial of investigational Janssen COVID-19 vaccine.

Credit: The Janssen Pharmaceutical Companies of Johnson & Johnson

A fourth Phase 3 clinical trial evaluating an investigational vaccine for coronavirus disease 2019 (COVID-19) has begun enrolling adult volunteers. The trial is designed to evaluate if the investigational Janssen COVID-19 vaccine (JNJ-78436725) can prevent symptomatic COVID-19 after a single dose regimen. Up to 60,000 volunteers will be enrolled in the trial at up to nearly 215 clinical research sites in the United States and internationally.

The Janssen Pharmaceutical Companies of Johnson & Johnson developed the investigational vaccine (also known as Ad.26.COV2.S) and is leading the clinical trial as regulatory sponsor. Janssen, the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health, and the Biomedical Advanced Research and Development Authority (BARDA), part of the U.S. Department of Health and Human Services' Office of the Assistant Secretary for Preparedness and Response, are funding the trial.

U.S. and international trial sites part of the NIAID-supported COVID-19 Prevention Network (CoVPN)(link is external) will participate in the trial. The CoVPN is composed of existing NIAID-supported clinical research networks with infectious disease expertise and designed for rapid and thorough evaluation of vaccine candidates and monoclonal antibodies for the prevention of COVID-19.

"Four COVID-19 vaccine candidates are in Phase 3 clinical testing in the United States just over eight months after SARS-CoV-2 was identified. This is an unprecedented feat for the scientific community made possible by decades of progress in vaccine technology and a coordinated, strategic approach across government, industry and academia," said NIAID Director Anthony S. Fauci, M.D. "It is likely that multiple COVID-19 vaccine regimens will be required to meet the global need. The Janssen candidate has showed promise in early-stage testing and may be especially useful in controlling the pandemic if shown to be protective after a single dose."

The Janssen vaccine candidate is a recombinant vector vaccine that uses a human adenovirus to express the SARS-CoV-2 spike protein in cells. Adenoviruses are a group of viruses that cause the common cold. However, the adenovirus vector used in the vaccine candidate has been modified so that it can no longer replicate in humans and cause disease. Janssen uses the same vector in the first dose of its prime-boost vaccine regimen against Ebola virus disease (Ad26.ZEBOV and MVA-BN-Filo) that was recently granted marketing authorization by the European Commission.

Preclinical findings published in (link is external)Nature(link is external) show that the investigational Janssen COVID-19 vaccine induced neutralizing antibody responses in rhesus macaques and provided

complete or near-complete protection against virus infection in the lungs and nose following SARS-CoV-2 challenge. The safety, reactogenicity and immunogenicity of the investigational vaccine are being evaluated in a Phase 1/2a trial in the United States and Belgium([link is external](#)) enrolling adult volunteers. Positive interim results from the Phase 1/2a clinical study demonstrated that the safety profile and immunogenicity after a single vaccination were supportive of further development.

“Scientific partners from government, industry and academia are working hand-in-hand to develop safe, effective vaccines to put this pandemic in our rear-view mirror,” said NIH Director Francis S. Collins, M.D., Ph.D. “While administrative steps are being streamlined to speed the process, safety and effectiveness measures are just as rigorous than ever.”

The Phase 3 trial is being conducted in collaboration with Operation Warp Speed (OWS)([link is external](#)), a multi-agency collaboration overseen by HHS and the Department of Defense that aims to accelerate the development, manufacturing and distribution of medical countermeasures for COVID-19. OWS and CoVPN also are assisting with additional COVID-19 preventive candidate vaccines, including mRNA-1273, an investigational vaccine co-developed by NIAID and the Cambridge, Massachusetts-based biotechnology company Moderna, Inc., and AZD1222, a vaccine candidate being developed by United Kingdom-based biopharmaceutical company AstraZeneca.

“To have just one candidate vaccine in Phase 3 trials less than a year after a virus was first reported would be a remarkable accomplishment; to have four candidates at that stage is extraordinary,” said HHS Secretary Alex Azar. “By building a portfolio of candidate vaccines, Operation Warp Speed is maximizing the chances that we will have substantial supplies of a safe and effective vaccine—and maybe multiple vaccine options—by January 2021.”

The Accelerating COVID-19 Therapeutic Interventions and Vaccines (ACTIV)([link is external](#)) public-private partnership helped to ensure the protocols of all NIH- and OWS-supported Phase 3 trials of investigational vaccines use the same assays and are designed to evaluate the same primary objective: whether the vaccine can prevent symptomatic COVID-19. This approach enables transparent evaluation of the relative performance of each vaccine approach across trials.

Paul A. Goepfert, M.D., director of the Alabama Vaccine Research Clinic at the University of Alabama in Birmingham; Beatriz Grinsztejn, M.D., Ph.D., director of the Laboratory of Clinical Research on HIV/AIDS at the Evandro Chagas National Institute of Infectious Diseases-Oswaldo Cruz Foundation in Rio de Janeiro, Brazil; and Glenda E. Gray, M.B.B.Ch., president and chief executive officer of the South African Medical Research Council and co-principal investigator of the HIV Vaccine Trials Network (HVTN), will serve as principal investigators for the Phase 3 trial of the investigational Janssen COVID-19 vaccine.

Volunteers must provide informed consent to participate in the trial. After providing a baseline nasopharyngeal and blood sample, participants will be assigned at random to receive either a single dose of the investigational vaccine or a saline placebo. The trial is blinded, meaning neither investigators nor participants will know who is receiving the investigational vaccine. Participants will be followed closely for safety and will be asked to provide additional blood samples at specified time points after the injection and over two years. Scientists will analyze the blood samples to detect and quantify immune responses to COVID-19. Of note, specialized assays will be used that can distinguish between immunity as a result of natural infection and vaccine-induced immunity.

The trial is designed primarily to determine if the investigational vaccine can prevent moderate to severe COVID-19 after a single dose. It also aims to understand if the vaccine can prevent COVID-19 requiring medical intervention and if the vaccine can prevent milder cases of COVID-19 and asymptomatic SARS-CoV-2 infection.

An independent Data and Safety Monitoring Board (DSMB) will provide oversight to ensure the safe and ethical conduct of the study. All Phase 3 clinical trials of candidate vaccines supported through Operation Warp Speed are overseen by a common DSMB developed in consultation with ACTIV([link is external](#)).

Adults who are interested in joining this study can visit coronaviruspreventionnetwork.org(link is external) or ClinicalTrials.gov(link is external) and search identifier NCT04505722(link is external).
<https://www.niaid.nih.gov/news-events/fourth-large-scale-covid-19-vaccine-trial-begins-united-states>

United States

Protecting the Editorial Independence of the CDC From Politics

Source: JAMA Network

Unique ID: 1007897570

Summary

Whether this is true is unclear, but these reports are consistent with other reports of the actions of political appointees and their attempts to influence the scientific process.³ As former editors in chief of MMWR, we believe these media reports raise serious concerns that in the midst of the COVID-19 pandemic, scientific reports published in MMWR might have been delayed or altered for political purposes. As with all scientific manuscripts authored by CDC professionals or published by CDC, submissions to MMWR undergo a rigorous internal peer review clearance process by epidemiologists, laboratorians, and other technical experts.⁴ The goal of this process is to ensure that the content incorporates relevant input from experts across the agency and is scientifically valid and technically accurate.⁵ The extent of this internal review process depends on the range of issues covered, the complexity of the science, and the potential effects of the findings. Once COVID-19 vaccines are licensed by the US Food and Drug Administration (FDA), official recommendations for their use developed by the ACIP are expected to be published in MMWR, as they were during the 2009 H1N1 influenza pandemic.⁹ Any perception that these recommendations are inappropriately influenced by political considerations—or any other considerations aside from scientific evidence—could hinder delivery of COVID-19 vaccines by clinicians and acceptance of vaccines by the public.

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Beginning September 11, 2020, media sources reported that political appointees within the US Department of Health and Human Services (HHS) have demanded the ability to review and revise scientific reports on the coronavirus disease 2019 (COVID-19) pandemic published in Morbidity and Mortality Weekly Report (MMWR), published by the Centers for Disease Control and Prevention (CDC).^{1,2} According to these sources, reviews by political appointees have sometimes led to delays in publication and changes in language in certain reports. Whether this is true is unclear, but these reports are consistent with other reports of the actions of political appointees and their attempts to influence the scientific process.³ As former editors in chief of MMWR, we believe these media reports raise serious concerns that in the midst of the COVID-19 pandemic, scientific reports published in MMWR might have been delayed or altered for political purposes. These concerns threaten the credibility of MMWR, an essential source of information to help counteract the pandemic.

Since 1961, when CDC began publishing MMWR, the publication has been considered to be the “voice of CDC,” with a focus on communicating timely, authoritative, accurate, and objective scientific reports to guide public health action. The publication has broad readership including public health practitioners, epidemiologists, physicians and other health care professionals, other scientists, educators, and laboratory workers, among others. MMWR reports are also closely followed and amplified by the news media. In addition to reports published weekly, CDC releases MMWR reports on an urgent basis for immediate dissemination of information on disease outbreaks and other health threats. MMWR also publishes comprehensive articles that delineate CDC science-based recommendations for prevention and treatment, including recommendations from the Advisory Committee on Immunization Practices (ACIP), an external federal advisory committee of experts that provides recommendations to CDC regarding vaccines.

As with all scientific manuscripts authored by CDC professionals or published by CDC, submissions to MMWR undergo a rigorous internal peer review clearance process by epidemiologists, laboratorians, and other technical experts.⁴ The goal of this process is to ensure that the content incorporates relevant input

from experts across the agency and is scientifically valid and technically accurate.⁵ The extent of this internal review process depends on the range of issues covered, the complexity of the science, and the potential effects of the findings. Typically this process takes about 4 weeks,⁵ although it is expedited when urgent release of a report is needed.

MMWR serves a critical role in providing up-to-date information during the COVID-19 pandemic. This is consistent with the role it has had during previous public health crises.⁶ For example, in 1981, a report of 5 cases of *Pneumocystis carinii* (now *P. jirovecii*) pneumonia among previously healthy young men in Los Angeles was published in MMWR, which prompted reporting of additional cases and subsequent identification of AIDS. In 2001, following intentional exposures to anthrax sent through the mail, MMWR was used to update health care clinicians and organizations, public health professionals, and the public regarding the investigation and guidelines for clinical diagnosis and management. In 2003, when the virus causing severe acute respiratory syndrome (SARS) emerged and spread throughout the world, MMWR published reports that alerted the nation to the course of the epidemic, clinical manifestations, diagnostic testing, and methods to prevent transmission.⁶ During 2016-2018, MMWR reported the emergence of the Zika epidemic in the Americas with guidance for obstetricians and pediatricians for care of Zika-exposed pregnant women and their infants.⁷

MMWR is highly cited in the medical literature: in 2019, MMWR weekly had the highest number of citations of any journal in the epidemiology category, according to Google Scholar, and the MMWR series has a 2019 journal impact factor of 13.6. In addition, commentaries on MMWR articles of prime interest are often published in leading journals.⁸

Large disease outbreaks usually generate high levels of public concern, including among elected officials and their staff. Thus, HHS and others in the executive branch frequently have a keen interest in MMWR articles. Many controversial and sensitive issues have been published in MMWR, including HIV, anthrax, SARS, Ebola, and Zika. To address the administration's interest at the time of those publications, CDC has shared the topics of upcoming reports with health officials in HHS; however, the actual reports were not reviewed or shared outside of CDC. During the 20 years of collective experience of the authors of this Viewpoint and spanning 5 presidential administrations, CDC leadership maintained a stringent firewall to ensure MMWR editorial independence and to guard against political interference. Decisions about what to publish and when were based on the science and public health needs. Thus, while the science of public health is essential for informing decisions of elected officials, it has long been recognized that for the scientific reports of MMWR to be respected and trusted, they must be free of political influence.

Whether the allegations regarding political appointees delaying or altering MMWR articles are true is unknown. However, even the perception that MMWR reports could be delayed or altered for political purposes is damaging to the reputation of CDC. These allegations could undermine the confidence of readers in the scientific integrity of MMWR reports that are relied on by large audiences in the US and globally. At a time when the scientific integrity in government health agencies has been questioned,³ MMWR needs to remain a trusted venue for publication. Preservation of MMWR as an essential source of information for public health action has important implications for the COVID-19 epidemic. Once COVID-19 vaccines are licensed by the US Food and Drug Administration (FDA), official recommendations for their use developed by the ACIP are expected to be published in MMWR, as they were during the 2009 H1N1 influenza pandemic.⁹ Any perception that these recommendations are inappropriately influenced by political considerations—or any other considerations aside from scientific evidence—could hinder delivery of COVID-19 vaccines by clinicians and acceptance of vaccines by the public.

To address the COVID-19 epidemic and other threats to the nation's health, prompt action is needed. First, HHS leadership, not just CDC staff, needs to affirm its commitment to preserving the integrity of CDC science, including publications in MMWR. Second, CDC leadership can review and, when indicated, strengthen measures for ensuring the editorial independence of MMWR to prevent future political interference. Third, the MMWR editorial board, a highly respected group of experts in medicine and public health, can assist in these efforts by reviewing these measures and advising additional options to ensure the continued quality and scientific integrity of MMWR.

The COVID-19 pandemic has placed great demands on local, state, and federal public health officials and on health care systems. Health professionals and the public they serve deserve information from CDC based on the best available science. For nearly 60 years, MMWR has served as a trusted source of public health information. Now more than ever, it is imperative to ensure that the public's trust in MMWR as the voice of CDC is maintained.

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https://jamanetwork.com/journals/jama/fullarticle/2771048?utm_source=twitter&utm_campaign=content-shareicons&utm_content=article_engagement&utm_medium=social&utm_term=092220#.X2pejislmgzq.twitter

International

New research adds to growing evidence for asymptomatic spread of Covid-19 - COVID-19 World News

Source: covid19data.com

Unique ID: 1007897467

Two studies published Tuesday shed light on the so-called silent spread of Covid-19.

One study, published in the journal *Thorax* (<https://thorax.bmj.com/content/early/2020/08/28/thoraxjnl-2020-215042>), reports that asymptomatic people can carry as much virus in their noses and throats as people showing symptoms of the illness. The second study, a review published in *Plos Medicine* (<https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1003346>), found that while the majority of infected individuals do develop symptoms, they may test positive before those symptoms begin.

Taken together, the research underscores the need for preventive measures to slow the spread of the coronavirus.

“Even if we’re seemingly healthy, we have to wear masks” to reduce the risk of asymptomatic spread, Dr. William Schaffner, an infectious disease expert at Vanderbilt University Medical Center in Nashville, Tennessee, said.

In the *Thorax* study, researchers at the Asian Medical Center in Seoul, South Korea, compared what’s called the viral load — that is, the amount of virus lurking in the bodies — among 183 Covid-19 patients. Of those, 144 had mild symptoms, such as sore throat, chills, runny nose or appetite loss, and 39 patients never developed any symptoms, but were given tests because they’d been identified as having been in close contact with infected individuals.

Swab samples taken from patients’ noses and throats found no difference in the viral loads of either group. That suggests both groups can spread the virus to others, Schaffner said, though it’s unclear if both groups are equally as infectious.

“Considering that most asymptomatic individuals with Covid-19 are likely to go unnoticed by health care workers and continue to reside within communities, such individuals may act as an essential driving force for the community spread of Covid-19 and the ongoing pandemic,” the study authors wrote.

The research had some caveats: It’s unclear how infectious each group was, and most participants were in their 20s or 30s, so the findings might not apply to other age groups. However, previous research has shown that children under 5 can carry just as much of the coronavirus in their noses as older children and adults.

Overall, 20 percent of the study participants were found to be asymptomatic, a finding mirrored in the second paper, in Plos Medicine.

In that report, researchers at the University of Bern in Switzerland pooled data from 79 studies of people infected with the coronavirus from March to June. More than 6,600 patients with follow-up data were included in the analyses.

The Swedish review distinguished between asymptomatic cases and what are called pre-symptomatic cases. The latter refers to people who test positive for the virus when they still feel well but later develop the illness. It is not possible to know at the time of testing whether a person without symptoms will later develop them.

Researchers estimated 20 percent of the patients who tested positive for Covid-19 never developed symptoms. Others turned out to be pre-symptomatic, meaning their symptoms did not show up until after they were tested.

<https://covid19data.com/2020/09/23/new-research-adds-to-growing-evidence-for-asymptomatic-spread-of-covid-19/>

Japan

Plastic face shields DON'T work

Source: www.dailymail.co.uk

ID: 1007900170

Plastic face shields allow nearly 100 per cent of tiny airborne droplets released by coronavirus-infected patients to escape through visors, a study has warned.

The alternative to face masks were touted by industry experts as providing adequate protection from the virus.

And the British government has recommended them for hairdressers, barbers, nail technicians and tattooists as a barrier between them and the customer.

But modelling has now cast doubt on claims they work, after a computer simulation revealed almost 100 per cent of airborne droplets smaller than five micrometres in size — released when talking and breathing — escaped through the visor.

And half of larger droplets measuring 50 micrometres in size — given off by coughs and sneezes — found their way into the air, posing a risk to others. One micrometre is one millionth of a metre.

The World Health Organization (WHO) says face shields can help prevent the virus, scientifically called SARS-CoV-2.

But the agency says they only work in combination with other safety measures such as wearing a mask, social distancing, and frequent hand-washing.

Face shields do not completely cover the entirety of the face, leaving room for droplets expelled by the mouth and nose to escape.

Face visors are also worn by doctors, nurses and other hospital workers on the Covid-19 frontline, but with the addition of a fitted surgical face mask.

Makoto Tsubokura, team leader of the study carried out by the Riken Centre in Japan, cautioned against wearing face visors.

He told The Guardian: 'Judging from the results of the simulation, unfortunately the effectiveness of face guards in preventing droplets from spreading from an infected person's mouth is limited compared with masks.

'This is especially true for small droplets of less than 20 micrometres,' he said, and added all of the much smaller droplets also escape.

Professor Tsubokura added: 'At the same time, it somehow works for the droplets larger than 50 micrometres.'

He said that those advised not to wear face masks, such as those with underlying respiratory issues or small children, could wear face shields instead, but only in outdoor or indoor settings that are properly ventilated.

The evidence follows on from research done at Florida Atlantic University's College of Engineering and Computer Science published on September 1, which also found face shields are ineffective in halting the spread of coronavirus.

In the study, published in the journal *Physics of Fluids*, scientists placed fluorescent substances in droplets so that they could monitor their spread. A mannequin was also set up to expel sneeze and cough droplets, with a mixture of distilled water and glycerin to generate a synthetic fog.

ARE FACE SHIELDS PROTECTIVE?

In a scramble to find ways to protect people from catching the coronavirus, masks, goggles, visors and gloves have all been touted as possible layers of protection.

Some people have even been seen with homemade attempts, such as wearing lunchboxes or water bottles over their faces.

But do visors work?

Some research has shown that people are at risk of becoming more seriously ill with COVID-19 if they receive a larger 'viral load' - the first dose of viruses that they are infected with.

Epidemiologist Dr Eli Perencevich and a team of scientists at the University of Iowa said a visor could reduce the amount of virus someone inhaled by up to 92 per cent from 2m away from the source.

They said: 'Face shields... should be included as part of strategies to safely and significantly reduce transmission in the community setting.'

Dr Robert Glatter, a doctor at Lenox Hill Hospital in New York City, said that early data was 'promising'. But research carried out before the pandemic does not show any clear benefits of using visors on their own, other scientists say.

A study by the US Centers for Disease Control & Prevention (CDC) done in 2016 found there is no proof to back up claims that face shields work on their own.

He said viruses or bacteria could come in through around the edges of the visor and still cause infection — and said they should only be used in addition to other PPE.

Lawrence Young, a virologist and oncologist, University of Warwick, told MailOnline: 'I don't know of any systematic studies properly evaluating the benefits of face shields.'

He noted an 'interesting' review led by the University of Hong which comprehensively explored the different types of facial protection measures, including masks.

The team highlighted the fact that 'strong evidence is lacking in terms of the effectiveness of face shields against the transmission of viral respiratory diseases'.

Writing in the journal *Oral Diseases*, the team add: 'Because most face shields do not form a tight seal around the side of the face and chin area, they do not offer protection against aerosols leaking in from the margins of the face shields.'

Advertisement

Face shields were revealed to drop the initial forward motion of the droplets, but other particles spread around the 'shield' and escaped.

Study co-author, Professor Manhar Dhanak, said: 'From this latest study, we were able to observe that face shields are able to block the initial forward motion of the exhaled jet, however, aerosolised droplets expelled with the jet are able to move around the visor with relative ease.'

'Over time, these droplets can disperse over a wide area in both lateral and longitudinal directions, albeit with decreasing droplet concentration.'

Lead author Professor Siddhartha Verma added: 'Face shields have noticeable gaps along the bottom and the sides, and masks with exhalation ports include a one-way valve which restricts airflow when breathing in, but allows free outflow of air.'

'The inhaled air gets filtered through the mask material, but exhaled breath passes through the valve unfiltered.'

The research concluded that face shields are not as effective as regular face masks.

The Government's Scientific Advisory Group for Emergencies (SAGE) has also recommended that hairdressers wear face masks rather than face shields as there is 'no evidence' the latter offers protection against Covid-19.

The New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG) and the Environmental and Modelling group (EMG) presented the evidence on July 23, almost three weeks after hairdressers re-opened on July 4.

In order to welcome back clients, hairdressers, barbers, nail technicians and tattooists were told by the government that clear visors would be adequate enough to protect against Covid-19. It is not clear what this guidance was based on.

SAGE said in July face shields are 'likely' to protect the wearer against large droplets — the most common route of Covid-19 transmission — but there is no hard proof that this is the case.

Similarly, there is no evidence — and it is 'unlikely' — that face shields are an effective control against aerosol transmission.

It is currently unclear if the virus is spread through aerosols — which are tiny particles that linger in the air for long periods of time.

But NERVTAG and EMG admitted it is possible airborne transmission plays a part in the spread of the coronavirus, but only in areas that are poorly ventilated.

The paper said: 'Based on the current evidence, it is possible that transmission through aerosols could happen where a person who generates significant amounts of virus is in a poorly ventilated space with others for a significant amount of time.'

The World Health Organization says the virus that causes Covid-19 is primarily transmitted between people through respiratory droplets, which come out of the airways when people breathe.

Droplets, which contain saliva, mucous and other substances from the airways, including viruses, are larger than pure air particles.

After being expelled from the body they travel short distances before falling to the floor, which is why social distancing is so crucial.

The droplets, which can carry viruses, can land directly into another person's nose or mouth if not caught in a tissue. Or, they fall due to gravity and land on surfaces, where it can live for up to three days.

If someone else touches that contaminated surface, the virus can transfer onto their hand and then enter the body and cause infection next time they touch their eyes, nose or mouth.

The World Health Organization changed its own guidelines in July to acknowledge that it 'is possible' to become infected by airborne transmission.

Airborne transmission is different from droplet transmission as it refers to the presence of microbes within droplet nuclei, which are generally considered to be particles less than 5µm in diameter.

They can remain in the air for long periods of time, meaning transmission can occur when the contagious person has left the room, and be transmitted to others over distances greater than one metre.

<https://www.dailymail.co.uk/news/article-8763293/Plastic-face-shields-DONT-work.html?ito=social-facebook&fbclid=IwAR28clRoygabugqTEyH4AA1fPPeli8iqOEQeLTqg1it7I28YIQnTRwCHDMI>

United States

Massive genetic study shows coronavirus mutating and potentially evolving amid rapid U.S. spread

Source: washingtonpost.com

ID: 1007900153

Scientists in Houston on Wednesday released a study of more than 5,000 genetic sequences of the coronavirus that reveals the virus's continual accumulation of mutations, one of which may have made it more contagious.

The new report, however, did not find that these mutations have made the virus deadlier or changed clinical outcomes. All viruses accumulate genetic mutations, and most are insignificant, scientists say.

Coronaviruses such as SARS-CoV-2 are relatively stable as viruses go, because they have a proofreading mechanism as they replicate. But every mutation is a roll of the dice, and with transmission so widespread in the United States — which continues to see tens of thousands of new, confirmed infections daily — the virus has had abundant opportunities to change, potentially with troublesome consequences, said study author James Musser of Houston Methodist Hospital.

“We have given this virus a lot of chances,” Musser told The Washington Post. “There is a huge population size out there right now.”

Scientists from Weill Cornell Medicine, the University of Chicago, Argonne National Laboratory and the University of Texas at Austin also contributed to the study.

The new study, which has not been peer-reviewed, was posted Wednesday on the preprint server MedRxiv. It appears to be the largest single aggregation of genetic sequences of the virus in the United States thus far. A larger batch of sequences was published earlier this month by scientists in the United Kingdom, and, like the Houston study, concluded that a mutation that changes the structure of the “spike protein” on the surface of the virus may be driving the outsized spread of that particular strain.

David Morens, a virologist at the National Institute of Allergy and Infectious Diseases, reviewed the new study and said the findings point to the strong possibility that the virus, as it has moved through the population, has become more transmissible, and that this “may have implications for our ability to control it.”

Morens noted that this is a single paper, and “you don’t want to over-interpret what this means.” But the virus, he said, could potentially be responding — through random mutations — to such interventions as mask-wearing and social distancing, Morens said Wednesday.

“Wearing masks, washing our hands, all those things are barriers to transmissibility, or contagion, but as the virus becomes more contagious it statistically is better at getting around those barriers,” said Morens, senior adviser to Anthony S. Fauci, the director of NIAID.

This has implications for the formulation of vaccines, he said. As people gain immunity, either through infections or a vaccine, the virus could be under selective pressure to evade the human immune response.

“Although we don’t know yet, it is well within the realm of possibility that this coronavirus, when our population-level immunity gets high enough, this coronavirus will find a way to get around our immunity,” Morens said. “If that happened, we’d be in the same situation as with flu. We’ll have to chase the virus and, as it mutates, we’ll have to tinker with our vaccine.”

Peter Thielen, a molecular biologist at the Johns Hopkins University Applied Physics Laboratory, said scientists will need to continue studying the virus to see if the new mutations identified by the Houston researchers change the “fitness” of the virus, “and if SARS-CoV-2 transmissibility is truly increased as a result of these mutations.”

Another scientist who has studied the coronavirus, Jeremy Luban, a virologist at the University of Massachusetts Medical School, said in an email Wednesday that “the Houston paper highlights the fact that, with respect to SARS-CoV-2, we need to remain vigilant, and increase our capacity to monitor the virus for mutations.”

At Houston Methodist, whose main hospital is part of the Texas Medical Center in central Houston but also includes hospitals around the city, scientists have been sequencing the 30,000-character genome of the coronavirus since early March, when the virus first appears to have arrived in the metropolitan area of 7 million. The paper documents 5,085 sequences.

The research shows that the virus disseminated across Houston neighborhoods in two waves, first striking wealthier and older individuals but then spreading, in the second wave, to younger people and lower income neighborhoods — affecting many Latino city residents.

At the same time, as the virus spread Zip code by Zip code, it also compiled a catalogue of mutations, many affecting the spike protein. That structure on the surface of the virus, which resembles a tree decked with curled ribbons, enables the virus to enter cells.

A 'silent wave' of neurological illnesses could sweep Australia in years to come as brain damage caused by coronavirus may lead to other diseases, scientists say.

New research into the long-term effects of COVID-19 published on Wednesday has found survivors may have an increased risk of developing Parkinson's disease.

The virus creates inflammation on the brain which can act as a trigger for the onset of more serious conditions.

'Parkinson's disease is a complex illness, but one of the causes is inflammation, and the virus helps to drive that inflammation,' Kevin Barnham from the Florey Institute of Neuroscience and Mental Health told the ABC.

'Once the inflammation gets into the brain, it starts a cascade of events which can ultimately lead to Parkinson's disease.'

The ramifications described were witnessed after the 1918 Spanish Flu pandemic, with Parkinson's disease cases tripling five years after the outbreak.

The study, published in the Journal of Parkinson's Disease, proposes a 'two-hit' hypothesis, in which an initial inflammation event occurs, such as the virus, with a second then fuelling the later development of the nervous system disorder.

Not every survivor will develop the disease, but it is still too early to know what percentage will, experts say.

However, Professor Barnham said with 30 million people worldwide being diagnosed with the virus, even a small percentage would create a surge in Parkinson Disease cases.

While further research is needed to determine the relationship between COVID-19 and Parkinson's disease, researchers are investigating intervention methods.

Warning signs, such as loss of smell, can occur up to a decade before Parkinson's disease sufferers experience physical symptoms.

If diagnosed early, therapeutics can be applied to prevent brain cells from dying off.

Researchers from the Florey Institute are working on a screening test to identify indications of the disease, like ability to smell and brain functioning.

It will be available to those 50 and over.

If effective, it could have far reaching benefits- with Parkinson's disease cases set to double to 12 million the next 20 years - even before the coronavirus pandemic.

'Add to that the silent wave from COVID, and those numbers will explode and there will be serious societal and economic consequences from that,' Professor Barnham said.

Parkinson's disease is a degenerative neurological condition that affects the control of body movements.

It causes trembling in the hands, arms, legs, jaw, and face, stiffness in the lower body, slowness of movements, unstable posture and difficulty in walking.

https://www.dailymail.co.uk/news/article-8761925/The-silent-wave-coronavirus-pandemic-scientists-say-devastate-Australia.html?ns_mchannel=rss&ns_campaign=1490&ito=1490

Australia

Neurological Consequences of COVID-19: The "Silent Wave"

Source: Journal of Parkinson's Disease

22 September 2020

Melbourne, Australia – Is the world prepared for a wave of neurological consequences that may be on its way as a result of COVID-19? This question is at the forefront of research underway at the Florey Institute of Neuroscience and Mental Health. A team of neuroscientists and clinicians are examining the potential link between COVID-19 and increased risk of Parkinson's disease, and measures to get ahead of the curve.

"Although scientists are still learning how the SARS-CoV-2 virus is able to invade the brain and central nervous system, the fact that it's getting in there is clear. Our best understanding is that the virus can cause insult to brain cells, with potential for neurodegeneration to follow on from there," said Professor Kevin Barnham from the Florey Institute of Neuroscience & Mental Health.

In a review paper published today in the Journal of Parkinson's Disease, researchers put spotlight on the potential long-term neurological consequences of COVID-19, dubbing it the "silent wave". They are calling

for urgent action to be taken to have available more accurate diagnostic tools to identify neurodegeneration early on and a long-term monitoring approach for people who have been infected with the SARS-CoV-2 virus.

The researchers report that neurological symptoms in people infected with the virus have ranged from severe, such as brain hypoxia (lack of oxygen), to more common symptoms such as loss of smell.

"We found that loss of smell or reduced smell was on average reported in three out of four people infected with the SARS-CoV-2 virus. While on the surface this symptom can appear as little cause for concern, it actually tells us a lot about what's happening on the inside and that is that there's acute inflammation in the olfactory system responsible for smell," explained Florey researcher Leah Beauchamp.

Inflammation is understood to play a major role in the pathogenesis of neurodegenerative disease and has been particularly well studied in Parkinson's. Further research into these illnesses may prove critical for future impacts of SARS-CoV-2.

"We believe that loss of smell presents a new way forward in detecting someone's risk of developing Parkinson's disease early. Armed with the knowledge that loss of smell presents in around 90% of people in the early stages of Parkinson's disease and a decade ahead of motor symptoms, we feel we are on the right track," added Ms Beauchamp.

Clinical diagnosis of Parkinson's disease currently relies on presentation of motor dysfunction, but research shows that by this time 50–70% of dopamine cell loss in the brain has already occurred.

"By waiting until this stage of Parkinson's disease to diagnose and treat, you've already missed the window for neuroprotective therapies to have their intended effect. We are talking about an insidious disease affecting 80,000 people in Australia, which is set to double by 2040 before even considering the potential consequences of COVID, and we currently have no available disease-modifying therapies," said Professor Barnham.

The researchers hope to establish a simple, cost-effective screening protocol aiming to identify people in the community at risk of developing Parkinson's, or who are in early stages of the disease, at a time when therapies have the greatest potential to prevent onset of motor dysfunction. They plan to put the proposal forward for funding from the Australian Government's Medical Research Future Funding scheme.

Additionally, the team have developed two neuroprotective therapies currently under investigation and have identified a cohort of subjects who are ideally suited to study the treatments. Through their research they gained new evidence that people with REM sleep behaviour disorder have a higher predisposition to go on to develop Parkinson's disease.

Parkinson's disease is a significant economic burden costing the Australian economy in excess of \$10 billion a year.

"We have to shift community thinking that Parkinson's not a disease of old age. As we've been hearing time and time again, the coronavirus does not discriminate – and neither does Parkinson's," said Professor Barnham. "We can take insight from the neurological consequences that followed the Spanish Flu pandemic in 1918 where the risk of developing Parkinson's disease increased two to three-fold. Given that the world's population has been hit again by a viral pandemic, it is very worrying indeed to consider the potential global increase of neurological diseases that could unfold down track."

He added, "The world was caught off guard the first-time, but it doesn't need to be again. We now know what needs to be done. Alongside a strategized public health approach, tools for early diagnosis and better treatments are going to be key."

<https://www.journalofparkinsonsdisease.com/neurological-consequences-covid-19-%E2%80%9Csilent-wave%E2%80%9D>

Brazil

Study points to vaccine safety, and Doria wants application in December - 23/09/2020 –

Source: Folha

Unique ID: 1007898905

Coronavac, an immunization against Covid-19 created by China's Sinovac and which will be produced jointly in Brazil by the Butantan Institute, proved safe in its test of the so-called phase 3 in 50,000 volunteers in China.

The data of the study will be presented on Thursday (23) by Governor João Doria (PSDB), the director of Butantan, Dimas Covas, and a representatives of the Chinese pharmaceutical.

The results on efficacy, which in the previous phases were considered satisfactory, should be ready in November. If this schedule remains without mishaps, the expectation in the Government of São Paulo is a release for vaccination in December.

According to the Chinese study, there were only 5.36% of side effects in the test participants, all without severity: pain at the site of application (3.08%), fatigue (1.53%) and mild fever (0.21%). The rest had loss of appetite, headache and fever.

"Safety and efficacy are two of the main factors in verifying whether a vaccine is ready for emergency use in the population. We are very optimistic about the results that Coronavac has presented so far," covas said.

Sinovac tests its immunizer in 10 countries, and has been approved for emergency vaccination in its home country. In Brazil, 5,600 of the 9,000 volunteers in 12 research centers in five states and the Federal District have received at least one dose of the vaccine.

If Coronavac proves effective, São Paulo will file with Anvisa, the federal government's health surveillance agency, a request for emergency release of the vaccination campaign. The expectation is that this will be possible as early as the last month of the year.

Although the vaccine is a political asset for Doria, president Jair Bolsonaro's opponent and potential rival in 2022, in the São Paulo government the assessment is that Anvisa will not stop the release process.

There are still no details about the studies and which groups would initially be vaccinated—health professionals are obvious candidates.

A batch of 5 million vaccines will arrive from China in October. By December, there will be 6 million ready imported doses and another 40 million formulated from Chinese insums in Butantan, which covers the entire population of São Paulo

Another 55 million doses should be available in the first half of 2021. After vaccination in São Paulo, if the immunizer is approved, the plan is to offer Coronavac to other states and even countries in the region.

Butantan's new vaccine plant will begin construction next month and will have the capacity to produce 100 million doses annually.

The distribution outside São Paulo can occur in one-off agreements or depend on an arrangement with the Bolsonaro government.

It happens that, in addition to the political feud that can hinder the plan, the Ministry of Health has a contract for manufacture at the Oswaldo Cruz Foundation of the English vaccine company AstraZeneca and the University of Oxford.

Then the problem is of another nature. The English vaccine is also in phase 3 testing, but there have already been two interruptions in trials due to the emergence of serious side effects located in two people. The tests continue. Coronavac's advantage over English is that it uses an old and proven technology to trigger the immune response, using the new disabled coronavirus. That's how flu immunizations work, for example.

The English woman has bet on a new technology, in which genetic material from Sars-CoV-2 capable of stimulating immunity are transported using an adenovirus that causes influenza in monkeys.

This technique is seen as risky by a competitor of both vaccines, the Gamaleya Institute of Russia.

Manufacturer of the Vaccine Sputnik V, already in production concomitant with tests, the laboratory uses in its product a human adenovirus for transport —something already done in an immunization against the Ebola virus and in cancer treatments.

If all goes well, São Paulo will be one of the first places in the world to have a vaccination campaign against Covid-19, which has killed 34,000 Paulistas so far, the largest contingent of the 137,000 deaths in the country. China and Russia plan to begin their campaigns before the end of the year.

The WHO (World Health Organization) adopts caution, stating that it is necessary to be sure of the safety and efficacy of protudos with extensive studies. And it says that a global immunization could take up to two years, if not more.

<https://www1.folha.uol.com.br/eqilibrioesaude/2020/09/estudo-chines-amplo-aponta-seguranca-da-vacina-contracovid-19-de-sp.shtml>

United States

Changing Age Distribution of the COVID-19 Pandemic — United States, May–August 2020

Source CDC – MMWR

ID: 1007899149

Early Release / September 23, 2020 / 69

Summary

What is already known about this topic?

Early in the pandemic, COVID-19 incidence was highest among older adults.

What is added by this report?

During June–August 2020, COVID-19 incidence was highest in persons aged 20–29 years, who accounted for >20% of all confirmed cases. Younger adults likely contribute to community transmission of COVID-19. Across the southern United States in June 2020, increases in percentage of positive SARS-CoV-2 test results among adults aged 20–39 years preceded increases among those aged ≥60 years by 4–15 days.

What are the implications for public health practice?

Strict adherence to community mitigation strategies and personal preventive behaviors by younger adults is needed to help reduce infection and subsequent transmission to persons at higher risk for severe illness.

As of September 21, 2020, the coronavirus disease 2019 (COVID-19) pandemic had resulted in more than 6,800,000 reported U.S. cases and more than 199,000 associated deaths.* Early in the pandemic, COVID-19 incidence was highest among older adults (1). CDC examined the changing age distribution of the COVID-19 pandemic in the United States during May–August by assessing three indicators: COVID-19–like illness-related emergency department (ED) visits, positive reverse transcription–polymerase chain reaction (RT-PCR) test results for SARS-CoV-2, the virus that causes COVID-19, and confirmed COVID-19 cases. Nationwide, the median age of COVID-19 cases declined from 46 years in May to 37 years in July and 38 in August. Similar patterns were seen for COVID-19–like illness-related ED visits and positive SARS-CoV-2 RT-PCR test results in all U.S. Census regions. During June–August, COVID-19 incidence was highest in persons aged 20–29 years, who accounted for >20% of all confirmed cases. The southern United States experienced regional outbreaks of COVID-19 in June. In these regions, increases in the percentage of positive SARS-CoV-2 test results among adults aged 20–39 years preceded increases among adults aged ≥60 years by an average of 8.7 days (range = 4–15 days), suggesting that younger adults likely contributed to community transmission of COVID-19. Given the role of asymptomatic and presymptomatic transmission (2), strict adherence to community mitigation strategies and personal preventive behaviors by younger adults is needed to help reduce their risk for infection and subsequent transmission of SARS-CoV-2 to persons at higher risk for severe illness.

CDC examined age trends during May–August for 50 states and the District of Columbia (DC) using three indicators: 1) COVID-19–like illness-related ED visits; 2) positive SARS-CoV-2 RT-PCR test results; and 3) confirmed COVID-19 cases. COVID-19–like illness-related ED visits, reported by health facilities to the National Syndromic Surveillance Program (NSSP),† had fever with cough, shortness of breath, or difficulty breathing in the chief complaint text or a discharge diagnostic code for COVID-19 and no diagnostic codes for influenza.§ Analyses of COVID-19–like illness-related ED visits were based on the ED visit date.

SARS-CoV-2 RT-PCR test results were obtained from COVID-19 electronic laboratory reporting data submitted by state health departments (37 states) and, when age was unavailable in state-submitted data, from data submitted directly by public health, commercial, and reference laboratories (13 states and DC).¶ Data represent the number of specimens tested, not individual persons who received testing.

Analyses were based on the specimen collection date or test order date.** The daily percentage of positive SARS-CoV-2 test results (percent positivity) was calculated as the number of positive test results divided by the sum of positive and negative test results.

Confirmed COVID-19 cases were identified from individual-level case reports submitted by state health departments††; analyses were based on the date the case was reported to CDC.§§ Confirmed COVID-19 cases had a positive SARS-CoV-2 RT-PCR test result. Case data represent individual persons (some of whom might have had multiple positive test results). Monthly incidence was calculated using 2018 U.S. Census population estimates.

National case counts, percentage distributions, and estimated incidence of confirmed COVID-19 cases were calculated by 10-year age increments and by month (May–August). The weekly median age of persons with COVID-19–like illness-related ED visits, positive SARS-CoV-2 test results, and confirmed COVID-19 cases, as well as that of persons for whom all SARS-CoV-2 tests were conducted, were plotted nationally for the four U.S. Census regions. To minimize the impact of testing availability on findings, the early pandemic period (January–April) was excluded.

The southern United States experienced regional COVID-19 outbreaks during June–July 2020. For U.S. Department of Health and Human Services (HHS) Regions 4, 6, and 9,¶¶ daily percent positivity was plotted for four age groups (0–19 years, 20–39 years, 40–59 years, and ≥60 years). The segmented package (version 1.2-0) in R software (version 3.6.0; The R Foundation) was used to segment the age group-specific trend lines and identify inflection points when the slopes changed.

National incidence of confirmed COVID-19 increased from 185 cases per 100,000 persons in May to 316 in July, then declined to 275 in August (Table). During May–July, incidence increased among persons in all age groups <80 years, with the largest increases in persons aged <30 years. As a result, the median age of confirmed COVID-19 cases decreased from 46 years in May to 37 years in July and 38 years in August. During June–August, incidence was highest among persons aged 20–29 years, who accounted for the largest proportion of total cases (>20%). Similar age shifts were observed nationwide.

The median age trend lines for all three indicators (COVID-19–like illness-related ED visits, positive SARS-CoV-2 test results, and confirmed COVID-19 cases) followed similar patterns in the national data (Figure 1) and within each U.S. Census region (Figure 2); however, patterns differed by region. Nationally and in the South and Midwest, median age decreased until mid- to late June, increased during July, and decreased in the latter half of August. In the West, median age declined from May to mid-June and then remained relatively stable or slightly increased during July–August. In the Northeast, median age of persons with positive test results and confirmed cases was stable in May, decreased sharply in June, increased slightly in July, and decreased in August; median age for persons with COVID-19–like illness-related ED visits declined steadily from mid-June to mid-August. In all four U.S. Census regions, the median age of persons for whom all SARS-CoV-2 tests were conducted was relatively stable in May (whereas median age of persons with positive test results and confirmed cases declined in May) and began to decrease following declines in the other three indicators.

During June 2020 in HHS Regions 4, 6, and 9, the change to an upward slope in percent positivity among persons aged 20–39 years occurred an average of 8.7 days (range 4–15 days) before the change to an upward slope among persons aged ≥60 years (Supplementary Figure, <https://stacks.cdc.gov/view/cdc/93914>). This pattern was most evident in Region 4 (Southeast) where the increase in percent positivity among persons aged 20–39 years preceded increases among persons aged 40–59 years by 9 days and those aged ≥60 years by 15 days; percent positivity among persons aged 0–19 years increased steadily from early May to early July. Within HHS Regions 6 and 9 (Southcentral and Southwest), the percent positivity among persons aged 0–19, 20–39, and 40–59 years increased at approximately the same time and preceded increases among persons aged ≥60 years by approximately 7 days in Region 6 and 4 days in Region 9.

Top

Discussion

During June–August, the COVID-19 pandemic in the United States affected a larger proportion of younger persons than during January–May 2020 (1). The shift toward younger ages occurred in all four U.S. Census regions, regardless of changes in incidence during this period, and was reflected in COVID-19–like illness-related ED visits, positive SARS-CoV-2 RT-PCR test results, and confirmed COVID-19 cases. A similar age shift occurred in Europe, where the median age of COVID-19 cases declined from 54 years during January–May to 39 years during June–July, during which time persons aged 20–29 years constituted the largest proportion of cases (19.5%) (3).

Case and laboratory surveillance are based on consistent availability of diagnostic testing to all segments of the population, and changes in testing across age groups could affect the age distribution of positive SARS-CoV-2 test results and confirmed cases. Although testing availability has varied by place, time, and test provider, it is unlikely that the observed age shift resulted solely from changes in testing availability. First, the decline in median age of persons for whom all SARS-CoV-2 tests were conducted lagged behind declines in median age of persons with positive test results and confirmed cases, suggesting that infection patterns drove testing patterns. Second, the age distribution of persons for whom all SARS-CoV-2 tests were conducted shifted toward younger groups from May to June but remained relatively consistent during June–August. Third, the percent positivity continued to increase in the face of increased testing volume; this was most evident in HHS Regions 4 and 6 among persons aged 20–39 years during early to mid-June (Supplementary Figure, <https://stacks.cdc.gov/view/cdc/93914>). Fourth, the median age of persons with COVID-19–like illness-related ED visits, which is not dependent on testing availability, showed similar patterns to those of persons with positive test results and confirmed cases.

This report provides preliminary evidence that younger adults contributed to community transmission of COVID-19 to older adults. Across the southern United States in June 2020, the increase in SARS-CoV-2 infection among younger adults preceded the increase among older adults by 4–15 days (or approximately one to three incubation periods). Similar observations have been reported by the World Health Organization.*** Further investigation of community transmission dynamics across age groups to identify factors that might be driving infection among younger adults and subsequent transmission to older adults is warranted.

These findings have important clinical and public health implications. First, occupational and behavioral factors might put younger adults at higher risk for exposure to SARS-CoV-2. Younger adults make up a large proportion of workers in frontline occupations (e.g., retail stores, public transit, child care, and social services) and highly exposed industries (e.g., restaurants/bars, entertainment, and personal services) (4,5), where consistent implementation of prevention strategies might be difficult or not possible. In addition, younger adults might also be less likely to follow community mitigation strategies, such as social distancing and avoiding group gatherings (6,7). Second, younger adults, who are more likely to have mild or no symptoms,††† can unknowingly contribute to presymptomatic or asymptomatic transmission to others (2), including to persons at higher risk for severe illness. Finally, SARS-CoV-2 infection is not benign in younger adults, especially among those with underlying medical conditions,§§§ who are at risk for hospitalization, severe illness, and death (8).

The findings in this report are subject to at least five limitations. First, case report data submitted to CDC by state health departments underestimates true incidence. Second, batch reporting of historical cases by some states might have led to spikes in median age trend lines, such as the increase seen in the Midwest region in June. Third, the report's three data sources varied in their geographic coverage, with laboratory data being the most comprehensive. Nevertheless, consistent patterns and trends were observed across the three indicators. Fourth, analyzing data at a regional level could minimize differences in age group–specific trends that might otherwise be observed at the state or local level. Finally, use of ten- and twenty-year age groups might mask age patterns among smaller age groups and those that cross decades, such as recent increases in COVID-19 cases among college and university students.¶¶¶¶

Increased prevalence of SARS-CoV-2 infection among younger adults likely contributes to community transmission of COVID-19, including to persons at higher risk for severe illness, such as older adults. Emphasis should be placed on targeted mitigation strategies to reduce infection and transmission among

younger adults, including age-appropriate prevention messages (7), restricting in-person gatherings and events,**** recommending mask use and social distancing in settings where persons socialize,†††† implementing safe practices at on-site eating and drinking venues (9), and enforcing protection measures for essential and service industry workers.§§§§ Given the role of asymptomatic and presymptomatic transmission (2), all persons, including young adults, should take extra precautions to avoid transmission to family and community members who are older or who have underlying medical conditions. Strict adherence to community mitigation strategies and personal preventive behaviors by younger adults is needed to help reduce their risk for infection and minimize subsequent transmission of SARS-CoV-2 to persons at higher risk for severe COVID-19.

https://www.cdc.gov/mmwr/volumes/69/wr/mm6939e1.htm?s_cid=mm6939e1_e&ACSTrackingID=DM38812&ACSTrackingLabel=MMWR%20Early%20Release%20-%20Vol.%2069%2C%20September%2023%2C%202020&deliveryName=DM38812

France and Spain

Coronavirus: pets may be more susceptible to Covid-19 than first thought, study says

Source: South China Morning Post

Unique ID: 1007899176

More than half of cats and dogs living with infected owners test positive for antibodies in French study
Spanish researchers say mortality rate among dogs with respiratory problems soared during peak of health crisis in the country

Pets may be more susceptible to the coronavirus than previously thought, according to a study by scientists in France. A team from the French National Research Institute for Sustainable Development collected blood samples from 47 cats and dogs that lived with families in which at least one member had tested positive for Covid-19. They then ran three tests on the samples for Sars-CoV-2 antibodies. More than 20 per cent of the animals returned a positive result in all three tests and 53 per cent did so in at least one. Earlier studies put the risk of a family pet becoming infected at between zero and 15 per cent.

The French study was published on the preprint website bioRxiv.org on Tuesday, meaning its findings have not been peer-reviewed.

“Our results highlight the potential role of pets in the spread of the epidemic,” said Dr Eric Leroy, the team’s leader.

“[The] infection risk in the pets of Covid-19 positive owners is much higher than previously described,” he said.

Leroy said his team did not retrieve any living strains of the coronavirus from any of the pets, which suggested it was very unlikely the pathogen could be passed by the animals to humans they encountered while outside their homes.

However, people who were in frequent close contact with an infected animal should take precautionary measures, he said.

Cats were about twice as likely to catch the virus than dogs, the results showed, supporting an earlier experiment by Chinese scientists.

Meanwhile, a separate study carried out by scientists in Spain found that the death rate among dogs suffering from respiratory disease soared during the pandemic.

Based on data collected from vets between April and June, the team found that the death rate rose from a norm of 1 to 2 per cent to as high as 40 per cent.

The team said in a paper published on bioRxiv.org on Tuesday that it was unclear if the spike could be attributed to the health crisis affecting humans, but coronavirus antibodies were found in some of the 40 dogs that got sick or died in the period.

“The number of deaths was more than 30 times higher than expected,” said the team’s leader, Dr Alicia Barbero-Fernandez from the University Alfonso X the Wise in Madrid.

“Information regarding the possibility of companion animals becoming infected is confusing and controversial.”

The global pandemic has shown the coronavirus is well adapted to humans, which in theory means it should be less likely to pass to other species.

However, some studies by Chinese scientists have found that the host range of the virus is determined by only a small number of genes, and that a single mutation in any one of them could make the virus more adept at making the switch.

<https://www.scmp.com/news/china/science/article/3102711/coronavirus-pets-may-be-more-susceptible-covid-19-first-thought>

Spain

Cats with COVID-19 naturally develop antibodies to fight virus, tests show

Source: CTVNews.ca - Top Stories - Public RSS

ID: 1007899730

TORONTO -- Two cats from Spain are offering new insights into how felines respond to COVID-19, with scientists saying the animals appeared to have a robust immune response to the virus that protected them from developing symptoms.

Many common pets, including cats, dogs, hamsters and ferrets, are capable of catching COVID-19, although cases remain rare. What's less clear is how animals respond to the virus and if they're able to pass it along to humans.

New research from Spain on two cats that caught the virus suggests felines are able to develop their own antibodies that effectively neutralize COVID-19.

The findings are thanks to Negrito, a four-year-old cat that tested positive for the virus in May after its owners also contracted the disease. Negrito made headlines as the first cat in Spain to test positive for the virus, and the animal had severe respiratory problems.

After being brought to an animal hospital, Negrito was diagnosed with hypertrophic cardiomyopathy, a condition not related to the cat's COVID-19 infection. The cat was euthanized, and a necropsy confirmed that the animal had no other lesions or symptoms compatible with a coronavirus infection.

More significantly, scientists determined through testing that Negrito had a very low viral load. Serological tests were then performed on Negrito and another house cat, Whisky, that lived in the same home.

Researchers found that both cats had naturally developed antibodies against the virus.

"In both cases we have detected neutralizing antibodies, in other words, they have the ability to bind to the virus and block it," Julià Blanco, a researcher with the AIDS Research Institute which carried out the testing, said in a statement.

"This is important because it shows us that the immune system of cats can deal with SARS-CoV-2 and, in these specific cases, protect them from developing symptoms."

Researchers believe that both cats were infected by their owners, a process known as "reverse zoonosis." Both animals had no contact with other cats, and researchers analyzed Negrito's genetic sequence and found that it had a 99.9 per cent similarity to the virus one of its owners had. The owner died of the virus.

More than 31 million people have tested positive for COVID-19 globally, but known cases among animals remain uncommon. The Spanish researchers note that pets play a "negligible role" in the spread of the virus.

The team has since launched a larger study to analyze whether the significant immune responses of Negrito and Whisky can be found in other animals.

Earlier this month, researchers from China studied a group of 102 cats in Wuhan, where the outbreak began, and found that 15 cats tested positive for COVID-19 antibodies.

None of the cats tested positive for COVID-19, had symptoms, or died from the virus, but researchers warned that the immune response was closer to the reaction to a seasonal virus, as opposed to a more long-lasting immunity, indicating that the cats could be at risk of reinfection.

CASES RARE AMONG DOGS

Canadian health authorities have released a chart detailing which animals are known to contract COVID-19 and if they can spread the virus to humans or other members of the same species.

While cats can be infected and spread the disease to other animals, dogs only contract the virus rarely and are not known to transmit it to other dogs, officials say. Neither species is known to pass the virus to humans.

The only animal that may be able to pass the virus to humans, Canadian health officials say, is mink. That's because of outbreaks among workers at mink farms in Europe, where researchers say it's possible that the virus spread from the animals to humans.

Anyone with COVID-19 symptoms or who is self-isolating is advised to avoid close contact with pets, including snuggling, kissing or sharing a bed. If you don't have symptoms, health officials say walking your dog or spending time with your pet can be a great way to stay healthy.

<https://www.ctvnews.ca/health/coronavirus/cats-with-covid-19-naturally-develop-antibodies-to-fight-virus-tests-show-1.5116683>

Japan

Dynamic Change of COVID-19 Seroprevalence among Asymptomatic Population in Tokyo during the Second Wave

Source: medrxiv.org

ID: 1007900265

Abstract

Importance: Fatality rates related to COVID-19 in Japan have been low compared to Western Countries and have decreased despite the absence of lockdown. Serological tests monitored across the course of the second wave can provide insights into the population-level prevalence and dynamic patterns of COVID-19 infection.

Objective: To assess changes in COVID-19 seroprevalence among asymptomatic employees working in Tokyo during the second wave. **Design:** We conducted an observational cohort study. Healthy volunteers working for a Japanese company in Tokyo were enrolled from disparate locations to determine seropositivity against COVID19 from May 26 to August 25, 2020. COVID-19 IgM and IgG antibodies were determined by a rapid COVID19 IgM/IgG test kit using fingertip blood. Across the company, tests were performed and acquired weekly. For each participant, serology tests were offered twice, separated by approximately a month, to provide self-reference of test results and to assess for seroconversion and seroreversion.

Setting: Workplace setting within a large company.

Participants: Healthy volunteers from 1877 employees of a large Japanese company were recruited to the study from 11 disparate locations across Tokyo. Participants having fever, cough, or shortness of breath at the time of testing were excluded. It is made available under a CC-BY-ND 4.0 International license . preprint (which was not certified by peer review) is the author/funder, who has granted medRxiv a license to display the preprint in perpetuity. medRxiv preprint doi: <https://doi.org/10.1101/2020.09.21.20198796>.this version posted September 23, 2020. The copyright holder for this

Main Outcome(s) and Measure(s): Seropositivity rate (SPR) was calculated by pooled data from each two-weeks window across the cohort. Either IgM or IgG positivity was defined as seropositive. Changes in immunological status against SARS-CoV-2 were determined by comparing results between two tests obtained from the same individual.

Results: Six hundred fifteen healthy volunteers (mean + SD 40.8 + 10.0; range 19 - 69; 45.7 % female) received at least one test. Seroprevalence increased from 5.8 % to 46.8 % over the course of the summer. The most dramatic increase in SPR occurred in late June and early July, paralleling the rise in daily confirmed cases within Tokyo, which peaked on August 4. Out of the 350 individuals (mean + SD 42.5 + 10.0; range 19 - 69; 46.0 % female) who completed both offered tests, 21.4 % of those individuals who tested seronegative became seropositive and seroreversion was found in 12.2 % of initially

seropositive participants. 81.1% of IgM positive cases at first testing became IgM negative in approximately one month.

Conclusions and Relevance:

COVID-19 infection may have spread widely across the general population of Tokyo despite the very low fatality rate. Given the temporal correlation between the rise in seropositivity and the decrease in reported COVID-19 cases that occurred without a shut-down, herd immunity may be implicated. Sequential testing for serological response against COVID-19 is useful for understanding the dynamics of COVID-19 infection at the population-level.

<https://www.medrxiv.org>

United Kingdom

Coronavirus: Scientists find ‘game changer’ in fight against COVID-19 - Deseret News

Source: Deseret News

ID: 1007899959

The coronavirus is named for the spikes of protein that surround it like a crown.

Centers for Disease Control and Prevention

A new study from the University of Bristol suggests there’s a druggable pocket in the SARS-Cov-2 spike protein that could help stop the coronavirus.

The researchers published their findings in the journal Science.

Scientists said the discovery is a “game changer” in defeating the coronavirus pandemic.

What the study said:

SARS-CoV-2 has multiple copies of glycoprotein — or the “spike protein ” — that attaches to our cells and infects us.

The research team used an imaging technique, electron cryo-microscopy (cryo-EM) to look into the spike at the atomic level.

With the help of Oracle, the team built a 3D structure of the SARS-CoV-2 spike protein , allowing them to research the ins and outs if the protein.

Related

Worried over the COVID-19 vaccine? Here’s what the developers are doing to keep you safe

Why it matters:

Now, the researchers said seeing the pocket allows them to see whether they can turn the virus against it self.

“Our discovery of a druggable pocket within the SARS-CoV-2 Spike protein could lead to new anti-viral drugs to shut down and eliminate the virus before it entered human cells, stopping it firmly in its tracks,” said professor Christiane Schaffitzel

Next up:

The scientists said anti-viral drugs that could target the pocket would need to be made in order to put an end to the pandemic.

<https://www.deseret.com/u-s-world/2020/9/22/21449811/coronavirus-sars-cov-2-covid-19-spike-protein>

Domestic Events of Interest

Canada

More microgreens recalled in relation to *Salmonella* outbreak

Source: Food Safety News

Unique ID: 1007897450

A third recall has been initiated in Canada related to a *Salmonella* outbreak associated with fresh sprouts from Sunsprout. The recall covers micro-greens including alfalfa and onion, and alfalfa and radish.

There is concern that consumers may have the recalled microgreens in their homes because of their relatively long shelf life. The sprouted greens named in the expansion of the Sunsprout product recall have best-before dates up to and including Oct. 5, according to the recall notice posted by the Canadian

Food Inspection Agency. Previously recalled Sunsprout microgreens have best-before dates up to and including Oct. 13.

Brand	Product	Size	UPC	Codes
Sprouts Alive	Micro – Greens Alfalfa	100 g	0 69022 1003 0 3	All best before dates up to and including BBOCT13
Sunsprout	Micro – Greens Alfalfa	100 g	0 57621 1351 1 6	All best before dates up to and including BBOCT13

Public Health Ontario is investigating an outbreak of infections associated with the recalled microgreens, according to the food inspection agency.

The company reports having distributed the recalled sprouted greens to retail stores in Ontario and British Columbia.

“This recall was triggered by findings by the CFIA during its investigation into a foodborne illness outbreak. The CFIA is conducting a food safety investigation, which may lead to the recall of other products. If other high-risk products are recalled, the CFIA will notify the public through updated,” according to the recall notice.

About Salmonella infections

Food contaminated with Salmonella bacteria does not usually look, smell, or taste spoiled. Anyone can become sick with a Salmonella infection. Infants, children, seniors, and people with weakened immune systems are at higher risk of serious illness because their immune systems are fragile, according to the CDC.

Anyone who has eaten any of the recalled sprouted microgreens and developed symptoms of Salmonella infection should seek medical attention. Sick people should tell their doctors about the possible exposure to Salmonella bacteria because special tests are necessary to diagnose salmonellosis. Salmonella infection symptoms can mimic other illnesses, frequently leading to misdiagnosis.

Symptoms of Salmonella infection can include diarrhea, abdominal cramps, and fever within 12 to 72 hours after eating contaminated food. Otherwise, healthy adults are usually sick for four to seven days. In some cases, however, diarrhea may be so severe that patients require hospitalization.

Older adults, children, pregnant women, and people with weakened immune systems, such as cancer patients, are more likely to develop a severe illness and serious, sometimes life-threatening conditions.

<https://www.foodsafetynews.com/2020/09/more-microgreens-recalled-in-relation-to-salmonella-outbreak/>

Canada

Overdose deaths dropped in August from July in British Columbia

Source: The Canadian Press - Broadcast wire

ID: 1007899681

VANCOUVER — British Columbia's coroners service says 147 people fatally overdosed in August compared with 86 deaths during the same month last year.

However, the latest number of monthly illicit-drug deaths are lower than the 176 now confirmed for July and the record of 181 fatalities recorded a month earlier.

Data from the coroners service show overdose deaths began increasing in B.C. just as the COVID-19 pandemic hit in March, when 113 people died, up from 73 in February.

Chief coroner Lisa Lapointe has said border closures during the COVID-19 pandemic have stopped the flow of typical drugs that come into the province, creating business opportunities for those manufacturing even more toxic substances.

Provincial health officer Dr. Bonnie Henry has urged people to use drugs only in the presence of someone equipped with the overdose-reversing medication naloxone.

Last week, she issued an order that is expected to soon allow registered nurses and registered psychiatric nurses to write prescriptions for safer drugs that are an alternative to those bought on the street.

Canada

Opioid deaths spike in first half of 2020, Alberta cites pandemic as cause

Source: CTV News - Edmonton

ID: 1007899855

EDMONTON -- Alberta's opioid-related deaths increased by nearly 100 in the first half of 2020 compared to the same timeframe last year, and the provincial government says the COVID-19 pandemic is to blame.

The Alberta COVID-19 Opioid Response Surveillance Report Q2 2020 says there were 449 unintentional opioid deaths in the first months of 2020 — an increase of 99 from the first half of 2019.

The majority of the 449 deaths — 414 — came as a result of a fentanyl overdose, the report said.

Unintentional opioid deaths saw a sharp incline during the second quarter, between April and June, with 148 deaths in the first quarter and 301 in the second.

The province says it began to see a significant increase in March eventually resulting in "record levels not previously seen."

"This sharp rise was in conjunction with a decrease in the utilization of treatment and harm reduction services," the report read.

"The past few months have led to increased fear and anxiety, isolation, disruption to in-person services, job uncertainty and more," said Jason Luan, Alberta's associated minister of mental health and addictions. "This has exacerbated the struggles of many Albertans, including those struggling with substance use."

The report shows opioid-dependence treatment went from 86 per cent in March to 52.6 per cent in April before it went back up to 84.2 per cent in June. Furthermore, supervised consumption sites saw a steep decline in visits from 114,430 in the first quarter to 40,755 in the second quarter at facilities in Edmonton, Calgary, Red Deer, Lethbridge and Grande Prairie.

The majority of the unintentional deaths came in Alberta's biggest cities, especially Edmonton and Calgary.

Luan said British Columbia has reported similar findings.

<https://edmonton.ctvnews.ca/opioid-deaths-spike-in-first-half-of-2020-alberta-cites-pandemic-as-cause-1.5117233>

Canada

1,068 lives lost to overdose

Source: Castanet

Unique ID: [1007903176](#)

British Columbia has now lost 1,068 lives this year to drug overdose, following another 147 overdose deaths recorded in August. According to the latest report from the BC Coroners Service, last month's figures represent a 71 per cent increase over the number of deaths seen in August 2019, when 86 individuals died of drug overdose. However, it does show a slight improvement from provincial numbers recorded in May, June and July of this year, with August's numbers decreasing by 16 per cent on the number of deaths recorded in July. There were 15 deaths in the Interior region during August this year, which is just over 50 per cent of the number of deaths in the Interior during July (27). Seven deaths took place in the Okanagan region during August, including three in Kelowna, and Thompson-Cariboo accounted for an additional five deaths.

To date, Kelowna and Kamloops have recorded 36 overdose deaths in 2020, exceeding numbers recorded this time last year in both cities. Males are disproportionately represented in the provincial data, accounting for 862 of the 1,068 overdose deaths recorded in 2020 to date. Female rates declined in August 2020 to average levels, whereas male levels remained high. Data suggests fentanyl remains the most detected drug type in overdose deaths, accounting for 79 per cent of deaths in 2020 and 85 per cent of deaths in 2019.

"Post-mortem toxicology results suggest that there has been a greater number of cases with extreme fentanyl concentrations in Apr-Aug 2020 compared with previous months (concentrations exceeded >50ug/L (micrograms/litre))," reads the BC Coroners Service report.

"From Apr-Aug 2020, approximately 14% of cases had extreme fentanyl concentrations as compared to 8% from Jan 2019 to Mar 2020." B.C. is on track to record the highest number of overdose deaths in a single year, tracking at a higher rate than 2018 which recorded 1,040 deaths by August, and now holds the highest annual death count (1,547) from the past decade.

<https://www.castanet.net/news/BC/311398/147-people-died-of-overdose-in-B-C-last-month>

Canada

Lambton County sees first confirmed human case of West Nile virus of the year

Source: CTV News - London

ID: 1007900055

LAMBTON COUNTY, ONT. -- Health officials say someone in Lambton County has tested positive for the West Nile Virus - the first confirmed human case in the region this year.

Lambton Public Health says mosquito pools in Petrolia and Oil Springs tested positive for the virus last month.

The agency says the virus is spread to humans through the bite of an infected mosquito.

It says 24 human cases have been reported in Ontario this year so far.

The health unit says the confirmed human case is a reminder for those in the county to stay vigilant when it comes to exposure to mosquitoes.

It says despite lower nighttime temperatures, the mosquito season isn't over until frost prevents the insects from breeding.

<https://london.ctvnews.ca/lambton-county-sees-first-confirmed-human-case-of-west-nile-virus-of-the-year-1.5117207>

International Events of Interest

United States

Miami: 2nd locally acquired dengue case reported

Source: Outbreak News Today

ID: 1007900068

The Florida Department of Health in Miami-Dade County has reported an additional confirmed case of locally transmitted dengue fever in a Miami-Dade resident. There has been a total of two locally acquired dengue cases in 2020.

Dengue is a virus spread through mosquito bites through the Aedes mosquitoes which also spread chikungunya and Zika virus. Most people infected with dengue have mild or no symptoms. Those that do develop symptoms recover after about one week.

The common symptoms of dengue are fever and one or more of the following symptoms: headache; eye pain (typically behind the eyes); muscle, joint, or bone pain; rash; nausea and vomiting; or unusual bleeding (nose or gum bleed, small red spots under the skin, or unusual bruising). Severe dengue can occur resulting in shock, internal bleeding, and death. If you or a family member develop the mentioned symptoms, visit your health care provider or local clinic.

DOH-Miami-Dade continues to advise the public to remain diligent in their personal mosquito protection efforts by remembering to "Drain and Cover."

DRAIN standing water to stop mosquitoes from multiplying.

Drain water from garbage cans, house gutters, buckets, pool covers, coolers, toys, flower pots or any other containers where sprinkler or rain water has collected.

Discard old tires, drums, bottles, cans, pots and pans, broken appliances and other items that aren't being used.

Empty and clean birdbaths and pet's water bowls at least once or twice a week

Protect boats and vehicles from rain with tarps that don't accumulate water.

Maintain swimming pools in good condition and appropriately chlorinated. Empty plastic swimming pools when not in use.

COVER skin with clothing or repellent.

Clothing – Wear shoes, socks, and long pants and long-sleeves. This type of protection may be necessary for people who must work in areas where mosquitoes are present.

Repellent – Apply mosquito repellent to bare skin and clothing.

Always use repellents according to the label. Repellents with DEET, picaridin, oil of lemon eucalyptus, para-menthane-diol, and IR3535 are effective.

Use mosquito netting to protect children younger than 2 months old.

<http://outbreaknewstoday.com/miami-2nd-locally-acquired-dengue-case-reported-35322/>

Sudan

Eight people die of ‘unknown’ fever in northern Sudan – Middle East Monitor

Source: www.middleeastmonitor.com

Unique ID: 1007897963

Eight people have died in Sudan’s Northern State of an unknown fever, the Sudanese Ministry of Health has revealed.

“The ministry received a report on Saturday concerning 41 cases of fever in the Northern State, including eight deaths,” said an official statement. It added that a medical team has been sent to investigate the cases and try to identify the disease that caused the deadly fever. “Samples were taken for laboratory examination to confirm the diagnosis, and to strengthen interventions to prevent and control the disease.” Sudanese doctors expect the cause to be found in the contaminated floodwater that has engulfed large parts of the country in recent weeks. Stagnant water can lead to outbreaks of serious diseases such as cholera, dengue fever or malaria.

Since June, 121 people have died in Sudan and 54 others have been injured as a result of flash floods.

On 5 September, the Sudanese Defence and Security Council designated the country a “natural disaster area” and declared a three-month nationwide state of emergency.

<https://www.middleeastmonitor.com/20200923-eight-people-die-of-unknown-fever-in-northern-sudan/>

Researches, Policies and Guidelines

South Korea

Effect of COVID-19 on Tuberculosis Notification, South Korea

Source: CDC EID Journal

Nakwon Kwak, Seung-Sik Hwang, and Jae-Joon Yim

Comments to Author
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Cite This Article

Abstract

After South Korea raised its infectious disease alert to the highest level in response to coronavirus disease emergence, tuberculosis notification during the first 18 weeks of 2020 decreased significantly from the same period for each year during 2015–2019. Adequate measures to diagnose, control, and prevent tuberculosis need to be maintained.

The first case of coronavirus disease (COVID-19) in South Korea was identified on January 20, 2020, and an outbreak from a church hastened widespread transmission throughout the country (1). On February 23, the government of South Korea raised the country’s infectious disease alert to the highest level and initiated vigorous infection control measures: establishing widespread diagnostic capacity, initiating local contact tracing, mandating physical distancing, and redesigning triage and treatment systems (2). While this alert level remains in effect, such measures could negatively affect other communicable diseases,

such as tuberculosis (TB) (3). To investigate the effect of COVID-19 on TB diagnoses, we traced the number of notified TB cases in South Korea before and after the COVID-19 outbreak started and compared them with previous years, during which the burden of TB has been at an intermediate level.

We gathered the weekly number of newly notified TB cases for 2015–2020 from the Public Health Weekly Report released by the Korea Centers for Disease Control and Prevention. In South Korea, physicians and healthcare workers are required to report confirmed or clinically diagnosed TB to health authorities within 24 hours, irrespective of any previous history of TB treatment (4). The Public Health Weekly Report publishes the number of notified TB cases by province every week (1). In addition, the number of confirmed COVID-19 cases is posted daily on the Korea Centers for Disease Control and Prevention website (1).

We calculated the mean number of weekly TB notifications from the 1st through the 18th week of each year from 2015 through 2019. We also collected the weekly number of notified TB cases during the same period in 2020. We compared the number of cases before and after the highest alert level was declared (weeks 1–8 [before the COVID-19 outbreak began] and weeks 9–18 [after the COVID-19 outbreak began]). We estimated the change in the number of notified TB cases in 2020 after the COVID-19 outbreak started by comparing the latest numbers with those from previous years using a Bayesian structural time-series model (5). We used R statistical software version 4.0.2 (<https://www.r-project.org>External Link) for all statistical analyses.

Thumbnail of Mean weekly number of TB and COVID-19 case notifications in 2020 compared with the previous 5-year period, South Korea. Triangles indicate TB cases during 2015–2019; squares indicate TB cases during 2020; circles indicate COVID-19 cases during 2020. COVID-19, coronavirus disease; TB, tuberculosis.

Figure. Mean weekly number of TB and COVID-19 case notifications in 2020 compared with the previous 5-year period, South Korea. Triangles indicate TB cases during 2015–2019; squares indicate TB cases during 2020;...

During 2015–2019, a mean number of 594 TB cases were notified weekly during weeks 1–8 and a mean number of 655 TB cases were notified weekly during weeks 9–18. In 2020, a mean of 498 TB cases were notified each week during weeks 1–8; the mean number of notifications during weeks 9–18 decreased to 390 cases/week. After COVID-19 began, TB notification decreased by 24% (121 cases/week; $p < 0.01$ from the predicted number in 2020 based on a Bayesian structural time-series model) (Figure). In Daegu and Gyeongbuk Provinces, the epicenter of COVID-19 in South Korea, TB notification decreased by 23% (14 cases/week; $p = 0.003$). In other provinces, patterns were similar; TB notification decreased by 25% (112 cases/week; $p = 0.001$) after COVID-19 began (Table).

Our analysis demonstrated that the COVID-19 pandemic led to a decrease in TB notification in South Korea and that this reduction was not confined to the Daegu and Gyeongbuk Province areas. Although the number of TB cases in South Korea has decreased steadily since 2010 (6), the 24% decrease in TB notification after COVID-19 began is larger than that predicted by our time-series model.

The reduced number of TB notifications could reflect decreased transmission associated with physical distancing and the increased use of face masks. Recent analysis proposed that physical distancing could decrease transmission of TB by 10% in high TB burden countries (7). However, the 24% reduction in South Korea, which has an intermediate burden of TB, suggests the additional contribution of other factors. First, during the COVID-19 outbreak, interventions such as TB contact investigation and preventive therapy may have been deprioritized and delayed (3). Second, patients with newly developed respiratory symptoms could not visit chest clinics easily because those patients were redirected to COVID-19 screening clinics to prevent in-hospital transmission (8).

The negative effect of the COVID-19 outbreak on TB has not been confined to diagnosis. In South Korea, outpatient clinics and emergency departments have been temporarily closed after patients visiting the facility have been identified as having COVID-19 (9). Negative-pressure units also have been prioritized for COVID-19 patients (2). Overall healthcare use worsens during outbreaks of communicable diseases,

as demonstrated by the 10%–23% decrease in emergency department visits, even for life-threatening conditions, after COVID-19 began, as reported in the United States (10).

In summary, we found that TB notifications decreased significantly with the surge of COVID-19 in South Korea. Adequate measures to diagnose, control, and prevent TB, a much older and more burdensome infectious killer than COVID-19, need to be maintained during this pandemic.

Dr. Kwak is an assistant professor and a chest physician at Seoul National University Hospital. His research interests focus on nontuberculous mycobacterial pulmonary disease and pulmonary tuberculosis.

https://wwwnc.cdc.gov/eid/article/26/10/20-2782_article?ACSTrackingID=USCDC_350-DM38290&ACSTrackingLabel=Tuberculosis%20and%20Other%20Mycobacteria%20Articles%20in%20the%20October%202020%20Emerging%20Infectious%20Diseases%20Journal&deliveryName=USCDC_350-DM38290