

COVID-19 Vaccine Information



COVID-19 Overview





What's happening now with COVID-19

as of February 5, 2021

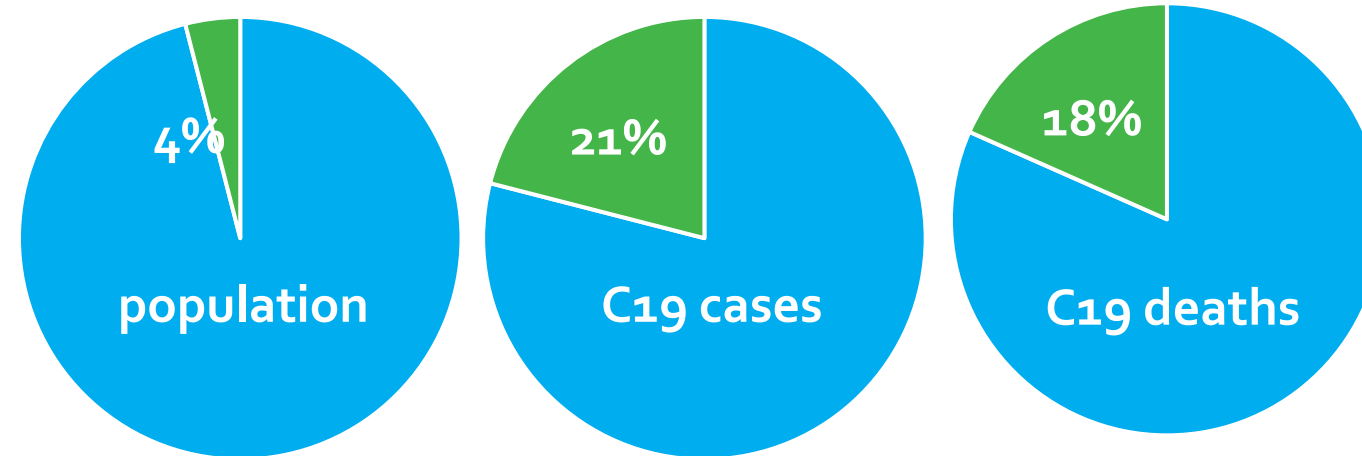
Sources: Johns Hopkins University, Journal of the American Medical Association (JAMA), Kaiser Family Foundation, New York Times

Updated 05/12/21 | Page 2

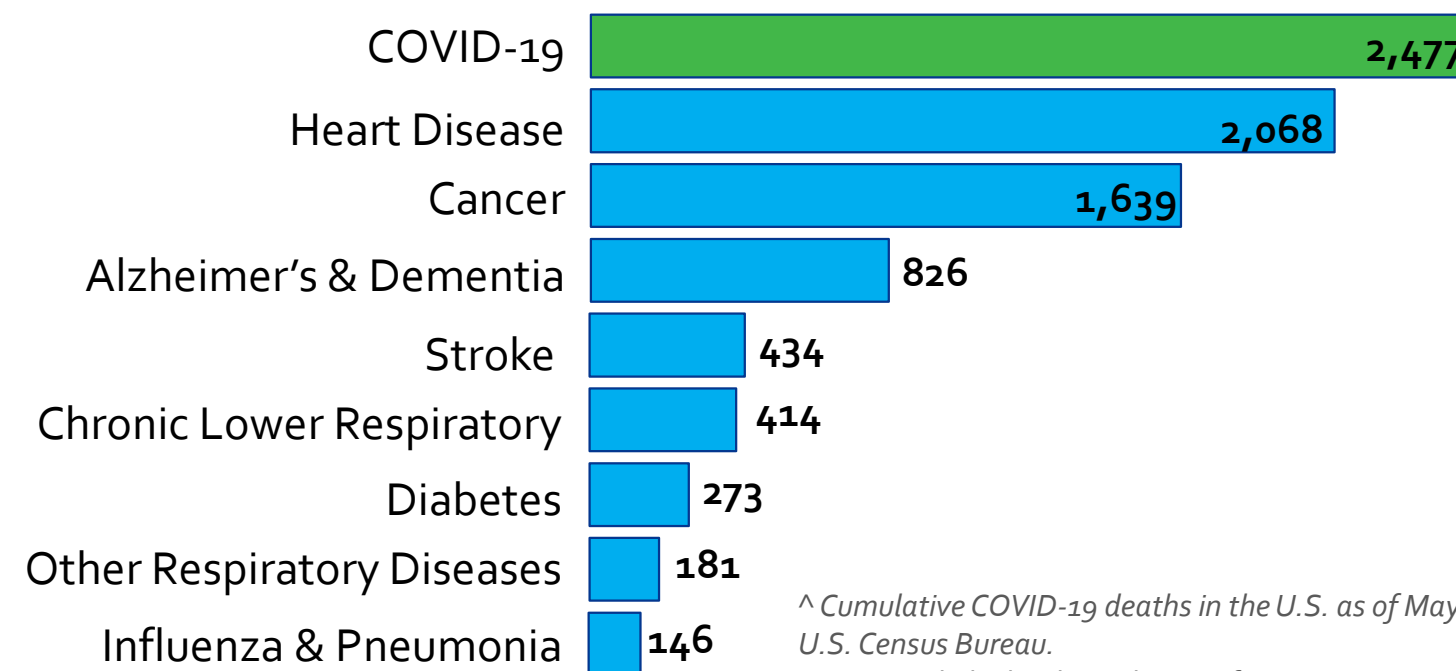


Coronavirus in the United States

United States has 4% of world's population but:



More than 1 of every 564[^] Americans have died of COVID-19.
It is the leading cause of death* in the U.S.:



[^] Cumulative COVID-19 deaths in the U.S. as of May 2021 divided by U.S. population per U.S. Census Bureau.

*Average daily deaths in the U.S. from COVID-19 (Feb. 2021) and other leading causes of death (2020) (Updated 02/23/21)

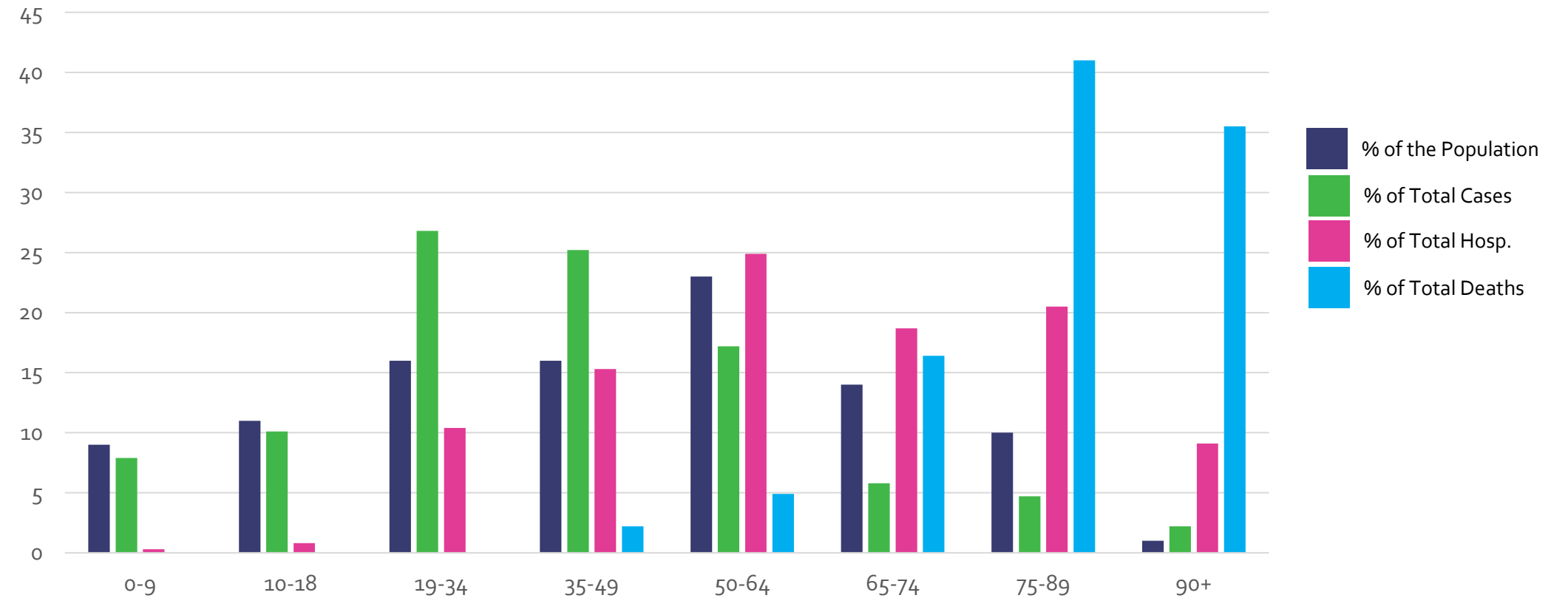


What's happening now with COVID-19

as of May 11, 2021



Coronavirus in Marin County - Age



COVID-19 affects all ages:

- The majority of cases were in the 19 - 49 age groups – prime working ages
- Hospitalizations increased with age category
- Most of the **deaths** were in Marin residents 75 and older

Key considerations:

No guarantees: regardless of age, COVID-19 could be serious:

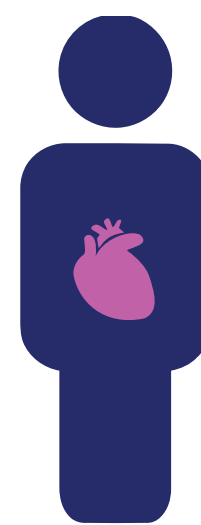
- Long Haulers
- Still many unknowns (Post Polio Syndrome was not identified for decades)



COVID-19 can be very serious for anyone, but people who are at highest risk of serious illness or death include:



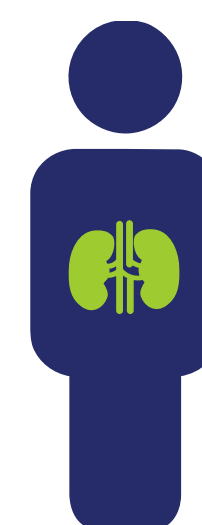
65+ years
of age



Heart
disease



Lung disease
or asthma



Kidney
disease



Diabetes



Obesity



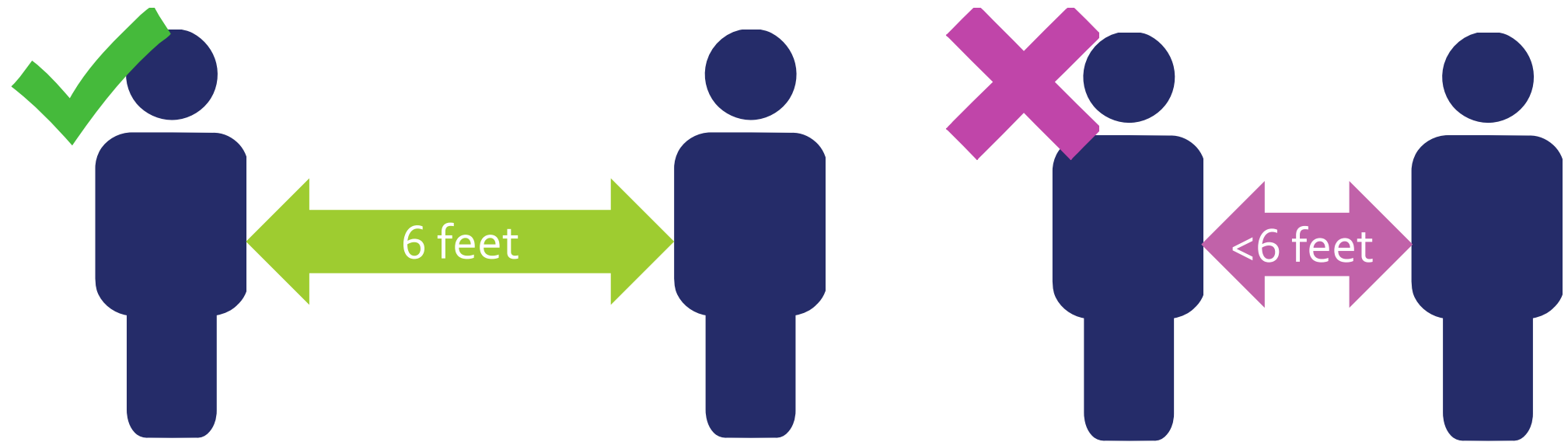
Compromised
Immune System

Who is at
greatest risk?

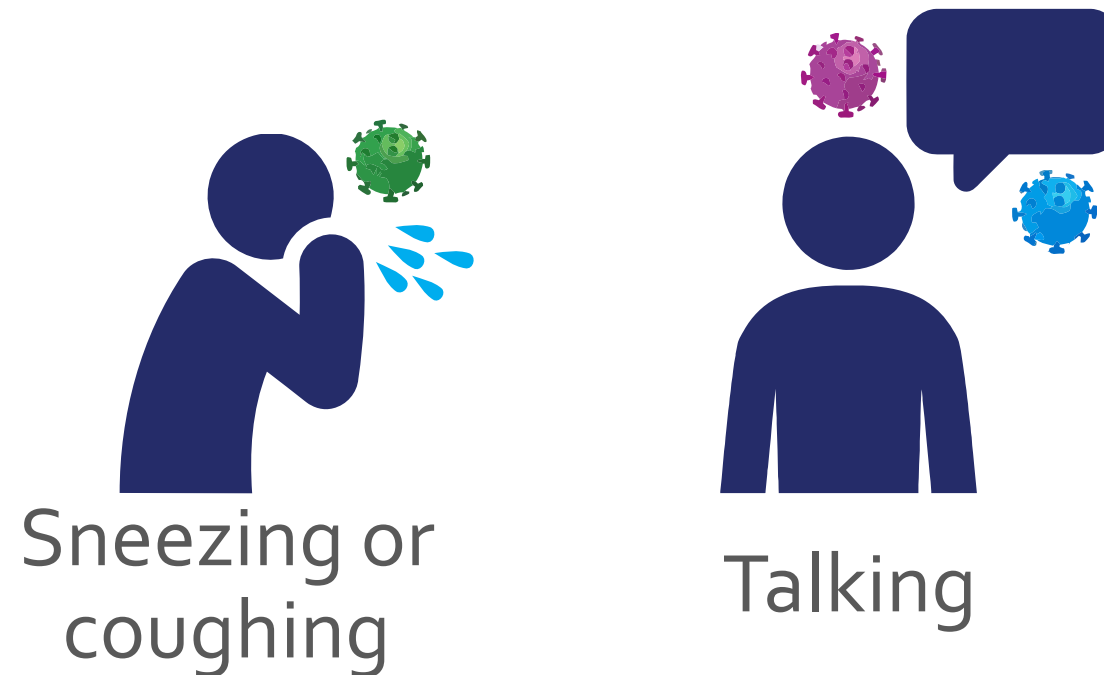
How is COVID-19 spread?



COVID-19 is spread when people are too close together:



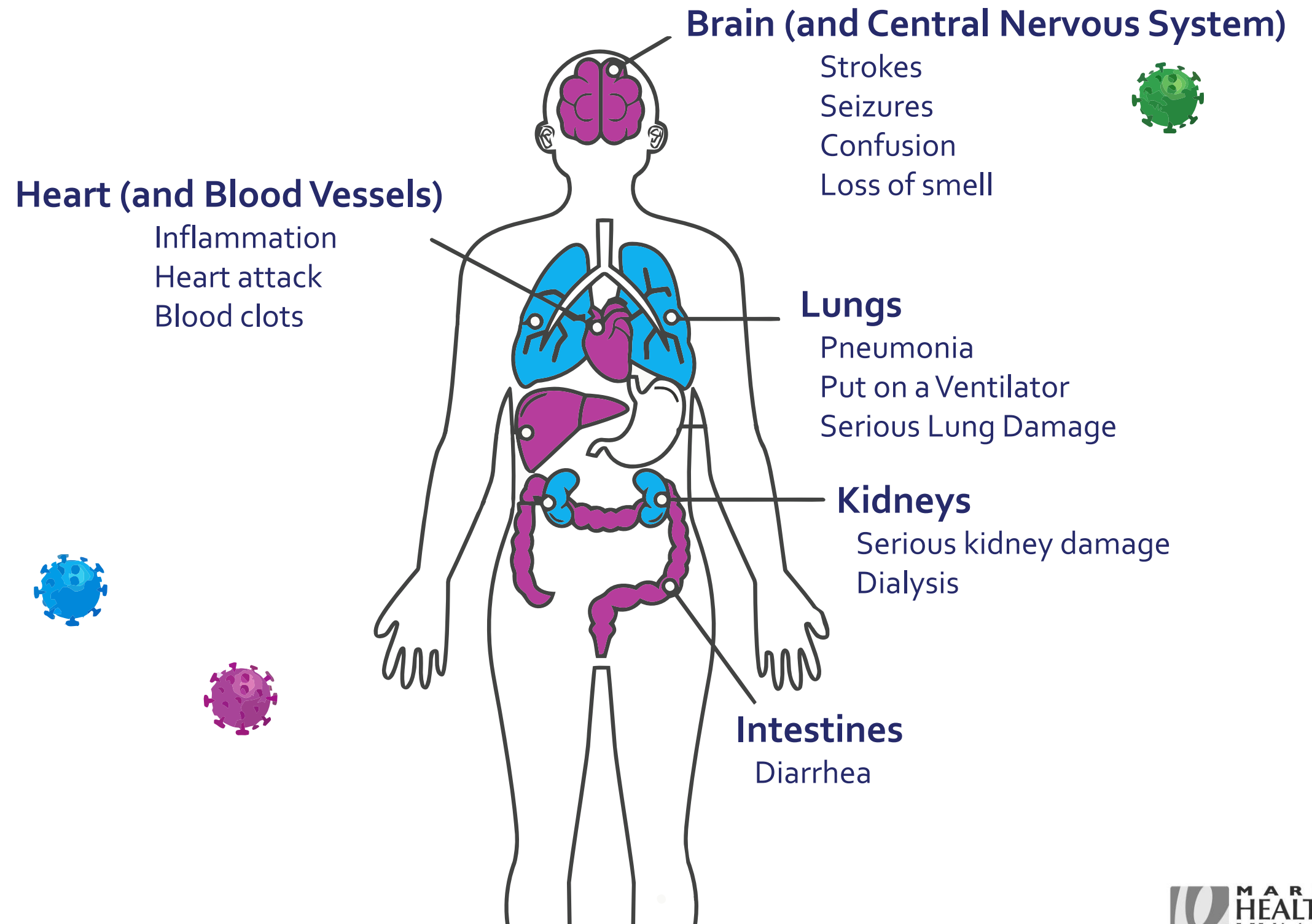
COVID-19 is spread person-to-person when:





How does COVID-19 damage the body?

Most coronaviruses cause respiratory illness but COVID-19 can also affect many of the body's primary organs.



COVID-19 Symptoms



People may be infected with the virus for 1 – 14 days before developing symptoms.



Fever



Chills



Tiredness



Dry Cough



Shortness of
Breath



Sore
Throat



Muscle
Pain



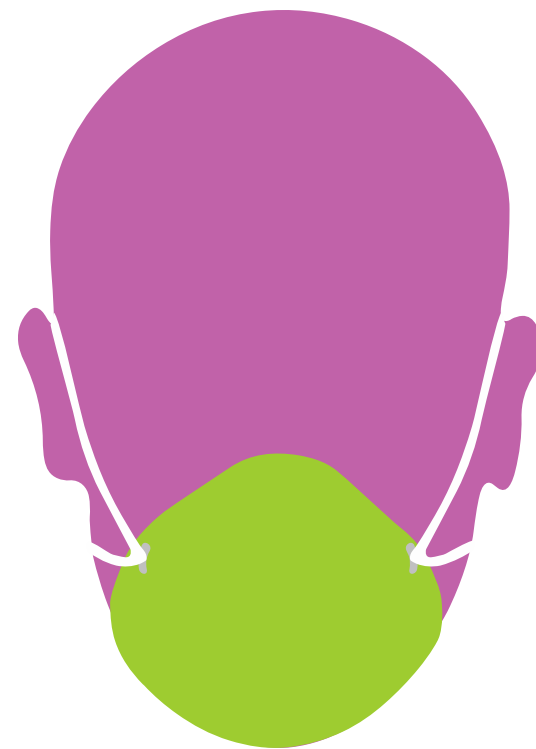
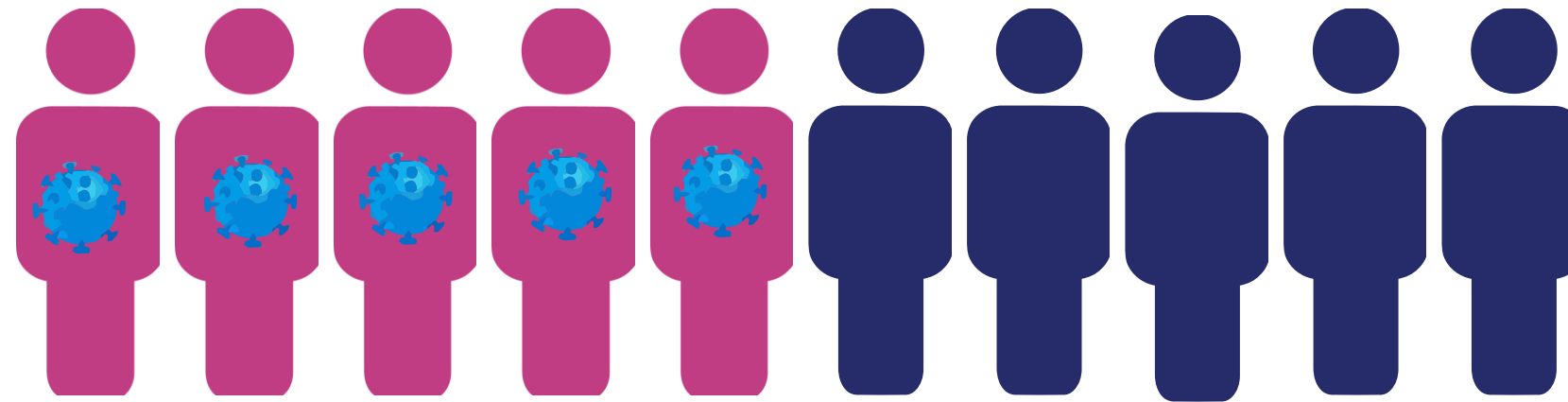
New Loss of Smell
or Taste

Many people will have no symptoms **but can still infect others.**



COVID-19 Basics

Half of people with COVID-19 will have **NO SYMPTOMS** and **WILL NOT KNOW THEY ARE SICK** but can still infect others.



Even if you have a negative test,
you can still get COVID-19.

Always wear a mask since
you don't know if you have COVID-19.



Understanding Variants

COVID-19 is a RNA virus. RNA viruses tend to mutate:

- Mutations can lead to variants (mutations that change how a virus survives or spreads)

There are four COVID-19 variants of concern right now:

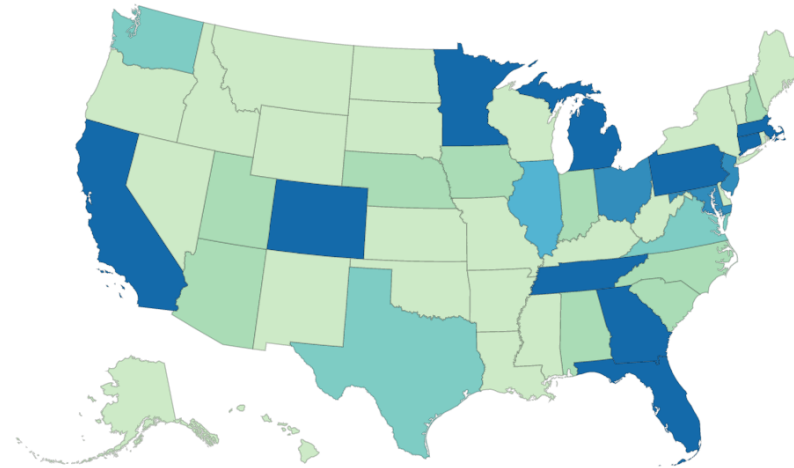
	UK (B.1.1.7)	So. Africa (B.1.351)	Brazil (P.1)	India
Infectiousness	Spreads more easily and quickly	Spreads more easily and quickly	Spreads more easily and quickly	Spreads more easily and quickly
Severity	Potential increased risk of death	No evidence it is more severe	Affecting babies and children	Potential increased risk of death
Does the vaccine still work?	Vaccines appear to be as effective	Vaccines may be less effective	Vaccines may be less effective	Vaccines may be less effective



Understanding Variants

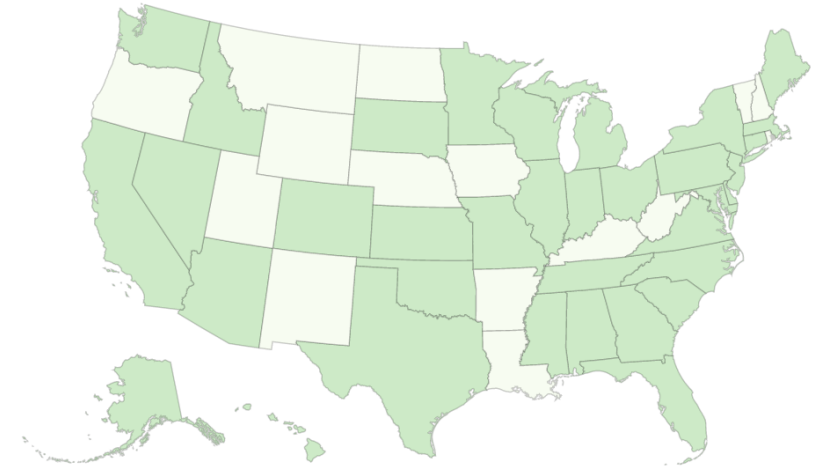
Sources: CDC, 04/10/21

UK
(B.1.1.7)



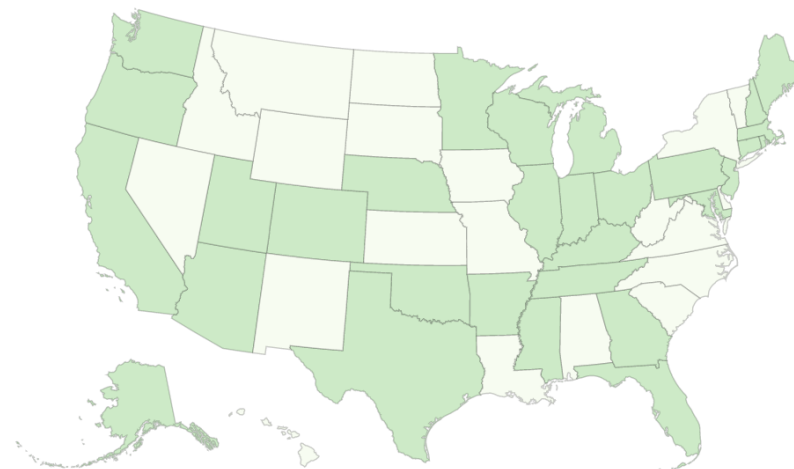
Territories AS GU MH FM MP PW PR VI

So. Africa
(B.1.351)



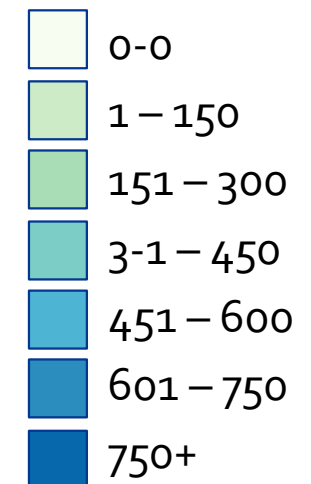
Territories AS GU MH FM MP PW PR VI

Brazil
(P.1)



Territories AS GU MH FM MP PW PR VI

Number of Cases
in the U.S



COVID-19 Prevention

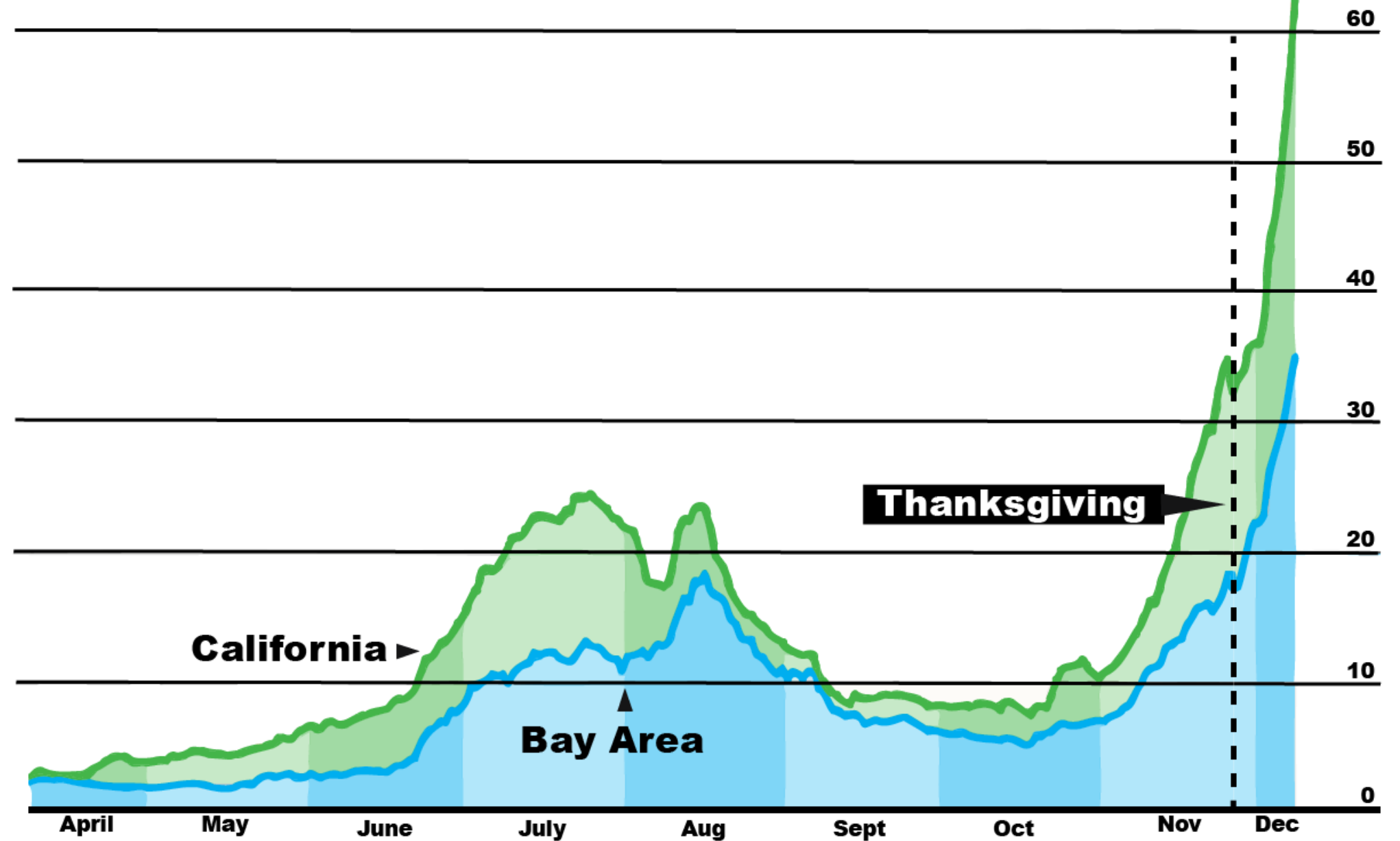




Why prevention matters

How our actions affect the pandemic – lack of social distancing

Coronavirus Cases Spike after Thanksgiving 2020



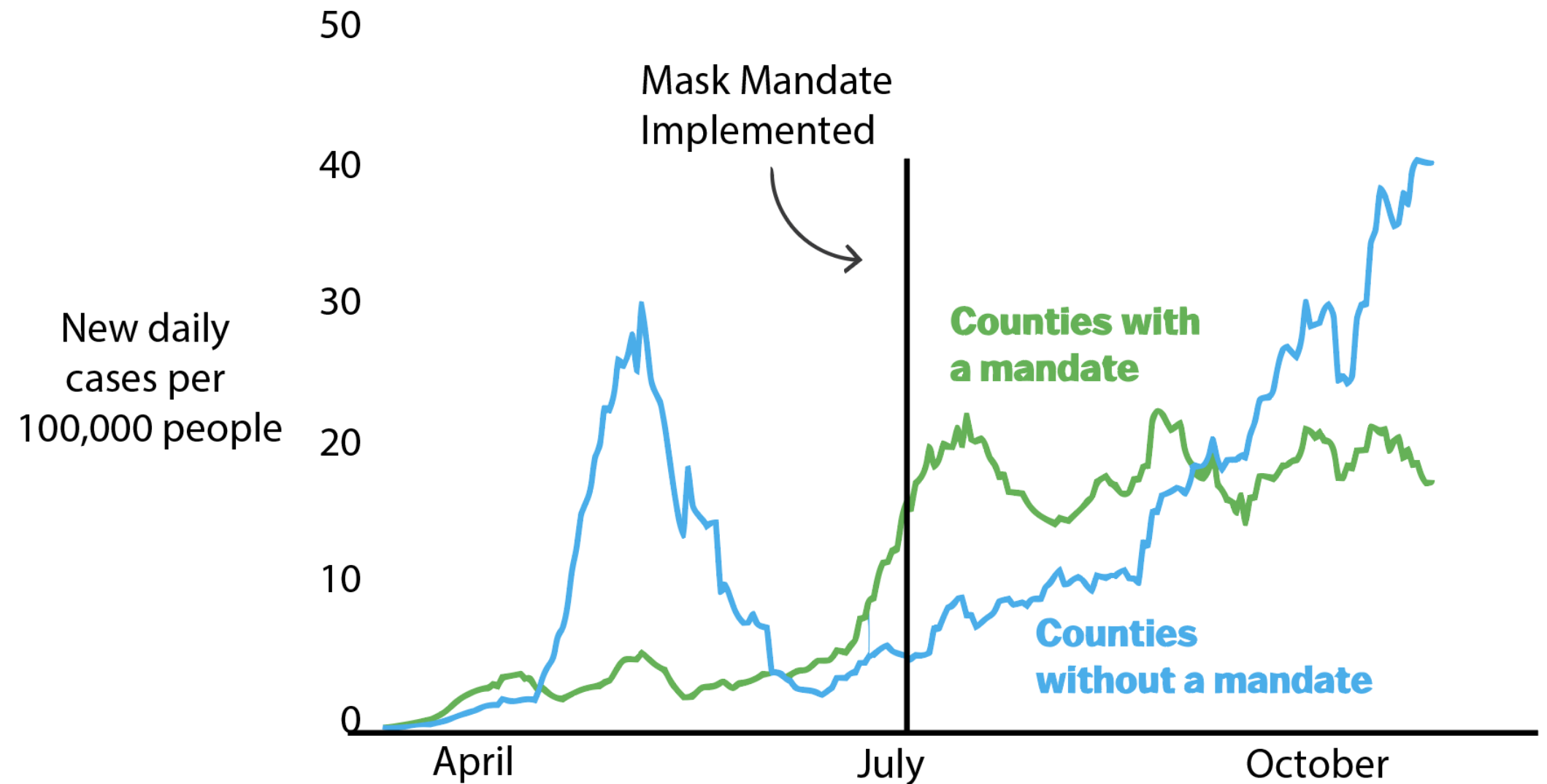
Sources: Adapted from Todd Trumbull, The Chronicle



Why prevention matters

How our actions affect the pandemic – wearing masks

Cases Counts stabilize in Kansas counties that implemented a mask mandate



Sources: Carolos Zambrana and Konna K. Ginther, University of Kansas



How to prevent COVID-19

Our COVID-19 toolbox includes:



- Testing
- Treatment
- Contact Tracing
- Prevention Activities
- Vaccination

ALL the tools are important to get rid of COVID-19



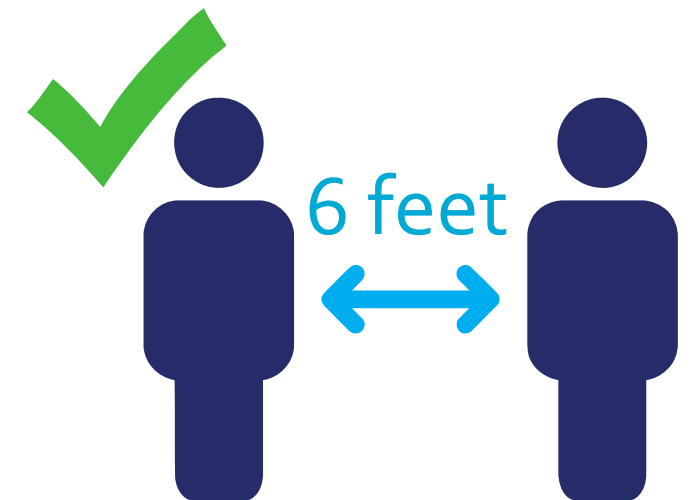
How to prevent COVID-19



Wear a **face covering**
that covers your
nose and mouth



Wash **hands**
frequently



Watch your **distance:**
Stay 6 feet away
from anyone you
do not live with



Additional prevention measures



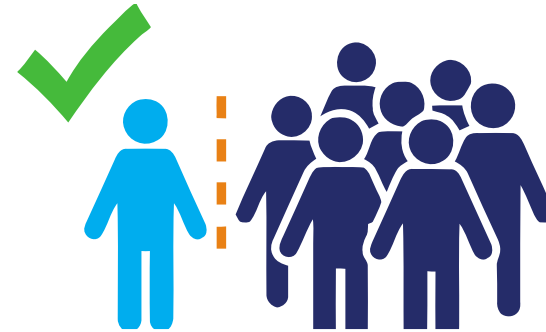
Use hand sanitizer containing at least 60% alcohol when soap and water are not available



Do NOT Touch your face or face covering



Stay home, away from others if you feel sick



Avoid crowded areas



Clean and disinfect frequently touched surfaces daily



Wear a mask if someone in your house is sick



If you drive with someone you don't live with, keep windows open AND wear masks



Cover your face with a tissue or your elbow when you cough or sneeze



If you ride the bus, wear a face covering, social distance, wash your hands after your ride



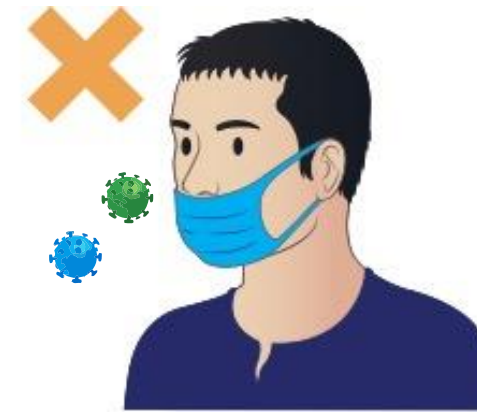
How to properly wear a face covering

Wearing a cloth face covering is one of the best ways to prevent spreading COVID-19. But a cloth face covering **ONLY** works if you wear it properly.



DO

Make sure your cloth face covering covers your nose, mouth, and chin



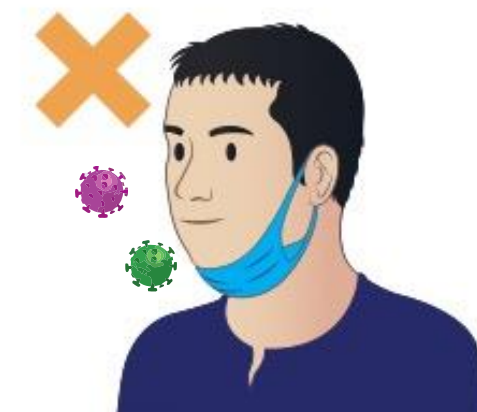
DON'T

Wear the cloth face covering below your nose



DON'T

Leave your chin exposed



DON'T

Push your cloth face covering under your chin



DON'T

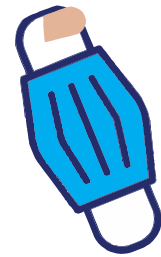
Wear your cloth face covering loosely with gaps on the sides



Face covering safety



Always wash your hands before and after you wear a face covering.



Use the ties or loops to put on and take off your cloth face covering. Do not touch the inside of your face covering.



Put your mask on BEFORE you leave your home.



Wash your cloth covering every 1 -3 days in warm/hot water. Dry at highest heat or in sun if possible.

Be sure your cloth covering is thoroughly dry before wearing it.



Proper hand washing

Wash your hands **every time** you...



Prepare food
or eat



Touch your
face



Care for a
sick person



Go to the
bathroom



Change a
diaper



Touch an
animal



Touch frequently
touched surfaces
like door handles,
handrails, etc.



Cough or
Sneeze



Proper hand washing

Wash your hands for **20 seconds** (the same amount of time it takes to **sing Happy Birthday twice**).

Be sure to wash...



Fingernails
& fingertips



Back of
hands



Palms



Between
fingers



Knuckles



Wrists



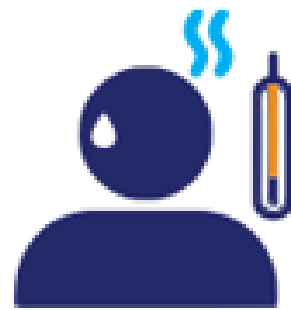
Thumbs



If you have
symptoms

If you have any of these symptoms, **STAY HOME** and contact your healthcare provider.

If you do not have a healthcare provider, call Marin Community Clinics at (415) 488-1500 for help.



Fever



Chills



Tiredness



Dry Cough



Shortness
of Breath



Sore
Throat



Muscle
Pain



New Loss of
Smell or Taste



If you have any of these symptoms, **call 911 or go directly to the emergency room.** Tell them you might have COVID-19.



Trouble
breathing



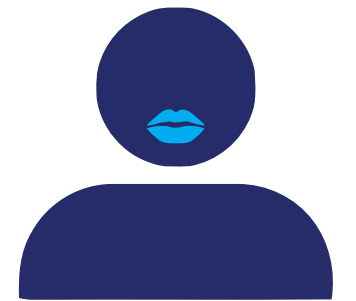
Chest
pain or
pressure



New
confusion



Inability to
wake or stay
awake



Blue lips
or face

When to get emergency help

Addressing Vaccine Safety Concerns





Vaccine Development

Vaccine development is always rigorous, but it can be safely sped up.



Use what we already know. We have more than 100 years of experience!



Increase staff and resources. This helps us get answers faster.



Limit what we study to safety and efficacy:

- About 99% of short-term side effects are known in 2-3 weeks
- **About 90% of long-term side effects are known in 45 days**

Vaccine Approval



Vaccine approval is comprehensive and thorough
But a vaccine can be evaluated faster in emergencies.

Non-emergencies...



- 1st come; 1st evaluated
- 12 – 18+ months
- Approval

Emergencies...



- Front of the line
- Weeks
- Emergency Use Authorization

A vaccine will still need to go through full licensure review and approval once the emergency is over.



Vaccine Approval

Vaccines must be found safe regardless of approval or EUA
But there are some important differences

FDA Approval

Emergency Use Authorization (EUA)



Timing

About 8 – 12 months

Weeks



Safety

MUST be found safe

Benefits **MUST** outweigh any risks



Efficacy

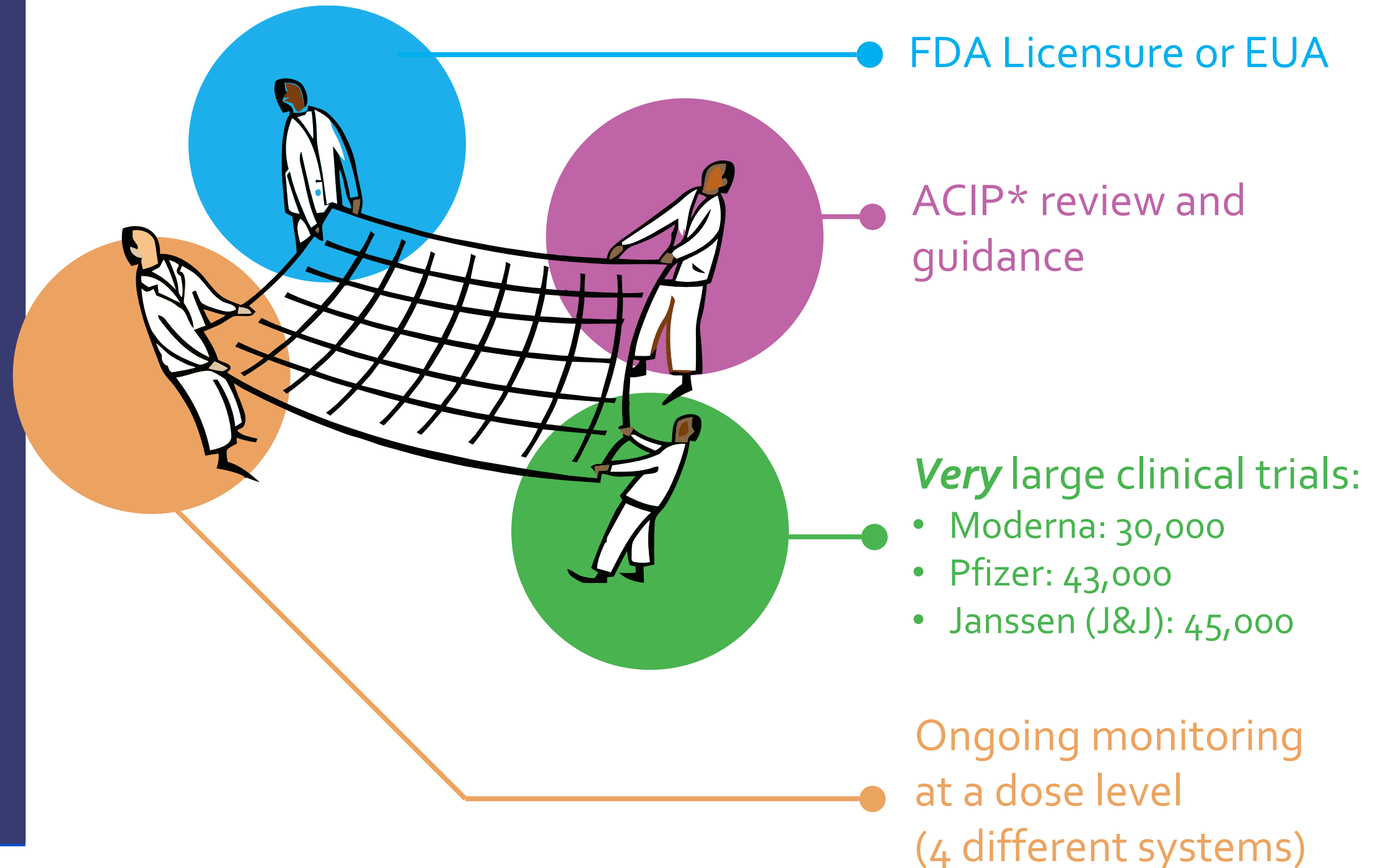
Must be effective

May be effective



Vaccine Safety Net

There is a very strong safety net that constantly ensures safety



*Advisory Committee on Immunization Practices



Vaccine Side Effects vs. Allergic Reactions

Vaccine side effects are proof the vaccine is working
Side effects are normal – allergic reactions are very rare

Side Effects (Immune Responses)

Allergic Reactions

How

common

Common and expected

Uncommon and not expected

When
happen?

Hours up to about a
week after vaccination

Seconds to minutes after
vaccination (milder reactions can
take up to 24 hours)

How
serious?

Generally mild and
usually go away on their
own

Can be mild to serious
May require treatment



Are an indication
that your body is
mounting an
immune response



Severe allergic reactions
are **extremely rare**
(about 1 in 1 million doses)



Vaccine Side Effects v Allergic Reactions

Allergic reactions happen quickly

If your body cannot tolerate something, it will let you know quickly.

If a person is allergic to cats, they are affected soon after they encounter a cat – NOT a week later



It is the same with vaccines.



Vaccines Allergic Reactions

Vaccine Confidence: Allergic Reactions

So far, everyone who has had a serious allergic reaction including anaphylaxis were people who had **KNOWN** serious vaccine allergies.

- YES** People with other types of allergies (food, latex, pollen, or other substances) can get the vaccine when offered.
- NO** EXCEPT if they have had an allergic reaction to polyethylene glycol (PEG) or polysorbate
- NO** People who have had a **severe** allergic reaction to either of the current COVID-19 vaccines with their 1st dose should **not** get the 2nd dose
- MAYBE** People who have had severe reactions to other vaccines or drugs in the past may still be able to get the vaccine but should discuss it with their doctor beforehand.



Vaccine Side Effects

Side effects are to be expected
And will go away on their own – usually in less than a week

Common side effects for all vaccines:

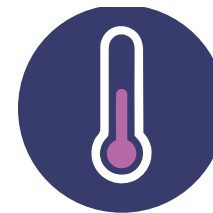


Soreness



Redness or swelling

“Flu-like” symptoms are less common but still normal side effects



Fever



Headache



Muscle or joint aches



Tiredness

Janssen (Johnson & Johnson) can also have:



Chills



Nausea



Vaccine Side Effects

Side effects are can be a little different for each of us



Our immune systems are like our fingerprints – everyone's is unique.

That is why immune responses may be different from person to person.

This is normal.

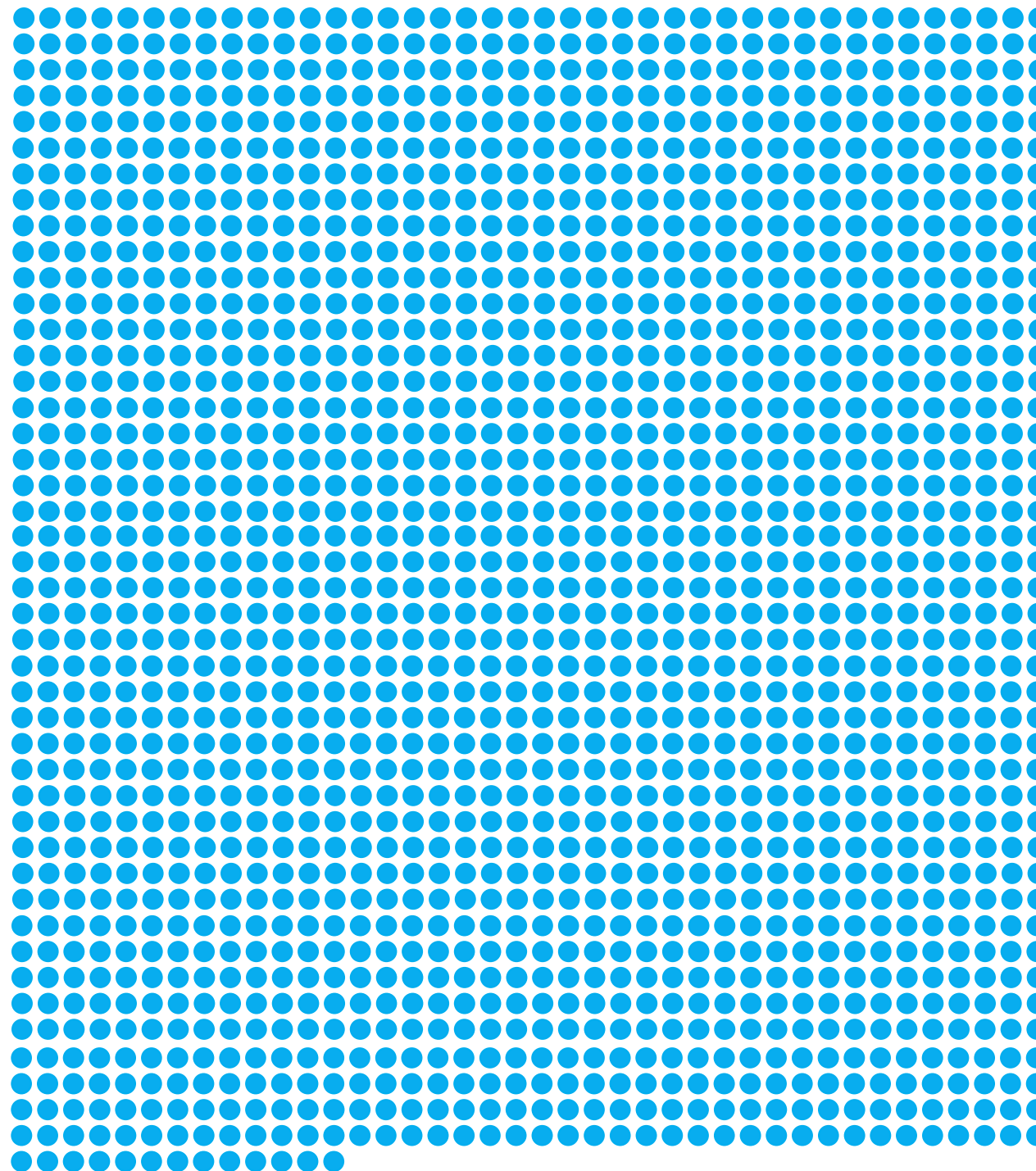


The real risk of COVID-19

As of May, 2021, COVID-19 is the leading cause of death in America.

More than 1 in every 564 Americans has died of COVID-19.

That means for every 1 million Americans, more than 1,773 have **died of COVID-19**.



In contrast, for every 1 million doses of COVID-19 vaccine, only about 1 person will have a **serious adverse event** like a serious allergic reaction

Current COVID-19 Vaccines

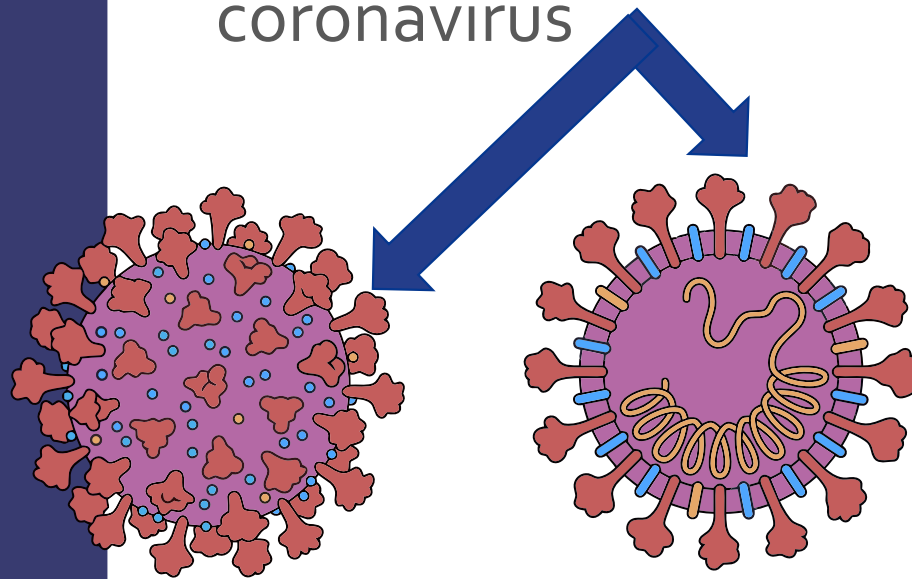


How Pfizer and Moderna vaccines work



mRNA vaccines send an email to your body...

The vaccine uses messenger RNA to instruct some of your cells to produce the **protein spikes** that are found on the outside of the coronavirus

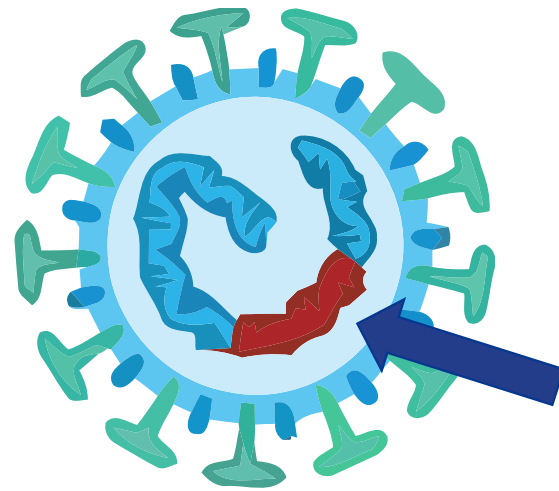


- Protein spikes are harmless but unique
- Your body recognizes the spikes as foreign and creates and builds an army to fight them
- mRNA won't permanently change your cells:
 - mRNA is temporary – as soon as it delivers the message, it deletes itself
 - Cells have a short lifespan so the ones that built the spikes will die in about 2 weeks.
- The mRNA only deals with the spikes on the outside and does not enter the cell, so it doesn't come in contact with DNA



How J&J vaccines work

Viral vector vaccines use genes spliced into a harmless virus



- It uses a killed adenovirus (like the type of virus that causes the common cold)
- It carries a non-harmful Coronavirus gene so our immune system can build an army to fight COVID-19



Johnson & Johnson (J&J) and Blood Clots

You are **25 TIMES** more likely to be hit by a plane while in your own home (1 in 250,000) than develop blood clot from the vaccine.

US population **vaccinated with J&J**
Risk: 6 of 6.8 million (0.0000088%)¹

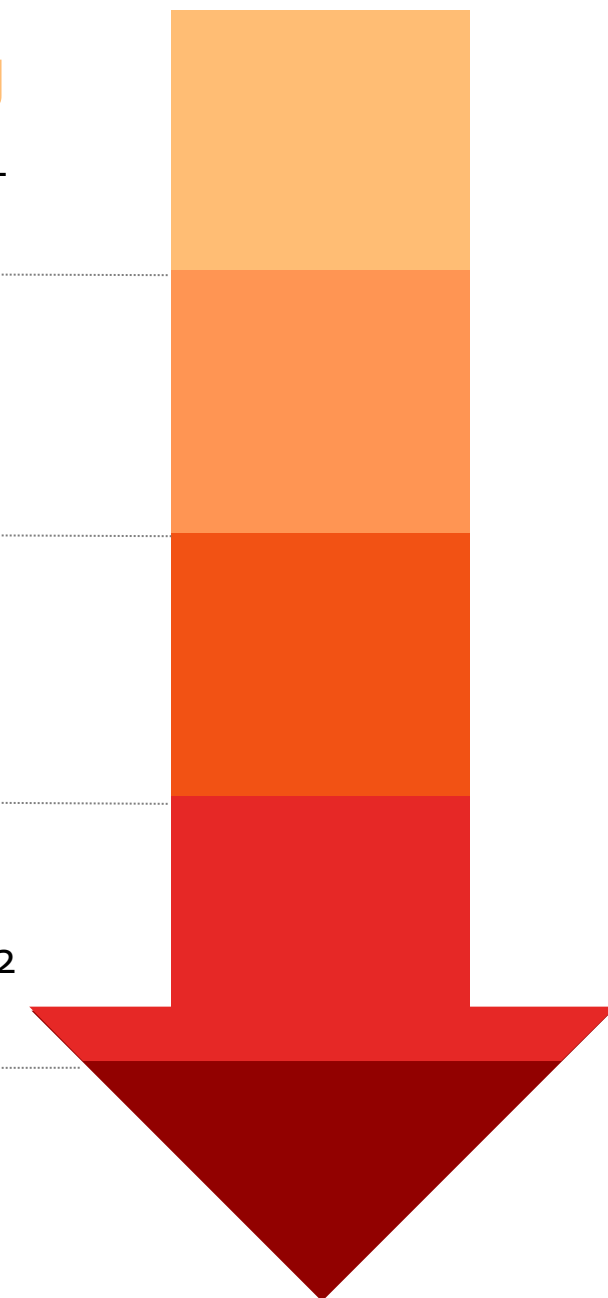
General population
Risk: 5 of 1 million (0.0005%)¹

Women **NOT on birth control**
Risk: up to 5 of 10k (0.01 – 0.05%)²

Women **ON birth control**
Risk: up to 1 of every 100 (0.3 – 1%)²

Patients with severe COVID-19
Risk: 31 every 100 (31%)²

Lowest Risk



Highest Risk

¹CVST blood clot

²Any type of blood clot



J&J & Blood Clots: CDC's Guidance

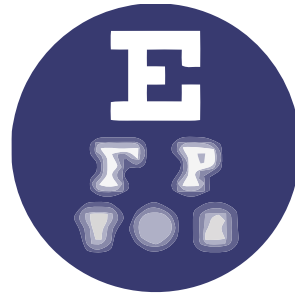
Seek medical care right away if you develop any of the symptoms below up to 3 weeks after receiving the vaccine:



Severe or persistent headaches



Leg swelling



Blurred vision



Persistent abdominal pain swelling



Shortness of breath



Easy bruising or tiny blood spots under the skin beyond the injection site

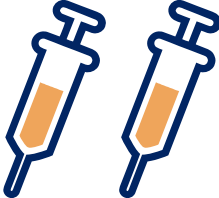




Chest pain



Vaccine Differences

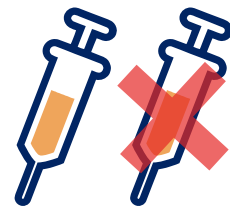
Each of the vaccines are a little different

	Moderna	Pfizer	Janssen (J&J)
Doses			
Efficacy (how well did it work in clinical trials)	94.1%	95%	72% (in US preventing moderate disease) 100% (in US preventing hospitalization and death)
Number of people tested in	30,000	43,000	45,000

Can I get COVID-19 after vaccination?



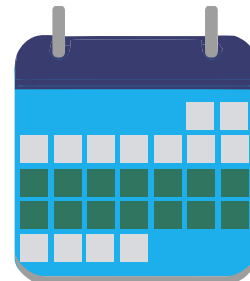
Reasons why some people get COVID-19 after vaccination



They didn't get their second dose (which boosts effectiveness)



They already had COVID-19 before they were vaccinated but didn't have any symptoms yet



They got COVID-19 before the vaccine had the chance to work (it can take 2 weeks for the vaccine to work)



Their bodies didn't create a strong immune response from the vaccine (between 72 – 94% of us will have full protection but a few of us will not)



Vaccines and Children



Children as young as 12 can get a COVID-19 vaccine

Do we need to vaccinate children? Yes!

- Children under 18 account for 1 of every 5 new COVID-19 cases
- In order to get back to normal and get kids back in school, we need to vaccinate our children

How we know it's safe for children:

- Clinical trials with children showed same safety profile as for adults

Other things to know:

- Doses are the same as for adults
- Side effects appear to be the same as for adults
- Vaccine is as effective as in adults



Which is the
best vaccine
for you?

The best vaccine is the first one offered to you!



COVID-19 Vaccine Misinformation



Countering Myths and Misinformation



Helping people identify misinformation



CONSIDER THE SOURCE

Click away from the story to investigate the site, its mission, and its contact information



REACH BEYOND

Headlines can be outrageous in an effort to get clicks. What's the whole story?



CHECK THE DATE

Reposting old news stories doesn't mean they're relevant to current events.



IS IT A JOKE?

If it is too outlandish, it might be satire. Research the site or social media source and author to be sure.



CHECK THE AUTHOR

Do a quick search on the author. Are they credible? Are they real? Are they experts in the subject? Do they benefit from the misinformation?



SUPPORTING SOURCES?

Click on those links. Determine if the info given actually supports the story. Is the evidence accurately interpreted?



CHECK YOUR BIASES

Consider if your own beliefs could affect your judgment.



ASK THE EXPERTS

Ask a librarian, a subject expert, or consult a fact-checking site.

Source: The International Federation of Library Associations and Institutions (IFLA)

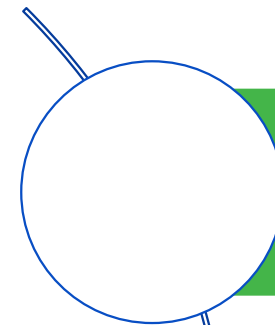


Be careful of what you see on social media

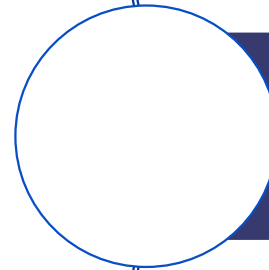
People who get most of their news from social media are likely to believe fake news.

97% of us believe we can spot fake news on social media.

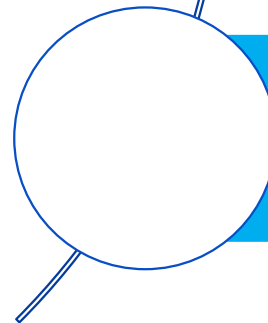
But 33% of us have shared something we later found out was wrong.



Read more than just the headline!



Does it seem realistic? If it seems far fetched, it is probably fake news.



Check the source and read the comments.



Misinformation about COVID-19

THE MYTH

COVID-19 is no more serious than the flu.

THE FACTS

COVID-19 is the leading cause of death in the United States – more people die every day of COVID-19 than cancer, heart disease, stroke, or flu.

Influenza

COVID-19

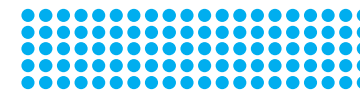
0.1%

1 – 3.4%

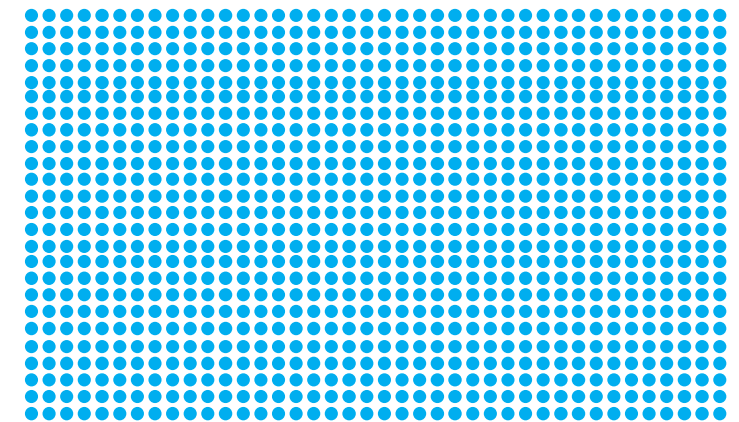
Percent of people with the disease who died

Deaths/estimated prevalence from Nov 2018 – Feb 2019

Death/confirmed cases from Jan 2020 – Oct 2020



100 deaths per 100,000 cases (0.1%)



1,000 deaths per 100,000 cases (1%)



Misinformation about Vaccines

THE MYTH

The vaccine can
give me COVID

THE FACTS

The vaccines do not contain any harmful part of the coronavirus (the virus that gives you COVID-19) so it is impossible to get COVID from the vaccine.

Moderna & Pfizer

No part of the coronavirus,
only a set of instructions

Janssen (J&J)

Only a small, non-harmful
piece of the code that
builds the spike protein



Misinformation about Vaccines

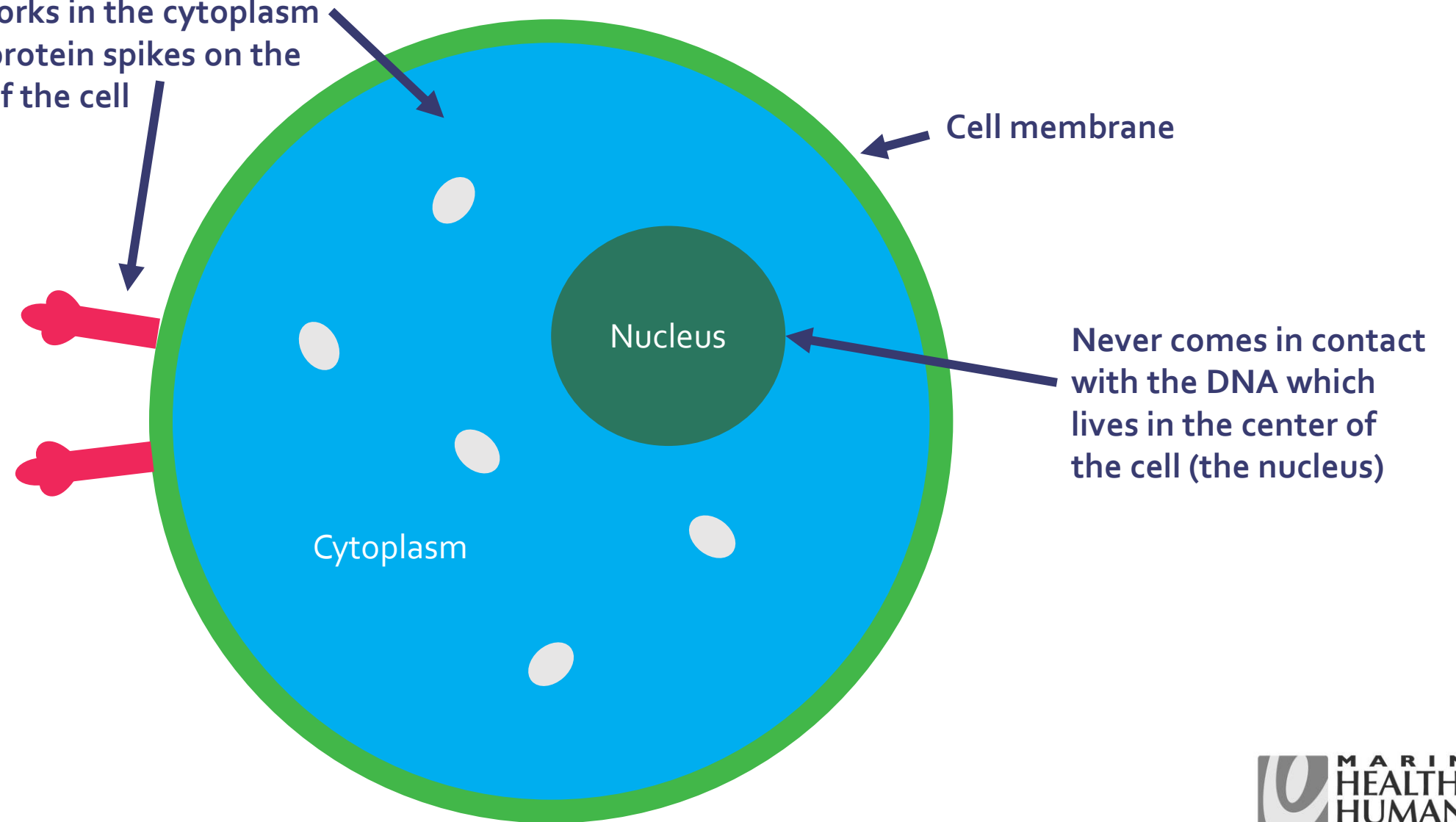
THE MYTH

The vaccine will change my DNA

THE FACTS

The mRNA vaccines work on the outside of the cell, not the inside where DNA is stored. Because the vaccines don't come in contact with your DNA, it is impossible for the vaccine to affect your DNA.

mRNA works in the cytoplasm to build protein spikes on the outside of the cell





Misinformation about Vaccines

THE MYTH

The vaccine contains microchips

THE FACTS

The vaccines do not contain any microchips. There are no microchips in the world small enough to inject through a vaccine needle.

The vaccines contain a tiny piece of genetic material and other ingredients like salt, sugar, and fats.



Misinformation about Pregnancy and Lactating Women

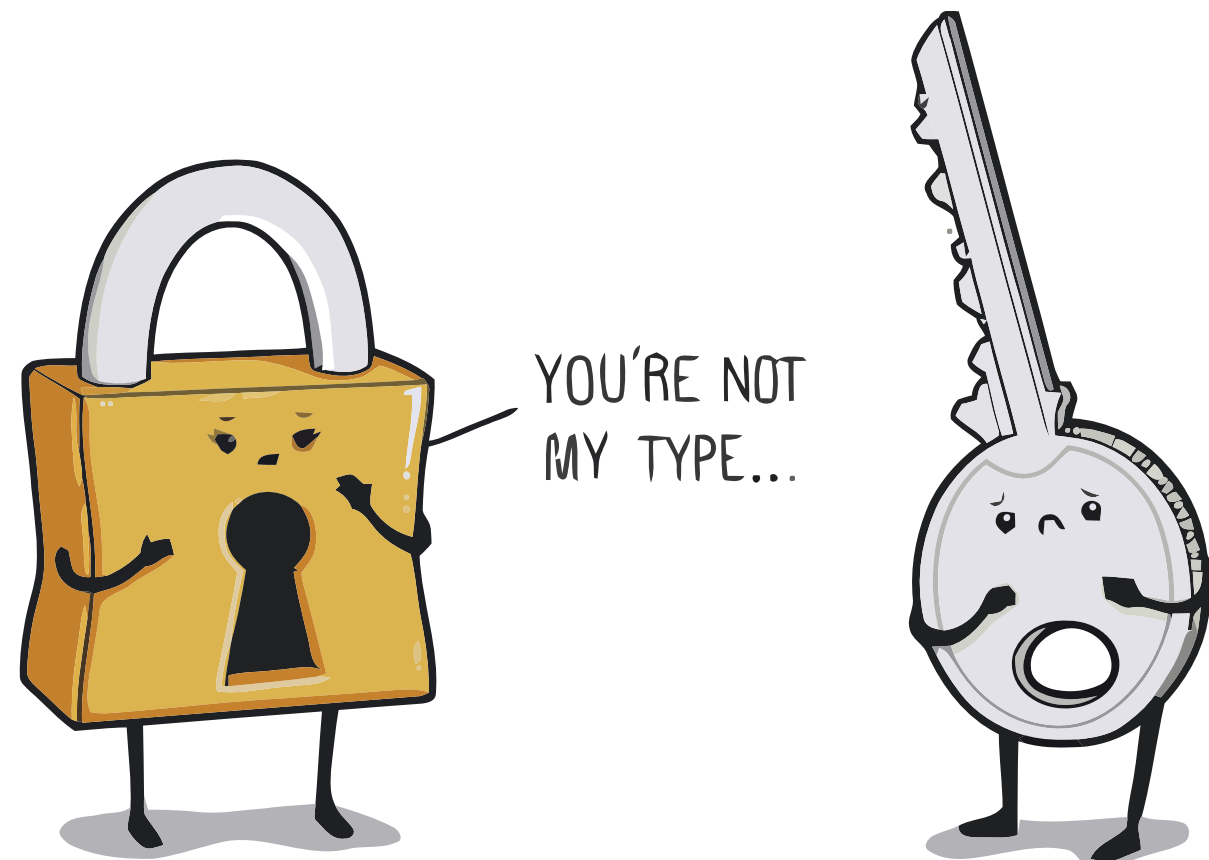
THE MYTH

The vaccine
causes infertility
or miscarriages

THE FACTS

This rumor started because the placenta has spikes, and someone thought the vaccine would attack the placenta. But COVID-19 spikes and placenta spikes have different genetic codes so the vaccines don't affect the placenta.

Think about protein spikes as locks and vaccines as keys. There are lots of locks but only the key meant for that lock will work on it.





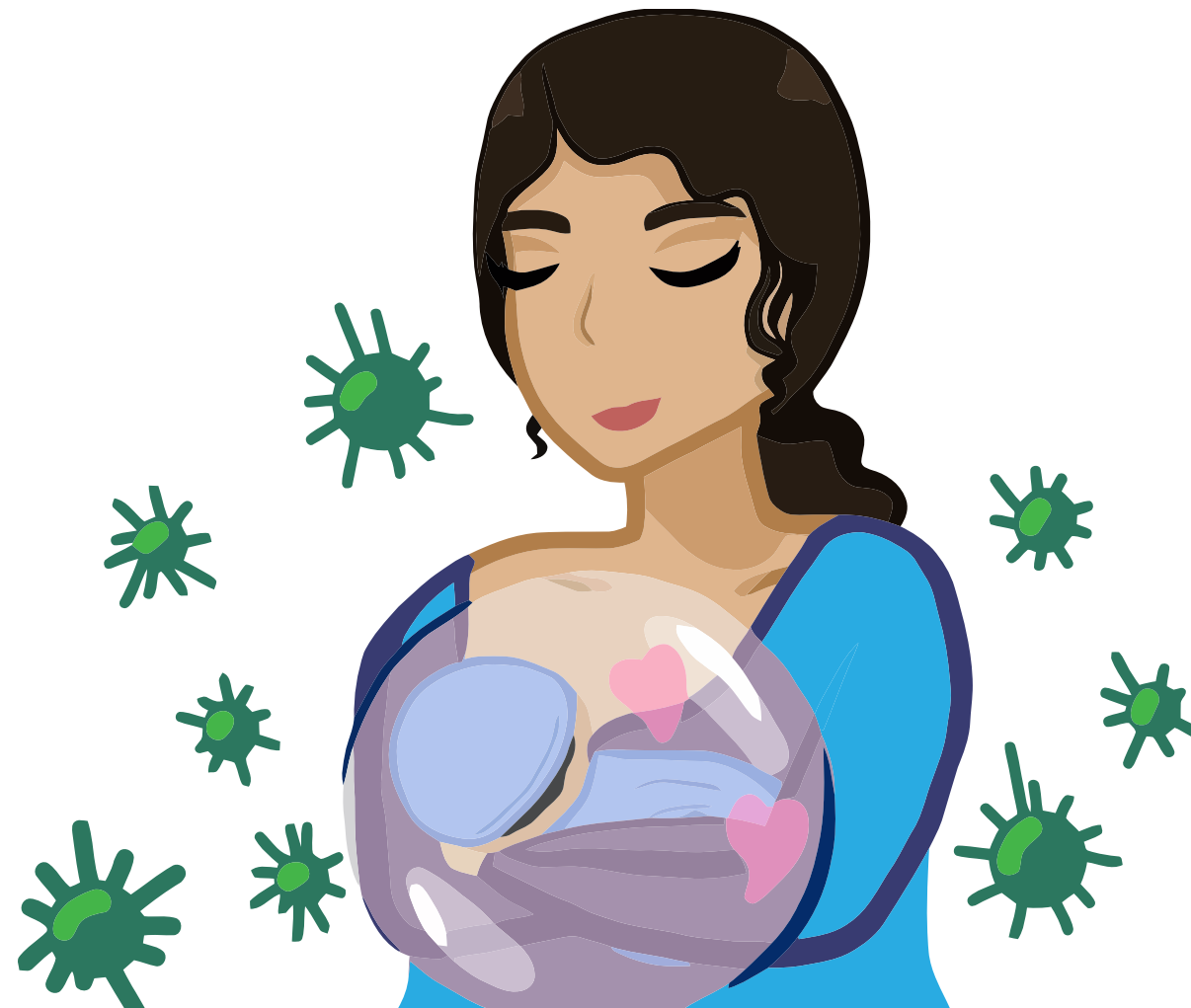
THE MYTH

The vaccine is not safe for lactating mothers

THE FACTS

When a person gets vaccinated while breastfeeding, their immune system develops antibodies that protect against COVID-19. These antibodies can be passed through breast milk to the baby. Newborns of vaccinated mothers who breastfeed can benefit from these antibodies against COVID-19.

Misinformation about Pregnancy and Lactating Women





Misinformation about Religious Concerns

THE MYTH

The vaccine is
haram

THE FACTS

The Pfizer, Moderna, and J&J vaccines do not contain any pork or gelatin. The vaccines are halal and allowed under Islamic law.





Misinformation about Religious Concerns

THE MYTH

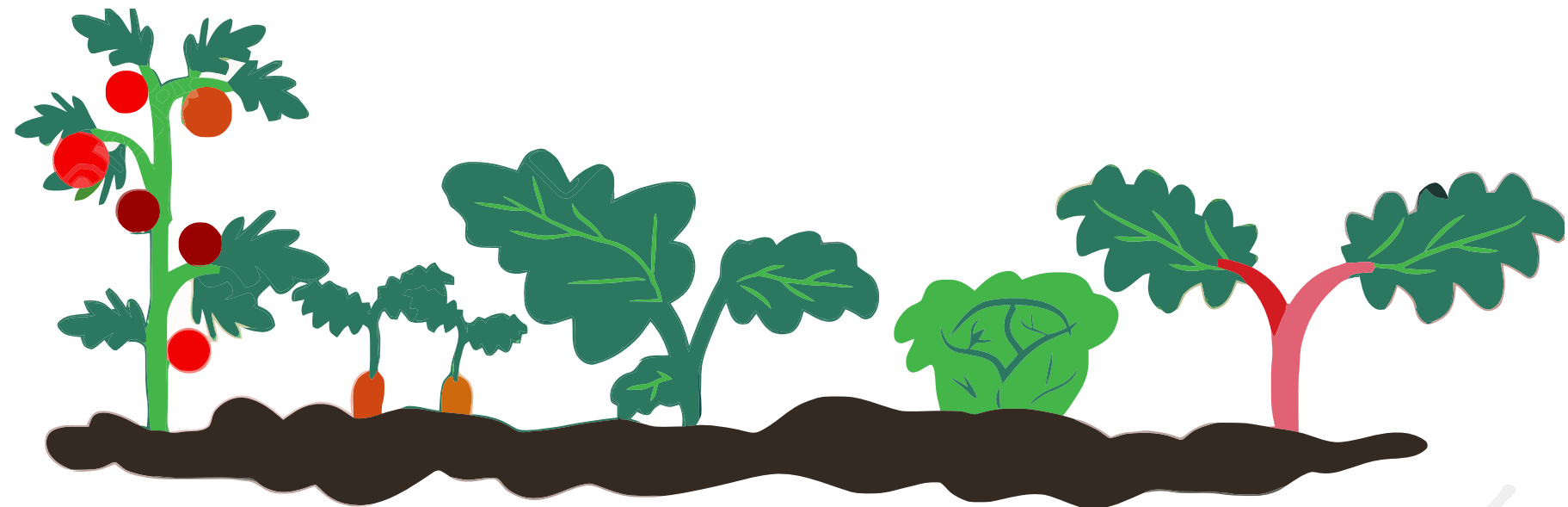
The vaccine
contains aborted
fetal cells

THE FACTS

Neither the Pfizer nor Moderna vaccines contain any animal or human cells. That includes aborted fetal cells.

J&J vaccine is *cultured* in cells derived from cells that came from aborted tissue in the 1960's. **BUT** the Catholic Church has said "getting vaccines that do not pose an ethical dilemma is not always possible," so the J&J vaccine is allowed.

Think of being cultured like a vegetable garden – you might add fertilizer to your garden to help it grow, but the carrot you eat doesn't have fertilizer in it.





Misinformation about Holistic Health

THE MYTH

I take vitamins to provide natural immunity, so I don't need the vaccine

THE FACTS

Vitamins can supplement deficiencies in our diet but don't help the immune system build antibodies against a disease. Only vaccines or getting the disease itself can do that. Vaccines are always safer and healthier than getting the disease.

Vaccines fight disease. Vitamins do not!





Misinformation about Holistic Health

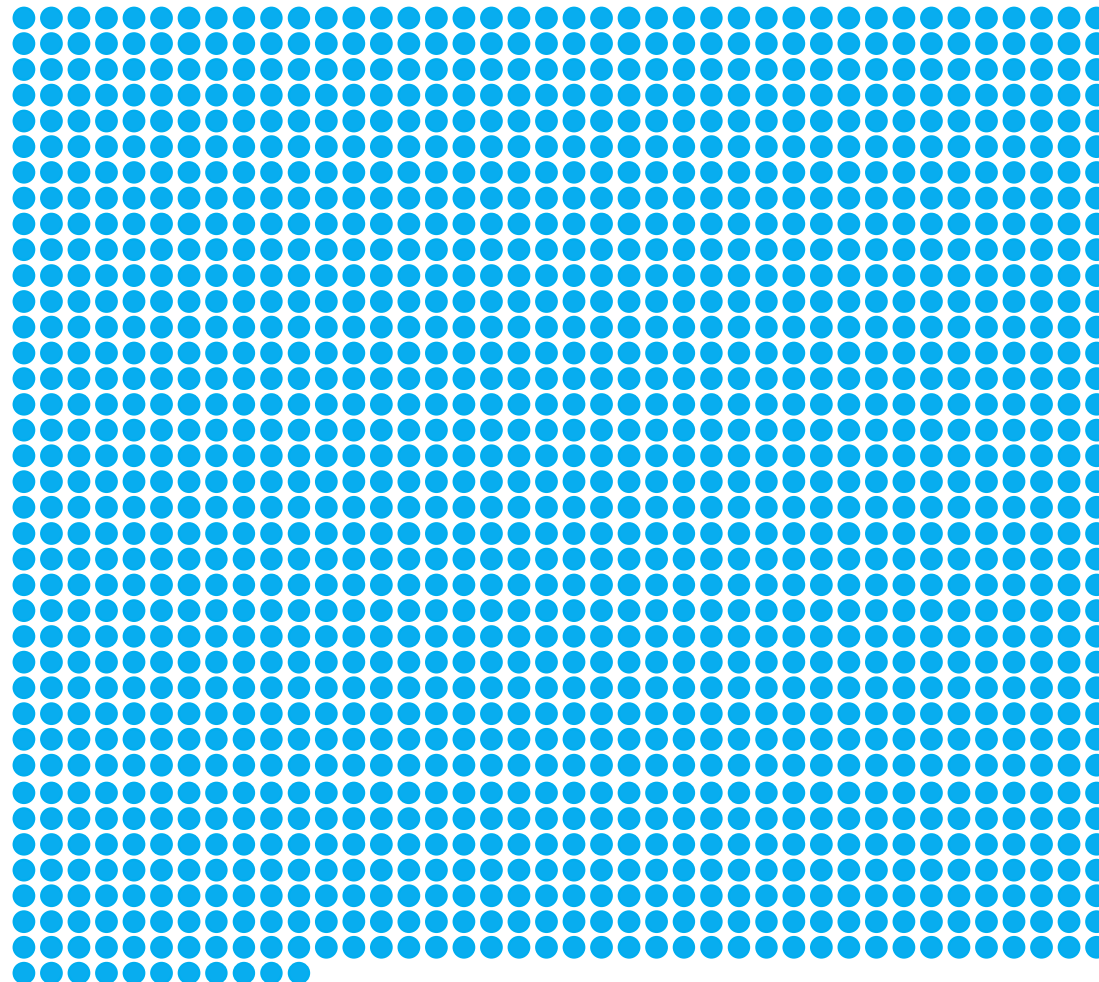
THE MYTH

I think disease
immunity is better
than vaccine-
derived immunity

THE FACTS

COVID-19 is a serious and sometimes deadly disease. There is no guarantee, regardless of how healthy you are, that you will not suffer serious complications or die.

COVID deaths per 1 million people:



Adverse events (like a serious allergy) per 1
million doses of vaccines:

