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IF YOU HAVE  
A BETTER WAY TO HELP  
ME TO KEEP MY HANDS  
OFF MY FACE UNTIL  
THIS PANDEMIC  
ENDS--I'M ALL  
EARS.



FITZSUMMONS THEARTMANADAMSTAR 2020 CAGLECARTOONST.COM





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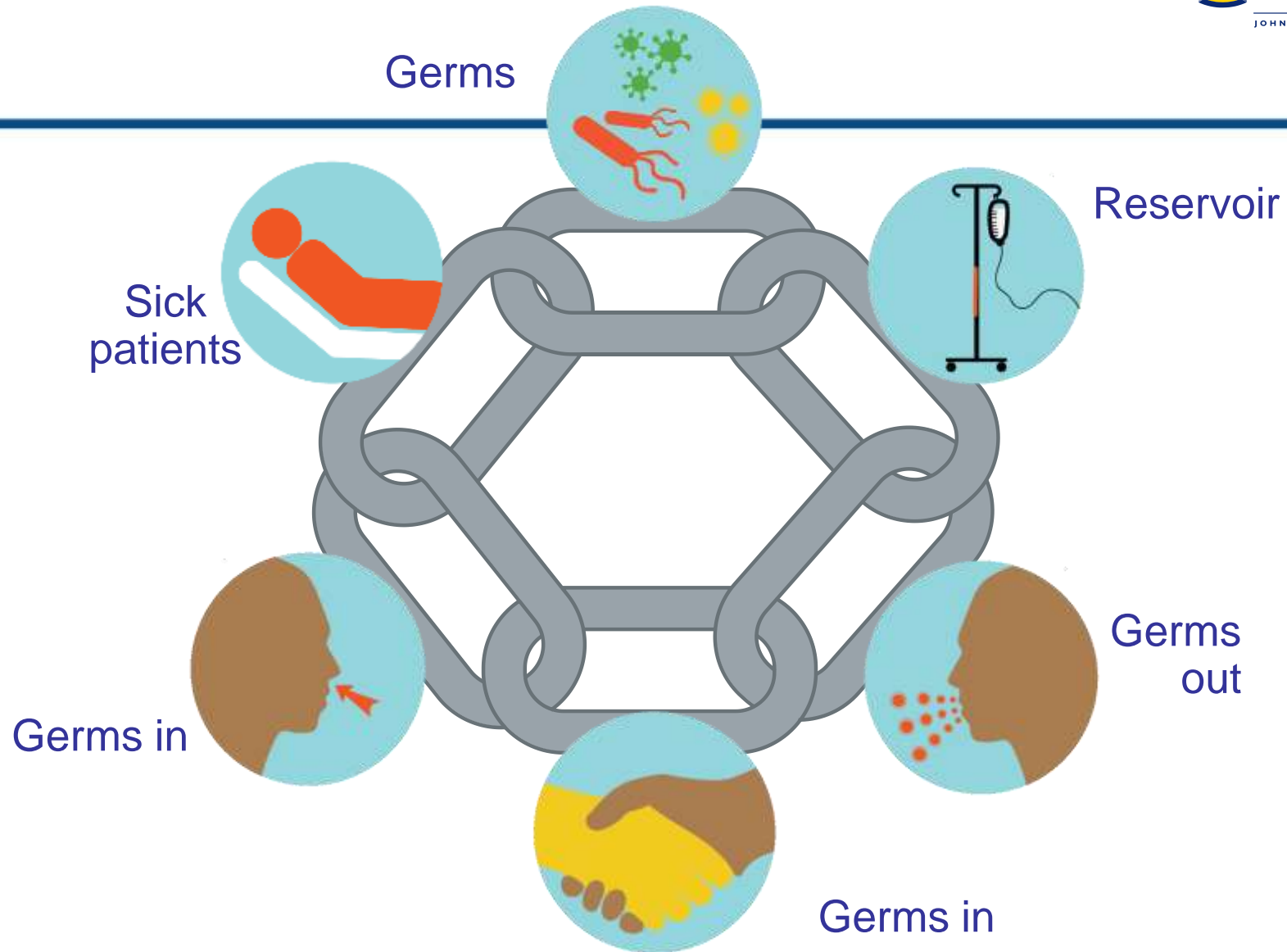
# PHYSiCAL DiSTANCiNG



**KEEP 1 ALLIGATOR**



# Chain of Infection



# How Can You Break the Chain of Infection?

Stay well –  
get vaccinated



Clean high touch  
surfaces



Perform hand  
hygiene



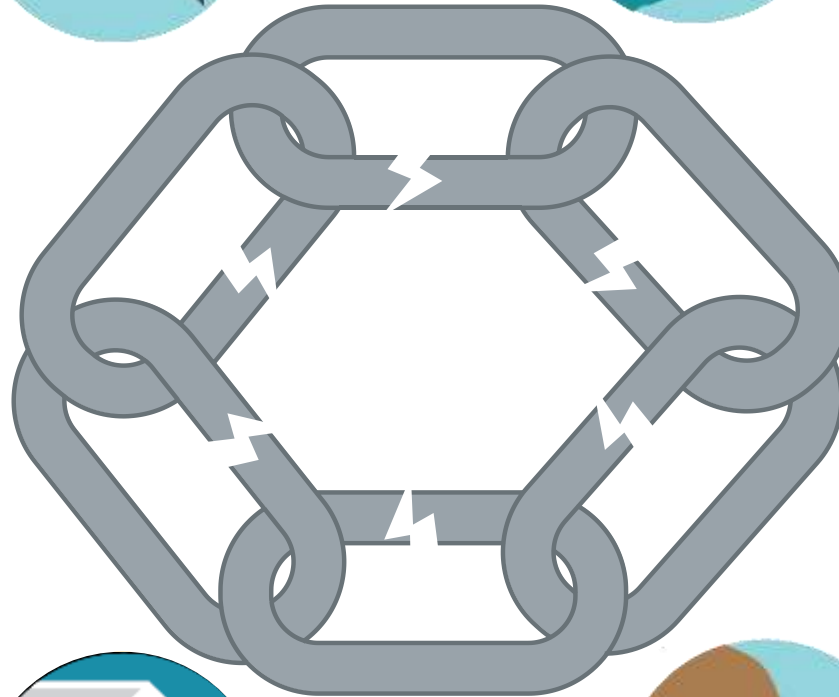
Wear mask when  
around others



Practice  
social  
distancing



Don't touch  
your face



# Flu Vaccine: Ages 65+

- When should I get vaccinated?
  - before flu viruses begin spreading in your community (takes ~2 weeks after vaccination for antibodies to develop & provide protection against flu)
  - CDC recommends that people get a flu vaccine by the end of October
- People 65+ years old should not a nasal spray vaccine
- Regular flu shots are approved for use in people 65 years and older but there also are two vaccines designed specifically for this group:
  - Fluzone High-Dose
    - contains 4x the amount of antigen (the inactivated virus that promotes a protective immune response) as a regular flu shot
    - Associated with a stronger immune response following vaccination (higher antibody production)
  - Fluad Adjuvanted Flu Vaccine
    - Has an additive that can create a stronger immune response to vaccination



# What is the Best Way to Protect Yourself?

## Hand Hygiene!

### Keep your hands clean

- Clean your hands:
  - with alcohol, foam hand rinse, or soap and water
  - after removing gloves (if you are choosing to wear them outside of the home – NOT NECESSARY)
  - after you use the restroom
  - before you eat
  - after you eat
  - After you come home from being out



# 7 STEPS TO HANDWASHING



Rub palms together



Rub the back  
of both hands



Interlace fingers and  
rub hands together



Interlock fingers and  
rub the back of fingers  
of both hands



Rub thumb in a rotating manner  
followed by the area between index  
finger and thumb for both hands



Rub fingertips on palm  
for both hands



Rub both wrists in a  
rotating manner.

# Alcohol-Based Hand Sanitizer



APPLY THE PRODUCT ON  
THE PALM OF ONE HAND



RUB HANDS TOGETHER



COVER ALL SURFACES  
UNTIL HANDS FEEL DRY  
(20 SEC)



# REMEMBER:

**Wearing gloves is NOT a  
substitute for cleaning your  
hands!**



# Disinfect High-Touch Surfaces



Cell Phones & land  
lines



Toilet seat and  
flush handle



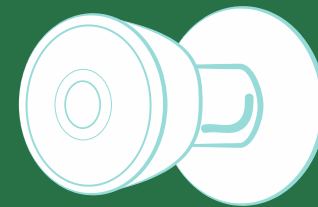
Sinks in kitchens  
and bathrooms



Light switches

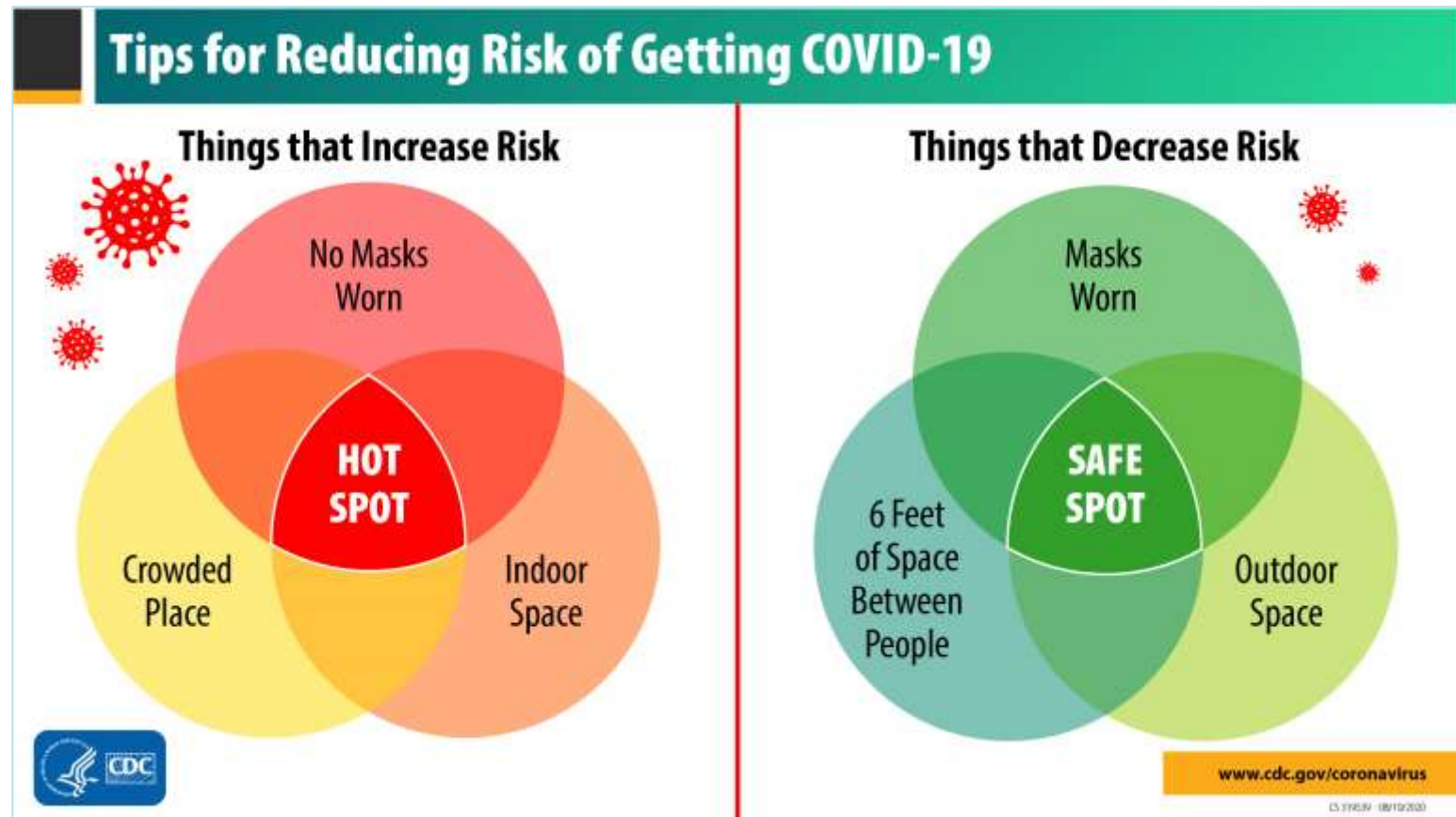


TV remote



Doorknobs

# What Makes Activities Safer?





# Wear a Cloth Mask

- Wear cloth face coverings in public settings where other social distancing measures are difficult to maintain (e.g., grocery stores and pharmacies)
- Important especially in areas of significant community-based transmission
- **Why??**
  - a significant portion of individuals with coronavirus lack symptoms
  - those who eventually develop symptoms (“pre-symptomatic”) can transmit the virus to others before showing symptoms
  - Virus can spread between people interacting in close proximity (when speaking, coughing, or sneezing)—even if those people are not exhibiting symptoms



# Understand the Potential Risks of Going Out

- CDC cannot provide the specific risk level for every activity in every community. That's why it's important for you to consider your own personal situation and the risk for you, your family, and your community before venturing out.
- The risk of an activity depends on many factors, such as:
  - Is COVID-19 spreading in your community?
  - Will you have a potential close contact with someone who is sick or anyone who is not wearing a mask (and may be asymptomatic)?
  - Are you at increased risk of severe illness?
  - Do you take everyday actions to protect yourself from COVID-19?
  - How much time will you be interacting with other people?

# Running Essential Errands (getting gas, grocery shopping, banking)

- What you need to know:
  - **Stay home if you are sick**
  - Use **online** services when available
  - **Wear masks** in public settings and when around people who don't live in your household, especially when other social distancing measures are difficult to maintain
  - **Use social distancing** (stay at least 6 feet away from others)
  - Use **hand sanitizer** after leaving stores
  - **Wash your hands** with soap and water for at least 20 seconds when you get home





# Hosting Gatherings/Cook-Outs

- Remind guests to stay home if:
  - they are sick
  - they have been exposed to COVID-19 in the last 14 days
  - they are showing COVID-19 symptoms
  - they have had close contact with a person who has COVID-19 should also stay home and monitor their health



\*Invited guests who live with those at higher risk should also consider the potential risk to their loved ones

# Hosting Gatherings/Cook-Outs

- Food and drink tips:
  - Limit the number of people handling or serving food (encourage guests to bring their own food)
  - Limit people going in and out of the areas where food is being prepared or handled
  - Consider identifying one person to serve all food so that multiple people are not handling the serving utensils
  - Use single-use options or identify one person to serve sharable items (salad dressings and condiments)



# Hosting Gatherings/Cook-Outs



- Encourage **social distancing**
  - Host your gathering outdoors, when possible. If this is not feasible, make sure the room or space is well-ventilated (for example, open a window)
  - Arrange tables and chairs to allow for social distancing
  - When guests arrive wave and verbally greet them (avoid hugs, hand shakes)
- Encourage **mask** wearing:
  - Wear masks when less than 6 feet apart from people or indoors
  - Consider providing masks for guests or asking them to bring their own
- Encourage good **hand hygiene**:
  - Consider providing hand sanitizer (at least 60% alcohol)
  - Wash hands for at least 20 seconds when entering and exiting social gatherings
  - Stock bathrooms with adequate soap and encourage guests not to form a line at the door
  - Use single-use hand towels or paper towels for drying hands



# Hosting Gatherings/Cook-Outs

- Limit contact with commonly touched surfaces or shared items
  - Use touchless garbage cans or pails
  - Use gloves when removing garbage bags or handling and disposing of trash. Wash hands after removing gloves
  - Clean and disinfect commonly touched surfaces and any shared items between use when feasible
  - If you choose to use any shared items that are reusable (e.g., seating covers, tablecloths, linen napkins), wash, clean, and sanitize them after the event.

# Dining at a Restaurant: a Few Tips

- Check the restaurant's website to see if they have COVID-19 safety guidelines.
- When possible, sit outside at tables spaced at least **6 feet apart** from other people.
- **Wear masks when less than 6 feet apart** from other people or indoors
- Take precautions – like wearing **a mask** as much as possible when not eating and maintaining a proper social distance if you are dining with others who don't live with you.
- Maintain a **social distance of 6 feet** or more in any entryway, hallway, or waiting area.
- **Wash your hands** for at least 20 seconds when entering and exiting the restaurant. If soap and water are not readily available, use a hand sanitizer
- When possible, choose food and drink options that are not self-serve to **limit the use of shared serving utensils, handles, buttons, or touchscreens.**
- Before using the restroom, make sure there is adequate soap and paper towels or hand sanitizer



# Restaurants are Getting Creative!



# Using Gyms or Fitness Centers

- **Prepare** before you go
  - Use online reservations and check-in systems when available
  - Look for any extra prevention practices being implemented by the facility (plexiglass barriers, staff wearing masks, and closing of shared locker room space)
  - Be prepared that locker room access may be limited to the restroom area only
- **Limit activity indoors**, especially group activities
  - Seek facilities with outdoor space or options for virtual class sessions as much as possible.
  - Limit attendance at indoor group training sessions.
  - Maintain at least 6 feet of separation as much as possible
- **Take extra precautions** with shared equipment
  - Ensure equipment is clean and disinfected
  - Do not share items that cannot be disinfected between use
- **Wear a mask**
  - Wear a mask when interacting with other people
  - Wash your hands before adjusting your mask
- Don't shake hands, give high-fives, do elbow bumps, or touch



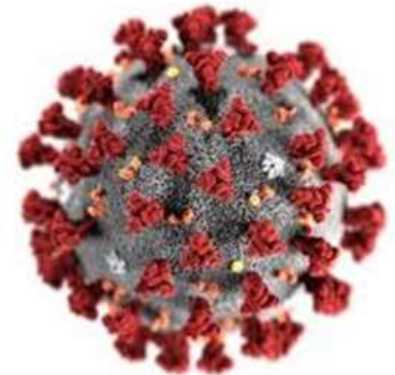
# Prevent the Spread of COVID-19 if You Are Sick

- Stay home if you are sick, except to get medical care
- Avoid ride-sharing, or taxis, if possible
- Separate yourself from other people in your home
- There is no specific treatment for COVID-19, but you can seek medical care to help relieve your symptoms
- If you need medical attention, call ahead to your provider

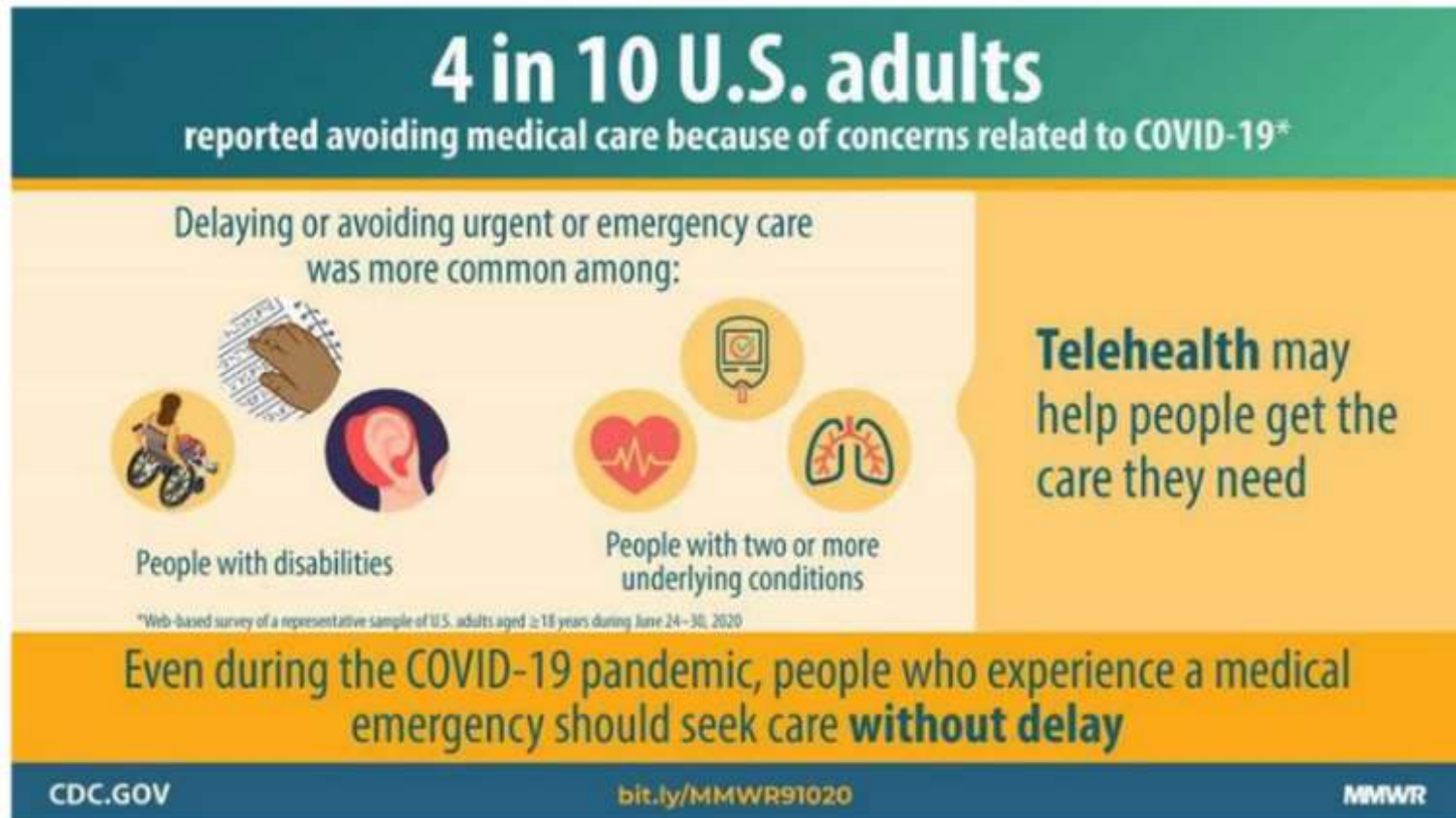


# COVID-19 Symptoms

- Wide range of symptoms reported (mild symptoms to severe illness) Symptoms may appear 2-14 days after exposure to the virus.
- People with these symptoms may have COVID-19:
  - Fever or chills
  - Cough
  - Shortness of breath or difficulty breathing
  - Fatigue
  - Muscle or body aches
  - Headache
  - New loss of taste or smell
  - Sore throat
  - Congestion or runny nose
  - Nausea or vomiting
  - Diarrhea
- \*\*This list does not include all possible symptoms. CDC will continue to update this list as we learn more about COVID-19



# Don't Avoid Getting Medical Care if Needed



# What if You Do Get Sick?



MEMORIAL  
HOSPITAL  
PHYSICIAN MEDICINE

- Have a plan!
- Know how to stay in touch with others by phone or email
- Ask for help from friends, family, neighbors, and community health workers if you become sick (many communities have volunteers to help with this)
- Determine who can care for you if your caregiver gets sick
- Contact your healthcare provider to ask about obtaining extra necessary medications to have on hand in case there is an outbreak of COVID-19 in your community and you need to stay home for a prolonged period of time
- If you cannot get extra medications, consider using mail-order for medications

# What if You Do Get Sick, cont?

- Be sure you have over-the-counter medicines and medical supplies (tissues, etc.) to trerecover from COVID-19 at home
- at fever and other symptoms. Most people will be able to Have enough household items and groceries on hand so that you will be prepared to stay at home
- Consider ways of getting medications and food brought to your house through family, social, or commercial networks
- Have a plan for someone to care for your pets during your illness



# 7 Ways Families Can Stay Connected to Senior Loved Ones During COVID-19

- Write a letter, send a card
- Enlist caregivers' help
- Pick up the phone, and do so twice as often
- Make video calling easy
  - FaceTime, Skype, Zoom and WhatsApp allow for communication via video calls (most of are free to download)
- Try senior-friendly tech products
  - GrandPad, a simplified tablet with large text and buttons, with added security features
  - Phones: Jitterbug Flip and Smart2
- Take a free virtual vacation with a friend, loved one
  - online virtual tours of destinations like Yellowstone National Park, the Guggenheim Museum in New York City, the Louvre in Paris and even Mars
- Plan a window visit (or lawn, porch, etc)





# Evidence-Based Resources

- Centers for Disease Control
- World Health Organization
- Johns Hopkins (search for coronavirus)







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# COVID-19: WHAT'S NEW?

September 30, 2020

**Sara Taherkhani, MD**

Infectious Disease

Sibley Memorial Hospital

Johns Hopkins Medicine

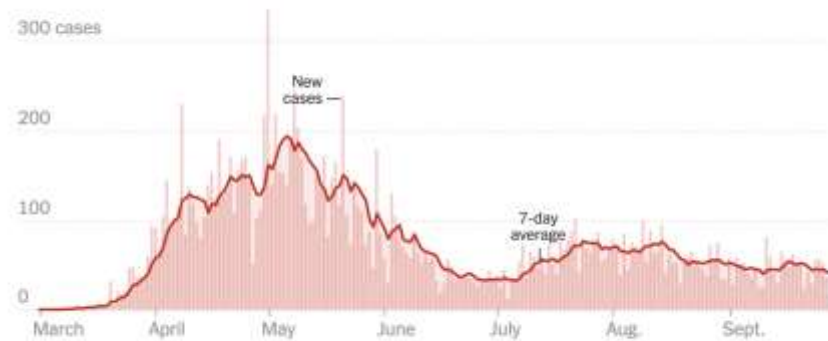
# COVID-19 Update: What's New?

- Types of tests and what they mean
- Who should get tested and why
- When are you no longer considered contagious
- What have we learned since the pandemic started
- How much longer will pandemic last
- Current Available Treatments
- Vaccines and what to expect



# COVID-19 Updates

**New reported cases by day in Washington, D.C.**



Note: The seven-day average is the average of a day and the previous six days of data.

- **Worldwide: almost 33.4 million cases, 1 million deaths**
- **USA: 7.1 million cases, 205K deaths**
- **DC: Total cases: 15K, Total Deaths: 624**
- **MD: Total cases: 124K, Total Deaths: almost 4K**



# COVID-19 Symptoms

**Symptoms can develop 2-14 days after exposure. Typically around Day 5.**

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New loss of taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

# Diagnostic Tests for ACTIVE Infection

PCR/Molecular	Antigen
Looks for the virus' genetic material	Looks for specific proteins on the virus' surface
More complex method	Less complex
Longer turnaround (hours – days)	Rapid testing (minutes)
Highly accurate (sometimes too accurate)	Less reliable (higher rate of false negatives)
Expensive	Cheap
Nasal/Throat swab, Saliva	Nasal/Throat swab

**Where:** At a hospital, in a medical office, urgent care, dedicated testing centers, in your car, or even at home.

# Antibody Test: PAST Infection

- Looks for antibodies that are made by your immune system in response to the virus
- Can take several days or weeks (1-3 weeks typically) to develop antibodies after an infection
- Blood specimen
- Cannot diagnose an ACTIVE coronavirus infection.
- A lot of unknowns:
  - Does it provide adequate immunity against reinfection?
  - If so, for how long?

# Who Should Get Tested

## Anyone who has symptoms of COVID-19

- Especially if you live with others or a person at increased risk of severe illness
- If you have been in close contact, (within 6 feet) of a person with documented COVID infection for at least 15 minutes even if you do not have symptoms

## Asymptomatic testing:

- If you are in a high COVID transmission zone and attended a public or private gathering of more than 10 people (without universal mask wearing and/or physical distancing)
- If the health department contacts you for testing (contact tracing)
- If your employer requires it (nursing homes, critical infrastructure jobs, healthcare workers)

# Treatment Update

- Still no FDA approved treatments
- No treatment for patients who are NOT hospitalized
- No drugs recommended or approved for prophylaxis (prevention)
- Treatments only available to hospitalized patients with COVID
  - Intravenous Remdesevir (antiviral)
  - Corticosteroids
  - Convalescent plasma



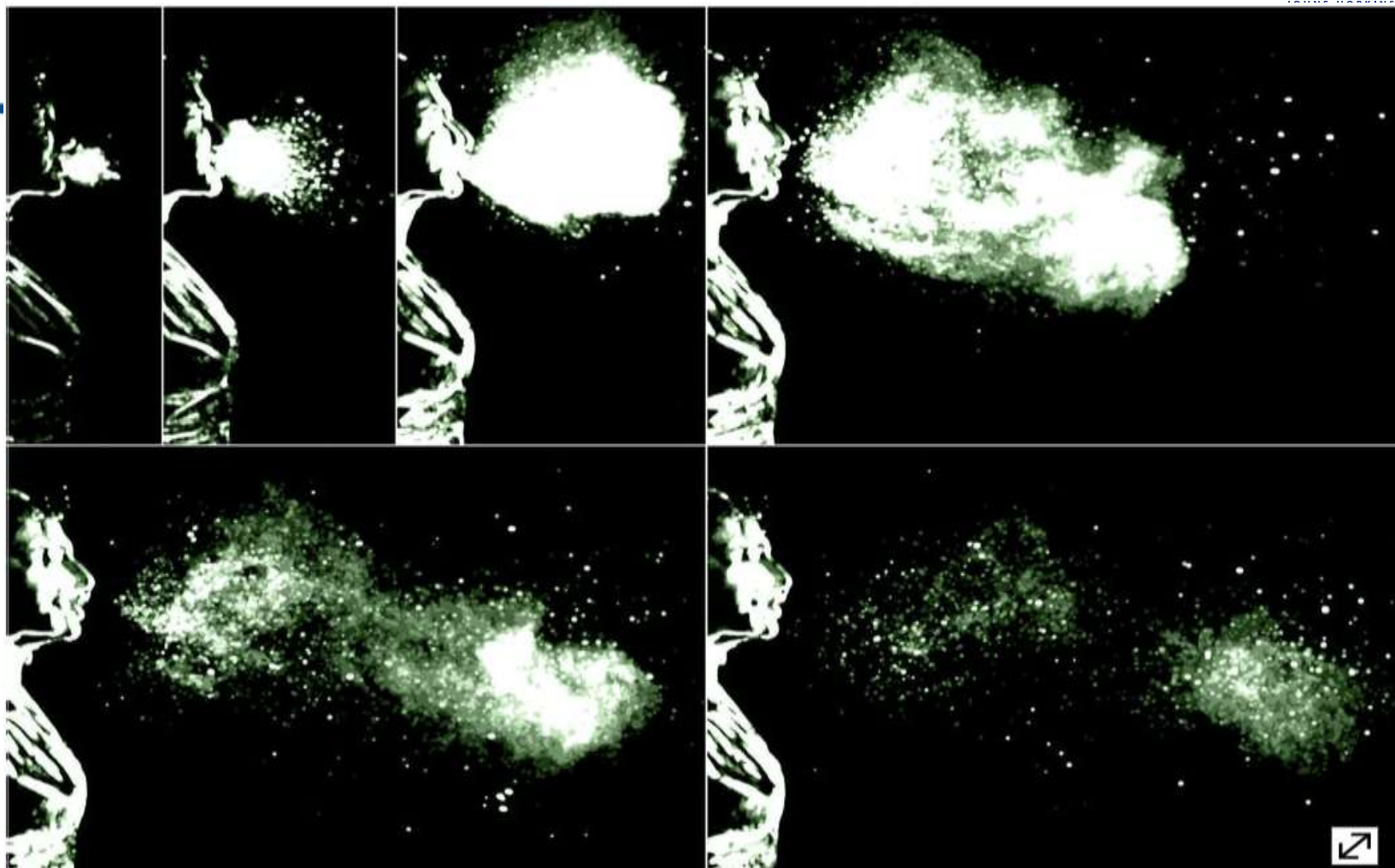
# When Are You No Longer Contagious?

## **Most Individuals:**

- 10 days since symptoms first appeared **and**
- 24 hours with no fever without the use of fever-reducing medications **and**
- Other symptoms of COVID-19 are improving
- Do not need a follow-up negative test unless required by school/employer

## **People who are severely ill/hospitalized or are severely immunocompromised:**

- Typically require more than 10 days since symptom onset
- May require repeat testing to determine when they can be around others
- Check with your doctor



## What Have We Learned? Transmission

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### Aerosol or air transmission is possible

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Loud talking, heavy breathing, singing, and screaming expel more virus -> (nightclubs and gyms are risky places)

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Germs on surfaces aren't a major route for transmission

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Children can get sick and can spread the virus

Warm weather hasn't affected rates of spread

# What Have We Learned?

## Transmission

Factors that increase community spread and individual risk



- Majority of transmissions occur within households
- Good ventilation indoors can minimize risk of spread -> the more air flow, the faster the virus gets diluted
- 40% of infected persons gave history of dining at restaurants

# Masks Are Effective!!!

- Masks reduce the amount of virus expelled and inhaled
- A higher inoculum (viral load) and duration of exposure leads to increased chance of infection and increased severity of illness
- Asymptomatic spreaders do exist
  - Experts estimate 40% of infected individuals are asymptomatic
- Projection from the Institute of Health Metrics and Evaluation suggested that 33,000 deaths could be avoided by October 1 if 95 percent of people in US wore masks in public



# What Have We Learned?

## Immunity

- Natural immunity likely lasts at least a few months > How long exactly? Unclear. (need more time to pass)
- Generally the more severe your infection, the more antibodies your body will produce, and the longer they'll stay in your system
- So if you had a mild infection -> your level of protection may not last long or protect you
- Is reinfection possible?? How?
- If so will subsequent infections be less severe?
- Still a lot of unanswered questions

# What Have We Learned?

## Risk factors

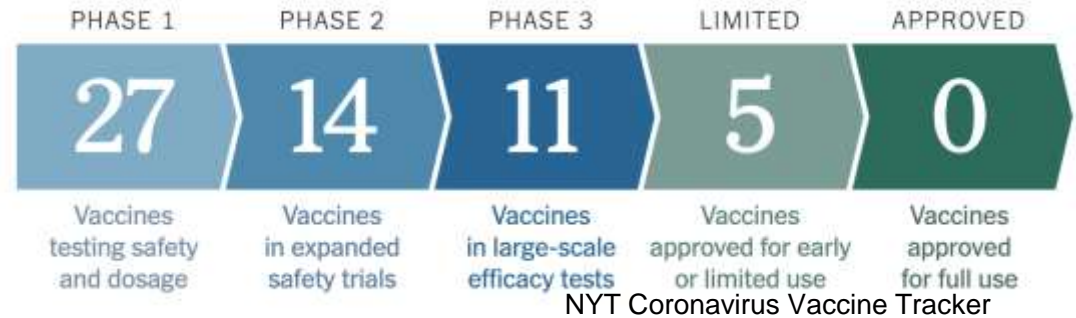
- Certain factors can increase severity of illness:
  - Older age
  - Obesity
  - High blood pressure
  - Diabetes
- Blacks, Hispanics and Native American people are more likely to be hospitalized with higher rates of mortality
  - Socioeconomic status
  - Access to health care
  - Increased exposure to the virus due to occupation (e.g., frontline, essential, and critical infrastructure workers).
  - Live in multigenerational homes

Rate ratios compared to White, Non-Hispanic Persons	American Indian or Alaska Native, Non-Hispanic persons	Asian, Non-Hispanic persons	Black or African American, Non-Hispanic persons	Hispanic or Latino persons
Cases <sup>1</sup>	2.8x higher	1.1x higher	2.6x higher	2.8x higher
Hospitalization <sup>2</sup>	5.3x higher	1.3x higher	4.7x higher	4.6x higher
Death <sup>3</sup>	1.4x higher	No Increase	2.1x higher	1.1x higher

# When Will It End??

- No one really knows . . . the virus may be here to stay
- There is a lot we don't know about immunity
  - How long does immunity last?
  - Can you get re-infected?
- How soon will we have a vaccine?
- **Different scenarios:**
  - Allow virus to spread naturally -> reach herd immunity
    - Millions will die and healthcare systems will be overwhelmed
  - Put fires -> stamp out outbreaks
- Until a vaccine is developed, we will have to get used to universal masking, testing, social distancing, isolating and shutting down (tightening restrictions) periodically

# Vaccines



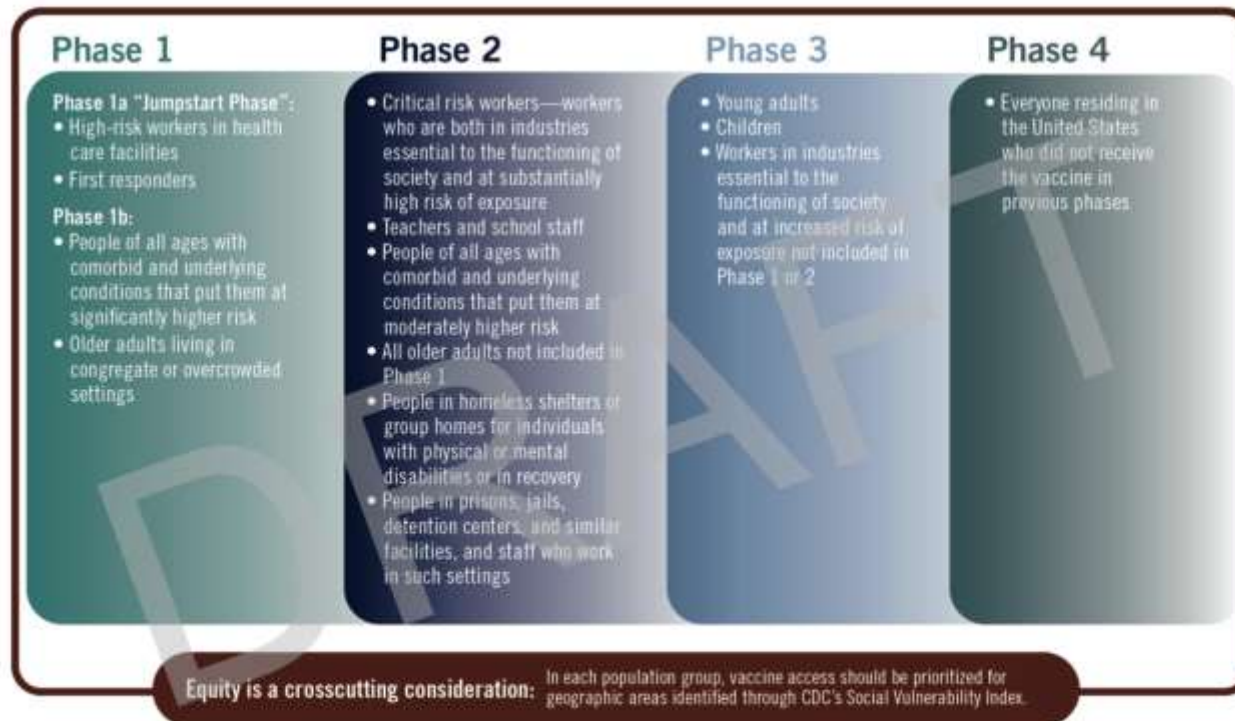
- **Operation Warp Speed**
- **42 vaccines** in clinical trials on humans
- **11 vaccines** in Phase 3 Trials
- **PHASE 3 EFFICACY TRIALS:** Scientists give the vaccine to **thousands of people** and wait to see how many become infected, compared with volunteers who received a placebo.
- Also large enough that rare side effects will be revealed.
- The F.D.A. said that a coronavirus vaccine would have to protect at least 50% of vaccinated people to be considered effective.

# Phase 3 Vaccine Trials

- **US government has provided billions in funding:**
  - Moderna
  - BioNTech + Pfizer
  - Johnson and Johnson
  - AstraZeneca + University of Oxford (on hold in US)
  - Novavax
- **When?**
  - Sometime in 2021
  - "at risk" production allows faster availability after approval



# Who Will Get Vaccine?



A phased approach outlined in the draft National Academy report.  
THE NATIONAL ACADEMIES OF SCIENCES, ENGINEERING AND MEDICINE

# Vaccine Safety

Vaccine trial considered safe and effective (phase 3)



Submit data to FDA



FDA reviews and if agrees



Vaccine and Related Biological Products Advisory  
Committee (VRBPAC)



Hold a Hearing that is open to public



Make a recommendation to the FDA



FDA ultimately decides

# Get Your Flu Shot

- Double threat
- Can get coinfectd with Flu and COVID-19
- Infection with one can predispose you to infection with the other
- The worst-case scenario is both the Coronavirus and the flu are spreading fast and causing severe disease
- Makes diagnosis complicated
- Large burden on health care system



# What Can You Do?

- Minimize interactions with others outside of your immediate home and try not to congregate
- Watch your distance – ideally 6 feet
- Wear a mask
- Wash your hands . . . constantly
- **Get your FLU shot**
- Be patient – This is new for all of us and we are all learning together as we go



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