

GPHIN Daily Report for 2020-08-19

Special section on Coronavirus

Canada

Areas in Canada with cases of COVID-19 as of 18 August 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	123,154	4,752	9,045
Newfoundland and Labrador	268	2	3
Prince Edward Island	44	5	0
Nova Scotia	1,075	4	64
New Brunswick	186	13	2
Quebec	61,252	1,442	5,727
Ontario	40,870	951	2,793
Manitoba	748	235	11
Saskatchewan	1,582	157	22
Alberta	12,419	1,169	225
British Columbia	4,677	775	198
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?topic=tilelink#a1>

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

Canada

WECHU reports big jump in COVID-19 cases

Source: BlackburnNews.com

Published: 2020-08-18 15:52 UTC
Received: 2020-08-18 15:52 UTC (0 minutes)
Unique ID: 1007656589

The Windsor Essex County Health Unit reported a huge jump in new COVID-19 cases Tuesday morning. Lab results confirmed 25 new cases that include 21 agricultural sector workers, three residents of a retirement home, and one case under investigation.

Medical Officer of Health Dr. Wajid Ahmed said they continue to work with the farm and retirement homes that are currently in outbreak.

“We identify any deficiencies, any gaps in their measures that can be strengthened or that we can support,” said Dr. Ahmed.

The three retirement home residents who tested positive for the virus are from a home where a staff member tested positive last week.

There are currently four workplaces experiencing outbreaks. All of the current cases are linked to a farm already on the list.

“We have been in contact with the farm and we are identifying any other potential cases and people who are at risk and we’ll be taking appropriate actions to support the farm in containing the outbreak very quickly,” said Dr. Ahmed.

There are currently 112 active cases of COVID-19 in the region. To date, 2,449 people have tested positive for the virus.

<https://blackburnnews.com/windsor/windsor-news/2020/08/18/wechu-reports-big-jump-covid-19-cases/>

Canada

Outbreak in northern B.C. linked to Alberta religious gathering

Source: edmonton.citynews.ca

Published: 2020-08-18 12:09 UTC
Received: 2020-08-18 12:09 UTC (0 minutes)
Unique ID: 1007655285

FORT ST. JOHN – The health authority in northern British Columbia has issued an alert after more than a dozen people tested positive for COVID-19.

According to Northern Health, the outbreak is linked to a religious gathering held between July 30 and Aug. 2 in Deadwood, AB about an hour north of Peace River.

The agency is asking anyone who attended the “It Is Time Canada” event to monitor for symptoms and self-isolate if they show signs of COVID-19.

3/3

Contact tracing and testing has also identified that some individuals may be at risk of secondary transmission, from contact with cases related to attendance at the event.

For more information, please see the new bulletin: <https://t.co/Q0MIHyH7W7> pic.twitter.com/4oPCKbSFUc — Northern Health (@Northern_Health) August 17, 2020

As of Monday, Northern Health confirmed 17 cases, 10 of which remain active.

About 12 of the total cases are from those who attended the event, while the rest are believed to be from secondary exposure.

Contact tracing has also identified a number of close contacts, 24 of whom are in self-isolation and being monitored by public health.

While the majority of cases are in the Fort. St. John area, the exposure alert applies to all of Northeast B.C. On its website, organizers of the event in Deadwood had COVID-19 protocols in place including a cap on participants, health screening checks and social distancing guidelines.

-With files from The Canadian Press

<https://edmonton.citynews.ca/2020/08/17/outbreak-in-northern-b-c-linked-to-alberta-religious-gathering/>

Canada

Long-term care home in Brampton declares COVID-19 outbreak |

Source: InBrampton.com

Published: 2020-08-18 12:09 UTC
Received: 2020-08-18 12:09 UTC (0 minutes)
Unique ID: 1007655280

A COVID-19 outbreak has recently been declared at a long-term care home in Brampton. According to Peel Public Health, as of August 14, Extencicare Brampton has had an outbreak of the novel coronavirus.

On April 8, Extencicare Brampton declared another outbreak, which resulted in 14 resident cases, 3 resident deaths and 6 staff cases which were all resolved.

The outbreak at the facility, which contains 150 beds, ended on May 17.

According to Ontario health protocols, an outbreak indicates that a facility has at least one confirmed case of COVID-19 among residents or staff.

Extencicare Brampton is currently taking the necessary precautions following the declaration of the outbreak.

An epidemiologic update released by Peel Public Health on August 14 reported that there have been 54 COVID-19 institutional outbreaks across the Region of Peel amid the pandemic.

<https://www.inbrampton.com/long-term-care-home-in-brampton-declares-covid-19-outbreak>

Canada

COVID-19 outbreak declared at Manitoba care home

Source: CTV News

Published: 2020-08-18 11:40 UTC
Received: 2020-08-18 11:41 UTC (+1 minutes)
Unique ID: 1007655086

WINNIPEG -- Manitoba's top doctor has declared an outbreak of COVID-19 at a personal care home in the province.

On Monday, Dr. Brent Roussin, the chief provincial public health officer, said there were 38 new cases of COVID-19 identified in the province, including one new case at Bethesda Place, a care home in Steinbach, Man.

"An outbreak has been declared based on that one case and investigations continue," he said.

The province's current five-day test positivity rate is at 1.78 per cent, with 731 lab-confirmed and probable positive cases in the province since March.

There are currently 232 active cases in Manitoba and 490 recoveries. There are 11 people in hospital, three of whom are in intensive care. Roussin said four previously announced cases were removed.

This news conference comes after a weekend where Manitoba saw more than 55 new cases of the virus – 20 on Saturday and 36 on Sunday.

On Saturday, the province also reported another death related to COVID-19, bringing Manitoba's total to nine. The province said the person who died was a man in his 80s from Portage la Prairie, Man., who had been in intensive care.

This is a developing story. More to come.

-with files from CTV's Kayla Rosen and Touria Izri

<https://winnipeg.ctvnews.ca/covid-19-outbreak-declared-at-manitoba-care-home-1.5067218>

Canada

Outbreak declared at Steinbach personal care home after 1 COVID-19 case confirmed

Source: CBC News

Published: 2020-08-18 11:40 UTC
Received: 2020-08-18 11:41 UTC (+1 minutes)
Unique ID: 1007655084

Manitoba's chief public health officer will deliver the latest update on the fight against the new coronavirus at a news conference Monday afternoon.

Dr. Brent Roussin and Health Minister Cameron Friesen will hold a media briefing at 1 p.m. CT. CBC News will live stream the news conference on this page.

Monday's update will come as a number of school divisions release their detailed plans to bring students back to class while mitigating the risk of COVID-19 transmission.

On Sunday, public health officials announced 36 new cases of COVID-19 in Manitoba, bringing the total number of confirmed cases to 697. The province's ninth virus-related death, a man in his 80s, was announced Sunday.

Manitoba's five-day test positivity rate, a rolling average of the COVID-19 tests that come back positive, was 1.47 per cent, down slightly from 1.48 per cent on Saturday.

Nine people in Manitoba are now in hospital with the illness, including three in intensive care, while 483 people have recovered.

On Saturday, 1,669 more COVID-19 tests were done in Manitoba, the bulletin said, bringing the total number completed to 113,952.

A COVID-19 cluster in Brandon, Man., which is in the Prairie Mountain region, had at least 64 known cases linked to it as of this week. As of Saturday, there were also 43 cases linked to the city's Maple Leaf Foods pork processing plant, a spokesperson for the company said.

In its online portal, the provincial government has started breaking down the number of cases in its five health regions into 68 smaller health districts.

The province is currently recommending only people with symptoms be tested for COVID-19. Employers should not send their workers for testing unless they have symptoms or the testing has been recommended by public health.

<https://www.cbc.ca/news/canada/manitoba/manitoba-covid-19-update-monday-august-17-1.5689445>

Canada

Quebec reports 46 new COVID-19 cases, six additional deaths linked to virus

Source: National Post

Published: 2020-08-18 15:56 UTC

Received: 2020-08-18 15:56 UTC (0 minutes)

Unique ID: 1007656609

MONTREAL — Quebec is reporting 46 new COVID-19 cases and six additional deaths linked to the novel coronavirus.

Health officials said today two of the deaths occurred in the past 24 hours.

The province has now reported a total of 61,252 COVID-19 infections and 5,727 deaths since the beginning of the pandemic.

The number of hospitalizations remained unchanged at 145 while the number of people in intensive care increased by two to 27.

Health Minister Christian Dubé is outlining the province's plan for dealing with a potential second wave of COVID-19.

Dubé said today in Quebec City the province has given itself six weeks to put an action plan into place to ready the health network for new outbreaks.

This report by The Canadian Press was first published Aug. 18, 2020.

<https://nationalpost.com/pmnews-pmn/canada-news-pmn/quebec-reports-46-new-covid-19-cases-six-additional-deaths-linked-to-virus>

Canada

Majority of Canadian parents plan to send kids back to school amid coronavirus: survey - National

Source: Globalnews.ca

Published: 2020-08-18 12:53 UTC

Received: 2020-08-18 12:53 UTC (0 minutes)

Unique ID: 1007655562

1:51 Concern lingers over back-to-school strategies close video mute video mute video Global National Concern lingers over back-to-school strategies More Videos Volume 0% Press shift question mark

to access a list of keyboard shortcuts
Keyboard Shortcuts
play/pause
increase volume
decrease volume
seek forward
seek backward
toggle caption
toggle fullscreen
mute/unmute
seek to %SPACE↑↓→←cfm0-9Next
UpCFL punts 2020 season as league cops huge pandemic hit facebook twitter Email
Link
<https://globalnews.ca/video/rd/0a1f28d0-e0f2-11ea-b2b5-0242ac110002/?jwsourc=clCopiedLive00:0000:0000:00>

With only weeks until classes resume, a new survey suggests the majority of Canadian parents plan to send their kids back to school but most would want classes cancelled if there is a new COVID-19 outbreak in their community.

The survey by Leger and the Association for Canadian Studies is the latest to take parents' temperature as provinces prepare to reopen schools after sending children home this spring when the pandemic arrived.

The results suggest many parents are torn, with 66 per cent of respondents with children admitting they were worried about children returning to school but 63 per cent saying they planned to send their kids anyway.

Yet 69 per cent also felt all classes should be suspended and learning shifted back to home if there is a significant increase in COVID-19 cases in their community, with 19 per cent saying classes should continue and 12 per cent unsure either way.

The online survey of 1,510 Canadians over age 18, including 385 parents with school-aged children in their households, took place Aug. 14-16. An internet poll cannot be given a margin of error because it is not a random sample.

The results underscore the nervousness and sensitivities around the planned reopening of school, says Leger president Jean-Marc Leger, with many parents supporting the return of classes but ready to shut it down again at the drop of a hat.

"People are nervous," he said. "It's a very sensitive question."

The survey also found strong support among respondents with children for requiring certain protections to be taken to prevent the spread of COVID-19 at schools, including 76 per cent who said students should have to wear masks.

The result was not broken down by whether masks should be required for only high school students or students in both high school and elementary. Some provinces such as Ontario are requiring masks for students in certain grades but not others.

Eighty-four per cent of respondents with kids said teachers and school staff should be required to wear masks while 75 per cent supported temperature checks for children and 71 per cent wanted screening questionnaires.

"People are saying: 'Okay, we agree. We support the government's initiative. But at the same time, you should ensure that the rules are respected at school,'" said Leger.

Parents were more divided over what to do if a student or teacher in their kid's class tested positive for COVID-19.

READ MORE: Alberta coalition of parents, educators and doctors fights back-to-school plan; makes own recommendations

While 24 per cent reported they would keep their kids home from school indefinitely, 35 per cent said they would keep them home for at least 14 days while 33 per cent indicated they would follow the advice of their school on next steps.

<https://globalnews.ca/news/7283365/canadian-parents-send-kids-back-to-school-survey/>

Canada

Coronavirus: City of Toronto identifies facilities for potential TDSB, TCDSB back-to-school use

Source: Global News

ID: 1007659848

The City of Toronto has identified numerous facilities for two Toronto school boards to use this upcoming school year as the boards continue to explore options to address coronavirus concerns in the classroom.

"The City remains an engaged partner and I am pleased to be able to offer this support to assist you in safely returning students to school," said City Manager Chris Murray in a letter addressed to Toronto District School Board (TDSB) and Toronto Catholic District School Board (TCDSB) on Tuesday.

In the letter, Murray said the City has identified 24 facilities and 36 rooms that could be made available on Sept. 8 at the request of the boards. He also said the City's parks could be used for outdoor instruction and physical activity without a permit.

Murray said the facilities meet the boards' criteria of day-time availability, appropriate-sized instructional

spaces, access to washrooms and green space. He said the boards' use of these spaces would not disrupt any city-run programming in the fall.

We are doing everything we can as a @CityofToronto government to help the schools boards & province with the return to school. Today, the City Manager wrote to the @TDSB & @TCDSB to outline City & @torontolibrary spaces that could be available for students. pic.twitter.com/iAv71Ingzq

— John Tory (@JohnTory) August 18, 2020

The Toronto Public Library has also identified nine spaces within seven of its locations for the boards' use, according to Murray's letter. Nine library branches could be offered to the school boards to use exclusively, meaning the locations would be closed to the public. However, approval is needed from the Toronto Public Library Board, which the city is seeking this week.

"We welcome the City's help in securing additional space. As we are still finalizing the details around elementary learning models, we don't yet know how many off-site spaces will be required, but will be confirming that in the days ahead," said TDSB spokesperson, Ryan Bird.

The TCDSB also said in a statement that it would be following up with the City soon regarding which spaces it plans to use.

"We believe that by working together, we will be able to accommodate a safe return to school in September," said Shazia Vlahos, a spokesperson for TCDSB.

Murray said the next steps are for the boards to inform the city on which spaces it wishes to use and in what capacity and to come to an agreement on operations, cleaning and security costs.

On Monday, the Ontario government rejected the TDSB's plan that would have shortened daily class time for students. Education Minister Stephen Lecce said the government and the TDSB will meet to continue discussing back-to-school plans on Friday.

The board also met to Tuesday afternoon to further discuss reopening plans.

<https://globalnews.ca/news/7285135/coronavirus-toronto-tdsb-tcdsb-facilities/>

Canada

COVID-19 testing to be made available in Shoppers Drug Mart and Loblaws pharmacies in Alberta

Source: 660 NEWS

ID: 1007659844

EDMONTON (660 NEWS) –**Alberta's top doctor is recommending teachers and staff get tested for COVID-19 before the school year starts, with a new partnership announced to help with an expected increase for asymptomatic testing.**

Shoppers Drug Mart and Loblaws pharmacy locations across the province will offer the testing as more individuals book appointments in the next two weeks.

"Overall, it increases Alberta's testing capacity by about 3,000 to 4,000 tests per day," Dr. Deena Hinshaw, Alberta's Chief Medical Officer of Health said during Tuesday's COVID-19 update.

"We will need this added capacity plus that of all community pharmacists who are already testing for COVID-19 if we are to test these 90,000 teachers and school staff in just a few weeks."

Hinshaw encourages teachers and staff members to book an appointment before the school year starts and asks those who aren't showing any symptoms of the virus to hold off on testing until later in September.

Hinshaw reiterates that people not showing symptoms should not seek testing to allow students, teachers and staff to get tested before the school year. You should only get tested if you are showing symptoms

Alberta is currently sitting at an average of about two new cases per 100,000 Albertans per day, which has been compared to average daily cases rates of more than 25 per 100,000 in Florida, Georgia and Texas, where school reopening issues have been identified, Hinshaw said.

"In fact, our average new daily case rates per 100,000 are lower than almost all of the U.S. states with the exception of New Hampshire, Maine and Vermont, which are sitting at approximately 1.5 new cases per day per 100,000.

“This indicates that we are in a different context than States where we are watching some of those issues take place and we need to strive to make sure our community transmission is as low as possible.”

Hinshaw reminded Albertans that they are in this together and can work to minimize the risk to students and staff in schools.

A document on what schools and parents should do if there is an outbreak situation will be released next week, with Hinshaw saying it depends on each individual scenario including when the student's symptoms started and whether they attended school while symptomatic.

Hinshaw says there's no *number threshold* to shut down a school.

Says when they identify a COVID case, public health works to identify close contacts to make sure they stay home and get tested.

Says it's a case and context specific decision.

“The simple fact of symptoms would not require those in the classroom to be in quarantine or isolation. What would happen is there would be encouragement of the parents to have that child brought for testing, if the child tested positive for COVID then that public health investigation would [look at] who the close contacts would be.”

Hinshaw added that there's no specific threshold on how many cases would need to be found before a school would be shut down.

The decision to close a school would be made by local public health, the school, the local school board with discussions with the ministry of health and education.

The post COVID-19 testing to be made available in Shoppers Drug Mart and Loblaws pharmacies in Alberta appeared first on 660 NEWS.

<https://www.660citynews.com/2020/08/18/covid-19-testing-to-be-made-available-in-shoppers-drug-mart-and-loblows-pharmacies-in-alberta/>

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

United States

Travelers Prohibited from Entry to the United States

Source: CDC

Updated Aug. 18, 2020

Several Presidential proclamations established restrictions on the entry of certain travelers into the United States in an effort to help slow the spread of coronavirus disease 2019 (COVID-19).

plane solid icon

With specific exceptions, foreign nationals who have been in any of the following countries during the past 14 days may not enter the United States. For a full list of exceptions, please refer to the relevant proclamations in the links below.

- [Chinaexternal icon](#)
- [Iranexternal icon](#)
- [European Schengen areaexternal icon](#) (Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Monaco, San Marino, Vatican City)
- [United Kingdomexternal icon](#) (England, Scotland, Wales, Northern Ireland)

- [Republic of Irelandexternal icon](#)
- [Brazilexternal icon](#)

As further provided in each proclamation, citizens and lawful permanent residents of the United States, [certain family members, and other individuals who meet specified exceptionexternal icon](#), who have been in one of the countries listed above in the past 14 days will be allowed to enter the United States through [one of 15 airportexternal icon](#). More information about what to do after arriving to the United States is available on CDC's [After You Travel webpage](#).

<https://www.cdc.gov/coronavirus/2019-ncov/travelers/from-other-countries.html>

<https://www.whitehouse.gov/presidential-actions/proclamation-suspension-entry-immigrants-nonimmigrants-certain-additional-persons-pose-risk-transmitting-2019-novel-coronavirus/>

United States

COVID-19 Travel Recommendations by Destination

Source: CDC

Updated Aug. 18, 2020

Travelers Prohibited from Entry to the United States

With specific exceptions, foreign nationals who have been in any of the following countries during the past 14 days may not enter the United States.

- [Chinaexternal icon](#)
- [Iranexternal icon](#)
- **Most European Countries** (Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Monaco, San Marino, Vatican City)
- [United Kingdomexternal icon](#) (England, Scotland, Wales, Northern Ireland)
- [Republic of Irelandexternal icon](#)
- [Brazilexternal icon](#)

Level 3: COVID-19 Risk Is High

- [Afghanistan](#)
- [Albania](#)
- [Algeria](#)
- [Andorra](#)
- [Angola](#)
- [Antigua and Barbuda](#)
- [Argentina](#)
- [Armenia](#)
- [Aruba](#)
- [Australia](#)
- [Austria](#)
- [Azerbaijan](#)
- [Azores](#)
- [Bahamas, The](#)
- [Bahrain](#)
- [Bangladesh](#)
- [Barbados](#)
- [Belarus](#)
- [Belgium](#)
- [Belize](#)
- [Benin](#)
- [Bhutan](#)
- [Bolivia](#)
- [Bosnia and Herzegovina](#)

- [Botswana](#)
- [Brazil](#)
- [British Indian Ocean Territory](#)
- [Bulgaria](#)
- [Burkina Faso](#)
- [Burma \(Myanmar\)](#)
- [Burundi](#)
- [Cambodia](#)
- [Cameroon](#)
- [Canada](#)
- [Canary Islands](#)
- [Cape Verde](#)
- [Central African Republic](#)
- [Chad](#)
- [Chile](#)
- [China](#)
- [Christmas Island](#)
- [Cocos \(Keeling\) Islands](#)
- [Colombia](#)
- [Comoros](#)
- [Congo, Republic of the](#)
- [Costa Rica](#)
- [Croatia](#)
- [Cuba](#)
- [Curaçao](#)
- [Cyprus](#)
- [Czech Republic](#)
- [Democratic Republic of the Congo](#)
- [Denmark](#)
- [Djibouti](#)
- [Dominican Republic](#)
- [Easter Island](#)
- [Ecuador](#)
- [Egypt](#)
- [El Salvador](#)
- [Equatorial Guinea](#)
- [Eritrea](#)
- [Estonia](#)
- [Eswatini \(Swaziland\)](#)
- [Ethiopia](#)
- [Faroe Islands](#)
- [Finland](#)
- [France](#)
- [French Guiana](#)
- [French Polynesia](#)
- [Gabon](#)
- [Gambia](#)
- [Georgia](#)
- [Germany](#)
- [Ghana](#)
- [Gibraltar](#)
- [Greece](#)
- [Grenada](#)

- [Guadeloupe](#)
- [Guam](#)
- [Guatemala](#)
- [Guinea](#)
- [Guinea-Bissau](#)
- [Guyana](#)
- [Haiti](#)
- [Honduras](#)
- [Hong Kong SAR](#)
- [Hungary](#)
- [Iceland](#)
- [India](#)
- [Indonesia](#)
- [Iran](#)
- [Iraq](#)
- [Ireland](#)
- [Israel, including the West Bank and Gaza](#)
- [Italy](#)
- [Ivory Coast](#)
- [Jamaica](#)
- [Japan](#)
- [Jersey](#)
- [Jordan](#)
- [Kazakhstan](#)
- [Kenya](#)
- [Kosovo](#)
- [Kuwait](#)
- [Kyrgyzstan](#)
- [Latvia](#)
- [Lebanon](#)
- [Lesotho](#)
- [Liberia](#)
- [Libya](#)
- [Liechtenstein](#)
- [Lithuania](#)
- [Luxembourg](#)
- [Madagascar](#)
- [Madeira Islands](#)
- [Malawi](#)
- [Maldives](#)
- [Mali](#)
- [Malta](#)
- [Martinique](#)
- [Mauritania](#)
- [Mayotte](#)
- [Mexico](#)
- [Moldova](#)
- [Monaco](#)
- [Mongolia](#)
- [Montenegro](#)
- [Montserrat](#)
- [Morocco](#)
- [Mozambique](#)

- [Namibia](#)
- [Nepal](#)
- [Netherlands, The](#)
- [Nicaragua](#)
- [Niger](#)
- [Nigeria](#)
- [Norfolk Island](#)
- [North Macedonia](#)
- [Norway](#)
- [Oman](#)
- [Pakistan](#)
- [Panama](#)
- [Paraguay](#)
- [Peru](#)
- [Philippines](#)
- [Pitcairn Islands](#)
- [Poland](#)
- [Portugal](#)
- [Puerto Rico](#)
- [Qatar](#)
- [Réunion](#)
- [Romania](#)
- [Russia](#)
- [Rwanda](#)
- [Saint Helena](#)
- [Saint Lucia](#)
- [Saint Martin](#)
- [Saint Vincent and the Grenadines](#)
- [San Marino](#)
- [São Tomé and Príncipe](#)
- [Saudi Arabia](#)
- [Senegal](#)
- [Serbia](#)
- [Seychelles](#)
- [Sierra Leone](#)
- [Sint Maarten](#)
- [Slovakia](#)
- [Slovenia](#)
- [Somalia](#)
- [South Africa](#)
- [South Georgia and the South Sandwich Islands](#)
- [South Korea](#)
- [South Sudan](#)
- [Spain](#)
- [Sri Lanka](#)
- [Sudan](#)
- [Suriname](#)
- [Sweden](#)
- [Switzerland](#)
- [Syria](#)
- [Tajikistan](#)
- [Tanzania](#)
- [Togo](#)

- [Tokelau](#)
- [Trinidad and Tobago](#)
- [Tunisia](#)
- [Turkey](#)
- [Turks and Caicos Islands](#)
- [Uganda](#)
- [Ukraine](#)
- [United Arab Emirates](#)
- [United Kingdom](#)
- [U.S. Virgin Islands](#)
- [Uruguay](#)
- [Uzbekistan](#)
- [Venezuela](#)
- [Vietnam](#)
- [Wake Island](#)
- [Western Sahara](#)
- [Yemen](#)
- [Zambia](#)
- [Zimbabwe](#)

Level 2: COVID-19 Risk Is Moderate

CDC recommends that older adults, people of any age with [certain underlying medical conditions](#), and [others at increased risk for severe illness](#) postpone all nonessential travel to the following destinations:

- [Bermuda](#)
- [Malaysia](#)
- [Northern Mariana Islands](#)

Level 1: COVID-19 Risk Is Low

CDC recommends that older adults, people of any age with certain underlying medical conditions, and others at increased risk for severe illness talk to their healthcare providers before traveling to the following destinations:

- [Bonaire](#)
- [Fiji](#)
- [New Zealand](#)
- [Saba](#)
- [Saint Barthelemy](#)
- [Sint Eustatius](#)
- [Thailand](#)

No Travel Health Notice: COVID-19 Risk is Very Low

- American Samoa
- Anguilla
- British Virgin Islands
- Brunei
- Cayman Islands
- Dominica
- Falkland Islands
- Guernsey
- Greenland
- Isle of Man
- Laos
- Macau SAR
- Marshall Islands
- Mauritius
- Micronesia
- New Caledonia

- Palau
- Saint Kitts and Nevis
- Saint Pierre and Miquelon
- Taiwan
- Timor-Leste

Level 3: No Data Available-COVID-19 Risk is Unknown

CDC recommends that travelers avoid all nonessential travel to the following destinations because these countries have not reported COVID-19 data and risk is unknown:

- [Cook Islands](#)
- [Kiribati](#)
- [Nauru](#)
- [Niue](#)
- [North Korea](#)
- [Samoa](#)
- [Solomon Islands](#)
- [Tonga](#)
- [Turkmenistan](#)
- [Tuvalu](#)
- [Vanuatu](#)

<https://www.cdc.gov/coronavirus/2019-ncov/travelers/map-and-travel-notice.html>

United States

Crew Disembarkations through Commercial Travel

Source: CDC

Updated Aug. 18, 2020

CDC is committed to helping cruise lines provide for the safety and well-being of their crew members while onboard cruise ships and as they disembark. CDC is allowing crew members to disembark from all cruise ships in U.S. waters with certain precautions. Cruise lines with complete and accurate response plans will be able to use commercial travel to disembark crew members from certain ships if the ships meet certain criteria set by CDC including that there have been no confirmed cases of COVID-19 or COVID-like illnesses on board the ship within the last 28 days. These ships are also able to lessen certain social distancing restrictions onboard. Cruise lines with complete and accurate response plans under the No Sail Order but not meeting the above criteria will still be able to disembark their crew members using non-commercial travel. Cruise lines must have measures in place to ensure those involved in transport are not exposed to the virus that causes COVID-19 and follow all CDC requirements to prevent interaction of disembarking crew with the public.

Criteria for Commercial Transport of Crew

Learn more about [Cruise Ship Crew Member Disembarkations](#) during the COVID-19 pandemic.

Ships that are requesting the use of commercial travel for disembarking crew members will need to meet the following criteria:

- **[A response plan](#) under the No Sail Order** that is complete and accurate
 - This does not mean ships are allowed to resume passenger travel, but rather that they have met CDC's requirements to provide a safe environment for crew members to work and to disembark crew safely by non-commercial travel.
 - Cruise company officials must sign an acknowledgment of the completeness and accuracy of their response plan.
- **No confirmed cases of COVID-19^[1] or COVID-like illness^[2] for 28 days, as determined by a qualified medical professional.**
- **If the ship has received ship-to-ship transfers, the crew must have come from a ship that had no confirmed cases of COVID-19 or COVID-like illness within the 28 days before the transfer occurred.**
- **If land-based crew embarked, they were immediately quarantined for 14 days upon embarking the ship.**
- **Submission of a signed attestation for commercial travel.**

Meeting these criteria does not mean cruise ships can resume passenger operations. We don't have enough information at this time to say when it will be safe to resume sailing with passengers. Cruise lines may need to establish additional safety measures before sailing with passengers is permitted to resume. CDC will continue to evaluate and update its recommendations as the situation evolves.

All cruise ships operating in U.S. waters, or seeking to operate in U.S. waters, must comply with all of the requirements under the [No Sail Order](#) and [Interim Guidance During the Period of the No Sail Order](#) for the entire period of the No Sail Order even when outside U.S. waters.

As ships become eligible to transport crew members commercially, this page will provide a list of cruise ships meeting those criteria.

-
1. Confirmed COVID-19 means laboratory confirmation for SARS-CoV-2, the virus that causes COVID-19, by polymerase chain reaction (PCR) testing
 2. COVID-like illness means acute respiratory illness (ARI), influenza-like illness (ILI), or diagnosis of pneumonia.

Status of No Sail Order Response Plans and Commercial Transport of Crew

As a prerequisite for requesting commercial travel, cruise lines must have a complete and accurate response plan that provides a safe environment for crew members to work and disembark during the period of the No Sail Order. CDC has provided feedback regarding all the response plans that have been submitted and is working with the cruise lines to ensure they are implementing the safeguards outlined in their plans. The following table lists cruise lines that have ships operating or planning to operate in U.S. waters during the period of the No Sail Order extension.

Determination for [color-coding status](#) (Green, Red, or Yellow) can only be made for ships if the following are true:

1. CDC has finished the review of the cruise line's plan, and
2. Cruise line has returned an acknowledgement attesting that their No Sail Order response plan is complete and accurate.

Ships of cruise lines that have not met the above two criteria will be listed as Provisionally Green* or Provisionally Red^.

This table is updated once a week every Tuesday. Last updated August 18, 2020.

<https://www.cdc.gov/coronavirus/2019-ncov/travelers/crew-disembarkations-commercial-travel.html>

United States

Information for Pediatric Healthcare Providers

Source: CDC

Updated Aug. 17, 2020

Summary of Recent Changes

Revisions were made on August 14, 2020 to reflect new evidence about COVID-19 in children.

This guidance is intended to inform pediatric healthcare providers of up-to-date information about children with suspected or confirmed COVID-19 and about caring for children during the pandemic. Children are defined as age 1 month to 18 years for the purpose of this document.

For healthcare providers caring for neonates (≤ 28 days old) with suspected or confirmed COVID-19, including those born to a mother with suspected or confirmed COVID-19, please refer to CDC [guidance for evaluating and managing neonates at risk for COVID-19](#).

On This Page

- [Infections Among Children](#)
- [Symptoms and Severity](#)
- [Testing and Isolation](#)
- [Laboratory and Radiographic Findings](#)
- [Management](#)
- [Immunizations and Well-Child Care](#)
- [Additional Information](#)
- [References](#)

Infections Among Children

Incidence of COVID-19 in Children

In the United States and globally, fewer cases of COVID-19 have been reported in children (age 0-17 years) compared with adults.^{1,2} While children comprise 22% of the US population,³ recent data show that 7.3% of all cases of COVID-19 in the United States reported to CDC were among children (as of August 3rd, 2020).⁴ The number and rate of cases in children in the United States have been steadily increasing from March to July 2020. The true incidence of SARS-CoV-2 infection in children is not known due to lack of widespread testing and the prioritization of testing for adults and those with severe illness. Hospitalization rates in children are significantly lower than hospitalization rates in adults with COVID-19, suggesting that children may have less severe illness from COVID-19 compared to adults.^{5,6} Visit CDC's [Cases, Data, and Surveillance page](#) for current CDC data.

Infections and Transmission Among Children

It is unclear whether children are as susceptible to infection by SARS-CoV-2 compared with adults and whether they can transmit the virus as effectively as adults. Recent evidence suggests that children likely have the same or higher viral loads in their nasopharynx compared with adults⁷ and that children can spread the virus effectively in households and camp settings.^{8,9}

Due to community mitigation measures and school closures, transmission of SARS-CoV-2 to and among children may have been reduced in the United States during the pandemic in the spring and early summer of 2020. This may explain the low incidence in children compared with adults. Comparing trends in pediatric infections before and after the return to in-person school and other activities may provide additional understanding about infections in children.

Symptoms and Severity of COVID-19 in Children

Clinical Presentation

The incubation period of SARS-CoV-2 appears to be about the same for children as in adults, at 2-14 days with an average of 6 days.¹⁰

Signs or symptoms of COVID-19 in children include:

- Fever
- Fatigue
- Headache
- Myalgia
- Cough
- Nasal congestion or rhinorrhea
- New loss of taste or smell
- Sore throat
- Shortness of breath or difficulty breathing
- Abdominal pain
- Diarrhea
- Nausea or vomiting
- Poor appetite or poor feeding

Children infected with SARS-CoV-2 may have many of these non-specific symptoms, may only have a few (such as only upper respiratory symptoms or only gastrointestinal symptoms), or may be asymptomatic. The most common symptoms in children are cough and/or fever.¹¹⁻¹⁵ A recent systematic review estimated that 16% of children with SARS-CoV-2 infection are asymptomatic,¹⁶ but evidence suggests that as many as 45% of pediatric infections are asymptomatic.¹⁷ The signs and symptoms of COVID-19 in children are similar to other infections and noninfectious processes, including influenza, streptococcal pharyngitis, and allergic rhinitis. The lack of specificity of signs or symptoms and the significant proportion of asymptomatic infections make symptom-based screening for identification of SARS-CoV-2 in children particularly challenging.¹⁷

Severity of Illness in Children

While children infected with SARS-CoV-2 are less likely to develop severe illness compared with adults, children are still at risk of developing severe illness and complications from COVID-19. Recent COVID-19 hospitalization surveillance data shows that the rate of hospitalization among children is low (8.0 per 100,000 population) compared with that in adults (164.5 per 100,000 population), but hospitalization rates in children are increasing.⁵ While children have lower rates of mechanical ventilation and death than adults, 1 in 3 children hospitalized with COVID-19 in the United States were admitted to the intensive care unit, which is the same in adults.⁵

Current evidence suggests that children with certain underlying medical conditions and infants (age <1 year) might be at increased risk for severe illness from SARS-CoV-2 infection.^{10,11,14} Of the children who have developed severe illness from COVID-19, most have had underlying medical conditions.⁵

- There is [limited evidence](#) about which [underlying medical conditions](#) in children might increase the risk for severe illness. Current evidence suggests that children with medical complexity, with genetic, neurologic, metabolic conditions, or with congenital heart disease might be at increased risk for severe illness from COVID-19. Similar to adults, children with obesity, diabetes, asthma and chronic lung disease, sickle cell disease, or immunosuppression might also be at increased risk for severe illness from COVID-19.
- While healthcare providers should maintain a high index of suspicion for SARS-CoV-2 infection in these populations and monitor the progression of illness closely, it appears that most infants¹⁸ and children with certain underlying conditions such as cancer¹⁹ who are infected with SARS-CoV-2 do not usually develop severe illness.
- Hospitalization rates in the United States are higher among Hispanic/Latino children and black, non-Hispanic children and non-Hispanic black children compared with white children, which may be related to the higher rates of obesity and other underlying conditions among these populations.⁵

Similar to adults, children with severe COVID-19 may develop respiratory failure, myocarditis, shock, acute renal failure, coagulopathy, and multi-organ system failure. Some children with COVID-19 have developed other serious problems like intussusception or diabetic ketoacidosis.^{10,14, 20,21} Children infected with SARS-CoV-2 are also at risk for developing multisystem inflammatory syndrome in children (MIS-C).²² For the case definition, recommended evaluation, and current data on MIS-C cases in the United States, visit [MIS-C Information for Healthcare Providers](#).

Testing and Recommendations for Isolation

Viral tests (nucleic acid or antigen) are recommended to diagnose acute infection with SARS-CoV-2. Testing strategies, including [clinical criteria for considering testing](#) and [recommended specimen type](#), are the same for children and adults. CDC's guidance for the [evaluation and management of neonates at risk for COVID-19](#) details specific testing considerations for newborns.

For more information on CDC's recommendations for isolation, which apply to children and adults, visit: [discontinuing precautions and disposition of patients with COVID-19 in healthcare settings](#) and [discontinuation of home isolation for people not in healthcare settings](#).

Testing, Isolation, and Quarantine for School-Aged Children

As children return to school and other in-person activities, pediatric healthcare providers should be prepared to answer questions from families about testing and when it is safe to return to school or be with people outside the household. Review CDC's information for school administrators on [symptom screening and return to school](#) and [testing](#) for children in school as well as CDC's [Community Mitigation framework](#).

School-aged children should be prioritized for viral testing if they have:

- Signs or symptoms of COVID-19 **and** have had
 - [close contact](#) (within 6 feet of someone for a total of 15 minutes or more) with a person with suspected or confirmed SARS-CoV-2 infection **or**
 - a potential exposure (which includes living in an area or traveling to an area with in the community as defined by the local public health department and described in CDC's [Community Mitigation framework](#))
- a known recent exposure to SARS-CoV-2 regardless of symptoms.

Children with symptoms of an infectious disease should not attend school, but the length of time the child should stay home depends on the most likely etiology of illness (COVID-19 or not). Return to school policies for children with suspected or confirmed COVID-19 should be based on CDC's recommendation for [discontinuation of home isolation](#). A negative test or doctor's note should **not** be required for return to school upon completion of the 10 days of isolation with improvement of symptoms.

- If the child has symptoms of COVID-19 but has not had close contact or a potential exposure (which includes travel to or living in an area with [substantial transmission](#)), he or she should be evaluated for possible other disease processes and should be allowed to return to school according to existing school policies if they are determined to likely **not** have COVID-19. Examples of non-COVID return to school policies include resolution of fever without antipyretics for 24 hours for viral illnesses or after initiation of antibiotics for bacterial illnesses.

- If the child has symptoms of COVID-19 and lives in or has traveled to an area with [substantial transmission](#), he or she should be tested for SARS-CoV-2 infection, if possible. If the test result is negative, the child should be allowed to return to school once their symptoms of illness have improved consistent with existing school policy. If testing cannot be obtained, the child should be considered a presumed case of COVID-19 and should isolate according to CDC's recommendations for [discontinuation of home isolation](#).
- If the child has had a known exposure or close contact to someone with SARS-CoV-2, he or she should be tested for SARS-CoV-2 but must remain in quarantine for the 14-day incubation period even if results are negative, in accordance with CDC's [Quarantine If You Might Be Sick](#).

Laboratory and Radiographic Findings of COVID-19

Typical laboratory findings in children with COVID-19 include mild abnormalities in white blood cell count (either increased or decreased lymphocyte counts), mildly elevated inflammatory markers (including procalcitonin), and mildly elevated liver enzymes.²³ Radiologic findings in children with COVID-19 include unilateral or bilateral infiltrates on chest radiograph or CT, ground-glass opacities on CT, and consolidation with surrounding Halo sign on CT.^{23,24} CT should be used sparingly and only for hospitalized, symptomatic patients with specific clinical indications. For more information, see recommendations from the [American College of Radiologyexternal icon](#).

Management of COVID-19 in Children

Pediatric healthcare providers should consider the child's clinical presentation, requirement for supportive care, underlying medical conditions, and the ability for caregivers to care for the child at home when deciding whether the child may need inpatient care for COVID-19. For more information, visit [Guidance for home care of people not requiring hospitalization for Coronavirus Disease 2019 \(COVID-19\)](#). Provide parents resources on [emergency warning signs](#) for COVID-19 and [caring for someone at home](#).

Currently, there are no specific drugs approved by the U.S. Food and Drug Administration (FDA) for treatment of COVID-19. Treatment of COVID-19 remains largely supportive and includes prevention and management of complications. [Remdesivirexternal icon](#), which has shown benefits in clinical trials in adults, is currently available through Emergency Use Authorization or compassionate use programs for children. The safety and effectiveness of remdesivir for treatment of COVID-19 has not yet been evaluated in children. Additionally, the National Institutes of Health (NIH) suggests that [dexamethasoneexternal icon](#) may be beneficial in pediatric patients with COVID-19 respiratory disease who are on mechanical ventilation. For more information, review [considerations for childrenexternal icon](#) in NIH's COVID-19 Treatment Guidelines.²⁵

For information on evaluation and management of MIS-C, visit [MIS-C Information for Healthcare Providers](#). It is important to remember that children infected with SARS-CoV-2 can present with other serious conditions such as diabetic ketoacidosis or intussusception, and a broad differential must be maintained in evaluating ill children during the COVID-19 pandemic.^{10,14,20,21,26-29} Standard evaluation and management of co-occurring conditions should be maintained for a child infected with SARS-CoV-2, with additional [infection control](#) measures. Pediatric providers should have an appropriate suspicion for COVID-19, but also to continue to consider and test for other diagnoses, such as [community acquired pneumoniaexternal icon](#) and influenza (see [CDC's Flu Information for Healthcare Professionals](#) for more information).

CDC has specific guidance for [inpatient obstetric healthcare settings](#) and the [evaluation and management of neonates at risk for COVID-19](#). Additionally, several other organizations have published guidelines related to the treatment and management of adult and pediatric patients with COVID-19:

- National Institutes of Health (NIH) [Coronavirus Disease 2019 \(COVID-19\) Treatment Guidelinesexternal icon](#)
- World Health Organization (WHO) [Interim Guidance on Clinical Management of Severe Acute Respiratory Infection when Novel Coronavirus \(nCoV\) Infection is Suspectedexternal icon](#)
- Surviving Sepsis Campaign [International Guidelines for the Management of Septic Shock and Sepsis-Associated Organ Dysfunction in Childrenexternal icon](#)
- Infectious Diseases Society of America [Guidelines on the Treatment and Management of Patients with COVID-19external icon](#)

Immunizations and Well-Child Care

Community mitigation measures such as shelter-in-place orders resulted in declines in outpatient pediatric visits and fewer vaccine doses administered during the early COVID-19 pandemic,³⁰ leaving children at risk for vaccine-preventable diseases. **Healthcare providers should work with families to keep children up**

to date with all recommended vaccinations, especially with influenza vaccinations for the 2020-2021 influenza season. For more information on influenza, visit CDC's [Influenza](#) page. For more information on immunization services and vaccination recommendations during the pandemic, visit [Vaccination Guidance](#). Healthcare providers should identify children who have missed well-child visits and/or recommended vaccinations and contact them to schedule in-person appointments, with prioritization of infants, children age < 24 months and school-aged children. Developmental surveillance and early childhood screenings, including developmental and autism screening, should continue along with referrals for [early intervention services](#) and further evaluation if concerns are identified.

All newborns should be seen by a pediatric healthcare provider shortly after hospital discharge (three to five days of age). Ideally, newborn visits should be done in-person, even during the COVID-19 pandemic, to evaluate feeding and weight gain, check for dehydration and jaundice, ensure all components of newborn screening were completed with appropriate confirmatory testing and follow-up, and evaluate maternal well-being. All healthcare facilities should ensure [infection prevention and control policies](#) are in place to minimize chance of exposure to SARS-CoV-2 among providers, patients, and families. For specific recommendations by healthcare facility type and level of community transmission, review [Infection Control Guidance for Healthcare Professionals](#). CDC has additional [trainings](#) and information about [potential exposures in the workplace](#) for healthcare providers.

Pediatric healthcare providers should incorporate education on [everyday infection prevention measures](#), such as the importance of proper hand hygiene, social distancing, and wearing masks when in public, as well as information on [stress and coping](#) during the pandemic in their regular anticipatory guidance with children and their families. Pediatric healthcare providers should educate patients and families about infection prevention policies that exist in clinics, emergency departments, hospitals, and clinics. Remind people to seek emergency care immediately, if indicated, as delaying care may cause harm. Primary care practices should continue to use infection prevention strategies including:

- Scheduling sick visits and well-child visits during different times of the day
- Reducing [crowding in waiting rooms](#), by asking patients to remain outside (e.g., stay in their vehicles, if applicable) until they are called into the facility for their appointment, or setting up triage booths to screen patients safely
- Considering telemedicine for visits that do not involve vaccination or do not require an in-person physical exam. For more information, visit [Using Telehealth Services](#)

Additional Information

- [MIS-C Information for Healthcare Providers](#)
- [Interim Clinical Guidance for Management of Patients with Confirmed COVID-19](#)
- [Considerations for Inpatient Obstetric Healthcare Settings](#)
- [Evaluation and Management Considerations for Neonates At Risk for COVID-19](#)
- [Guidance on Care for Breastfeeding Women](#)
- [Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed COVID-19 in Healthcare Settings](#)
- [Health Alert Network \(HAN\): Multisystem Inflammatory Syndrome in Children \(MIS-C\) Associated with Coronavirus Disease 2019 \(COVID-19\)](#)
- [Steps Healthcare Facilities Can Take to Prepare for COVID-19](#)
- [What Healthcare Personnel Should Know about Caring for Patients with Confirmed or Possible COVID-19 Infection](#)
- [National Institutes of Health: Coronavirus Disease 2019 \(COVID-19\) Treatment Guidelines](#)[external icon](#)

References

1. Stokes EK, Zambrano LD, Anderson KN, et al. Coronavirus Disease 2019 Case Surveillance — United States, January 22–May 30, 2020. *MMWR*
2. Wu Z, McGoogan JM. Characteristics of and Important Lessons From the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72314 Cases From the Chinese Center for Disease Control and Prevention. *JAMA*
3. U.S. Census Bureau. <https://www.census.gov/quickfacts/fact/table/US/AGE295219#AGE295219>[external icon](#)
4. CDC. Demographic Trends of COVID-19. <https://www.cdc.gov/covid-data-tracker/index.html#demographics>. Data retrieved July 27, 2020.

5. Kim L, Whitaker M, O'Halloran A, et al. Hospitalization Rates and Characteristics of Children Aged <18 Years Hospitalized with Laboratory-Confirmed COVID-19 – COVID-NET, 14 States, March 1-July 25, 2020. *MMWR*.
6. CDC COVID-19 Response Team. Coronavirus Disease 2019 in Children — United States, February 12–April 2, 2020. *MMWR Morbidity and Mortality Weekly Report*. ePub: 6 April 2020.
7. Sargent TH, Muller WJ, Zheng X, et al. Age-Related Differences in Nasopharyngeal Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Levels in Patients With Mild to Moderate Coronavirus Disease 2019 (COVID-19). *JAMA Pediatrics*.
8. Park YJ, Chloë YJ, Park O, et al. Contact Tracing During Coronavirus Disease Outbreak, South Korea, 2020. *Emerging Infectious Diseases*.
9. Szablewski CM, Chang K, Brown MM, et al. SARS-CoV-2 transmission and infection among attendees of an overnight camp – Georgia, June. 2020. *MMWR*
10. CDC. COVID-19 Pandemic Planning Scenarios. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/planning-scenarios.html#table-2>
11. Dong Y, Mo X, Hu Y, et al. Epidemiological Characteristics of 2143 Pediatric Patients With 2019 Coronavirus Disease in China. *Pediatrics*
12. Foster CE, Moulton EA, Munoz FM, et al. Coronavirus Disease 2019 in Children Cared for at Texas Children's Hospital: Initial Clinical Characteristics and Outcomes, *Journal of the Pediatric Infectious Diseases Society*
13. Xu H, Liu E, Xie J, et al. A follow up study of children infected with SARS-CoV-2 from Western China. *Annals of Translational Medicine*.
14. Shekerdemian LS, Mahmood NR, Wolfe KK, et al. Characteristics and Outcomes of Children With Coronavirus Disease 2019 (COVID-19) Infection Admitted to US and Canadian Pediatric Intensive Care Units. *JAMA Pediatrics*.
15. Mannheim J, Gretsche S, Layden JE, Fricchione MJ. Characteristics of Hospitalized Pediatric COVID-19 Cases – Chicago, Illinois, March – April 2020 [published online ahead of print, 2020 Jun 1]. *J Pediatric Infect Dis Soc*.
16. Assaker, Rita, et al. Presenting symptoms of COVID-19 in children: a meta-analysis of published studies. *BJA: British Journal of Anaesthesia*.
17. Poline et al. Systematic SARS-CoV-2 screening at hospital admission in children: A French prospective multicenter study. *Clinical Infectious Disease*.
18. Sun, D., Chen, X., Li, H. et al. SARS-CoV-2 infection in infants under 1 year of age in Wuhan City, China. *World Journal of Pediatrics*.
19. Boulad F, Kamboj M, Bouvier N, Mauguen A, Kung AL. COVID-19 in Children with Cancer in New York City. *JAMA Oncol*.
20. Oualha M, Bendavid M, Berteloot L, et al. Severe and fatal forms of COVID-19 in children. *Archives de Pédiatrie*.
21. Sun D, Li H, Lu XX, et al. Clinical features of severe pediatric patients with COVID-19 in Wuhan: a single center's observational study. *World Journal of Pediatrics*.
22. Feldstein LR, Rose EB, Horwitz SM, et al. Multisystem Inflammatory Syndrome in US Children and Adolescents. *NEJM*.
23. Zimmerman P, Curtis N. COVID-19 in Children, Pregnancy, and Neonates: A Review of Epidemiologic and Clinical Features. *The Pediatric Infectious Disease Journal*.
24. Xia W, Shao J, Guo Y, et al. Clinical and CT features in pediatric patients with COVID-19 infection: different points from adults. *Infection and immunity*.
25. National Institutes of Health. COVID-19 Treatment Guidelines: Special Considerations in Children. [https://www.covid19treatmentguidelines.nih.gov/special-populations/children/external icon](https://www.covid19treatmentguidelines.nih.gov/special-populations/children/external-icon)
26. Lin EE, Blumberg TJ, Adler AC, et al. Incidence of COVID-19 in Pediatric Surgical Patients Among 3 US Children's Hospitals. *JAMA Surg*
27. Cai X, Ma Y, Li S, Chen Y, Rong Z, Li W. Clinical Characteristics of 5 COVID-19 Cases With Non-respiratory Symptoms as the First Manifestation in Children. *Front Pediatr*.
28. Martínez-Castaño I, Calabuig-Barbero E, González-Piñera J, López-Ayala JM. COVID-19 Infection Is a Diagnostic Challenge in Infants With Ileocecal Intussusception. *Pediatr Emerg Care*.
29. Moazzam Z, Salim A, Ashraf A, Jehan F, Arshad M. Intussusception in an infant as a manifestation of COVID-19. *J Pediatr Surg Case Rep*.

30. Santoli JM, Lindley MC, DeSilva MB, et al. Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Ordering and Administration – United States, 2020. *MMWR*
Last Updated Aug. 17, 2020
<https://www.cdc.gov/coronavirus/2019-ncov/hcp/pediatric-hcp.html>

United States

Staffing Resources

Source: CDC

Staffing Resources and Guidance

Updated Aug. 17, 2020

Key concepts

- **Strengthening the public health workforce.** Enhancing frontline public health capacity in state, local, tribal, and territorial health departments to intensify the coordinated response to COVID-19 is critical.

Resources from CDC

CDC is using a multi-pronged approach to help enhance and complement the efforts of state, tribal, local, and territorial staff. This initiative will help health departments with the staffing resources they need for their programs to get and keep America open.

- [Federal Resources for COVID-19 Contact Tracing Staffing pdf icon\[PDF – 2 pages\]](#)
This fact sheet describes several ways health departments can access additional staffing for COVID-19 contact tracing, including through State Service Commissions and AmeriCorps Programs, CDC, and FEMA.
- [COVID-19 Staffing Guidance](#)
CDC COVID-19 staffing guidance for state, tribal, local, and territorial health departments.
- [CDC's COVID-19 Response Corps](#)
The COVID Response Corps is a part of CDC'S multi-pronged approach to help enhance and complement the efforts of state, tribal, local, and territorial staff through innovative hiring mechanisms. This initiative will help provide access to a variety of mechanisms to complement local efforts to increase workforce capacity.
- [CDC Foundation: COVID-19 Corps Jobsexternal icon](#)
In support of CDC'S COVID-19 Response Corps, the CDC Foundation is urgently recruiting candidates for critical positions nationwide. Interested parties should go to the CDC Foundation website and apply directly for positions.
- [COVID-19 Training Resourcesexternal icon](#)
CDC's COVID-19 trainings are available on TRAIN, a national learning network that provides training opportunities to professionals who protect and improve the public's health.

CDC COVID-19 response staff deployed across America

*These numbers reflect data from August 17, 2020 – number of staff can change daily.

This map shows CDC deployments and CDC field staff. A total of 639 CDC staff are currently working in state, tribal, local, and territorial health agencies. Thirteen staff are deployed to support Navajo Nation, six staff are deployed with the Oglala Sioux Tribe (not shown on map), six staff are deployed with the Tohono O'odham Tribe (not shown on map), four staff are deployed with the Rosebud Tribe (not shown on map), three staff are deployed with the Crow Tribe (not shown on map), two staff are deployed with the Mashpee Wampanoag Tribe (not shown on map), and two staff are deployed with the Muscogee Tribe (not shown on map).

These charts show CDC field team deployments and quarantine station deployments by date. These charts are updated weekly and reflect data from August 12, 2020.

Resources From Other Organizations

Content describing non-CDC tools on this site is provided for informational purposes only and is **not intended to indicate endorsement**, actual or implied, of the tools. Additionally, information on this site is provided "as is," for users to evaluate and make their own determination as to their effectiveness.

Private Sector, Non-Governmental, and Academic Organizations

Various other organizations are also supporting this critical effort by providing volunteer and paid staff.

Service Organizations

- [CDC Foundation COVID-19 Corps](#)[external icon](#)
The CDC Foundation is urgently recruiting candidates for critical positions related to the COVID-19 Corps initiative nationwide. Interested parties should go to the CDC Foundation website apply directly for CDCF COVID Corps positions. Since the CDC Foundation is continuing to actively add jobs in new states, candidates should check back regularly if they do not find a role for which they qualify immediately.
- [US Digital Response](#)[external icon](#)
The US Digital Response is a volunteer-run, non-partisan service offering free access to skilled expertise for local governments who need support. We have a database of **more than 4,500 qualified professionals**, experienced in user research and design, back-end engineering (including mainframe engineering skills), product management, and data science.
- [Refugees.Rescue.org](#)[external icon](#)
The IRC has launched a new website, Refugees.Rescue.org, to enable refugees and immigrants in the US to self-register to express their interest in volunteering and/or working on the COVID-19 response – as part of their local community or in another location. With the current COVID-19 crisis, there will likely be more opportunities to deploy refugees and immigrants living in the US who are trained medical and health professionals but are not credentialed in the US. IRC is working with a number of different stakeholders to increase opportunities and create pathways for this participation.
- [Medical Reserve Corps \(MRC\)](#)[external icon](#)
The MRC network consists of approximately 850 community-based units comprised of local medical, public health, and other volunteers. MRC units can help support state, local, tribal, and territorial entities in COVID-19 response efforts by augmenting public health and medical teams, conducting contact tracing, assisting with patient monitoring, supporting community screening and testing operations, and staffing call centers. Local MRC unit information is available by state.
- [YMCA](#)[external icon](#)
As one of the largest nonprofits focused on strengthening communities, helping people in need is foundational to the Y's mission. In response to COVID-19, many Ys nationwide are delivering critical emergency services for vulnerable populations—offering emergency childcare for frontline workers, distributing meals to children and families, providing shelter, and offering virtual programming focused on fitness, chronic disease prevention and youth enrichment activities. The Y remains committed to being a trusted connector between public health agencies, local governments and others providing emergency responses to the crisis.
- [US Civilian Corps](#)[external icon](#)
The U.S. Civilian Corps is a 501c3 nonprofit that provides pro bono personnel support to states and health facilities nationwide. In partnership with executive search firm Odgers Berndtson, we have access to a database of 12M healthcare professionals, allowing us to source and help place healthcare professionals, contact tracers, and senior leadership to support COVID-19 responses. We are working in 6 states and can activate new personnel identification and placement campaigns within 24-48 hours.
- [The Collegiate Health Fellow Institute](#)[external icon](#)
The Collegiate Health Fellow Institute consists of tens of thousands of volunteer nursing, public health, and mental health collegiate-level students available to support governments in their COVID-19 response. These qualified students are available to support state, local, tribal, and territorial governments with contact tracing needs through the Institute's clinical rotation program. This dedicated resource is highly scalable and provides a prepared workforce at costs far below market. The Institute trains student volunteers and integrates with health departments to provide rapid mobilization of contact tracers during active COVID-19 outbreaks.

Staffing Agencies

- [HealthChannels](#)[external icon](#)
HealthChannels is a healthcare industry staff service with two decades of experience hiring, training, staffing and managing healthcare professionals. Over that time period, they have trained over 60,000 team members and currently employ over 25,000 employees across all 50 states. With a mix of local and national team members, they are able to quickly scale up contact tracers to support department, city, county, state or federal level efforts.

- [OnwardUSexternal icon](#)
OnwardUS is a web-based resource that connects workers displaced by COVID-19 to (1) life essential services, (2) training, and (3) jobs. The initiative features resources and jobs in all industries, including training and jobs related to contact tracing.
- [Generation USAexternal icon](#)
Generation USA rapidly recruits, trains, and places unemployed and underemployed individuals by providing social supports to learners, working with public entities from the start to identify skill gaps and vacancies, and tailoring the training curriculum to their needs. Generation USA sees an opportunity to train and place new hires in healthcare roles, including positions related to contact tracing, and to upskill existing healthcare workers across the U.S. in partnership with local and state health departments, businesses, nonprofits, universities, and community groups.
- [AllSTEM Connectionsexternal icon](#)
AllSTEM Connections, a niche US staffing firm, is united in the fight to protect workers and prevent the spread of COVID 19 in the workplace. AllSTEM currently works with small and large businesses across the United States providing environmental associates (temperature takers), supportive IT and engineering staff, and scientific and laboratory technicians. AllSTEM Connections is also actively sourcing qualified talent to provide contact tracing support. AllSTEM Connections is prepared to provide workers trained in confidentiality, proper interview protocols and the ability to document as well as provide appropriate instructions and referral information.
- [LevelUP Human Capital Solutions \(HCS\)external icon](#)
LevelUP assists organizations to achieve their operational goals by creating sustainable talent programs that leverage the power of their subject matter experts, industry best practices, and advanced technology delivered with our best-in-class client service. LevelUP focuses on customized solutions tailored to specific talent and HR demands, whether it be a short-term project, full-scale Recruitment Placement Outsourcing (RPO), or Managed Service Provider for contingent workforce. LevelUP provides a level of service and results that is unmatched in the talent industry.
- [Securitas Critical Infrastructure Servicesexternal icon](#)
SCIS has staff available to support contract tracing and health assistance activities on a national basis. Many SCIS professionals are already trained in non-intrusive investigation/inspection techniques, have all been vetted – usually to a federal standard, and can be trained quickly by our quality control/training staff to meet specific state or agency requirements.
- [Tetra Techexternal icon](#)
Tetra Tech is a leading provider of emergency management services spanning the entire continuum of impacts of man-made and natural events. Across our markets we are providing support to our clients to prepare for and rapidly respond to COVID-19 impacts, including program and financial management support, emergency operations centers staff augmentation, disease surveillance contact tracing support, facility disinfection, and emergency COVID-19 alternate care facilities design. By Leading with Science®, we can respond to the challenges of COVID-19, with the commitment of our 20,000 staff supported by technological innovation.
- [Medixexternal icon](#)
Medix is a leading national recruitment firm with an expertise in delivering high quality talent in a timely manner. We can provide quality talent and a reflexive workforce that can be increased or decreased in accordance to the demand of the contact tracing programs. We would be responsible for identifying, vetting, on-boarding, and the management of these individuals. Over the past 10 weeks, we've utilized this model to quickly build COVID support teams for 500+ essential businesses making thousands of COVID specific placements. For further information, please visit the Medix website.
- [Marlowe Companies Inc.external icon](#)
MCI rapidly implements US-based call center services for federal and state agencies or prime contractors needing help with unemployment insurance calls, contact tracing, and other front or back office tasks. MCI works directly with public organizations to quickly scale headcount and utilizes scalable technology for even the largest needs. MCI has contact centers in six geographically diverse states and at home workers nationally. All agents are background screened, tested, and are immediately available.
- [AppleOne Employment Servicesexternal icon](#)

AppleOne Employment Services, is America's largest certified women and minority owned staffing company. Headquartered in Southern California, AppleOne has over 200 branches across the United States and in Canada, with extensive experience in supplying labor to federal and state government entities. AppleOne has demonstrated expertise in fulfillment of large-scale fulfillment strategies and places a core focus on customer service staffing solutions that makes the organization well positioned to be instrumental in the Contact Tracing efforts to combat the spread of COVID-19.

- [All's Well Health Care Servicesexternal icon](#)
All's Well Health Care Services is a privately-held, women and minority owned health care staffing organization specializing in the placement nurses, allied health professionals, therapists, dental and healthcare administration. Providing labor for hospitals, doctor's offices, surgical centers and emergency response facilities is a core competency with compliance and safety at the forefront of delivery. All's Well is actively providing health care support in the fight against the novel coronavirus.
- [Atriumexternal icon](#)
Atrium is a national, woman-owned, WBENC-certified talent management firm. With over 25 years of experience providing staffing, recruiting and payrolling services, Atrium understands the urgent need for flexible workforce programs that help organizations Atrium provides support across all 50 states and has responded rapidly to COVID-19 impacts. scale up, train and put staff to work quickly. With a team of over 100 recruiters nationwide, Atrium can screen over 1,000 candidates per day. Atrium has partnered with numerous government agencies to staff contact tracers, temperature checkers, healthcare workers and many other COVID-related roles.
- [Noor Staffing Groupexternal icon](#)
Noor Staffing Group (NSG) has Contact Tracers and Temperature Checkers Immediately Available to fight COVID-19! NSG, a Certified MBE national healthcare staffing and payroll services firm, provides contact tracers who have undergone training provided by John Hopkins University as well as temperature checkers who have medical certifications to measure vitals. NSG is an established, well-funded national enterprise with operations in 45 states.
- [22nd Century Technologies Inc.external icon](#)
22nd Century Technologies Inc. (TSCTI) is one of the largest public-sector focused staffing companies in the United States. With a presence in all 50 states and an internal pre-vetted resume database of 5M+ resources, TSCTI has been serving the public sector for over 23 years. In response to COVID-19 and post-COVID-19 measures, TSCTI has been providing contact tracers, administrative, health care, and light industrial professionals to various agencies/hospitals/facilities in 13+ states. TSCTI also offers a fully scalable end-to-end contact tracing solution that includes, but is not limited to, tracing, triaging, and tracking. Services can be procured through TSCTI's statewide contracts in all 50 states.

<https://www.cdc.gov/coronavirus/2019-ncov/php/open-america/staffing.html>

United States

Clinical Mitigation (Non-US Settings)

Source: CDC

Updated Aug. 17, 2020



Clinical mitigation encompasses strategies to ensure adequate provision of care for mildly to moderately ill COVID-19 patients, and delivery of other non-COVID-19 essential health services during the COVID-19 outbreak.

Maintaining Essential Services : As a result of the COVID-19 pandemic, health systems globally are being overwhelmed. Healthcare services are being compromised in order to meet the demands of caring for COVID-19 patients. However, ensuring delivery of essential health services must be prioritized to prevent increases in morbidity and mortality. Additionally, lock-downs and fear of acquiring the virus may

reduce healthcare utilization; mitigation strategies are needed to ensure safe and effective delivery of routine essential services.

Immunizations

- [Operational Considerations for Immunization Services during COVID-19 in Non-US Settings Focusing on Low-Middle Income Countries](#)

Malaria

- [Operational Considerations for Maintaining Essential Services for Malaria in Low-Resource Countries During the COVID-19 Pandemic pdf icon](#)

HIV/AIDS

- [Operational Considerations for Maintaining Essential Services and Providing Care and Treatment for those Living with HIV in Low-Resource non-US Settings During the COVID-19 Pandemic pdf icon](#)
- [Operational Considerations for Essential Services for Tuberculosis Prevention, Care and Treatment in Low-Resource non-US Settings](#)

Telehealth and Telemedicine:

- [Uses of Telehealth during COVID-19 in Low Resource Non-U.S. Settings](#)

Last Updated Aug. 17, 2020

<https://www.cdc.gov/coronavirus/2019-ncov/global-covid-19/non-us-clinical-mitigation.html>

United States

Operational Considerations for Maintaining Essential Services and Providing Prevention, Care, and Treatment for Tuberculosis (TB) in Low-Resource non-US Settings During the COVID-19 Pandemic

Source: CDC

Updated Aug. 17, 2020

Introduction

Despite being preventable and curable, tuberculosis (TB) remains the world's deadliest infectious disease, taking the lives of 1.5 million persons each year. One-fourth of the world's population—nearly 2 billion people—are infected with TB. In 2018, 10 million people, including 1.1 million children, became ill with TB disease (1). The global community has made substantial progress in the fight to end TB, and it is critical that the progress made in TB prevention, care, and treatment is not reversed by the COVID-19 pandemic. Modeling highlights the potentially devastating effects of the COVID-19 pandemic on global TB programs, which could result in an additional 6.3 million TB cases and 1.4 million TB deaths by 2025 (2). Furthermore, a 25% global reduction in TB detection over 3 months could lead to a 13% increase in TB deaths, setting TB mortality levels back to what they were 5 years ago (3).

Increased demand for healthcare services due to COVID-19 can challenge health facilities and healthcare systems. Previous global and regional health emergencies, like Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome (MERS), and Ebola virus disease, negatively impacted TB care (4-6). These challenges often resulted in disruption of TB care services, delayed diagnosis and treatment, and increased illness and death for patients with TB. It is therefore imperative to maintain continuity of essential TB care services during the COVID-19 pandemic.

This document summarizes operational considerations to assist TB programs, health service managers, and healthcare personnel in maintaining continuity of essential TB services in low-resource, non-US settings during the COVID-19 pandemic (7-9).

TB and COVID-19 in Adults and Children

COVID-19 and TB share some common clinical features. Exposure to both can occur simultaneously, and the presence of comorbidities can result in poor outcomes for both diseases. A positive test result for COVID-19 does not rule out the presence of TB disease, particularly in high TB burden settings. In these settings, implementation of simultaneous testing for both diseases is [recommendedpdf iconexternal icon](#) by the [World Health Organizationpdf iconexternal icon](#) (WHO) for persons with respiratory symptoms (7).

Although data on COVID-19 and TB are limited, there is mounting evidence that patients with chronic respiratory diseases, including TB, are at increased risk of severe COVID-19 illness and death (10-13). There are very limited data on the risk and severity of COVID-19 in children with co-morbidities such as TB, however, it is possible that TB could increase the risk of severe COVID-19 disease in children, as it appears to do in adults. Therefore, children who have TB and are infected with COVID-19 should be monitored for signs of severe disease.

In countries or settings with a high incidence of TB, the Bacille Calmette-Guerin (BCG) vaccine can prevent severe forms of TB in children, including TB meningitis. There have been reports of this vaccine being diverted from countries and settings with a high incidence of TB to protect other populations from infection with COVID-19, even though there is no evidence that BCG offers such protection (14). Childhood immunization programs in these countries and settings should pursue dedicated stocks of BCG to protect their children from severe forms of TB.

Ensuring Continuity of Quality TB Services

To protect the progress made through global efforts and investments in TB, it is important that TB programs ensure continuity of TB services including the following:

TB Case Finding and Diagnosis

- When implementing active TB case-finding strategies and community-based testing, follow local guidance on movement restriction, physical distancing measures, and continuity of operations to protect healthcare workers (HCW) from COVID-19. Maximize the use of mobile and virtual [telehealth](#) platforms for conducting TB case-finding activities and contact investigations.

TB Treatment

- Limit health facility visits to those needing urgent medical attention to reduce patients' and healthcare providers' potential exposure to COVID-19. For patients requiring a facility visit, all efforts should be made to ensure physical distancing, streamline patient flow, stagger clinic appointments, and provide TB services in dedicated spaces that are physically separated from areas with COVID-19 patients.
- Consider moving TB services into the community to reduce risk of COVID-19 exposure and infection in health facilities (15).
- Ensure provision of TB treatment for all TB patients, including those in quarantine and those suspected or confirmed with COVID-19.
- To avoid extra visits to healthcare facilities, distribute a multi-month supply of TB medicines and offer community-based drug dispensing for TB treatment and for persons receiving TB preventive treatment (TPT).
- Whenever possible, consider using [telehealth](#) (phone calls, SMS, or virtual options for patient contact) for routine or non-urgent consultations, paying careful attention to patient privacy and confidentiality.
- Use community-based treatment monitoring and digital adherence interventions such as mHealth, video directly observed therapy (DOT), and medication event reminder monitoring systems (MERM) to monitor TB treatment and associated adverse events.

TB Preventive Treatment

- TPT is an essential TB service for persons living with HIV and children under 5 years of age who have had contact with a person with TB. TB programs may continue to scale up this life-saving treatment during the COVID-19 pandemic.
- Differentiated service delivery models (providing more intensive care to patients initiating therapy or poorly adherent to therapy and less intensive care to well established patients) may be used for community distribution and adherence support while following local infection control and physical distancing policies.
- Ensure that telephone or SMS systems are in place for adverse event monitoring (9).

Safety in Healthcare Settings

- Patient-centered outpatient care and community-based care are preferred over hospital treatment to reduce potential disease transmission.
- It is possible that some patients with COVID-19 infection will seek care at TB clinics. Respiratory infection control measures, in which TB programs are well-versed, are of even greater importance now, as are general precautions, such as frequent handwashing, disinfecting of surfaces, and avoiding touching one's face, to ensure the safety of HCWs and patients accessing care at health facilities.
- Implement respiratory infection control measures for both COVID-19 and TB, including:
 - Triage, early identification, and separation of symptomatic patients
 - Fast tracking or expedited service
 - Implementation of droplet and contact precautions
 - Frequent handwashing

- Implement [environmental engineering controls](#), for example, physical barriers and dedicated pathways to guide symptomatic patients through triage areas, remote or outdoor triage stations for patients with respiratory symptoms
- Use of personal protective equipment ([PPE](#))
- Refer to [CDC](#) and [WHOexternal icon](#) technical guidance on infection prevention and control (IPC) measures in the context of the COVID-19 pandemic (8).

Supply Chain Management

- To ensure that national TB programs have an adequate supply of TB medicines and diagnostic supplies during the COVID-19 pandemic, actively monitor supply chain management is needed to avoid interruptions.
- Order commodities as early as possible to avoid possible delivery delays (7).

Combating Stigma

- Stigma and fear around communicable diseases like COVID-19 and TB hamper an effective public health response. Interventions that can help combat stigma include building trust in reliable health services, showing empathy with those affected, promoting understanding of the diseases themselves, and promoting adoption of effective, practical control measures so people can help keep themselves and their families and communities safe (16).

References:

1. World Health Organization. Global TB Report 2019. October 2019. WHO/CDS/TB/2019.15
2. The potential impact of the covid-19 response on tuberculosis in high-burden countries: a modelling analysis [Internet]. Stop TB Partnership, Geneva: Stop TB Partnership, Geneva; 2020. Available from: http://www.stoptb.org/assets/documents/news/Modeling%20Report_1%20May%202020_FI_NAL.pdfpdf iconexternal icon
3. Glaziou P. Predicted impact of the COVID-19 pandemic on global tuberculosis deaths in 2020 [Internet]. Epidemiology; 2020 May [cited 2020 May 6]. Available from: <http://medrxiv.org/lookup/doi/10.1101/2020.04.28.20079582external icon>
4. Parpia AS, et al. Effects of Response to 2014-2015 Ebola Outbreak on Deaths from Malaria, HIV/AIDS, and Tuberculosis, West Africa. Emerg Inf Dis. 2016 Mar; 22(3): 433-441.
5. Pathmanathan I, et al. Insights form the Ebola response to address HIV and tuberculosis. Lancet. 2016 (16): 276-277.
6. Crisan-Dabija R, et al. Tuberculosis and COVID-19 in 2020: lessons from the past viral outbreaks and possible future outcomes. MedRxiv; doi: <https://doi.org/10.1101/2020.04.28.20082917external icon> (not peer reviewed)
7. World Health Organization. WHO Information Note: Tuberculosis and COVID-19. 12 May 2020. <https://www.who.int/docs/default-source/documents/tuberculosis/infonote-tb-covid-19.pdfpdf iconexternal icon>
8. Centers for Disease Control and Prevention. COVID-19 and Global TB: Program Key Considerations and Resources. 12 June 2020. <https://www.cdc.gov/globalhivtb/who-we-are/about-us/globaltb/globaltbandcovid19.html>
9. S. President's Emergency Plan for AIDS Relief (PEPFAR). PEPFAR Technical Guidance in Context of COVID-19 Pandemic. 3 June 2020. https://www.state.gov/wp-content/uploads/2020/06/06.03.2020_PEPFAR-Technical-Guidance-During-COVID.pdfpdf iconexternal icon
10. Halpin D, et al. Do chronic respiratory diseases or their treatment affect the risk of SARS-CoV-2 infection? The Lancet Respiratory Medicine; Volume 8, ISSUE 5, P436-438, 2020-438, MAY 01, 2020
11. Jordan R, Adab P, Cheng K. Covid-19: risk factors for severe disease and death; BMJ 2020;368:m1198, 2020
12. Liu Y, et al. Active or latent tuberculosis increases susceptibility to COVID-19 and disease severity. MedRxiv; doi: <https://doi.org/10.1101/2020.03.10.20033795external icon> (not peer reviewed)
13. Davies, Mary-Ann, on Behalf of Western Cape Department of Health. "Western Cape: COVID-19 and HIV/Tuberculosis. What predisposes to poor COVID-19 outcomes in South Africa". Virtual and slide presentation to Western Cape Government, June 9, 2020.
14. World Health Organization. Scientific Brief: Bacille Calmette-Guérin (BCG) vaccination and COVID-19. 12 April 2020. [https://www.who.int/news-room/commentaries/detail/bacille-calmette-guérin-\(bcg\)-vaccination-and-covid-19external icon](https://www.who.int/news-room/commentaries/detail/bacille-calmette-guérin-(bcg)-vaccination-and-covid-19external icon)

15. WHO. Maintaining essential health services: operational guidance for the COVID-19 context, 1 June

16. Geneva: World Health Organization. (<https://www.who.int/publications-detail/10665-332240>[external icon](#), Accessed June 4, 2020).

IFRC, UNICEF, WHO. Social Stigma associated with COVID-19. A guide to preventing and addressing social stigma. [Internet]. 2020. Available from: <https://www.who.int/docs/default-source/coronaviruse/covid19-stigma-guide.pdf>[pdf icon](#)
<https://www.cdc.gov/coronavirus/2019-ncov/global-covid-19/TB-non-us-settings.html>

United States

Operational Considerations for Maintaining Essential Services and Providing Prevention, Care, and Treatment for Tuberculosis (TB) in Low-Resource non-US Settings During the COVID-19 Pandemic

Source: CDC

Updated Aug. 17, 2020

View this page as a [PDF pdf icon](#)[4 pages]

Introduction

Despite being preventable and curable, tuberculosis (TB) remains the world's deadliest infectious disease, taking the lives of 1.5 million persons each year. One-fourth of the world's population—nearly 2 billion people—are infected with TB. In 2018, 10 million people, including 1.1 million children, became ill with TB disease (1). The global community has made substantial progress in the fight to end TB, and it is critical that the progress made in TB prevention, care, and treatment is not reversed by the COVID-19 pandemic. Modeling highlights the potentially devastating effects of the COVID-19 pandemic on global TB programs, which could result in an additional 6.3 million TB cases and 1.4 million TB deaths by 2025 (2). Furthermore, a 25% global reduction in TB detection over 3 months could lead to a 13% increase in TB deaths, setting TB mortality levels back to what they were 5 years ago (3).

Increased demand for healthcare services due to COVID-19 can challenge health facilities and healthcare systems. Previous global and regional health emergencies, like Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome (MERS), and Ebola virus disease, negatively impacted TB care (4-6). These challenges often resulted in disruption of TB care services, delayed diagnosis and treatment, and increased illness and death for patients with TB. It is therefore imperative to maintain continuity of essential TB care services during the COVID-19 pandemic.

This document summarizes operational considerations to assist TB programs, health service managers, and healthcare personnel in maintaining continuity of essential TB services in low-resource, non-US settings during the COVID-19 pandemic (7-9).

TB and COVID-19 in Adults and Children

COVID-19 and TB share some common clinical features. Exposure to both can occur simultaneously, and the presence of comorbidities can result in poor outcomes for both diseases. A positive test result for COVID-19 does not rule out the presence of TB disease, particularly in high TB burden settings. In these settings, implementation of simultaneous testing for both diseases is [recommendedpdf iconexternal icon](#) by the [World Health Organizationpdf iconexternal icon](#) (WHO) for persons with respiratory symptoms (7).

Although data on COVID-19 and TB are limited, there is mounting evidence that patients with chronic respiratory diseases, including TB, are at increased risk of severe COVID-19 illness and death (10-13). There are very limited data on the risk and severity of COVID-19 in children with co-morbidities such as TB, however, it is possible that TB could increase the risk of severe COVID-19 disease in children, as it appears to do in adults. Therefore, children who have TB and are infected with COVID-19 should be monitored for signs of severe disease.

In countries or settings with a high incidence of TB, the Bacille Calmette-Guerin (BCG) vaccine can prevent severe forms of TB in children, including TB meningitis. There have been reports of this vaccine being diverted from countries and settings with a high incidence of TB to protect other populations from infection with COVID-19, even though there is no evidence that BCG offers such protection (14). Childhood immunization programs in these countries and settings should pursue dedicated stocks of BCG to protect their children from severe forms of TB.

Ensuring Continuity of Quality TB Services

To protect the progress made through global efforts and investments in TB, it is important that TB programs ensure continuity of TB services including the following:

TB Case Finding and Diagnosis

- When implementing active TB case-finding strategies and community-based testing, follow local guidance on movement restriction, physical distancing measures, and continuity of operations to protect healthcare workers (HCW) from COVID-19. Maximize the use of mobile and virtual [telehealth](#) platforms for conducting TB case-finding activities and contact investigations.

TB Treatment

- Limit health facility visits to those needing urgent medical attention to reduce patients' and healthcare providers' potential exposure to COVID-19. For patients requiring a facility visit, all efforts should be made to ensure physical distancing, streamline patient flow, stagger clinic appointments, and provide TB services in dedicated spaces that are physically separated from areas with COVID-19 patients.
- Consider moving TB services into the community to reduce risk of COVID-19 exposure and infection in health facilities (15).
- Ensure provision of TB treatment for all TB patients, including those in quarantine and those suspected or confirmed with COVID-19.
- To avoid extra visits to healthcare facilities, distribute a multi-month supply of TB medicines and offer community-based drug dispensing for TB treatment and for persons receiving TB preventive treatment (TPT).
- Whenever possible, consider using [telehealth](#) (phone calls, SMS, or virtual options for patient contact) for routine or non-urgent consultations, paying careful attention to patient privacy and confidentiality.
- Use community-based treatment monitoring and digital adherence interventions such as mHealth, video directly observed therapy (DOT), and medication event reminder monitoring systems (MERM) to monitor TB treatment and associated adverse events.

TB Preventive Treatment

- TPT is an essential TB service for persons living with HIV and children under 5 years of age who have had contact with a person with TB. TB programs may continue to scale up this life-saving treatment during the COVID-19 pandemic.
- Differentiated service delivery models (providing more intensive care to patients initiating therapy or poorly adherent to therapy and less intensive care to well established patients) may be used for community distribution and adherence support while following local infection control and physical distancing policies.
- Ensure that telephone or SMS systems are in place for adverse event monitoring (9).

Safety in Healthcare Settings

- Patient-centered outpatient care and community-based care are preferred over hospital treatment to reduce potential disease transmission.
- It is possible that some patients with COVID-19 infection will seek care at TB clinics. Respiratory infection control measures, in which TB programs are well-versed, are of even greater importance now, as are general precautions, such as frequent handwashing, disinfecting of surfaces, and avoiding touching one's face, to ensure the safety of HCWs and patients accessing care at health facilities.
- Implement respiratory infection control measures for both COVID-19 and TB, including:
 - Triage, early identification, and separation of symptomatic patients
 - Fast tracking or expedited service
 - Implementation of droplet and contact precautions
 - Frequent handwashing
 - Implement [environmental engineering controls](#), for example, physical barriers and dedicated pathways to guide symptomatic patients through triage areas, remote or outdoor triage stations for patients with respiratory symptoms
 - Use of personal protective equipment ([PPE](#))
- Refer to [CDC](#) and [WHOexternal icon](#) technical guidance on infection prevention and control (IPC) measures in the context of the COVID-19 pandemic (8).








Supply Chain Management

- To ensure that national TB programs have an adequate supply of TB medicines and diagnostic supplies during the COVID-19 pandemic, actively monitor supply chain management is needed to avoid interruptions.
- Order commodities as early as possible to avoid possible delivery delays (7).

Combating Stigma

- Stigma and fear around communicable diseases like COVID-19 and TB hamper an effective public health response. Interventions that can help combat stigma include building trust in reliable health services, showing empathy with those affected, promoting understanding of the diseases themselves, and promoting adoption of effective, practical control measures so people can help keep themselves and their families and communities safe (16).

References:

1. World Health Organization. Global TB Report 2019. October 2019. WHO/CDS/TB/2019.15
2. The potential impact of the covid-19 response on tuberculosis in high-burden countries: a modelling analysis [Internet]. Stop TB Partnership, Geneva: Stop TB Partnership, Geneva; 2020. Available from: http://www.stoptb.org/assets/documents/news/Modeling%20Report_1%20May%202020_FINAL.pdf 
3. Glaziou P. Predicted impact of the COVID-19 pandemic on global tuberculosis deaths in 2020 [Internet]. Epidemiology; 2020 May [cited 2020 May 6]. Available from: <http://medrxiv.org/lookup/doi/10.1101/2020.04.28.20079582> 
4. Parpia AS, et al. Effects of Response to 2014-2015 Ebola Outbreak on Deaths from Malaria, HIV/AIDS, and Tuberculosis, West Africa. Emerg Inf Dis. 2016 Mar; 22(3): 433-441.
5. Pathmanathan I, et al. Insights from the Ebola response to address HIV and tuberculosis. Lancet. 2016 (16): 276-277.
6. Crisan-Dabija R, et al. Tuberculosis and COVID-19 in 2020: lessons from the past viral outbreaks and possible future outcomes. MedRxiv; doi: <https://doi.org/10.1101/2020.04.28.20082917>  (not peer reviewed)
7. World Health Organization. WHO Information Note: Tuberculosis and COVID-19. 12 May 2020. <https://www.who.int/docs/default-source/documents/tuberculosis/infonote-tb-covid-19.pdf> 
8. Centers for Disease Control and Prevention. COVID-19 and Global TB: Program Key Considerations and Resources. 12 June 2020. <https://www.cdc.gov/globalhivtb/who-we-are/about-us/globaltb/globaltbandcovid19.html>
9. S. President's Emergency Plan for AIDS Relief (PEPFAR). PEPFAR Technical Guidance in Context of COVID-19 Pandemic. 3 June 2020. https://www.state.gov/wp-content/uploads/2020/06/06.03.2020_PEPFAR-Technical-Guidance-During-COVID.pdf 
10. Halpin D, et al. Do chronic respiratory diseases or their treatment affect the risk of SARS-CoV-2 infection? The Lancet Respiratory Medicine; Volume 8, ISSUE 5, P436-438, 2020-438, MAY 01, 2020
11. Jordan R, Adab P, Cheng K. Covid-19: risk factors for severe disease and death; BMJ 2020;368:m1198, 2020
12. Liu Y, et al. Active or latent tuberculosis increases susceptibility to COVID-19 and disease severity. MedRxiv; doi: <https://doi.org/10.1101/2020.03.10.20033795>  (not peer reviewed)
13. Davies, Mary-Ann, on Behalf of Western Cape Department of Health. "Western Cape: COVID-19 and HIV/Tuberculosis. What predisposes to poor COVID-19 outcomes in South Africa". Virtual and slide presentation to Western Cape Government, June 9, 2020.
14. World Health Organization. Scientific Brief: Bacille Calmette-Guérin (BCG) vaccination and COVID-19. 12 April 2020. [https://www.who.int/news-room/commentaries/detail/bacille-calmette-guérin-\(bcg\)-vaccination-and-covid-19](https://www.who.int/news-room/commentaries/detail/bacille-calmette-guérin-(bcg)-vaccination-and-covid-19) 
15. WHO. Maintaining essential health services: operational guidance for the COVID-19 context, 1 June
16. Geneva: World Health Organization. (<https://www.who.int/publications-detail/10665-332240> , Accessed June 4, 2020).
17. IFRC, UNICEF, WHO. Social Stigma associated with COVID-19. A guide to preventing and addressing social stigma. [Internet]. 2020. Available from: <https://www.who.int/docs/default-source/coronaviruse/covid19-stigma-guide.pdf> 

Last Updated Aug. 17, 2020 Bottom of Form

<https://www.cdc.gov/coronavirus/2019-ncov/global-covid-19/TB-non-us-settings.html>

United States

Overview of Testing for SARS-CoV-2

Source: CDC

Updated July 17, 2020

Note: This document is intended to provide guidance on the appropriate use of testing and does not dictate the determination of payment decisions or insurance coverage of such testing for people residing in the United States, except as may be otherwise referenced (or prescribed) by another entity or federal or state agency.

Summary of Changes

Revisions made on July 17, 2020

- Except for rare situations, a test-based strategy is no longer recommended to determine when an individual with SARS-CoV-2 infection is no longer infectious (e.g., to discontinue Transmission-Based Precautions or home isolation)

Revisions were made on July 2, 2020, to:

- Added screening to possible testing types
- Removed examples – please refer to setting specific guidance

This document provides a summary of considerations and current Centers for Disease Control and Prevention (CDC) recommendations regarding SARS-CoV-2 testing strategy. The CDC recommendations for SARS-CoV-2 testing have been developed based on what is currently known about COVID-19 and are subject to change as additional information becomes available.

Recommendations for Viral Testing, Specimen Collection, and Reporting

Authorized assays for viral testing include those that detect SARS-CoV-2 nucleic acid or antigen. [Viral \(nucleic acid or antigen\) tests](#) check samples from the respiratory system (such as nasal swabs) and determine whether an infection with SARS-CoV-2, the virus that causes COVID-19, is present. Viral tests are recommended to diagnose acute infection. Some tests are point-of-care tests, meaning results may be available at the testing site in less than an hour. Other tests must be sent to a laboratory to analyze, a process that may take 1-2 days once received by the lab. Testing the same individual more than once in a 24-hour period is not recommended.

For more information on testing for COVID-19 see the [Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens](#) and [Biosafety FAQs](#) for handling and processing specimens from possible cases.

Recommendations for Antibody Testing

CDC does not currently recommend [using antibody testing](#) as the sole basis for diagnosis of acute infection, and antibody tests are not authorized by FDA for such diagnostic purposes. In certain situations, serologic assays may be used to [support clinical assessment](#) of persons who present late in their illnesses when used in conjunction with viral detection tests. In addition, if a person is suspected to have post-infectious syndrome (e.g., Multisystem Inflammatory Syndrome in Children) caused by SARS-CoV-2 infection, serologic assays may be used.

[Serologic assays](#) for SARS-CoV-2, now broadly available, can play an important role in understanding the transmission dynamic of the virus in the general population and identifying groups at higher risk for infection. Unlike viral direct detection methods, such as nucleic acid amplification or antigen detection tests that can detect acutely infected persons, antibody tests help determine whether the individual being tested was previously infected—even if that person never showed symptoms.

Categories for SARS-CoV-2 Testing

This document describes five populations for which SARS-CoV-2 testing with [viral tests](#) (i.e., nucleic acid or antigen tests) is appropriate:

- Individuals with signs or symptoms consistent with COVID-19
- Asymptomatic individuals with recent known or suspected exposure to SARS-CoV-2 to control transmission
- Asymptomatic individuals without known or suspected exposure to SARS-CoV-2 for early identification in special settings

- Individuals being tested to determine resolution of infection (i.e., [test-based strategy for Discontinuation of Transmission-based Precautions](#), [HCP Return to Work](#), and [Discontinuation of Home Isolation](#))
- Individuals being tested for purposes of public health surveillance for SARS-CoV-2

Generally, viral testing for SARS-CoV-2 is considered to be diagnostic when conducted among individuals with symptoms consistent with COVID-19 or among asymptomatic individuals with known or suspected recent exposure to SARS-CoV-2 to control transmission, or to determine resolution of infection. Viral testing is screening when conducted among asymptomatic individuals without known or suspected exposure to SARS-CoV-2 for early identification, and surveillance when conducted among asymptomatic individuals to detect transmission hot spots or characterize disease trends.

Recommended testing for individuals with signs or symptoms consistent with COVID-19

CDC recommends using [authorized nucleic acid or antigen detection assayexternal icon](#) that have received an FDA EUA to test persons **with** symptoms when there is a concern of potential COVID-19. Tests should be used in accordance with the authorized labeling; providers should be familiar with the tests' performance characteristics and limitations.

Clinicians should use their judgment to determine if a patient has signs or [symptoms](#) compatible with COVID-19 and whether the patient should be tested. Most patients with confirmed COVID-19 have developed fever and/or symptoms of acute respiratory illness (e.g., cough) but some infected patients may present with [other symptoms \(e.g., altered smell or taste\) as well](#). Clinicians are encouraged to consider testing for other causes of respiratory illness, for example influenza, in addition to testing for SARS-CoV-2 depending on patient age, season, or clinical setting; detection of one respiratory pathogen (e.g., influenza) does not exclude the potential for co-infection with SARS-CoV-2. Because symptoms and presentations may be different in children, consider referencing the CDC guidelines for COVID-19 in [neonates](#) and for [Multisystem Inflammatory Syndrome in Children \(MIS-C\)](#).

The severity of symptomatic illness due to infection with SARS-CoV-2 may vary from person to person. Among persons with extensive and close contact to [vulnerable populations](#) (e.g., healthcare personnel [HCP]), even mild signs and symptoms (e.g., sore throat) of a possible SARS-CoV-2 infection should prompt consideration for testing. Additional information is available in [CDC's Interim Guidance on Testing Healthcare Personnel for SARS-CoV-2](#).

Recommended testing for asymptomatic individuals with known or suspected exposure to SARS-CoV-2 to control transmission

Testing is recommended for [all close contactspdf icon](#) of persons with SARS-CoV-2 infection. Because of the potential for asymptomatic and pre-symptomatic transmission, it is important that contacts of individuals with SARS-CoV-2 infection be quickly identified and tested.

- In areas where testing is limited, CDC has established a testing hierarchy; refer to the [Interim Guidance on Developing a COVID-19 Case Investigation and Contact Tracing Planpdf icon](#) for more information.

In some settings, broader testing, beyond close contacts, is recommended as a part of a strategy to control transmission of SARS-CoV-2. This includes high-risk settings that have potential for rapid and widespread dissemination of SARS-CoV-2 or in which populations at risk for severe disease could become exposed. Expanded testing might include testing of individuals on the same unit or shift as someone with SARS-CoV-2 infection, or even testing all individuals within a shared setting (e.g., facility-wide testing).

Recommended testing for asymptomatic individuals without known or suspected SARS-CoV-2 exposure for early identification in special settings

Certain settings can experience rapid spread of SARS-CoV-2. This is particularly true for settings with vulnerable populations in close quarters for extended periods of time.

[Local, territorial, tribal, and state health departments](#) can help with informed decision-making about testing at these or other settings. Before testing large numbers of asymptomatic individuals without known or suspected exposure, facility leadership should have a plan in place for how they will modify operations based on test results.

- Approaches for early identification of asymptomatic individuals include, initial testing of everyone in the setting, periodic (e.g., weekly) testing of everyone in the setting, and testing of new or returning entrants into the setting.

Recommended testing to determine resolution of infection with SARS-CoV-2

A [test-based strategy](#), which requires serial tests and improvement of symptoms, could be considered for discontinuing Transmission-based Precautions or allowing HCP to return to work earlier than the [symptom-](#)

[based strategy](#). However, in most cases, the test-based strategy results in prolonged isolation of patients or work exclusion of HCP who continue to shed detectable SARS-CoV-2 RNA but are no longer infectious. A test-based strategy could also be considered for some individuals (e.g., those who are [severely immunocompromised](#)) in consultation with local infectious diseases experts if concerns exist for the individual being infectious for more than 20 days. In all other circumstances, the symptom-based strategy should be used to determine when to discontinue Transmission-Based Precautions or when HCP can return to work.

This strategy is described in the following documents:

- [Discontinuation of Transmission-Based Precautions and Disposition of Patients with COVID-19 in Healthcare Settings](#)
- [Discontinuation of Isolation for Persons with COVID -19 Not in Healthcare Settings](#)
- [Assessing Criteria for Return to Work for Healthcare Personnel with Suspected or Confirmed COVID-19](#)

Public health surveillance for SARS-CoV-2

Testing is a fundamental part of the [United States SARS-CoV-2 Surveillance Plan](#), which uses multiple surveillance systems and epidemiology networks to monitor the progression and impact of SARS-CoV-2 spread in the United States.

Tests are used in community, outpatient, and hospital-based surveillance systems to identify cases of SARS-CoV-2 infection. These data help identify areas of ongoing circulation, determine trends in disease by location, provide insight into the impact of the disease over time and by location, and inform disease forecasts.

Last Updated July 17, 2020

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/testing-overview.html>

United States

Social Media Toolkit

Source: CDC

Updated Aug. 17, 2020

Practice social distancing by putting space between yourself and others. Continue to practice healthy habits to help slow the spread of COVID-19.

Wash your hands for at least 20 seconds
Clean and then disinfect frequently used surfaces
Stay home if you're sick
Avoid touching your face
Learn more about staying safe and healthy at [cdc.gov/covid19](https://www.cdc.gov/covid19)

Instagram Sample Message

Practice social distancing by putting space between yourself and others. Continue to practice healthy habits to help slow the spread of #COVID19.

Wash your hands for at least 20 seconds
Clean and then disinfect frequently used surfaces
Stay home if you're sick
Avoid touching your face
Learn more about staying safe and healthy at [cdc.gov/covid19](https://www.cdc.gov/covid19) #CDC #PublicHealth


Twitter Sample Message

Practice social distancing by putting space between yourself and others. Continue to practice healthy habits, like washing your hands for at least 20 seconds and staying home if you're sick, to help slow the spread of #COVID19.


Learn more: [cdc.gov/covid19](https://www.cdc.gov/covid19)

Masks


Facebook Sample Message


Masks are most likely to slow the spread of COVID-19 when they are widely used in public. Wear a mask when you are around people not living in your household, especially when social distancing (staying at least 6 feet apart) is difficult to maintain. Learn more about the importance of wearing a mask in public settings: <https://bit.ly/3ee8iP4>


Wondering when to use a mask? Wear a mask when you are in a public setting, especially when it is difficult to stay 6 feet away from others not living in your household. You should even wear a mask in a restaurant or rideshare.


However, if everyone in your household is healthy, you do not need to wear a mask at home or in your personal vehicle. For more information on COVID-19 and masks, visit: <https://bit.ly/HowToWearCFC>

Twitter Sample Message

Masks can help prevent the spread of #COVID19 when they are widely used in public. When you wear a mask, you can help protect those around you. When others wear one, they can help protect people around them, incl. you. <https://bit.ly/3ee8iP4> #WearAMask


Wear a mask that covers your nose and mouth to help protect others and slow the spread of #COVID19. Learn how to wear your mask correctly. <https://bit.ly/2XdSp61>

Wondering when to use a mask? Wear a mask when you are in a public setting, especially when it is difficult stay 6 feet away from others not living in your household. Learn more at <https://bit.ly/HowToWearCFC>

Wondering how you can help keep your friends healthy this summer? Stay safe from #COVID19: Wash your hands, stay 6 feet apart, and #WearAMask. Learn more about how you and your friends can help protect each other: <https://bit.ly/2XdSp61>

Instagram Sample Message

Wondering how you can help keep your friends healthy this summer? #WearAMask that covers your nose and mouth when you hang out. When you wear a mask, you can help protect others in case you are infected with #COVID19 but do not have symptoms. Your friend's mask can help protect you too!

Stay safe by washing your hands, staying 6 feet apart, and wearing a mask. Learn more about how you and your friends can help protect each other: <https://bit.ly/HowToWearMaskse>

#publichealth #MaskingForAFriend


Facebook Sample Message

Wash hands often to help slow the spread of COVID-19. Keep these key times in mind for when to wash your hands and remember to practice other protective actions like staying 6 feet from others and wearing a mask. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>

Twitter Sample Message

Wash hands often to help #SlowTheSpread of #COVID19. Keep key times in mind for when to wash your hands & remember to practice other protective measures like social distancing and wearing a mask: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>

Key Times to Wash Your Hands

Download the video media [MP4-1MB]

What To Do If You're Sick

Facebook Sample Message

Do you think you may have COVID-19? If you think you're sick, follow guidance about when to call your doctor:

Monitor your symptoms

Call ahead before visiting your doctor

Avoid close contact with others when you're out

Most people who get COVID-19 can take care of themselves at home. If you need to see a doctor, take precautions to protect yourself and others around you. See more: <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html>

Coronavirus Disease 2019 (COVID-19). [cdc.gov/coronavirusmedia icon](https://www.cdc.gov/coronavirusmedia/icon)

Twitter Sample Message

Do you think you may have #COVID19? Most people who get sick can take care of themselves at home. If you need to see a doctor, call ahead before going to their office. Take precautions to protect yourself and others around you. See more: <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html>

Coronavirus Disease 2019 (COVID-19). [cdc.gov/coronavirusmedia icon](https://www.cdc.gov/coronavirusmedia/icon)

Much is unknown about how the virus that causes COVID-19 spreads. We believe it spreads mostly from person to person through respiratory droplets produced when someone who is sick coughs or sneezes.

You can help prevent the spread of respiratory illnesses like COVID-19 by following simple daily precautions.

Learn how to protect yourself from COVID-19: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>

Twitter Sample Message

Take simple daily precautions to help prevent the spread of respiratory illnesses like #COVID19. Learn how to protect yourself from COVID-19: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>

Contact Tracing

Facebook Sample Message

If you have been in close contact with a person who has COVID-19, a public health worker may call to let you know you've been exposed and ask you to stay at home and self-quarantine. Doing so keeps you, your family, and your community safe. Be part of the solution and help slow the spread of COVID-19. <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/contact-tracing.html>

Twitter Sample Message

If you are sick with #COVID19, a public health worker may contact you to check on your health, discuss who you've been in contact with, and ask you to stay at home and self-isolate, if you're not doing so already. Answer the call to #SlowTheSpread. <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/contact-tracing.html>

Instagram Sample Message

Heard about contact tracing, but not sure what it is? During the pandemic, public health workers follow up with and interview people who have COVID-19 and their contacts. Contact tracing slows the spread of COVID-19. If you have been in close contact with a person who has COVID-19, a public health worker may call to let you know you've been exposed and ask you to stay at home and self-quarantine. Doing so keeps you, your family, and your community safe. <https://www.cdc.gov/coronavirus/2019-ncov/faq.html#Contact-Tracing>. #PublicHealth #COVID19 #ContactTracing #SlowTheSpread #quarantine

For additional resources, visit CDC's Interim COVID-19 Contact Tracing Communications Toolkit for Health Departments webpage.

Surgeon General Jerome Adams shares an important message for Americans this summer: To slow the spread of coronavirus, each of us must continue to take personal responsibility to protect ourselves and our loved ones. By doing just a few simple things, we can make a big difference.

Pets & COVID-19 Guidance

Facebook Sample Message

Treat your pets the same way you would treat other family members to prevent the spread of COVID-19: keep your pets away from sick people and people outside your household. Read more about pets and COVID-19: <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/pets.html>

Instagram Sample Message

Treat your pets the same way you would treat other family members to prevent the spread of #COVID19: keep your pets away from sick people and people outside your household. Read more about pets and COVID-19: <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/pets.html>

Twitter Sample Message

Treat your pets the same way you would treat other family members to prevent the spread of #COVID19: keep your pets away from sick people and people outside your household. Read more about pets and COVID-19: <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/pets.html>

Top of Page

Last Updated Aug. 17, 2020

<https://www.cdc.gov/coronavirus/2019-ncov/communication/social-media-toolkit.html>

United States

COVID-19 Published Science and Research

Source: CDC

Updated Aug. 17, 2020

CDC is responding to the COVID-19 pandemic by learning more about how the disease spreads and affects people and communities. CDC's *Morbidity and Mortality Weekly Report* publishes the results of COVID-19 outbreak investigations. CDC's scientific journal *Emerging Infectious Diseases* has published dozens of studies by researchers studying COVID-19 since the pandemic began.

Featured Articles

- [Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic — United States, June 24–30, 2020. *MMWR*](#)
- [Serious Adverse Health Events, Including Death, Associated with Ingesting Alcohol-Based Hand Sanitizers Containing Methanol — Arizona and New Mexico, May–June 2020. *MMWR*](#)
- [COVID-19–Associated Multisystem Inflammatory Syndrome in Children — United States, March–July 2020. *MMWR*](#)
- [Hospitalization Rates and Characteristics of Children Aged <18 Years Hospitalized with Laboratory-Confirmed COVID-19 — COVID-NET, 14 States, March 1–July 25, 2020. *MMWR*](#)

Publications from CDC



[The latest COVID-19 reports from *Morbidity and Mortality Week Report*](#)

**EMERGING
INFECTIOUS DISEASES**

[“Coronavirus Spotlight”: COVID-19 journal articles from *Emerging Infectious Diseases*](#)



[The collection from *Preventing Chronic Disease*: US Public Health Response to COVID-19 and Chronic Disease](#)

[CDC Stacks](#)

[Search for COVID-19 publications in CDC's free digital archive of scientific research and literature.](#)

Publications From Other Organizations

JAMA (Journal of the American Medical Association)

Browse the JAMA Network COVID-19 collection, including Q&A's with NIAID's Anthony Fauci, an interactive map of the outbreak, and past publications on vaccine development, infection control, and public health preparedness.

[JAMA Network COVID-19 Collection](#)[external icon](#)

Last Updated Aug. 17, 2020

<https://www.cdc.gov/coronavirus/2019-ncov/more/science-and-research.html>

United States

FDA Expands List Of Unsafe Hand Sanitizers That Won't Protect Against COVID-19

Source: KPIX-TV5

Published: 2020-08-18 13:16 UTC

Received: 2020-08-18 15:59 UTC (+2 hours 43 minutes)

Unique ID: 1007656633

WASHINGTON (CBS News) — For months, the Food and Drug Administration has been urging U.S. consumers to avoid a growing list of hand sanitizers that may contain toxic substances. Now the agency is warning of another problem: Some brands may not be strong enough to kill the coronavirus.

To work, sanitizers must have a sufficient amount of at least one of two kinds of alcohol. They have to have be at least 60% ethanol or 70% isopropanol, according to the Centers for Disease Control and Prevention.

Those levels are also safe on human skin.

According to the FDA, the following sanitizer products are “sub-potent,” meaning they lack enough of the active ingredients that protect people from infection:

Alcohol Antiseptic 62% Hand Sanitizer (Quimica Magna de Mexico)
Bernal (Quimica Magna)
Datsen (Quimica Magna)
Derma70 Hand Sanitizer (Asiaticon)
Clean Humans (DEPQ Internacional)
CleanCare NoGerm (Precision Analitica Integral)
Dgreen (DEPQ Internaciona)
Hand Sanitizer (DEPQ Internacional)
HF&N (Healthy Food and Nutrition Lab)
Medically Minded (Asiaticon)
NeoNatural (Limpo Quimicos)
OZO (Estrategia Hospitalaria)
Protz Real Protection Antibacterial (Asiaticon)
UltraCruz (Santa Cruz Biotechnology, Texas)
V-KLEAN (Asiaticon)

Yakana (Grupo Yakana)

Worse, some of those sanitizers also contain methanol, which is used to make fuel and is dangerous when absorbed through the skin, inhaled or ingested.

The lack of potency is one of the reasons the FDA's list of sanitizers that people should avoid expanded this week to about 100 brands and nearly 150 varieties. The list includes sanitizers made without enough ethanol, isopropanol or another active ingredient to be effective, consumer advocacy group U.S. PIRG noted.

Most recently, the federal agency on Wednesday alerted consumers to four types of sanitizer made by Mexico's Harmonic Nature after finding it contained 1-propanol, a toxin that can damage the nervous system and even cause death if absorbed through the skin, consumed or come into contact with a person's eyes.

The FDA in mid-June issued public health alerts about hand sanitizers contaminated with methanol, after a rash of illnesses and four deaths in the U.S. were believed to be connected to toxic hand sanitizers.

While most of the problematic brands were made in Mexico, additions to the FDA's list this week included Leafree Instant Hand Sanitizer from China, with the product labeled "edible alcohol." The agency also flagged some sanitizers made in North Carolina, Ohio, Texas and Utah. On Saturday, SG24 of Bolingbroke, Georgia, recalled SkinGuard24 – All Day Hand Sanitizer products because they are labeled as containing methanol.

Sold nationwide in plastic bottles, pens or individually wrapped towelettes, the recall involves the following products, including UPC and SKU codes:

SkinGuard24 – All Day Hand Sanitizer Plastic bottle with Foam Pump 8 oz (250 mL) 7 93573 147125, 051230024

SkinGuard24 – All Day Hand Sanitizer Plastic bottle with Foam Pump 2.67 oz (70 ml) 7 93573 147103, 051220024

SkinGuard24 – All Day Hand Sanitizer Spray Pocket Pen 10 mL 7 93573 14709, 051210048

SkinGuard24 – All Day Hand Sanitizer Individual Towelette packaged as Single Use 2.5 x 3.75 03150025

While public health experts say hand sanitizer is generally an adequate substitute for hand-washing to protect against COVID-19, the growing use of disinfectant products has led to a spike in accidental poisoning, especially among children.

Through the third week of July, there had been a 59% spike in calls — more than 18,000 cases — to one of the 55 poison control centers around the U.S. due to various incidents involving hand sanitizer, compared to the same period last year, according to data from the National Poison Data System. Nearly 12,000 of those cases involved kids ages 5 and younger.

The FDA advises against using the following hand sanitizers because they might be toxic:

Alcohol Antiseptic 75% Topical (Harmonic Nature)

Alcohol Antiseptic 80% topical (Botanicals Internacional)

All-Clean Hand Sanitizer (EskBiochem)

All Clear Hand Sanitizer (Botanicals Internacional)

Always Be Clean (Open Book Extracts, North Carolina)

AMX Instant Hand Sanitizer (Noticias Mexico Hoy Grupo Multimedia)

Andy's (Limpo Quimicos)

Andy's Best (Limpo Quimicos)

Antiseptic Alcohol 70% Topical Solution hand sanitizer (Soluciones Cosmeticas)

Anti-Bac Hand Sanitizer (Real Clean Distribuciones)

Assured (4E Global)

Assured (Albek de Mexico)

Be Safe (Tropicocosmeticos)

Bersih (Soluciones Cosmeticas)

Bio AAA Advance (AAA Cosmetica)
Blumen (4E Global SAPI de CV)
Born Basic (Real Clean Distribuciones)
Britz (Tropicocosmeticos)
BV BYE Virus (Plastico Las Palmas)
Cavalry (Real Clean Distribuciones)
CleanCare NoGerm (Eskbiochem)
Cleaner Hand (Tropicocosmeticos)
Command Gel (Roque Plast)
DAESI hand sanitizer (Yara Elena De La Garza Perez Nieto)
Earths Amenities (DDI Multinacional)
Enliven (Real Clean Distribuciones)
Esk Biochem (Eskbiochem)
Foamy iQ (Spartan Chemical)
GelBac (Incredible Products)
Good Gel (Eskbiochem)
Greenfrog (Notarika)
Greenfrog Sanitizing Wipes (Notarika)
Hand Sanitizer (Grupo Insoma)
Hand Sanitizer (Grupo Plast Y Kosas)
Hand Sanitizer (Incredible Products)
Hand Sanitizer (MXL Comercial)
Hand Sanitizer (Real Clean)
Hand Sanitizer (Soluciones Cosmeticas)
Hand Sanitizer Agavespa Skincare (DDI Multinacional)
Hand Sanitizer Disinfectant Gel (Resource Recovery & Trading)
Handzer (Tropicocosmeticos)
Hello Kitty (4E Global)
Herbacil (Broncolin)
Honeykeeper (4E Global)
In Good Hands (Plastico Las Palmas)
Inatek (Botanicals Internacional)
Incredible Products (Pacific Coast)
Jalisco (Grupo Plast)
Jaloma (Laboratorios Jaloma)
Just Hand Sanitizer Single-Use Packs (Open Book Extracts, North Carolina)
Klar and Danver (4E Global)
Kleanz (Tropicocosmeticos)
Lavar (Eskbiochem)
Leafree (Yangzhou Olande Cosmetic)
Leiper's (Leiper's Fork Distillery, Tennessee)
Lite'n Foamy by Roque Plast (Spartan Chemical Co Inc., Ohio)
LumiSkin (AAA Cosmetica)
Lux Eoi (Real Clean Distribuciones)
M Hand Sanitizer (Grupo Plast)
Medical Mary Clean (Noticias Mexico Hoy Grupo)
Modesa (Albek de Mexico)
Mystic Shield Protection (Mystic International)
NEXT (Albek de Mexico)
NuuxSan (Albek de Mexico)
O.K. Pharmacy (Grupo Plast)
Optimus (Liqesa Exportacion)
OZO (Ismar Soluciones Dinámicas)
Parabola (Tropicocosmeticos)
Plus Advanced (Limpo Quimicos)
Purity (Soluciones Cosmeticas)

QualitaMed (AAA Cosmetica)
ResQue 1st (Botanicals Internacional)
Saniderm (Eskbiochem)
Sayab (JG Atlas Comercios)
Scent Theory – Keep It Clean (Real Clean Distribuciones)
Selecto (Maquiladora Miniara)
70% Alcohol Gel Hand Sanitizer (Botanicals Internacional)
Shine and Clean Hand Sanitizer (Maquiladora Miniara)
SkinGuard24 All-Day (SG24 LLC, Georgia)
Total Pure (Botanicals Internacional)
TriCleans (Tritanium Labs USA LLC, Illinois)
TriCleans (Incredible Products)
Urbane Bath and Body (Tropicocosmeticos)
Vidanos Easy Cleaning (DDI Multinacional)
Volu-Sol (Volu-Sol, Inc., Utah)
Wave (Tropicocosmeticos)

© 2020 CBS Interactive Inc.. All Rights Reserved.

<https://sanfrancisco.cbslocal.com/2020/08/17/fda-expands-list-of-unsafe-hand-sanitizers-that-wont-protect-against-covid-19/>

United States

U.S. border officials say they're seeing an increase in seizures of fake COVID-19 meds

Source: CTVNews.ca - Health

ID: 1007659160

Published Tuesday, August 18, 2020 7:45AM PDT

(Brian Goodman / Shutterstock.com)

SHARE

VANCOUVER -- Officials south of the border say they've seized eight shipments so far of unauthorized COVID-19 treatments.

U.S. Customs and Border Protection says the seizures have all been made at the Port of Seattle since the start of last month.

The shipments are unauthorized flu treatments, USCBP said in a statement Monday, but the medication is being marketed as effective against COVID-19.

They say 2,376 pills have been seized. Shipments have been both express consignment and through passengers at the airport.

And border officials say the seizures are increasing in Seattle.

"The concern with these products is false claims by the manufacturer, leading for the potential for individuals to not seek medical treatment when needed or, even more worrisome, that the non-authorized and non-tested medicine could contain ingredients that make the product harmful to the user."

Seattle area port director Clay Thomas said CBP works every day to keep consumers safe from misleading medical claims.

"In the midst of the pandemic, it pains me to see companies willing to sell modern day, placebo-effect remedies, just to make some extra money at the expense of the American people," Thomas said.

<https://bc.ctvnews.ca/u-s-border-officials-say-they-re-seeing-an-increase-in-seizures-of-fake-covid-19-meds-1.5068812>

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

Brazil

Brazil greenlights human trials for J&J's potential COVID-19 vaccine

Source : National Post

Published: 2020-08-18 14:56 UTC

Received: 2020-08-18 14:57 UTC (+1 minutes)

Unique ID: 1007656218

BRASILIA — Brazil approved on Tuesday human clinical trials for a potential COVID-19 vaccine developed by Johnson & Johnson, the fourth candidate to trial in the Latin American country that has become key to the global race for a vaccine.

Health regulator Anvisa said it had given the green light to the study which will see 6,000 people in Brazil volunteer to trial the vaccine contender of Johnson & Johnson's pharmaceutical subsidiary Janssen.

With the world's biggest coronavirus outbreak outside the United States, Brazil has become a hub for mass clinical trials of potential vaccines.

Brazilian officials have vowed to start producing British and Chinese vaccines within a year, but experts warn it may take at least twice as long.

Brazil had registered 3.4 million cases of the disease caused by the novel coronavirus and more than 108,000 related deaths as of Monday.

Latin America's largest country has already approved phase 3 human trials of potential vaccines developed by AstraZeneca in partnership with the University of Oxford, China's Sinovac Biotech and Pfizer in partnership with BioNTech.

China's Sinopharm also aims to carry out trials for a possible vaccine in Brazil in a deal with the southern state of Parana pending regulatory approval.

Parana has signed a memorandum of understanding with Moscow and expects to produce a Russian vaccine, which controversially became the world's first registered coronavirus vaccine. (Reporting by Ricardo Brito; writing by Jake Spring and Stephen Eisenhammer; Editing by Alex Richardson, Jason Neely and Paul Simao)

<https://nationalpost.com/pmnh/health-pmn/brazil-greenlights-human-trials-for-jjs-potential-covid-19-vaccine>

China

Coronavirus China: £100 vaccine may be on sale by December

Source: Daily Mail

Unique ID: 1007657224

A Chinese Covid-19 vaccine contender may be on the market by December and cost just £100 for two doses.

State-owned pharmaceutical company Sinopharm claims the jab could be ready by Christmas, once final stage trials are over.

Officials feared the vaccine might not be ready until at least next year because a lack of new infections in China made it difficult to test it.

PLAY Top Articles by Daily Mail Husband, 61, throws his wife in Utah river after fight over dinner

About Connatix V46383 Read More Read More Read More Read More Read More SPONSORED /

Coming Next

Skip Ad

But alternative trial sites abroad have since been set up, with the third and final part of the tests planning to recruit 15,000 volunteers in the United Arab Emirates.

Manufacturers will be able to make 220million doses of the jab a year, a Sinopharm chief said.

But initial trials have shown people may need two or even three shots each for it to be effective.

The population of China alone is 1.4billion, suggesting British and American officials may struggle to get access to the vaccine if it is proven to work.

The experimental jab has shown to trigger antibodies in volunteers from the first and second stages of experiments. It has also been found to be safe.

But although the findings were promising, they do not yet prove the jab can prevent a person catching the virus in the first place.

The company has the ability to make doses for 110million people. But the population of China alone is 1.4billion, therefore it is unclear if it would be available to any other countries in the near future. Pictured: A staff member of the China National Pharmaceutical Group testing samples of the virus on April 11

China has been competing with US, British and German companies to be the first with a proven Covid-19 vaccine to help end the pandemic.

At least eight vaccine candidates made in China are currently being tested. All are in different stages of clinical trials.

The candidate from China's government-run company Sinopharm is 'inactivated' - it is made by growing the whole virus in a lab and then killing it.

Inactivated vaccines are well known and have been used against diseases such as influenza, measles and rabies.

But they usually don't provide immunity that's as strong as live vaccines, so several doses over time may be necessary.

The vaccine was developed alongside experts at the Wuhan Institute of Biological Products and the Beijing Institute of Biological Products.

HAS THE SINOPHARM VACCINE BEEN PROVEN TO WORK?

Sinopharm's experimental jab has been shown to trigger antibodies in volunteers.

Although the findings are promising, they do not prove the jab can prevent a person catching the virus.

Results of the most recent trial were published on August 13 in the Journal of the American Medical Association (JAMA) and led by Shengli Xia, of the Henan Center for Disease Control and Prevention.

Ninety-six healthy adults from China aged between 18 and 59 years old were assigned to one of the three dose groups (2.5, 5, and 10 µg/dose), or a control group for a placebo jab.

They were given three shots in total, on days 0, 28, and 56.

After seven days, adverse reactions occurred in 20.8 per cent, 16.7 per cent, and 25 per cent of patients in the low-dose, medium-dose, and high-dose groups, respectively.

In the second trial, 224 healthy adults were randomly divided into two groups in which they received a jab on either day zero and 14, or day zero and 21. Some received a medium dose of the real vaccine candidate, while the others were given a placebo.

No more than one fifth of participants in the phase two trial had side effects.

Overall, 15 per cent of participants reported side effects within seven days of the injection, which is 'lower compared with results of other candidate vaccines', the researchers said.

The most common side effect was injection site pain. No serious adverse reactions were noted by the researchers.

When looking at the immune response to the vaccine, the trial found 'the inactivated vaccine may effectively induce antibody production' based on antibody levels increasing.

The results in both phases indicated that a longer interval (21 to 28 days) between the first and second injections produced higher antibody responses compared with a shorter interval schedule (14-day group).

Antibodies started to increase after a second injection and further increased after the third injection in the phase 1 trial, suggesting the need for a booster injection, the paper said.

No new Covid-19 cases were reported and no participant developed any symptoms of SARS-CoV-2 infection during the trial.

But it's not clear if people were protected by the jab or if they had just not been exposed to the coronavirus. And the researchers did not look at how long antibodies lasted in the long-term.

Advertisement

Chairman of Sinopharm Group Liu Jingzhen made the promising claims that the company's jab will be available on the market in December, after the third stage of clinical trials is over.

'After the third stage of international clinical trials ends, we can register the inactivated vaccine,' he said according to the Guangming Ribao newspaper.

'According to our estimations, by the end of the year, it may appear on the market.

'I have personally received two shots of the vaccine, there were no side effects.

'After the inactivated vaccine enters the market, its price will not be too high, it will be around several hundred yuan. Two shots will cost about 1,000 yuan (about \$144/£100).'

It is likely that two shots of the vaccine will eventually be recommended because one only gives '97 per cent protection', he said.

Mr Jingzhen added: 'If you do two shots, the probability of protection may reach 100 per cent.'

'The interval between the first and the second shot usually lasts 28 days. In some exceptional cases, two injections can be done at once in the left and right arm. Four micrograms of the vaccine are injected each time.'

Mr Jingzhen said the Beijing Institute of Biological Products can produce up to 120million inactivated vaccines a year, and the Wuhan Institute of Biological Products can produce an additional 100million.

Considering two doses could be needed, it suggests just a fraction of China's population alone would be able to be vaccinated.

Mr Jingzhen did not comment on whether the potentially life-saving jab will be available to other countries. He said it would not be necessary to vaccinate the entire population of China. However, working people living in densely populated areas of the country must receive the vaccine, he added.

'This highlights the long-standing world shortage of capacity for vaccine production,' said Keith Neal, an emeritus professor of the epidemiology of infectious diseases, University of Nottingham.

'Even at \$140 this is not affordable for many people across the world who need it. It is much higher than the price estimated for other vaccines.'

Professor Neal also said: 'Without seeing published reviewed papers, it is difficult to comment on the vaccine.'

The first two stages of clinical trials claimed Sinopharm's candidate was safe and triggered antibody-based immune responses.

The shot did not cause any serious side effects, according to a paper published on August 13 in the Journal of the American Medical Association (JAMA).

The results were based on data from 320 healthy adults.

Scientists reported that it remained unknown if that was sufficient to prevent Covid-19 infection, researchers developing the vaccine said in the paper.

The company previously said in an online post that 30 employees, including top executives, helped 'pre-test' its vaccine in March, before it was approved for its initial human study.

Scientists vehemently debate such self-experimentation, because what happens to one or a few people outside a well-designed study is not usable evidence of safety or effectiveness.

It is speculated that Dr Gao Fu, the head of the Chinese Center for Disease Control and Prevention, has been injected with the experimental vaccine from Sinopharm.

He said in July: 'I'm going to reveal something undercover: I am injected with one of the vaccines. I hope it will work.'

He did not reveal which candidate he had received of the several speeding ahead in China.

The candidate moved into a late-stage trial in June - one of a handful of candidates being tested on several thousand people to see if they are effective enough to win regulatory approval.

Sinopharm is testing the potential vaccine in the UAE on 15,000 people, initially in Abu Dhabi because China is recording fewer than 100 cases a day.

The United Arab Emirates was chosen because around 200 different nationalities reside there so it can be trialled in a range of people, officials said. It is recording around 300 cases a day.

The trial will test two vaccines against a placebo. Volunteers - all aged between 18 and 60 - will be given two doses three weeks apart and will be followed for a year.

The state-owned company will also supply the candidate to Pakistan as part of a trial agreement, the Wall Street Journal reported.

More than 150 candidate vaccines are being developed and tested around the world, including six that are in phase three trials.

Russia became the first country to grant regulatory approval to a vaccine after less than two months of human testing.

A shot developed by Chinese firm CanSino Biologics has been cleared for use in the military.

WHICH VACCINES HAVE THE UK SECURED DEALS FOR?

1. GlaxoSmithKline and Sanofi Pasteur: 60million doses

The Government revealed on July 29 it had signed a deal with pharmaceutical giants GlaxoSmithKline (GSK) and Sanofi Pasteur

If the vaccine proves successful, the UK could begin to vaccinate priority groups, such as frontline health and social care workers and those at increased risk from coronavirus, as early as the first half of next year, the Department for Business, Energy & Industrial Strategy (BEIS) said.

Human clinical studies of the vaccine will begin in September followed by a phase 3 study in December.

The vaccine is based on the existing technology used to produce Sanofi's seasonal flu vaccine. Genetic material from the surface protein of the SARS-CoV-2 virus is inserted into insect cells - the basis of Sanofi's influenza product - and then injected to provoke an immune response in a human patient.

2. AstraZeneca (manufacturing University of Oxford's): 100million

AstraZeneca, which is working in partnership with Oxford University, is already manufacturing the experimental vaccine after a deal was struck on May 17.

Professor Sarah Gilbert, who is leading the Oxford team, is confident the jab could be ready for the most vulnerable people by the end of the year.

Her comments came after the results from the first phase, published in The Lancet on July 20, showed promise.

The team have genetically engineered a virus to look like the coronavirus - to have the same spike proteins on the outside - but be unable to cause any infection inside a person. This virus, weakened by genetic engineering, is a type of virus called an adenovirus, the same as those which cause common colds, that has been taken from chimpanzees.

3. BioNTech/Pfizer: 30million

US drug giant Pfizer - most famous for making Viagra - and German firm BioNTech were revealed to have secured a deal with the UK Government on July 20.

It reported positive results from the ongoing phase 2/3 clinical trial of one called BNT162b1 on July 1. The company is still running phase 2 trials at the moment.

Pfizer's vaccine is one called an mRNA vaccine, which do not directly inject bits of the virus into the body but send genetic material.

mRNA vaccines programme the body to produce parts of the virus itself by injecting the body with a molecule that tells disease-fighting cells what to build. The immune system then learns how to fight it.

4. Valneva: 60million

The Government has given Valneva — whose vaccine is understood to be in the preclinical stages of development — an undisclosed amount of money to expand its factory in Livingston, Scotland.

While the Government revealed a 60million dose deal on July 20, the company said it had reached agreement in principle with the UK government to provide up to 100million doses.

Valneva's jab is an inactivated whole virus vaccine, meaning it injects a damaged version of the coronavirus itself into the body.

The virus has been destroyed in a way that makes it unable to cause infection, but the body still recognises it as a dangerous intruder and therefore mounts an immune response which it can remember in case of a real Covid-19 infection.

5. Janssen (Johnson & Johnson): 30million

The Government has agreed to buy 30million doses of a vaccine made by Janssen if it works.

Officials have agreed to help the company in its development of the jab by part-funding a global clinical trial. The first in-human trials of Janssen's jab began in mid-July and are being done on adults over the age of 18 in the US and Belgium.

The jab is named Ad26.COVID-2-S, recombinant, and is a type of jab called a viral vector recombinant vaccine. Proteins that appear on the outside of the coronavirus are reproduced in a lab and then injected into the body to stimulate an immune reaction.

The 'Ad' part of the vaccine's name means it works using an adenovirus - a virus best known for causing the common cold - as a vehicle to transport the coronavirus genetics into the body.

6. Novavax: 60million

Britain has ordered 60million doses of a vaccine being developed by the US-based company Novavax. It will help to fund late-stage clinical trials in the UK and also boost plans to manufacture the vaccine in Britain. Novavax's jab, named NVX-CoV2373, showed positive results in early clinical trials.

It produced an immune response in 100 per cent of people who received it, the company said, and was safe and 'generally well-tolerated'.

Novavax's candidate is also a recombinant vaccine and transports the spike proteins found on the outside of the coronavirus into the body in order to provoke the immune system.

7. Imperial College London: Unknown quantity

Imperial College London scientists are working on Britain's second home-grown hope for a jab. The candidate is slightly behind Oxford's vaccine in terms of its progress through clinical trials, but is still a major player.

The UK Government is understood to have agreed to buy the vaccine if it works but details of a deal have not yet been publicised.

Imperial's jab is currently in second-phase human trials after early tests showed it appeared to be safe.

Imperial College London will try to deliver genetic material (RNA) from the coronavirus which programs cells inside the patient's body to recreate the spike proteins. It will transport the RNA inside liquid droplets injected into the bloodstream.

https://www.dailymail.co.uk/news/article-8639795/Chinese-Covid-19-vaccine-contendel-market-December-cost-100.html?ns_mchannel=rss&ito=1490&ns_campaign=1490
http://en.hubei.gov.cn/business/enterprises/201605/t20160510_831724.shtml

Hong Kong

CFS announces test results of poultry meat samples from Brazil

Source: www.info.gov.hk

Published: 2020-08-18 12:53 UTC

Received: 2020-08-18 12:53 UTC (0 minutes)

Unique ID: 1007655559

CFS announces test results of poultry meat samples from Brazil

The Centre for Food Safety (CFS) of the Food and Environmental Hygiene Department (FEHD) today (August 18) said that in view of a notice issued by the Shenzhen Headquarters for Prevention and Control of Pneumonia Epidemic Caused by Novel Coronavirus that a surface sample of chicken wings imported from Brazil tested positive for COVID-19 in Shenzhen, the CFS had taken a total of 40 samples of frozen chicken meat from Brazil at import and wholesale levels for testing of the COVID-19 as a precautionary measure. All samples tested negative for the COVID-19.

A spokesman for the CFS said that upon learning of the incident on August 13, the CFS had immediately contacted the relevant authorities in Shenzhen and Brazil to understand the incident, and followed up with major local importers and retailers. An investigation revealed that the batch of chicken wings concerned has not been on sale in Hong Kong so far. For the sake of prudence, the Centre has also temporarily suspended the import licence application for import of poultry meat into Hong Kong from the plant concerned (registration number: SIF601), while waiting for further case investigation and testing details from the relevant authorities.

The spokesman said that according to the World Health Organization and global food safety authorities, there is no evidence indicating that humans can be infected by the COVID-19 via food. The CFS reminded the public to cook food thoroughly and avoid consuming raw or undercooked animal products, as well as to handle raw and cooked food separately, especially when handling raw meat and offal, so as to avoid cross-contamination of food. Members of the public should also maintain personal, food and environmental hygiene at all times. In particular, the public should observe hand hygiene and avoid touching the eyes, ears, mouth or nose after contacting the surfaces of environment and uncooked food.

The spokesman also reminded food handlers that they should always keep their hands clean and frequently clean and disinfect surfaces, especially food contact surfaces in food premises (such as tableware, kitchenware, insulated bags for takeaways, conveyor belts at cashier desks) and frequent-touch points (such as door handles, handles of shopping trolleys and water taps) to ensure environmental hygiene, while social distancing measures should also be adopted. Food handlers should cease engaging in any food handling work and seek medical advice promptly when suffering or suspected to be suffering from an infectious disease or symptoms of illness.

The CFS will continue to follow up on the incident and take appropriate action in light of the latest development.

Ends/Tuesday, August 18, 2020

Issued at HKT 19:10

NNNN

<https://www.info.gov.hk/gia/general/202008/18/P2020081800683.htm>

China

Shenzhen adds more coronavirus tests for frozen food imports

Source: The Poultry Site

Published: 2020-08-18 15:36 UTC

Received: 2020-08-18 15:36 UTC (0 minutes)

Unique ID: 1007656381

Reuters reports that the city government announced the move on its microblog on 17 August. It has set up a central warehouse where all imported foods must be cleared through customs. While there, the cargoes will undergo further COVID-19 tests before being sold or processed in the city.

The new warehouse, expected to begin operations on 18 August, will sterilise outer packaging and run coronavirus tests on samples of frozen meat and seafood.

Reuters goes on to report that any business storing, selling or processing imported meat and seafood must have a certificate showing it has cleared the warehouse inspections.

The new requirements demonstrate lingering concerns that imported food could introduce the virus to a new environment despite experts at the World Health Organisation saying that the risk of COVID-19 entering the food chain is negligible.

China has also suspended imports from dozens of processing plants that have reported coronavirus cases among workers.

Read more about this story here.

<https://thepoultrysite.com/news/2020/08/shenzhen-adds-more-coronavirus-tests-for-frozen-food-imports>

United Kingdom

Over 70 workers test positive for coronavirus at England dessert factory: report

Source: ECNS

Published: 2020-08-18 12:24 UTC

Received: 2020-08-18 12:24 UTC (0 minutes)

Unique ID: 1007655438

Special: Battle Against Novel Coronavirus

More than 70 people have tested positive for coronavirus at a dessert factory in Nottinghamshire in the East Midlands region of England, local media reported Monday night.

The positive cases were reported at Bakkavor in Newark, which describes itself as "the leading provider of fresh prepared food in the UK," Sky News reported.

The cases were confirmed after 701 workers were tested for the virus.

All 1,600 employees will now receive coronavirus tests at a facility set up on site by the British National Health Service (NHS), according to the report.

<http://www.ecns.cn/news/2020-08-18/detail-ifzzcmwe9699250.shtml>

United Kingdom

Coronavirus: New 90-minute tests for Covid-19 and flu 'hugely beneficial'

Source: BBC News

Published: 2020-08-18 17:11 UTC

Received: 2020-08-18 17:11 UTC (0 minutes)

Unique ID: 1007657212

New 90-minute tests that can detect coronavirus and flu will be rolled out in hospitals and care homes from next week.

The "on-the-spot" swab and DNA tests will help distinguish between Covid-19 and other seasonal illnesses, the government said.

The health secretary said this would be "hugely beneficial" over the winter.

Currently, a third of tests take longer than 24 hours to process.

The announcement comes as the government pushed back a July target to regularly test all care home staff and residents - a key move to identify so-called silent spreaders, those who are infected but do not show symptoms.

This is unlikely to be achieved until September because the number of testing kits has become more limited.

How bad will winter really be?

How can I get a coronavirus test?

What symptoms should I look out for?

The government said almost half a million of the new rapid swab tests, called LamPORE, will be available from next week in adult care settings and laboratories, with millions more due to be rolled out later in the year.

Additionally, thousands of DNA test machines, which have already been used in eight London hospitals and can analyse nose swabs, will be available across NHS hospitals from September.

Around 5,000 machines, supplied by DnaNudge, will provide 5.8 million tests in the coming months, the Department for Health said.

There is currently no publicly available data on the accuracy of the new tests.
But Sir John Bell, Regius Professor of Medicine at Oxford University, who has been advising the government on tests, said they produced the same "sensitivity" as the current lab-based tests.
Good news - but breakthrough will be judged on results
The breakthrough on testing is important for a number of reasons - not just because one has the ability to test for flu and other viruses too.
Firstly, speed. The fact the tests do not have to be sent off to a lab means the processing times are much quicker.
In hospital, most tests - 9 in 10 - are currently turned around in 24 hours.
But those done in the community via regional drive-through centres, using postal kits and mobile units, tend to take longer because they have to be sent away to labs for processing.
Results are only returned in 24 hours in half of cases.
The two tests will also help to increase capacity.
Currently around 300,000 tests a day can be processed, but the aim is to get to 500,000.
But this is all dependent on delivery. The DNA test will not be rolled out until September, while the LamPORE test is ready to go now but is still waiting for approval from regulators - which the government is expecting by the end of the week.
The government has also not published full details on the accuracy of the tests.
The testing system is complex and is reliant on many different factors, including multiple supply chains and having the workforce to carry them out.
If just one thing goes wrong - as the roll-out of the whole care home testing system shows - delivery can fall short of ambition.
"A device this small is effectively a laboratory" - Prof Chris Toumazou, of DnaNudge, explains how the new test works
Health Secretary Matt Hancock described these latest innovations as a "big step forward" and said the government was on target to reach 500,000 tests a day by the end of October.
He said the new technologies could be used in settings such as schools and across the community where "we want to test people who don't have symptoms so we can find out where the virus is".
Mr Hancock added: "The fact these tests can detect flu as well as Covid-19 will be hugely beneficial as we head into winter, so patients can follow the right advice to protect themselves and others."
First Minister Nicola Sturgeon said Scotland would receive a share of the new tests - but its own clinical advisers would look carefully at their accuracy and efficacy before they are made available.
Matt Hancock says test results being delivered more quickly would keep "rates of infection down".
Dame Anne Johnson, professor of infectious disease and epidemiology at University College London, told BBC Radio 4's Today programme the new tests were "great news" but part of a wider system which needed to act rapidly overall. Rapid diagnosis was useful, but the most important thing was for people to self isolate if they felt ill, she said.
Sir Paul Nurse, director of the Francis Crick Institute and a member of Scientists for Labour, said the government needed to "treat the public as adults" in Covid-19 communications.
"We need openness, transparency, scrutiny, and a leadership of people taking responsibility for the decision-making," he said.
The testing news comes as:
Scotland's First Minister Nicola Sturgeon has said she won't hesitate to reintroduce lockdown restrictions if Covid-19 starts to get "out of control"
Owners of restaurants, pubs and hairdressers in Leicester - the first UK city to have a localised lockdown - have spoken of their "relief" at being able to open for the first time since March
A government scheme to encourage people to visit restaurants, cafes and pubs, across the UK has now launched - giving customers of 72,000 establishments 50% off meals bought from Monday to Wednesday in August
Groups of up to 30 people can now meet in Wales and pubs, cafes and restaurants can serve people inside as the lockdown rules were further eased on Monday
There might never be a silver bullet treatment for coronavirus, according to the director general of the World Health Organisation, Dr Tedros Adhanom Ghebreyesus
Coronavirus tests are currently carried out at drive-through or walk-in sites as well as at hospitals for patients and some NHS workers.

Home testing kits can also be delivered to someone's door so that people can test themselves. Swab samples are analysed at a laboratory before the result is passed on to the individual.

Unlike other seasonal illnesses, those infected with Covid-19 are required to self-isolate for 10 days.

SOCIAL DISTANCING: What are the rules now?

SYMPTOMS: What are they and how to guard against them?

LOOK-UP TOOL: How many cases in your area?

Regular testing of care home residents and staff was meant to have started on 6 July but officials said this might not be in place until the end of the first week of September.

A spokeswoman for the Department of Health said: "A combination of factors have meant that a more limited number of testing kits, predominantly used in care homes, are currently available for asymptomatic re-testing and we are working round the clock with providers to restore capacity."

Last month, the government withdrew one brand of home-testing kits used in care homes over safety concerns.

A further nine coronavirus deaths were reported on Monday, taking the total number of people who have died with the virus in the UK to 46,210. The latest government figures also showed there were 938 new confirmed cases.

How many confirmed cases are there in your area?

CARE HOMES: The forgotten frontline?

FORT SALEM: Fancy some escapism? Binge-watch the new series

Have you been tested for coronavirus? Share your experiences by emailing .

Please include a contact number if you are willing to speak to a BBC journalist.

WhatsApp: +44 7756 165803

Tweet: @BBC_HaveYourSay

Send pictures/video to

Upload your pictures / video here

Please read our terms & conditions and privacy policy

<https://www.bbc.com/news/uk-53632043>

South Korea

Mass coronavirus outbreak looms amid swelling church cluster infection

Source: www.koreatimes.co.kr

Published: 2020-08-18 12:58 UTC

Received: 2020-08-18 12:58 UTC (0 minutes)

Unique ID: 1007655596

Concerns about infections traced to a church in northern Seoul have fanned fears of a massive outbreak, as cases continued to spread across South Korea at an alarming rate Tuesday.

The country reported 246 more new coronavirus cases, raising its total caseload to 15,761, according to the Korea Centers for Disease Control and Prevention. The number of new cases identified in the past five days came close to 1,000.

Among the new infections, those linked to Sarang Jeil Church ballooned to 319 in less than a week since the first case was reported on Aug. 12. With the latest figure, it has emerged as the country's second-biggest cluster infection after the fringe religious sect Shincheonji, in which 5,214 were infected.

But the number, which includes cases identified before noon Monday, is feared to further rise. Of the 2,000, or roughly half of the church's 4,000 members who were screened for the new coronavirus, 16 percent have tested positive.

Authorities suspect the clusterinfection has worsened as some church members were in close contact with each other, such as sleeping and eating at the church, and taking part in a mass Liberation Day rally in central Seoul.

The church's pastor, Jun Kwang-hoon, tested positive after joining the weekend anti-government rally along with thousands of people, where they shouted slogans and sat close to one another.

Chain transmissions have already been reported in five major cities and provinces outside of the greater Seoul area. Infections have also been reported at a call center, nursing home, child care center and Severance Hospital, a major general hospital in Seoul, where members of the church visited or worked.

Authorities have started to take measures to brace against chances of another mass outbreak.

Schools in the greater Seoul area were advised to limit student numbers for four weeks starting Tuesday. Under the plan, kindergartens, elementary and middle schools in Seoul and Gyeonggi Province have to keep the portion of students at in-person classes at one-third of the total or lower, compared with an earlier threshold of two-thirds.

For kindergartens and schools in areas that have been directly affected by the latest infections, classes will run online for the next two weeks.

In addition to tightening precautionary measures at schools, the education ministry said it plans to strengthen such policy at private sector education institutions. For cram schools with 300 or more students, which are currently categorized as high-risk facilities, the ministry plans to suspend their operations if the outbreak shows no signs of letting up two weeks from now. (Yonhap)

http://www.koreatimes.co.kr/www/nation/2020/08/119_294546.html

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

Canada

Researchers probe new target for potential drugs against COVID-19

Source: www.folio.ca

Published: 2020-08-18 12:49 UTC

Unique ID: 1007655534

New research has identified a part of the SARS-CoV-2 coronavirus that can be targeted by drugs that prevent the virus from replicating—a key step for developing new and more effective drug treatments.

“This study looked at a molecular process that the coronavirus uses to control how it makes the viral proteins it needs to replicate itself, called frameshifting,” explained Michael Woodside, professor in the University of Alberta's Department of Physics and co-author on the study.

“Because one of the products of frameshifting is the enzyme that the virus uses to replicate itself, frameshifting is a promising target for potential drugs.”

The researchers compared frameshifting in SARS-CoV-2 to the same process in its close cousin, the coronavirus that caused the SARS outbreak in the early 2000s. Their results show that both the genetics and structure of frameshifting is the same in both viruses.

“This work is important because it tells us that what we've learned about frameshifting in the original SARS virus can also be applied to the new coronavirus, and it shows a proof of principle that small-molecule drugs can knock down frameshifting,” explained Woodside.

“We're planning in future work to see if this compound is also effective at suppressing the replication of the virus—even though its effect is not strong enough to make a good drug, it can teach us about what to look for in something that could make a good drug.”

Collaborators on the research include Jon Dinman, professor in the Department of Cell Biology and Molecular Genetics at University of Maryland College Park, who completed the mutagenesis and cell-based studies of frameshifting, and Lois Pollack at Cornell University, who completed X-ray scattering measurements of the pseudoknot structures.

This research was funded by the Canadian Institutes of Health Research and Alberta Innovates as part of their rapid research response program for addressing COVID-19.

The study, “Structural and Functional Conservation of the Programmed –1 Ribosomal Frameshift Signal of SARS Coronavirus 2 (SARS-CoV-2),” was published in the Journal of Biological Chemistry.

<https://www.jbc.org/content/early/2020/06/22/jbc.AC120.013449.short>

<https://www.folio.ca/researchers-probe-new-target-for-potential-drugs-against-covid-19/>

United States

Vanda's experimental COVID-19 drug shows promise in interim trial data –

Source: Reuters

Published: 2020-08-18 15:47 UTC

Received: 2020-08-18 15:47 UTC (0 minutes)

Unique ID: 1007656518

(Reuters) - COVID-19 patients with pneumonia improved faster when treated with Vanda Pharmaceuticals Inc's experimental therapy than those on placebo, the company said on Tuesday, citing an interim analysis of data from a late-stage study.

Shares of the U.S. drug developer rose over 13% before the opening bell.

While the data from 60 patients showed that a 14-day treatment with the drug, tradipitant, helped speed up clinical improvements by day seven, the company warned a larger patient size was needed to confirm the benefit.

So far, Gilead Sciences Inc's antiviral remdesivir and the generic steroid dexamethasone have been shown to help patients with COVID-19 in rigorous clinical trials.

The U.S. drug developer, which licensed tradipitant from Eli Lilly and Co in 2012, eventually plans to enroll 300 patients in the late-stage trial.

The U.S. Food and Drug Administration (FDA) has imposed a partial clinical hold on tradipitant trials that are longer than 12 weeks, citing the need for additional studies before testing the drug in humans beyond that timeframe. A U.S. court sided with the FDA in January over a legal dispute related to the agency's decision.

The drug is also being tested as a treatment for various conditions including atopic dermatitis and motion sickness. The company says the drug targets a receptor in the body that could be associated with causing lung injury.

Vanda said the drug's properties as an anti-inflammatory agent would complement antiviral drugs for COVID-19, if the results from its analysis were confirmed.

<https://www.reuters.com/article/us-health-coronavirus-vanda-pharms/vandas-experimental-covid-19-drug-shows-promise-in-interim-trial-data-idUSKCN25E1G7>

China

In-hospital cardiac arrest outcomes among patients with COVID-19 pneumonia in Wuhan, China - ScienceDirect

www.sciencedirect.com

Published: 2020-08-18 14:22 UTC

Received: 2020-08-18 14:23 UTC (+1 minutes)

Locations: China, Hubei, Wuhan

Unique ID: 1007656161

Abstract

Objective

To describe the characteristics and outcomes of patients with severe COVID-19 and in-hospital cardiac arrest (IHCA) in Wuhan, China.

Methods

The outcomes of patients with severe COVID-19 pneumonia after IHCA over a 40-day period were retrospectively evaluated. Between January 15 and February 25, 2020, data for all cardiopulmonary resuscitation (CPR) attempts for IHCA that occurred in a tertiary teaching hospital in Wuhan, China were collected according to the Utstein style. The primary outcome was restoration of spontaneous circulation (ROSC), and the secondary outcomes were 30-day survival, and neurological outcome.

Results

Data from 136 patients showed 119 (87.5%) patients had a respiratory cause for their cardiac arrest, and 113 (83.1%) were resuscitated in a general ward. The initial rhythm was asystole in 89.7%, pulseless electrical activity (PEA) in 4.4%, and shockable in 5.9%. Most patients with IHCA were monitored (93.4%) and in most resuscitation (89%) was initiated <1 min. The average length of hospital stay was 7 days and the time from illness onset to hospital admission was 10 days. The most frequent comorbidity was hypertension (30.2%), and the most frequent symptom was shortness of breath (75%). Of the patients receiving CPR, ROSC was achieved in 18 (13.2%) patients, 4 (2.9%) patients survived for at least 30 days, and one patient achieved a favourable neurological outcome at 30 days. Cardiac arrest location and initial rhythm were associated with better outcomes.

Conclusion

Survival of patients with severe COVID-19 pneumonia who had an in-hospital cardiac arrest was poor in Wuhan.

https://www.sciencedirect.com/science/article/pii/S0300957220301428?utm_campaign=MCRED_HMS_TW_EmergencyMed&sf236670397=1

Australia

Dry air increases COVID risk: Another reason to wear a mask

medicalxpress.com

Published: 2020-08-18 12:51 UTC

Received: 2020-08-18 12:51 UTC (0 minutes)

Locations: Australia, China, City of Sydney, New South Wales, Shanghai, Shanghai, Sydney

Unique ID: 1007655547

A study published in June focused on the Greater Sydney area during the early epidemic stage of COVID-19 found an association between lower humidity and an increase in community transmission.

Now a second study published in August by the same team confirms the risk.

The study is published today in *Transboundary and Emerging Diseases*.

The research led by Professor Michael Ward, an epidemiologist in the Sydney School of Veterinary Science at the University of Sydney, and two researchers from our partner institution Fudan University School of Public Health in Shanghai, China, is the second peer-reviewed study of a relationship between weather conditions and COVID-19 in Australia.

"This second study adds to a growing body of evidence that humidity is a key factor in the spread of COVID-19," Professor Ward said.

Lower humidity can be defined as "drier air." The study estimated that for a 1 percent decrease in relative humidity, COVID-19 cases might increase by 7-8 percent.

The estimate is about a 2-fold increase in COVID-19 notifications for a 10 percent drop in relative humidity.

"Dry air appears to favor the spread of COVID-19, meaning time and place become important," he said.

"Accumulating evidence shows that climate is a factor in COVID-19 spread, raising the prospect of seasonal disease outbreaks."

Why humidity matters

Professor Ward said there are biological reasons why humidity matters in transmission of airborne viruses. "When the humidity is lower, the air is drier and it makes the aerosols smaller," he said, adding that aerosols are smaller than droplets. "When you sneeze and cough those smaller infectious aerosols can stay suspended in the air for longer. That increases the exposure for other people. When the air is humid and the aerosols are larger and heavier, they fall and hit surfaces quicker. This suggests the need for people to wear a mask, both to prevent infectious aerosols escaping into the air in the case of an infectious individual, and exposure to infectious aerosols in the case of an uninfected individual."

Key findings:

Additional evidence from the Sydney COVID-19 epidemic has confirmed cases to be associated with humidity

Reduced humidity was found in several different regions of Sydney to be consistently linked to increased cases

The same link was not found for other weather factors—rainfall, temperature or wind

Climatic conditions conducive to the spread of COVID-19 present a challenge to public health.

Further studies on humidity for the remainder of the year are needed to determine how the humidity relationship works and the extent to which it drives COVID-19 case notification rates.

More information: Michael P. Ward et al. Humidity is a consistent climatic factor contributing to SARS-CoV-2 transmission, *Transboundary and Emerging Diseases* (2020). DOI: 10.1111/tbed.13766

<https://onlinelibrary.wiley.com/doi/full/10.1111/tbed.13766>

Provided by University of Sydney

<https://medicalxpress.com/news/2020-08-air-covid-mask.html>

United Kingdom

COVID-19 has major impact on psycho-social care of cancer patients

Source: medicalxpress.com

Published: 2020-08-18 13:08 UTC

Received: 2020-08-18 13:08 UTC (0 minutes)

Unique ID: 1007655669

Psychosocial needs of people affected by cancer are not being adequately met due to the disruption in services caused by COVID-19, a new report in the journal *Psycho-Oncology* reports.

During this unique study, researchers from six universities, as part of their work on the British Psychosocial Oncology Society Executive Committee, investigated how psychosocial support for those affected by cancer was impacted during the current COVID-19 pandemic.

Surveying 94 professionals working in the field of psychosocial oncology in the UK, the researchers identified a number of concerns regarding suspension of face-to-face delivery of care to those affected by the disease. Care is now being delivered remotely by staff at home or in some regions has been suspended entirely.

Those surveyed reported a decline in the number of patients referred to psychosocial services and expressed concern about the impact delays in accessing care would have on patients. The use of telephone/video calls to complete assessments with this group of patients was also found to be more difficult, particularly if there was no existing relationship between the two, making it harder to form a therapeutic alliance.

Dr. Kate Absolom, University Academic Fellow in the School of Medicine at the University of Leeds and chair of the British Psychosocial Oncology Society, supervised the research. She said: "The results from our survey clearly demonstrate the major upheaval COVID-19 has caused. There are significant ongoing concerns about funding and how services and research activity will be maintained in coming months and years. It's vital we monitor how the situation develops and work collaboratively other cancer organizations to mitigate challenges and continue developing psycho-oncology activity in the UK."

The research identified that a lack of face-to-face monitoring and social isolation has led to heightened feelings of anxiety and distress amongst some cancer communities, increasing the need for psychological support. Due to this increased demand and the temporary suspension of services delivering psychosocial support, advice and care, the needs of patients may not be met.

The benefits of delivering care remotely to patients was highlighted by some respondents. Many noted that they were now able to assist patients who were previously unable to travel to them due to distance and illness and many welcomed the flexibility working from home offered to staff.

Dr. Jo Armes, Reader in Cancer Care and Lead for Digital Health at the University of Surrey and one of the study's authors, said: "Receiving a cancer diagnosis or living with cancer can be both physically and mentally devastating to a patient and their families. Feelings of depression and anxiety are common which negatively impacts their overall wellbeing. Moving psychosocial support to remote delivery, and in some cases suspending it all together, has proven to be difficult for staff to deliver and has resulted in the needs of patients affected by cancer not being met. Due to the current pandemic this has unfortunately been unavoidable but it is important that we learn from this experience and see what works well for patients and what doesn't so that plans can be put in place to deal with similar situations in the future."

The research was conducted in collaboration with Dr. Steph Archer (University of Cambridge), Dr. Trish Holch (Leeds Beckett University), Professor Claire Foster and Dr. Lynn Calman (University of Southampton), Dr. Sarah Gelcich (University of Leeds) and Dr. Sara MacLennan (University of Aberdeen). The research, "No turning back: Psycho-oncology in the time of COVID -19: Insights from a survey of UK professionals," has been published in the journal *Psycho-Oncology*.

More information: Stephanie Archer et al. No turning back: Psycho-oncology in the time of COVID-19: Insights from a survey of UK professionals, *Psycho-Oncology* (2020). DOI: 10.1002/pon.5486

<https://onlinelibrary.wiley.com/doi/full/10.1002/pon.5486>

Journal information: Psycho-Oncology

Provided by University of Surrey

<https://medicalxpress.com/news/2020-08-covid-major-impact-psycho-social-cancer.html>

Study

Study claims patients taking Pepcid AC are more likely to survive COVID-19

Source: Outbreak News Today

ID: 1007659849

Coronavirus patients taking Pepcid AC are less likely to die of the infection, a new study claims.

Famotidine, the active ingredient in the common heartburn drug has been the subject of considerable controversy in the US.

The Trump administration offered up \$21 million to a Northwell Health trial using famotidine to treat COVID-19, but the effort fizzle out because the New York hospital system ran out of hospitalized patients to test it in.

PLAY Top Articles by Daily Mail Fewer than half of Americans say they will get a coronavirus vaccine About Connatix V46383 Read More Read More Read More Read More SPONSORED /

Coming Next

Skip Ad

Dr Rick Bright, the whistleblower and ousted Department of Health and Human Services (HHS) official, filed a complaint about the study, claiming the government contract was rushed and was based on thin science.

The Northwell trial did return positive findings - but they were based on just 10 patients.

Now, a Hartford Hospital in Connecticut has found that famotidine might help patients avoid mechanical ventilation and even improve the odds that they survive coronavirus in a larger observational study of 878 patients.

A new study suggests that coronavirus patients taking famotidine, the generic of Pepcid AC, are less likely to need to be intubated or to die of COVID-19 (file/AP)

Only about 10 percent of those patients - 83, to be exact - actually received famotidine, however.

Overall, patients who got famotidine were about 31 percent less likely to need to be intubated.

They also faced a lower risk of dying while hospitalized, by an odds ratio of 0.366.

Two-thirds of the group that got famotidine was only given the drug upon admission to the hospital, while 29 percent had been taking it regularly before they were hospitalized for COVID-19.

It follows an odd pattern observed in the first months of the pandemic.

'Early on, doctors in China noticed that elderly patients with lower socioeconomic status seem to be dying at a lower rate. It was noticed that these patients were taking the less expensive famotidine than the more expensive proton pump inhibitors,' Dr Ira Schmelkin, head of gastroenterology at Baystate Health in Massachusetts told Fox News.

Proton pump inhibitors (PPIs) are similar to Pepcid AC in that they treat heartburn, but they work by a different mechanism.

In fact, a study conducted by Cedars-Sinai Medical Center earlier this year found that people who regularly took PPIs such as Prilosec were at a 2.15 times greater risk of contracting coronavirus.

Researchers there posited that because coronavirus can be found in saliva, which can be swallowed and washed down to the gastrointestinal system, drugs that alter the stomach might change how the virus interacts with the organ.

Specifically, stomach acid can kill pathogens like unwanted bacteria or viruses.

But famotidine is an H2-blocker (as is Zantac). Some scientists have thought the drugs may injure enzymes called viral proteases that are key to coronavirus's ability to copy itself and spread in the body.

Lab experiments have not managed to clearly establish that this is the case.

And that has led other experts, including Dr Bright, to lump drugs like Pepcid AC into a category with hydroxychloroquine: doctors have seen interesting anecdotal links between the drugs and better patient outcomes, but little science to explain them, or clinical evidence to prove they work better than a placebo.

'The evidence used to support the [Northwell Health famotidine] trial is extremely weak,' Dr Steven Nissen, a Cleveland Clinic cardiologist and a frequent adviser to the Food and Drug Administration, told the Associated Press.

'And I've been very critical of this approach to the COVID-19 epidemic, which I've likened to throwing

spaghetti at the wall and seeing what sticks. I consider trials like this one to be largely a waste of time and money.'

Notably, the new Hartford Hospital study was observational, meaning that it looked back at data on a number of patients who happened to be taking or get prescribed famotidine while hospitalized for coronavirus, as opposed to randomly giving half of them the drug and others a placebo, as would happen in a gold-standard clinical trial.

But the researchers there did find symptoms, hospital stays and mortality risks were particularly improved in patients that took the drug and scored high for being at risk for severe COVID-19.

Plus, those taking the drug also had lower levels of blood biomarkers that indicate dangerous levels of inflammation.

Pepcid AC sells for about \$10-\$15, so it's certainly tempting to believe that such a cheap, over-the-counter drug could combat coronavirus, but it's just too soon to say for sure that it can.

https://www.dailymail.co.uk/health/article-8641613/Study-claims-patients-taking-Pepcid-AC-likely-survive-COVID-19.html?ns_mchannel=rss&ns_campaign=1490&ito=1490

Domestic Events of Interest

Nil

International Events of Interest

WHO

WHO calls for widespread flu vaccinations this year

Source: CGTN Africa

Published: 2020-08-18 15:51 UTC

Received: 2020-08-18 15:51 UTC (0 minutes)

Unique ID: 1007656574

The World Health Organization's senior adviser Bruce Aylward on Tuesday called upon the world to ensure widespread anti-flu vaccinations this year to help to ward off the risk of complicating COVID-19 infections, Reuters reports.

Aylward's call came as the world's COVID-19 infections neared the 22 million mark, with a death toll exceeding 774,000.

At a separate briefing, the WHO Director-General Tedros Adhanom called for solidarity in the quest to eradicate the virus.

Tedros likened the fight against the pandemic to an instrumental ensemble which incorporates various talents to produce the best melody.

"Like an orchestra, we need all instruments to be played in harmony to create music that everyone enjoys," he said.

"One or two instruments playing by themselves just won't suffice when the world is waiting and listening intently. We will work to bring the band together, to promote science, solutions and solidarity because we believe to our core that we do it best, when we do it together."

<https://africa.cgtn.com/2020/08/18/who-calls-for-widespread-flu-vaccinations-this-year/>

United States

California confirms first case of plague in 5 years

Source: CBS News

Published: 2020-08-18 12:56 UTC

Received: 2020-08-18 12:57 UTC (+1 minutes)

Unique ID: 1007655582

Health officials have confirmed a case of plague at South Lake Tahoe - the first in California in five years. El Dorado County officials said Monday the California Department of Public Health notified them of the positive test of a local resident who is under medical care while recovering at home.

Plague bacteria are most often transmitted by fleas that have acquired it from infected squirrels, chipmunks and other wild rodents. Dogs and cats may also carry plague-infected fleas.

Health officials believe the South Lake Tahoe resident may have been bitten by an infected flea while walking a dog along the Truckee River corridor or in the Tahoe Keys area on Tahoe's south shore.

Get Breaking News Delivered to Your Inbox

"It's important that individuals take precautions for themselves and their pets when outdoors, especially while walking, hiking and/or camping in areas where wild rodents are present," said El Dorado County Public Health Officer, Dr. Nancy Williams. "Human cases of plague are extremely rare but can be very serious."

The last reported human cases of plague in California were in 2015 when two people were exposed to infected rodents or their fleas in Yosemite National Park. Both were treated and recovered.

No human cases have been reported since, but authorities did find evidence that a total of 20 ground squirrels or chipmunks around South Lake Tahoe had been exposed to the plague bacterium from 2016-19. Those rodents were identified near the Tallac Historic Site, Fallen Leaf Campground or Taylor Creek Visitor Center.

Trending News

Michelle Obama: "Vote for Joe Biden like our lives depend on it"

Michelle Obama closes out DNC first night with emotional speech

COVID-19 symptoms often appear in this order, study finds

Former DHS chief of staff calls Trump's presidency "terrifying"

Death Valley hits highest temperature in U.S. in at least 107 years

Symptoms and prevalence of the plague

Symptoms include fever, nausea, weakness, and swollen lymph nodes and usually show up within two weeks of initial contact with an infected animal. The disease can be treated with antibiotics, but if it's not caught early, can turn deadly.

The disease killed millions of people in Europe in the Middle Ages in a series of outbreaks known as the Black Death. However, now it is very rare, especially in the U.S.

According to the Centers for Disease Control and Prevention, in recent decades, an average of seven human plague cases are reported nationwide each year. Most human cases in the United States are scattered in rural areas in the west, including northern New Mexico, northern Arizona, southern Colorado, California, southern Oregon, and far western Nevada.

<https://www.cbsnews.com/news/plague-confirmed-california-south-lake-tahoe/>

United States

New mosquito that can carry Zika and yellow fever found in Shasta County

Source: www.redding.com

Published: 2020-08-18 14:23 UTC

Received: 2020-08-18 14:25 UTC (+2 minutes)

Unique ID: 1007656163

The first known mosquitoes with the potential to carry such diseases as Zika and yellow fever has been discovered in Shasta County.

The first mosquito was found Friday in a trap north of Lake Boulevard and west of North Market Street, also known as Highway 273, according to the Shasta Mosquito and Vector Control District.

The mosquitoes, known as *Aedes aegypti*, have been found in other areas of California, but the recent finding in Redding marks a first for Shasta County, according to mosquito district manager Peter Bonkrude.

"We plan to do everything we can to eradicate this mosquito to protect our residents from the potential disease risk of these invasive mosquitoes," Bonkrude said in a statement. "Currently, we only have found one female *Aedes aegypti* mosquito and we are trying to determine and limit the extent of the infestation."

Bonkrude said the district already discovered more of the mosquitoes Monday.

"The teams out today have already located some additional adults and immature mosquitoes. The question now (becomes) how widespread, so we've set a perimeter around the initial find and are intensifying surveillance in that area," he said.

Control efforts could include door-to-door surveillance and control, ultra-low volume spraying and live trapping, Bonkrude said.

In addition to zika and yellow fever, the mosquito species also has the potential to carry chikungunya, a disease that has been found in Africa, Asia, Europe and areas surrounding the Indian and Pacific Oceans, according to the Centers for Disease Control and Prevention.

News:REU asks 40,000 customers to conserve energy during heat wave

Chikungunya symptoms include fever and joint pain. Other symptoms may include headache, muscle pain, joint swelling, or rash, according to the CDC.

About one in four people will get sick from dengue fever, the CDC says. The most common symptom of dengue is fever, which could also include nausea, vomiting, rash and aches and pains.

Yellow fever is very rare in the United States and is found in subtropical areas of Africa and South America, according to the CDC.

Symptoms include fever with aches and pains to severe liver disease with bleeding and yellowing skin (jaundice).

Many people infected with Zika virus won't have symptoms or will only have mild symptoms. The most common symptoms of Zika are fever, rash, headache, joint pain, red eyes and muscle pain.

As long as the number of the aegypti mosquitoes remains low, there is very little likelihood the mosquitoes found in Shasta County will carry zika, yellow fever, dengue or chikungunya, Bonkrude said.

The mosquitoes need a host to pick up the disease and carry it, Bonkrude said. Since those diseases are very rare in the U.S., someone getting it from a mosquito locally is unlikely, he said.

Since no one is known locally to carry the disease, transmission would have to come from someone who picked up the disease outside the area, Bonkrude said.

"The concern comes with a permanent expansion of their range and continued opportunities to come in contact with a infected person, the probability starts to go up," he said. "We'll be working with the state and county health departments to monitor returning travelers that may be exposed to these diseases to limit the potential even further."

Mosquito district officials said the public plays a critical role in controlling the spread of this particular mosquito population.

"This species is different than the ones we normally control, they prefer to live around people and breed in small containers associated with homes. Eliminating all standing water regardless of size is essential to effective control," Bonkrude said.

The mosquito district urges people to take the following steps to prevent the spread of the Aedes aegypti mosquito.

Inspect yards for standing water sources and drain water that collects under potted plants, in bird baths, discarded tires, and anywhere else water collects.

Check your rain gutters and lawn drains to make sure they aren't holding water and debris.

Check and clean any new containers that you bring home that may contain water. Aedes aegypti eggs can remain viable under dry conditions for months.

The district also urges residents to use mosquito repellent and dress with long sleeves and pants when mosquitoes are active.

News:'It's just not fair to the women': Redding resident fed up with harassment in town

Damon Arthur is the Record Searchlight's resources and environment reporter. He is among the first on the scene at breaking news incidents, reporting real time on Twitter at @damonarthur_RS. Damon is part of a dedicated team of journalists who investigate wrongdoing and find the unheard voices to tell the stories of the North State. He welcomes story tips at 530-338-8834 and damon.arthur@redding.com. Help local journalism thrive by subscribing today!

<https://www.redding.com/story/news/2020/08/17/new-mosquito-can-carry-zika-and-yellow-fever-found-shasta-county/3382042001/>

Democratic Republic of the Congo (DRC)

Ebola in DRC update: 1 additional case, death

Source: Outbreak News Today

ID: 1007659619

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

WHO states the EVD outbreak continues to rise in case numbers and spread to new geographical areas, although Bikoro, Bolomba and Ibiko health zones have not reported any new confirmed cases for 42 days.

Challenges include, insufficient funds for the response, along with too few people qualified in risk communication and community engagement, particularly in hotspot areas. Community resistance continues, specifically to sampling and general response measures and some travellers refusing screening at health checkpoints, partly because of poor security support and congestion at these points. Further actions are required to limit spread to other areas, along with intense community engagement with community leaders to prevent resistance to response activities and ensure that communities become fully engaged in response activities.

Hantavirus pulmonary syndrome case reported in Taos County, New Mexico

Utah: SARS-CoV-2 confirmed in mink, 1st cases in US

Singapore dengue outbreak tops 25,000

Florida: Dengue fever and West Nile virus updates

Plague in California: 1st human case reported in 5 years

Hydroxychloroquine ineffective as a preventive antiviral against COVID-19: Case Western Reserve University study

Crimean Congo hemorrhagic fever case reported in Senegal

Connecticut reports 1st human West Nile virus case

Rabies kills elephants at Kaziranga National Park according to media account, Anti-Rabies Vaccination drive underway

<http://outbreaknewstoday.com/ebola-in-drc-update-1-additional-case-death-87687/>

Researches, Policies and Guidelines

United States

Airborne viruses can spread on dust, non-respiratory particles

Source: medicalxpress.com

Published: 2020-08-18 13:16 UTC

Received: 2020-08-18 13:17 UTC (+1 minutes)

Unique ID: 1007655735

Influenza viruses can spread through the air on dust, fibers and other microscopic particles, according to new research from the University of California, Davis and the Icahn School of Medicine at Mt. Sinai. The findings, with obvious implications for coronavirus transmission as well as influenza, are published Aug. 18 in Nature Communications.

"It's really shocking to most virologists and epidemiologists that airborne dust, rather than expiratory droplets, can carry influenza virus capable of infecting animals," said Professor William Ristenpart of the UC Davis Department of Chemical Engineering, who helped lead the research. "The implicit assumption is always that airborne transmission occurs because of respiratory droplets emitted by coughing, sneezing, or talking. Transmission via dust opens up whole new areas of investigation and has profound implications for how we interpret laboratory experiments as well as epidemiological investigations of outbreaks."

Fomites and influenza virus

Influenza virus is thought to spread by several different routes, including in droplets exhaled from the respiratory tract or on secondary objects such as door handles or used tissues. These secondary objects are called fomites. Yet little is known about which routes are the most important. The answer may be different for different strains of influenza virus or for other respiratory viruses, including coronaviruses such as SARS-CoV2.

In the new study, UC Davis engineering graduate student Sima Asadi and Ristenpart teamed up with virologists led by Dr. Nicole Bouvier at Mt. Sinai to look at whether tiny, non-respiratory particles they call "aerosolized fomites" could carry influenza virus between guinea pigs.

Using an automated particle sizer to count airborne particles, they found that uninfected guinea pigs give off spikes of up to 1,000 particles per second as they move around the cage. Particles given off by the animals' breathing were at a constant, much lower rate.

Immune guinea pigs with influenza virus painted on their fur could transmit the virus through the air to other, susceptible guinea pigs, showing that the virus did not have to come directly from the respiratory tract to be infectious.

Finally, the researchers tested whether microscopic fibers from an inanimate object could carry infectious viruses. They treated paper facial tissues with influenza virus, let them dry out, then crumpled them in front of the automated particle sizer. Crumpling the tissues released up to 900 particles per second in a size range that could be inhaled, they found. They were also able to infect cells from these particles released from the virus-contaminated paper tissues.

More information: Sima Asadi et al, Influenza A virus is transmissible via aerosolized fomites, Nature Communications (2020). DOI: 10.1038/s41467-020-17888-w

<https://www.nature.com/articles/s41467-020-17888-w>

Journal information: Nature Communications

Provided by UC Davis

<https://medicalxpress.com/news/2020-08-airborne-viruses-non-respiratory-particles.html>

United States

New gene therapy approach eliminates at least 90% latent herpes simplex virus 1

Source: medicalxpress.com

Published: 2020-08-18 13:05 UTC

Received: 2020-08-18 13:05 UTC (0 minutes)

Unique ID: 1007655648

Infectious disease researchers at Fred Hutchinson Cancer Research Center have used a gene editing approach to remove latent herpes simplex virus 1, or HSV-1, also known as oral herpes. In animal models, the findings show at least a 90 percent decrease in the latent virus, enough researchers expect that it will keep the infection from coming back.

The study, published August 18 in Nature Communications, used two sets of genetic scissors to damage the virus's DNA, fine-tuned the delivery vehicle to the infected cells, and targeted the nerve pathways that connect the neck with the face and reach the tissue where the virus lies dormant in individuals with the infection.

"This is the first time that scientists have been able to go in and actually eliminate most of the herpes in a body," said senior author Dr. Keith Jerome, professor in the Vaccine and Infectious Disease Division at Fred Hutch. "We are targeting the root cause of the infection: the infected cells where the virus lies dormant and are the seeds that give rise to repeat infections."

Most research on herpes has focused on suppressing the recurrence of painful symptoms, and Jerome said that his team is taking a completely different approach by focusing on how to cure the disease.

"The big jump here is from doing this in test tubes to doing this in an animal," said Jerome, who also leads the Virology Division at UW Medicine. "I hope this study changes the dialog around herpes research and opens up the idea that we can start thinking about cure, rather than just control of the virus."

Two-thirds of the world population under the age of 50 have HSV-1, according to the World Health Organization. The infection primarily causes cold sores and is lifelong.

In the study, the researchers used two types of genetic scissors to cut the DNA of the herpes virus. They found that when using just one pair of the scissors the virus DNA can be repaired in the infected cell. But by combining two scissors—two sets of gene-cutting proteins called meganucleases that zero in on and cut a segment of herpes DNA—the virus fell apart.

"We use a dual meganuclease that targets two sites on the virus DNA," said first author Martine Aubert, a senior staff scientist at Fred Hutch. "When there are two cuts, the cells seem to say that the virus DNA is too damaged to be repaired and other molecular players come in to remove it from the cell body."

The dual genetic scissors are introduced into the target cells by delivering the gene coding for the gene-cutting proteins with a vector, which is a harmless deactivated virus that can slip into infected cells. The researchers injected the delivery vector into a mouse model of HSV-1 infection, and it finds its way to the target cells after entering the nerve pathways.

The researchers found a 92% reduction in the virus DNA present in the superior cervical ganglia, the nerve tissue where the virus lies dormant. The reductions remained for at least a month after the treatment and is enough the researchers say to keep the virus from reactivating.

The team did other comparisons to fine-tune the gene editing approach:

Gene cuts with meganucleases were more efficient than with CRISPR/Cas9.

Refining the vector delivery mechanism, they found the adeno-associated virus (AAV) vector that was the most efficient at getting the gene edits to cells infected with the virus.

The researchers are pursuing a similar strategy for herpes simplex 2, which causes genital herpes. They expect it to take at least 3 years to move toward clinical trials.

"This is a curative approach for both oral and genital HSV infection," Aubert said. "I see it going into clinical trials in the near future."

More information: Martine Aubert et al, Gene editing and elimination of latent herpes simplex virus in vivo, Nature Communications (2020). DOI: 10.1038/s41467-020-17936-5

<https://www.nature.com/articles/s41467-020-17936-5>

Journal information: Nature Communications

Provided by Fred Hutchinson Cancer Research Center

<https://medicalxpress.com/news/2020-08-gene-therapy-approach-latent-herpes.html>

Australia

Discovery offers new hope for millions at risk from antibiotic-resistant infections

Source: www.news-medical.net

Published: 2020-08-18 13:36 UTC

Received: 2020-08-18 13:36 UTC (0 minutes)

Unique ID: 1007655893

There is new hope for approximately 700,000 people who die each year from antibiotic-resistant infections, with University of Queensland researchers discovering how bacteria share antibiotic-resistance genes.

UQ's Professor Mark Schembri said antibiotic resistant bacteria, in particular emerging 'superbugs', could lead to around 10 million deaths globally by 2050.

"The diminishing pool of effective antibiotics makes these infections a major threat to human health, so it's critical we understand the exact mechanics of how antibiotic resistance spreads between different bacteria," Professor Schembri said.

In this study, we examined plasmids - self-replicating DNA molecules - which are one of the major drivers for the rapid spread of antibiotic resistance genes between bacteria.

Many plasmids carry 10 to 15 antibiotic resistance-causing genes, and when they transfer from one bacterial cell to another, two important things happen.

Firstly, the plasmid is copied so that it is retained by both the donor and recipient cell, and secondly all antibiotic resistance genes are transferred together, meaning that resistance to multiple antibiotics can be transferred and acquired simultaneously."

Mark Schembri, Professor, University of Queensland

Lead author Dr Steven Hancock said the study used a powerful genetic screening system to identify all of the components required for the transfer of an important type of antibiotic resistance plasmid from one bacterial cell to another.

"Our investigation discovered genes encoding the 'syringe' component," Dr Hancock said.

"That is the mechanism through which plasmid DNA is mobilised, as well as a novel controlling element essential for regulation of the transfer process."

The team also investigated the crystal structure of this controlling element, and revealed how it binds to DNA and activates transcription of other genes involved in the transfer.

Professor Schembri said this deeper understanding would open the door to solutions for this ever-growing health crisis.

"Preventing the transfer of plasmids between bacteria has been a major challenge in reducing the spread of antibiotic resistance genes," he said.

"By looking at the molecular mechanics, we can start to develop effective solutions for stopping these genes in their tracks.

"Almost everyone has suffered an infection that did not respond to a first round of antibiotic treatment, only to be fortunate enough to be treated with a different antibiotic that worked.

"Now, in extreme cases, we're seeing common infections caused by superbugs that are resistant to all available antibiotics, highlighting the increasing challenge of antibiotic resistance.

"We need to tackle this now, and I'm excited to see how this new knowledge will lead to novel approaches, potentially saving millions of lives globally."

The research has been published in *Nature Microbiology* (DOI: 10.1038/s41564-020-0775-0).

The multidisciplinary team included researchers from the UQ School of Chemistry and Molecular Biosciences, the UQ Centre for Clinical Research, the UQ Institute for Molecular Bioscience, the University of Melbourne and the University of Oxford.

Source: University of Queensland

Journal reference: Hancock, S.J., et al. (2020) Comprehensive analysis of IncC plasmid conjugation identifies a crucial role for the transcriptional regulator AcaB. *Nature Microbiology*. doi.org/10.1038/s41564-020-0775-0.

<https://www.nature.com/articles/s41564-020-0775-0>

<https://www.news-medical.net/news/20200817/Discovery-offers-new-hope-for-millions-at-risk-from-antibiotic-resistant-infections.aspx>

United States

HHS Releases Healthy People 2030 with National Disease Prevention and Health Promotion Objectives for the Next Decade |

Source: HHS.gov

Published: 2020-08-18 15:48 UTC

Received: 2020-08-18 15:48 UTC (0 minutes)

Unique ID: 1007656542

Today, the U.S. Department of Health and Human Services released Healthy People 2030, the nation's 10-year plan for addressing our most critical public health priorities and challenges. Since 1980, HHS's Office of Disease Prevention and Health Promotion has set measurable objectives and targets to improve the health and well-being of the nation.

This decade, Healthy People 2030 features 355 core – or measurable – objectives with 10-year targets, new objectives related to opioid use disorder and youth e-cigarette use, and resources for adapting Healthy People 2030 to emerging public health threats like COVID-19. For the first time, Healthy People 2030 also sets 10-year targets for objectives related to social determinants of health.

"Healthy People was the first national effort to lay out a set of data-driven priorities for health improvement," said HHS Secretary Alex Azar. "Healthy People 2030 adopts a more focused set of objectives and more rigorous data standards to help the federal government and all of our partners deliver results on these important goals over the next decade."

Healthy People has led the nation with its focus on social determinants of health, and continues to prioritize economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social and community context as factors that influence health. Healthy People 2030 also continues to prioritize health disparities, health equity, and health literacy.

"Now more than ever, we need programs like Healthy People that set a shared vision for a healthier nation, where all people can achieve their full potential for health and well-being across the lifespan," said ADM Brett P. Giroir, MD, Assistant Secretary for Health. "COVID-19 has brought the importance of public health to the forefront of our national dialogue. Achieving Healthy People 2030's vision would help the United States become more resilient to public health threats like COVID-19."

Healthy People 2030 emphasizes collaboration, with objectives and targets that span multiple sectors. A federal advisory committee of 13 external thought leaders and a workgroup of subject matter experts from more than 20 federal agencies contributed to Healthy People 2030, along with public comments received throughout the development process.

The HHS Office of Disease Prevention and Health Promotion leads Healthy People in partnership with the National Center for Health Statistics at the Centers for Disease Control and Prevention, which oversees data in support of the initiative.

HHS Secretary Alex M. Azar II, ADM Brett P. Giroir, MD, Assistant Secretary for Health, and U.S. Surgeon General Jerome M. Adams, MD, MPH, and others from HHS and CDC will launch Healthy People 2030 during a webcast on August 18 at 1 pm (EDT) at <https://www.hhs.gov/live>. No registration is necessary. For more information about Healthy People 2030, visit <https://healthypeople.gov>.

<https://www.hhs.gov/about/news/2020/08/18/hhs-releases-healthy-people-2030-with-national-disease-prevention-and-health-promotion-objectives-for-the-next-decade.html>

Iran

Iranian Scientists Produce Home-Made Cancer Diagnostic Kits

Source: FarsNews Agency

Published: 2020-08-18 13:11 UTC

Received: 2020-08-18 13:11 UTC (0 minutes)

Locations: East Azarbaijan, Iran, TEHRAN, Tehran

Unique ID: 1007655693

TEHRAN (FNA)- Iranian researchers at a knowledge-based company in East Azarbaijan province's Science and Technology Park succeeded in indigenizing and production of mutation detection kits for K-Ras, B-raf and JAK2 genes by Real-Time PCR method.

"Diagnosis of Jak2 gene mutation is used to detect point somatic mutation of V617F in JAK2 gene and to assess risk in patients with polycythemia vera, thrombocytopenia and promyelocytic leukemia, as well as to study responses to specific therapies which target JAK2," Mehdi Haqqi, the founder of the knowledge-based company, told FNA on Tuesday.

He added that the kit has been indigenized and produced by Real-Time PCR method, noting that the price of foreign samples of this kit for 50 tests is over \$3000, and the sample produced by Iranian scientists can be offered at a price of less than a quarter of the foreign models.

Earlier this year, the Iranian researchers had also developed special kits to separate and count the cancer cells in patients' blood.

"In some patients who suffer from cancer, a part of the tissue is taken out for testing and then chemotherapy starts. These CTC kits help the physician to separate and count the cancer cells in the blood of patient before starting chemotherapy," Mehdi Rahimian, one of the researchers, said in June.

He added that after chemotherapy the physician should be assured that treatment has been effective and therefore, the CTC kits are needed again.

The laboratorial sample of the product has been designed and built and is ready to be produced and presented to the market, Rahimian said.

Relevant reports in April also said that Iranian researchers at Sharif University of Technology manufactured a new home-made biosensor based on nanotechnology to diagnose cancer cells.

"We used nanotechnology to produce this biosensor. It can be applied to diagnose different types of cancer," Elaheh Kazzemi Rahmatabadi, one of the researchers, said.

"In this method, we worked on people's cell samples and measured the amount of telomerase enzyme, and the high level of this enzyme indicates cancer," she added.

Iranian materials engineering researchers from Sharif University of Technology had also earlier produced a biosensor for the early diagnosis of cancer.

The sensor was made of nanostructured materials, and has high sensitivity and stability while it can be produced through a cost-effective method.

<https://english.farsnews.ir/newstext.aspx?nn=13990528000279>

China

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

Source: ECNS

Published: 2020-08-18 12:58 UTC

Received: 2020-08-18 12:58 UTC (0 minutes)

Unique ID: 1007655599

A China-developed vaccine that protects pigs from African Swine Fever (ASF) will soon enter the expanded clinical and production trial stage after previous tests proved effective, moving one step closer to providing immunity for pigs against the ASF virus.

Developed by the Harbin Veterinary Research Institute (HVRI) under the Chinese Academy of Agricultural Sciences (CAAS), the ASF vaccine had shown positive results in previous tests on 3,000 pigs and is expected to be expanded to clinical trials, the Ministry of Agriculture and Rural Affairs (MARA) said on Tuesday.

First diagnosed in Kenya in 1921 and now spreading to many countries, ASF is a highly contagious viral disease that infects only pigs. The epidemic was prevalent in China in 2018 and 2019.

The vaccine trials covered about 3,000 pigs from Northeast China's Heilongjiang Province, Central China's Henan Province and Northwest China's Xinjiang Uyghur Autonomous Region, according to Tang Junhua, the head of CAAS.

Tang said the vaccinated pigs are in good condition and have no obvious clinical adverse reactions, and no obvious pathological changes have been seen in the immunized pigs.

When the immunized pigs were challenged with a strong virus in laboratory, the immune protection rate of groups inoculated at different doses was all above 80 percent, Tang said.

In previous tests, piglets and sows were being given the vaccine at 10 times and 100 times the immunization dose, and were then observed for 20 weeks. Results showed that the vaccinated pigs had no clinical abnormal symptoms or pathological damage.

No virus transmissions were found among vaccinated pigs, the sows were in estrus and bred normally, and no miscarriages occurred. Vaccinated pregnant sows also delivered normally, according to the statement by MARA.

With no effective vaccine against the ASF virus available, hog farms and slaughter houses mainly rely on environmental disinfections and carry out hazard-free treatment on possible contaminated goods such as fodder, hog houses and vehicles that transport pigs, experts had said.

The virus mainly spread through contact with ASF-virus infected pigs or ASF-virus contaminants, such as food waste, feed, drinking water, pens, bedding and utensils. The digestive and respiratory tracts are the most common channels of infections, according to MARA.

<http://www.ecns.cn/news/sci-tech/2020-08-18/detail-iffzcmwe9699458.shtml>