

**Information
and
Resources
(updated)**



Covid-19

*As of February 9th,
2021*

**Hi,
This is an e-book I put together with COVID-19
Resources. This is an update to one I published
in December 2020.
I hope this helps. If you have any questions, you
can contact me at
Henrycs@Guilford.edu
Stay Safe,
Savannah Henry**



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COVID-19

First, there are three common words that mean different things when talking about this pandemic

Coronavirus

Coronaviruses are a *type of virus*.

There are many different kinds, and some cause *disease*

COVID-19

COVID-19 is the *disease* caused by the *new coronavirus* that emerged in China in December 2019

SARS-CoV-2

SARS-CoV-2 is the name of the new coronavirus that causes *COVID-19 Disease*

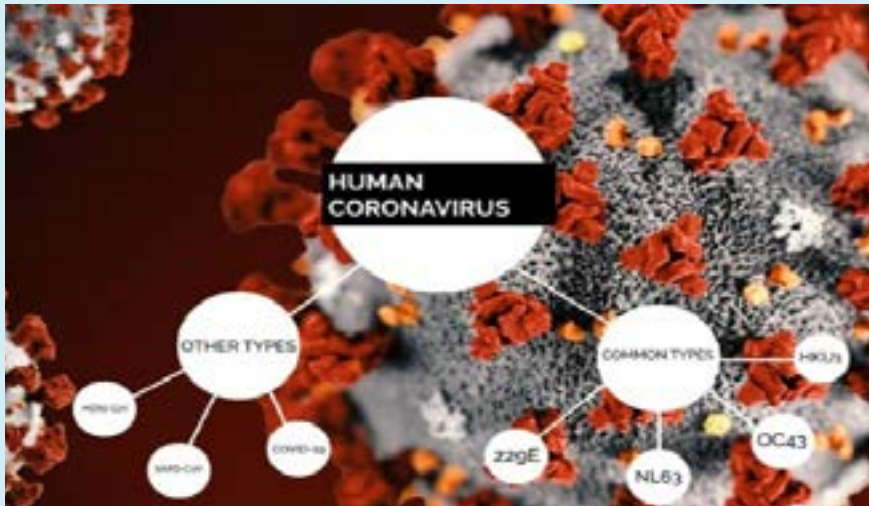


Click here to watch John Hopkin's Mediciene explain what a coronavirus is (the video is only 4:30 minutes long)

I know it sounds kind of confusing, try thinking of it this way:

Coronavirus is the parent, they have kids with different names. One of the kids is named SARS-CoV-2. Each kid does something different, SARS-CoV-2 causes COVID-19 Disease. The COVID-19 Disease that SARS-CoV-2 causes is different than some of the diseases that their siblings cause. COVID-19 Disease is more serious than the cold and flu diseases that SARS-CoV-2's sibling cause even though they are from the same family.

Want to know more about the family?



Coronavirus has some other kids, some of them are more popular at school because they cause common diseases



HCoV-229E and HCoV-OC43 are the most popular at school because they cause the common cold



MERS-CoV and SARS-CoV are like SARS-CoV-2 (COVID-19) and not very popular in school. They have caused serious illness but have not happened often.

SARS-CoV is not what causes COVID-19 disease, but the disease it does cause is very similar so COVID-19 was named after SARS-CoV-2



HCoV-HKU1 is a little less popular because HKU1 can also cause a cold, but it can advance to pneumonia and bronchiolitis which are not as common and more serious than the common cold



NL63 is also a little less popular. It usually causes a mild cough and fever in children. While it has caused serious disease before, it usually doesn't.

NOTE: The Flu is not part of the Corovirus family

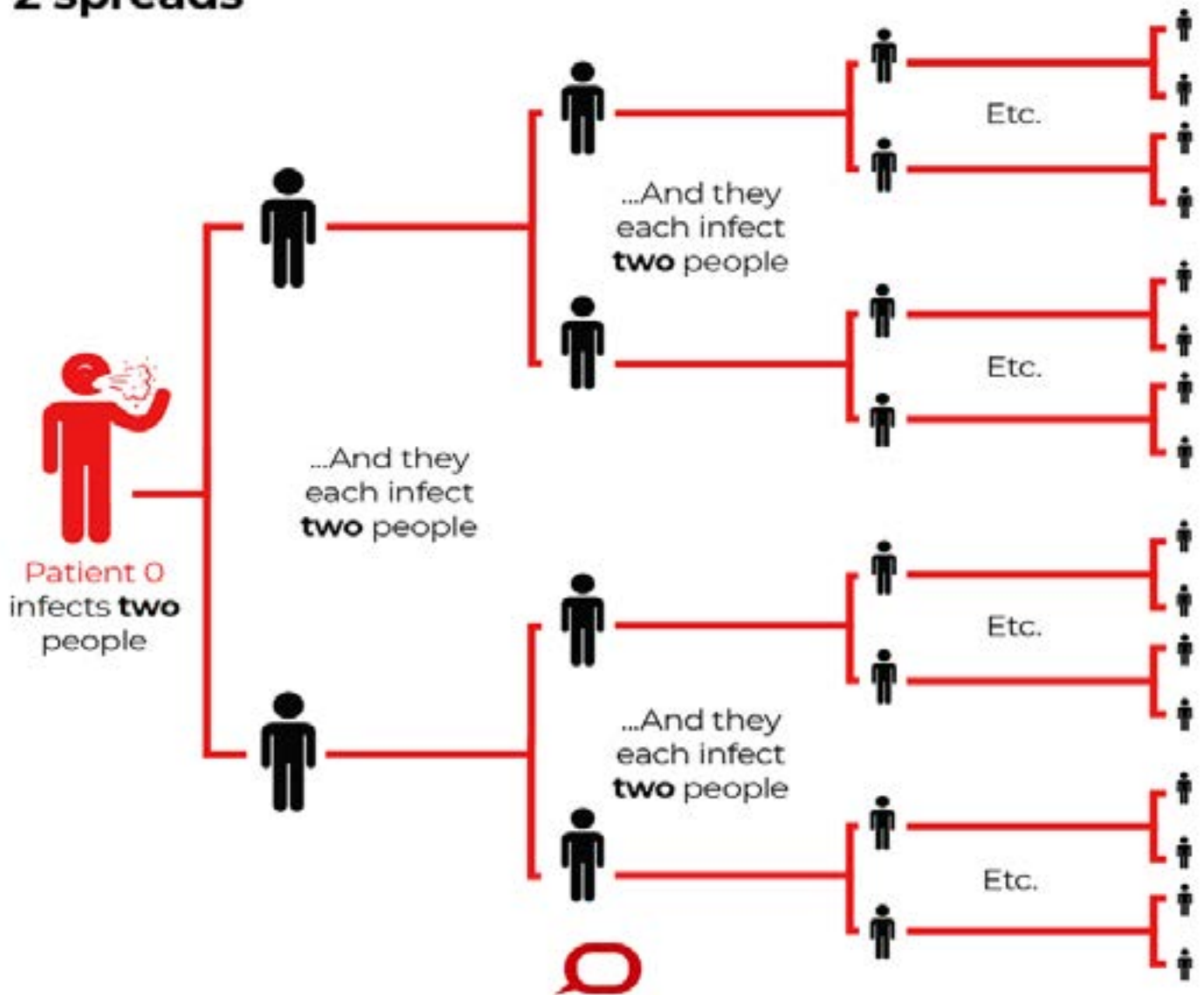
The **flu** is caused by a DIFFERENT virus, the **Influenza virus**. It is from the Influenza virus family so the *flu is not a sibling of COVID-19*.

COVID-19's Rate of Transmission

"R0" is the reproductive number, or for every individual that tests positive is likely to infect a certain number of people, who then each infect the same number of people and so on.

COVID-19 has an R0 of 2. **That means every individual who has COVID-19 will most likely infect two new people.**

How a virus with a reproduction number (R0) of 2 spreads



What's Up with the New Variants?

In the past few months (as of 2/9/2021), there have been some new SARS-CoV-2 variants that are getting a lot of attention. It can be confusing, so here is some information to help explain it

First, know that it is normal for a virus to mutate. This isn't a shocking event that scientists are thrown off by. Viruses, including SARS-CoV-2, mutate constantly, researchers knew to expect this. The recent variants (caused by mutations) that have gotten so much attention are just a few out of many.

232 - The COVID-19 Variants Explained



Checkout [this podcast episode](#) for some expert explanations (also on spotify, apple podcasts, youtube, and more)

What caused the variants seen in the SARS-CoV-2 virus in the UK and elsewhere? Why is the UK variant more contagious? Is it more lethal? Will the current vaccines still work against these variants? Is there anything we should be doing differently to protect ourselves?

Expert virologist Dr. Andy Pekosz talks with Dr. Josh Sharfstein about how the virus that causes COVID-19 is changing, and what it means for 2021.

Is this variant more transmissible and why? Could the increased numbers we're seeing be associated with other behavioral or situational factors?

There is some strong data from the UK that suggest the [variant of the] virus is more transmissible. To be sure it's the virus sequence changes that are causing this, we need to see if this variant spreads as easily in other countries.

There are currently two theories about what, specifically, makes this strain more transmissible. One is that this variant virus is "stickier," meaning it requires a smaller amount of virus to cause infection because it's better at adhering to your cells. Another theory is that this variant causes people to harbor more virus particles in their noses and throats, which means more virus is expelled when people talk, cough, or sneeze.

Behavioral and situational factors could help a more transmissible variant spread even further, but wearing a mask, ensuring physical distance, and hand washing will still help.

[Click here](#) to read the full article:

What You Need to Know About COVID-19 Variants: A Q&A WITH ANDREW PEKOSZ, JH Bloomberg School of Public Health

The CDC keeps track of the variants that are gaining attention and updates their presence in the United States daily

[Click here](#) to see the daily data by State

Multiple variants of the virus that causes COVID-19 are circulating globally:

- The United Kingdom (UK) identified a variant called B.1.1.7 with a large number of mutations in the fall of 2020. This variant spreads more easily and quickly than other variants. In January 2021, experts in the UK reported that this variant may be associated with an increased risk of death compared to other variant viruses, but more studies are needed to confirm this finding. It has since been detected in many countries around the world. This variant was first detected in the US at the end of December 2020.
- In South Africa, another variant called B.1.351 emerged independently of B.1.1.7. Originally detected in early October 2020, B.1.351 shares some mutations with B.1.1.7. Cases caused by this variant have been reported in the US at the end of January 2021.
- In Brazil, a variant called P.1 emerged that was first identified in travelers from Brazil, who were tested during routine screening at an airport in Japan, in early January. This variant contains a set of additional mutations that may affect its ability to be recognized by antibodies. This variant was first detected in the US at the end of January 2021.

US COVID-19 Cases Caused by Variants

Updated Feb. 8, 2021 Languages * Print

Variant	Reported Cases in US	Number of States Reporting
B.1.1.7	690	33
B.1.351	6	3
P.1	3	2

Emerging Variant Cases in the United States*†



(As of 2/8/2021)

The Vaccines

The following two pages have links to informational videos about the COVID-19 vaccines. The first page has general information about the COVID-19 vaccines and vaccines in general. The second page has the most recent updates on the vaccines and their distribution in the United States.

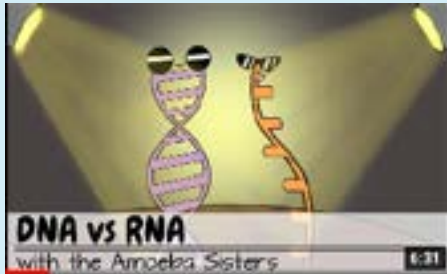


[COVID-19 Vaccines: What Information can You Trust?](#)

Disclaimer!!!

This information is as of 2/9/2021. Please note that there could be possible changes since then. Here is [a link](#) to the CDC's vaccine updates page.

First, here are some videos explaining some things you may here when talking about Vaccines



[DNA v RNA](#)



[Antibody Treatments for COVID-19](#)



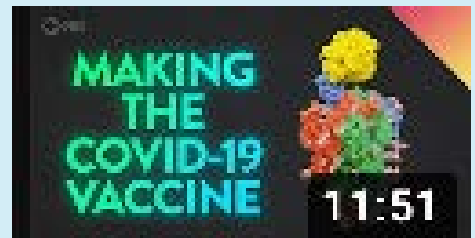
[T-Cells, Immunity, & COVID-19](#)



[Covid-19: understanding mRNA vaccines](#)



[mNRA Vaccines: Explained](#)



[Inside the lab that created the COVID-19 Vaccine](#)



[DNA vaccines explained: The future](#)

[Coronavirus Update 121: Johnson and Johnson Vaccine - Efficacy and Safety vs. Pfizer & Moderna](#)



The American Public Health Association (APHA) has been holding COVID-19 Vaccine Update Conversations. Here the links to the two webinars I attended. They are long, but very educational



[APHA: Vaccine Update: Development, Approval, Allocation and Distribution in the U.S](#)



[APHA Vaccines: The Realities of the Next Steps](#)

Recent COVID-19 News (as of 2/9/2021)



[Doctor discusses testing for COVID-19 variants and Johnson & Johnson's vaccine](#)
(2/5/2021)



[Live: White House Holds Press Briefing | NBC News](#)
(2/9/2021)



[Dr. Fauci, White House Covid-19 Response Team hold briefing | NBC News](#)
(2/5/2021)



[White House Covid Response Team Holds Briefing | NBC News](#)
(2/5/2021)



[Major pharmacies start accepting COVID-19 vaccine appointments | GMA](#)
(2/9/2021)



[How dangerous is South Africa's coronavirus variant? | COVID-19 Special](#)
(2/8/2021)

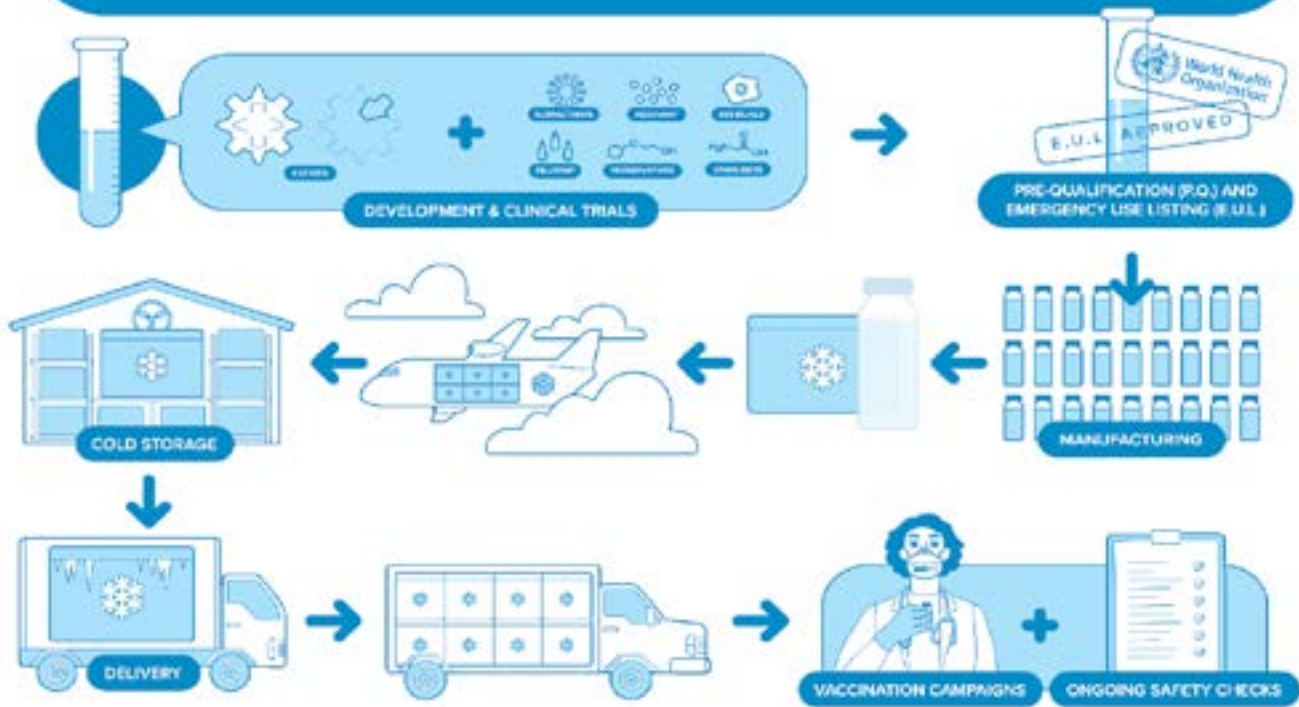
Here are some great Youtube playlists to subscribe to:

- [SciShow: COVID-19 News & Updates](#)
- [WHO: COVID-19 Pandemic Playlists](#)
- [Coronavirus | NBC News \(with Today and MSNBC\)](#)
- [CDC: #COVID-19](#)
- [The Johns Hopkins 30-Minute COVID-19 Briefing](#)
- [JHU's Daily COVID-19 Data in Motion](#)



[QUICK LOOK AT 3 NEW CORONAVIRUS VARIANTS](#)
(1/22/2021)

JOURNEY OF A VACCINE – THE ‘COLD CHAIN’



Vaccines and Herd Immunity?



A vaccine protects an individual...



When a community is vaccinated, everyone is protected, even those who can't be vaccinated due to underlying health conditions.

When do you become contagious? COVID-19's Incubation and Infectious Periods

Incubation Period:

The time between exposure to the virus and before the onset (beginning) of symptoms

Infectious Period:

The time period between when you start showing symptoms and when you are no longer contagious
With COVID-19, this usually lasts 10 days

Timeline of Infection: Infectious Period

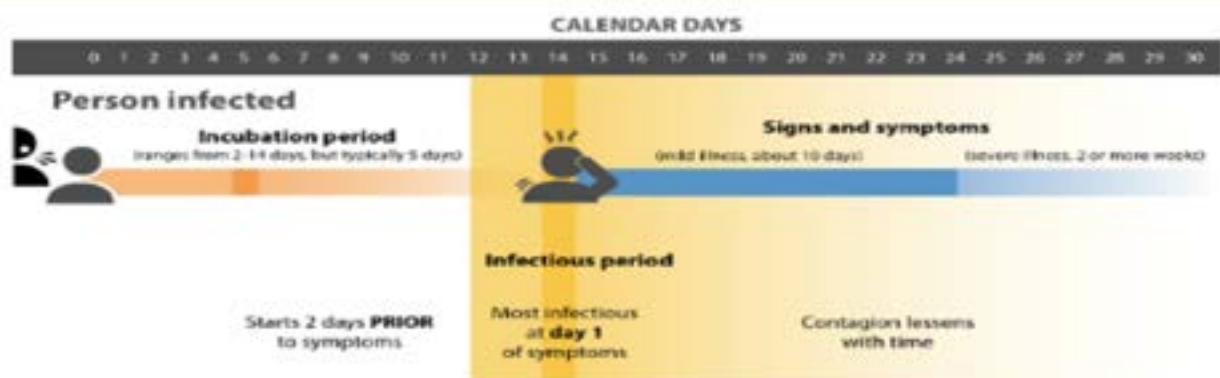


Image source: Center for Teaching and Learning, Johns Hopkins Bloomberg School of Public Health.

2

I recorded [a short video](#) explaining what this means in the context of COVID-19

COVID-19 What is the difference between isolation and quarantine?

Isolation and quarantine help protect the public by preventing exposure to people who have or may have a **contagious disease**.

- **Isolation** separates sick people with a contagious disease from people who are not sick.
- **Quarantine** separates and restricts the movement of people who were exposed to a contagious disease to see if they become sick.

ISOLATION

Isolation is for people who are already sick.



Isolation separates and restricts the movement of sick people so they can't spread disease to healthy people.



Isolation is a routine procedure in hospitals and healthcare facilities.



Isolation is usually voluntary, but in a public health emergency, officials have the authority to isolate people who are sick.

QUARANTINE

Quarantine is for people who are not sick, but may have been exposed.



Quarantined people may or may not become sick.



Quarantined people may stay at home or another location so they don't spread disease to healthy people.



If you are quarantined and you become ill, you can seek medical treatment from a healthcare provider.



Quarantine can be voluntary, but in a public health emergency, officials have the authority to quarantine people who have been exposed to an infectious disease.



Visit public.gov.COVID19 for more information.

A CLOSE CONTACT IF YOU...

**GET WITHIN 6
FEET OF AN
INFECTED
PERSON FOR AT
LEAST 15
MINUTES OVER
THE SPAN OF 24
HOURS**

CDC COVID-19 Tracker

The CDC has an infection and mortality (death) tracking page that updates daily. You can also go into more detail for state and county levels as well. This is a great way to stay informed on how good or bad our country is doing at any given time.

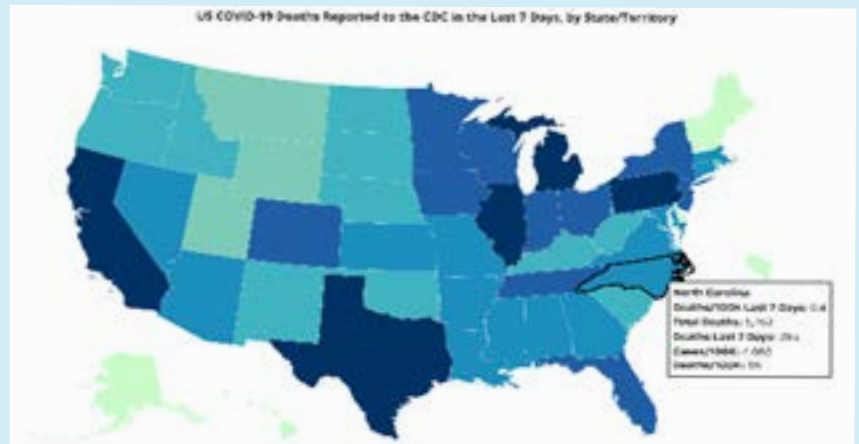
United States COVID-19 Cases and Deaths by State

Maps, charts, and data provided by the CDC, updated daily by 8 pm ET¹



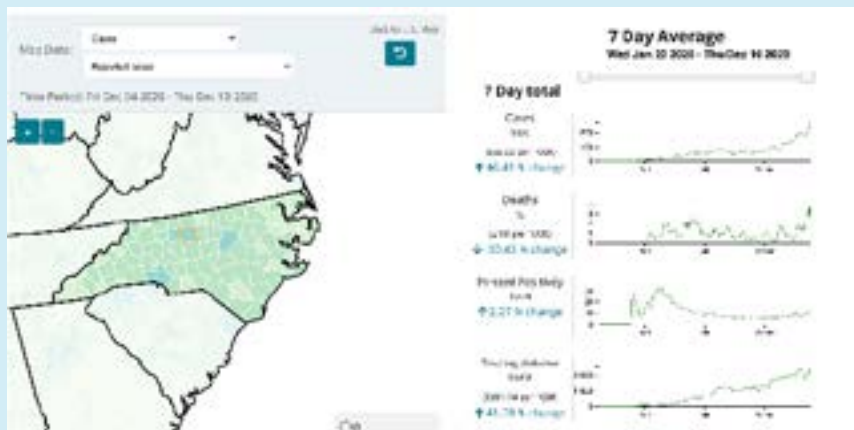
You can see the *total number* of cases and deaths, as well as the number of *new cases* and deaths in the last 24

On the map, you can hover over a state to see the information for it



Click on the state and it will take to the state's department of health page for COVID-19

You can go to the county tab to find information on your county



It's important to understand the difference between raw and interpreted data

Raw Data is the full number.

The **total** cases in the United States last seven days: 799,314

Deaths: 21,833

(as of 2/9/2021)



Whereas interpreted data is the total number put into a context. So here, the 0.9 deaths in the last 7 days is number of deaths that occurred in terms of a group of 100,000 people. That way you can get an idea of what the total deaths in the last 7 days (21,833) was in a population

So, why is it important to know the difference?

The interpreted data can help you see what the total number looks like in a way that's easier to picture.

BUT

it doesn't tell the whole story; 100,000 people is not the population of the United States. It could give you the impression that the impact is smaller than it actually is.

Seeing the raw data (total number) gives you a clear "This is how many people in our country died from COVID-19 this past week" number.

Here are some

Reliable Resources

you can
use for
your daily
life



How COVID-19 Spreads

COVID-19 most commonly spreads during close contact

How it Spreads

When people with COVID-19 cough, sneeze, sing, talk, or breathe they produce respiratory droplets. These droplets can range in size from larger droplets (some of which are visible) to smaller droplets. Small droplets can also form particles when they dry very quickly in the airstream

Face masks are your shield between you and the droplets or your droplets and another person,



Face Masks are your Shield



Airborne

Sometimes the droplets can be very small and will evaporate into particles that will stay in the air

This is less common, but still happens. Mostly in crowded areas, where people are more likely to breathe heavily or talk more, or with poor air ventilation.

Sometimes COVID-19 can be Airborne

What does "air-borne" mean for you?

Basically,
If you're in a crowded area,
or somewhere with poor ven-
tilation (aka bad AC
quality) there is a higher
risk.

For example, a gym. People
are breathing heavier, so
they are creating more
droplets

Note That:
AIRBORNE
TRANSMISSION IS
LESS COMMON THAN
CLOSE CONTACT
TRANSMISSION
BUT STILL POSSIBLE

You know when you use air spray or cooking oil and the smell stays in the air for a little while afterwards?

Many of those droplets remain airborne nearby as you inhale particles and smell hairspray and cooking oil for several minutes.

The same thing happens when someone coughs or sneezes. Talking, breathing, coughing, and sneezing create an aerosol (a suspension of particles in the air) containing particles in a range of sizes, with viable infectious organisms present in both small and large particles.

[\(UMN Center for Infectious Disease Research and Policy\)](#)

At time = 0, an aerosol is generated by person A.
Person B receives droplet spray and inhales particles.
Person C has no exposure.



At time = 1, the aerosol is dispersing, and many larger particles are settling. Person B inhales particles. Person C has no exposure.



At time = 2, the aerosol is dispersed, and many larger particles have deposited on the floor. Persons B and C inhale particles.



Facemasks

Facemasks have been proven to reduce the spread of COVID-19

([click here](#) for supportive evidence)



How to Clean

Reusable masks should be washed regularly. Always [remove masks correctly](#) and [wash your hands](#) after handling or touching a used mask.

- Include your mask with your regular laundry
- Use regular laundry detergent and the warmest appropriate water setting for the cloth used to make the mask
- Use the highest heat setting and leave in the dryer until completely dry



HOW TO WEAR A NON-MEDICAL FABRIC MASK SAFELY

[who.int/epi-win](https://www.who.int/epi-win)

Do's →



Clean your hands before touching the mask



Inspect the mask for damage or if dirty



Adjust the mask to your face without leaving gaps on the sides



Cover your mouth, nose, and chin



Avoid touching the mask



Clean your hands before removing the mask



Remove the mask by the straps behind the ears or head



Pull the mask away from your face



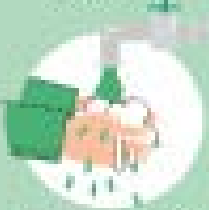
Store the mask in a clean plastic, resealable bag if it is not dirty or wet and you plan to re-use it



Remove the mask by the straps when taking it out of the bag



Wash the mask in soap or detergent, preferably with hot water, at least once a day



Clean your hands after removing the mask

Don'ts →



Do not use a mask that looks damaged



Do not wear a loose mask



Do not wear the mask under the nose



Do not remove the mask when there are people within 1 metre



Do not use a mask that is difficult to breathe through



Do not wear a dirty or wet mask



Do not share your mask with others

A fabric mask can protect others around you. To protect yourself and prevent the spread of COVID-19, remember to keep at least 1 metre distance from others, clean your hands frequently and thoroughly, and avoid touching your face and mask.



World Health Organization

HOW CHILDREN CAN WEAR FABRIC MASKS

TO PROTECT YOURSELF AND OTHERS, REMEMBER TO:

- Keep at least 1 metre distance from others
- Clean your hands often
- Avoid touching your face and the front of the mask
- Wear the mask with the correct side up and out



Clean hands before touching the mask



Inspect the mask for damage or if dirty



Identify the inside of the mask which will touch the face and the upper part that will cover the nose



Adjust the mask without leaving gaps on the sides



Cover mouth, nose and chin



Avoid touching the front of the mask



Clean hands before removing the mask



Remove the mask by the straps



Store the mask in a clean bag or container



Clean hands after removing the mask



Wash the mask at least once a day, preferably with hot water



Do not share masks with others

September 2020



World Health Organization

COVID-19

Coronavirus Symptoms

SERIOUS COVID-19 SYMPTOMS REQUIRING IMMEDIATE MEDICAL CARE

- If you develop any of these symptoms, call your healthcare provider or health facility and seek medical care immediately.
- This is not an exhaustive list. These are the most common symptoms of serious illness, but you could get very sick with other symptoms – if you have any questions, call for help immediately.



Shortness of breath/ Difficulty breathing



Loss of speech or mobility or confusion



Chest pain

MOST COMMON SYMPTOMS



Fever



Cough



Tiredness



Loss of taste or smell

LESS COMMON SYMPTOMS



Sore throat



Headache



Aches and pains



Diarrhea



A rash on the skin or discoloration of fingers or toes



Red or irritated eyes

PLEASE NOTE:

- If you live in an area where malaria, dengue or other infections are common and you have any of above symptoms, seek immediate medical care according to the local health authorities.
- Stay in touch with your primary care provider to ensure you continue to receive the routine care you need, such as medication refills, follow-ups and other routine consultations.

Social Distancing



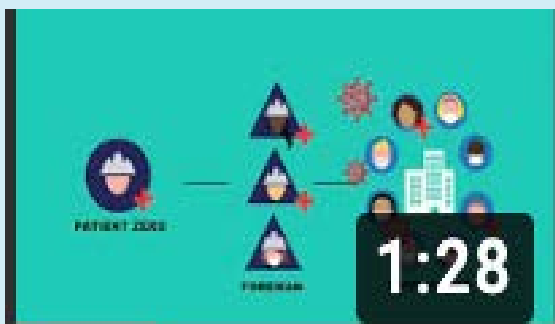
[How COVID-19 Spreads in a community](#)



[Social Distancing Explained](#)



[How Community Spread Happens](#)



[How COVID-19 Spreads](#)

Have questions about COVID-19?
We have answers



Click this link and
text hi to
the whatsapp number



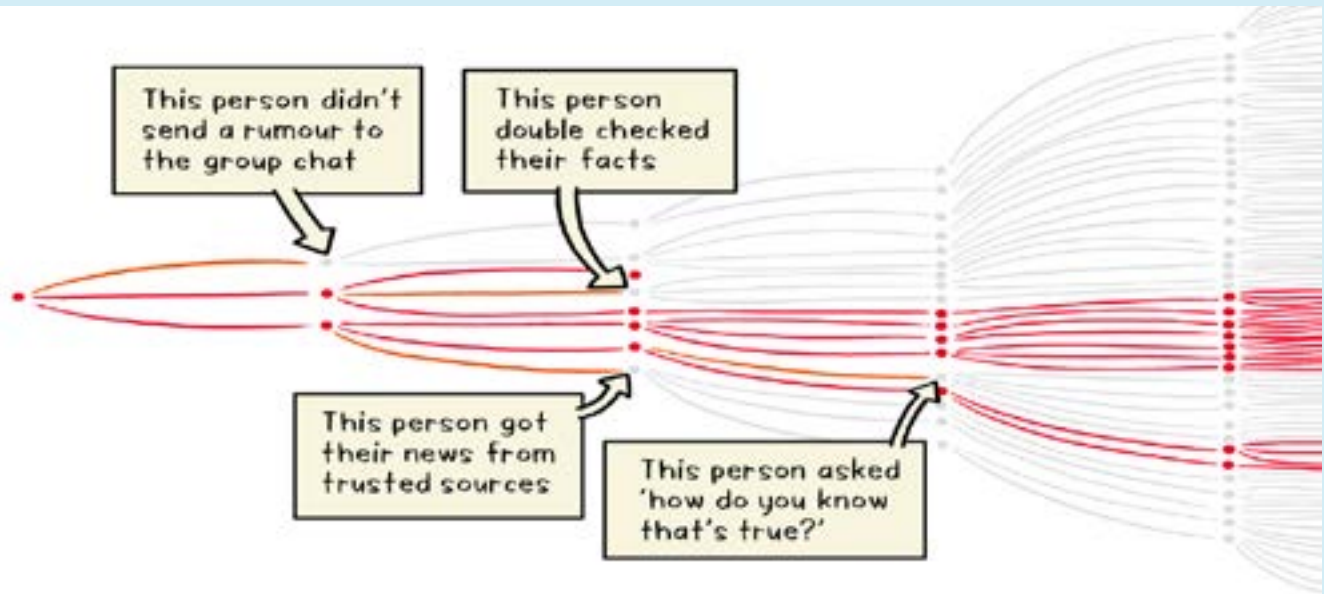
World Health Organization

Start the conversation

Still have questions?
The World Health Organization has a WhatsApp chat that you can use! [Click here to chat](#)

Fighting Misinformation

Remember the R0 for COVID-19 (page 5)? For every individual person with COVID-19, they are likely to infect two more. Here is how misinformation can play a part in that:



Top tips for navigating the infodemic



1. Assess the source:

Who shared the information with you and where did they get it from? Even if it is friends or family, you still need to vet their source.



2. Go beyond headlines:

Headlines may be intentionally sensational or provocative.



3. Identify the author:

Search the author's name online to see if they are real or credible.



4. Check the date:

Is it up to date and relevant to current events? Has a headline, image or statistic been used out of context?



5. Examine the supporting evidence:

Credible stories back up their claims with facts.



6. Check your biases:

Think about whether your own biases could affect your judgment on what is or is not trustworthy.



7. Turn to fact-checkers:

Consult trusted fact-checking organizations, such as the International Fact-Checking Network and global news outlets focused on debunking misinformation.



How to report misinformation online

First, we all have a responsibility to stop misinformation in its tracks.

Here's how to do it

 Facebook How do I mark a Facebook post as false news?	 YouTube How to report inappropriate content	 Twitter Report a tweet, DM, or direct message
 Instagram Remove the spread of false information	 WhatsApp How to report a contact or a group	 TikTok Report inappropriate content
 LinkedIn Reporting and flagging spam, inappropriate, and abusive content	 Viber How to report inappropriate content	 VK How do I report misleading information

The World Health Organization has a great page on its website that gives directions on how to report misinformation on many different platforms. Click here to check it out!

Micronutrients, such as vitamins D and C and zinc, are critical for a well-functioning immune system and play a vital role in promoting health and nutritional well-being.

There is currently no guidance on the use of micronutrient supplements as a treatment of COVID-19.

WHO is coordinating efforts to develop and evaluate medicines to treat COVID-19.



World Health Organization

#Coronavirus #COVID19

The prolonged use of medical masks can be uncomfortable. However, it does not lead to CO2 intoxication nor oxygen deficiency.

While wearing a medical mask, make sure it fits properly and that it is tight enough to allow you to breathe normally. Do not re-use a disposable mask and always change it as soon as it gets damp.

* Medical masks (also known as surgical masks) are flat or pleated; they are affixed to the head with straps or have ear loops.



World Health Organization

#Coronavirus #COVID19

FACT:
Vitamin and mineral supplements cannot cure COVID-19



22 September 2020

FACT:
The prolonged use of medical masks* when properly worn, DOES NOT cause CO2 intoxication nor oxygen deficiency



6 June 2020

The harmful use of alcohol increases your risk of health problems.

FACT:
Drinking alcohol does not protect you against COVID-19 and can be dangerous.



World Health Organization

#Coronavirus #COVID19

27 May 2020

Do not under any circumstance spray or introduce bleach or any other disinfectant into your body. These substances can be poisonous if ingested and cause irritation and damage to your skin and eyes.

Bleach and disinfectant should be used carefully to disinfect surfaces only.

Remember to keep chlorine (bleach) and other disinfectants out of the reach of children.



#COVID19 #coronavirus

People of all ages can be infected by the new coronavirus (nCoV-2019).

Older people, and people with pre-existing medical conditions (such as asthma, diabetes, heart disease) appear to be more vulnerable to becoming severely ill with the virus.

WHO advise people of all age to take steps to protect themselves from the virus, for example by following good hand hygiene and good respiratory hygiene.



#Coronavirus

FACT:
Spraying or introducing bleach or another disinfectant into your body **WILL NOT** protect you against COVID-19 and can be dangerous



Does the new coronavirus affect older people, or are younger people also susceptible?



Can people wear masks while exercising?



People should **NOT** wear masks when exercising as masks may reduce the ability to breathe comfortably.

Sweat can make the mask become wet more quickly which makes it difficult to breathe and promotes the growth of microorganisms. The important preventive measure during exercise is to maintain physical distance of at least one meter from others.

Cleaning at Home



[CDC My Health](#) has
more on:

- » **Cleaning**
- » **Disinfecting**
- » **Soft Surfaces**
- » **Electronics**
- » **Laundry**
- » **When Someone is Sick (at home)**

What you need to know

- Wear reusable or disposable gloves for routine cleaning and disinfection.
- Clean surfaces using soap and water, then use disinfectant.
- Clean or launder items according to the manufacturer's instructions.
- Wash your hands often with soap and water for 20 seconds.
- If [someone is sick](#), keep a separate bedroom and bathroom for the person who is sick (if possible).

[CDC My Health](#) has Guidance on Staying Safe for All of These Activities (seriously, check it out)

School and Work

[School](#)

[Work](#)

Going Out

[Banks](#)

[Bars and Clubs](#)

[Doctor Visits](#)

[Gas Stations](#)

[Grocery Stores](#)

[Gyms or Fitness Centers](#)

Travel, Recreation and Leisure

[Beaches and Pools](#)

[Camping](#)

[Hotels](#)

[Parks and Recreation Facilities](#)

[Playing Sports](#)

[Summer Camps](#)

[Travel](#)

[Libraries](#)

[Nail Salons](#)

[Playgrounds](#)

[Pharmacy \(getting medicines\)](#)

[Restaurants](#)

[Voting](#)

At Home

[Deliveries or Takeout](#)

[Food Preparation & Handling](#)

[In Home Services or Repairs](#)

Including cleaning services, plumbers, electricians, etc.

Transportation

[Public Transportation](#)

Including bus, subway, trains, etc.

[Taxis, Rideshare Services, Limos](#)

[Personal Vehicles](#)

Including cars, SUVs, etc.

[More Transportation](#)

Citations not hyperlinked:

[Liu, Ding X. et al. "Human Coronavirus-229E, -OC43, -NL63, and -HKU1." Reference Module in Life Sciences \(2020\): B978-0-12-809633-8.21501-X. doi:10.1016/B978-0-12-809633-8.21501-X](#)

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"Common Human Coronaviruses." Centers for Disease Control and Prevention, [Centers for Disease Control and Prevention](https://www.cdc.gov/coronavirus/general-information.html), 13 Feb. 2020, www.cdc.gov/coronavirus/general-information.html.

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