

Week One

10th Grade

Desoto County
Schools

Distance Learning

You are living through an unprecedented moment in history—right now! Today, tomorrow, and the days that follow will be captured in history books. Someday, you will share stories with your children and grandchildren about living through this time. Because these days are historical, it is critical that we not let these events pass without capturing how they affect you, your family, your school, and your community.

Since you will be “schooling” from home, I will describe here the **daily** assigned work to be done outside the classroom. Here are your daily writing and reading requirements:

Daily Writing

You will be asked to write two pages (or more) a day, capturing your thoughts, questions, comments, and concerns about the events that are unfolding. I want you to capture this history—your history—any way you’d like. Below are some suggestions for your daily writing. Feel free to generate your own thinking.

Some possibilities for daily writing:

- Capture how this virus has disrupted your school year—including sporting events, concerts, assemblies, dances.
- Discuss how your daily life has been disrupted.
- Share the effect it has had on your friends and family.
- You might write reviews of movies, television shows, podcasts, video games to share with your classmates.
- Discuss the situation with a friend or relative and write about this discussion.
- Respond to any seed about the crisis you find interesting. A “seed” can be an article, a TV broadcast, a Tedtalk, a tweet, a photograph, a podcast, a film, an Instagram (or another online) post, a TikTok video, a political cartoon—anything that spurs some thinking about the crisis. As the crisis unfolds, you will be able to easily find new seeds that encourage reflection. This story changes every day. Find seeds worthy of writing and thinking about. Write across genres: poetry, dialogue (just capture a conversation between people), description, etc. Zoom in on a moment you experience; discuss songs that capture these events for you. Find and respond to charts and graphs worth thinking about.

Again, be creative as you decide how best to chronicle your thinking. What is the best way to capture this historical moment? You decide. Be creative!

Take risks. Be honest. Try to create writing that you will be interested in re-reading years from now. Chronicle your thinking as we navigate these uncertain times.

Daily Choice Reading

Find a book to read. Any book that interests you. Your choice. You are asked to read this book for 30 or more minutes every school day. **You are asked to time your reading every day** and to track the time you spend reading on a self-made chart. The chart you create can be hand-written or created digitally, and it might look like this example:

Date	Book	Pages read	Time spent reading
3/18	<i>The Hate U Give</i>	22-48	35 minutes
3/19	<i>The Hate U Give</i>	48-68	30 minutes
3/20	<i>The Hate U Give</i>	68-90	40 minutes
3/23			
3/24			
3/25			

The goal here is 30 minutes a day of sustained, uninterrupted reading. I know that may be difficult for some of you, as you may face interruptions at home, but it is critical that you do your best to find uninterrupted reading time as a means to building your stamina.

If you do not have access a book, consider other types of reading (articles, newspapers, magazines, etc.) and track that reading on a chart.

Daily Current Event Reading

- Read one of the attached articles each day.
- As you read, it is important to recognize both a reader's purpose and an author's purpose. Read with a questioning stance:
Why am I reading this? What do I want to get out of this text? What does the author want me to know? Why has this been written, and for whom?
- Annotate the article, noting things that surprise you, words you don't know (look them up if possible), and the main idea of each paragraph.
- Use one of the articles as a "seed" for your daily writing.
- Complete the multiple-choice questions and writing prompts after each article.

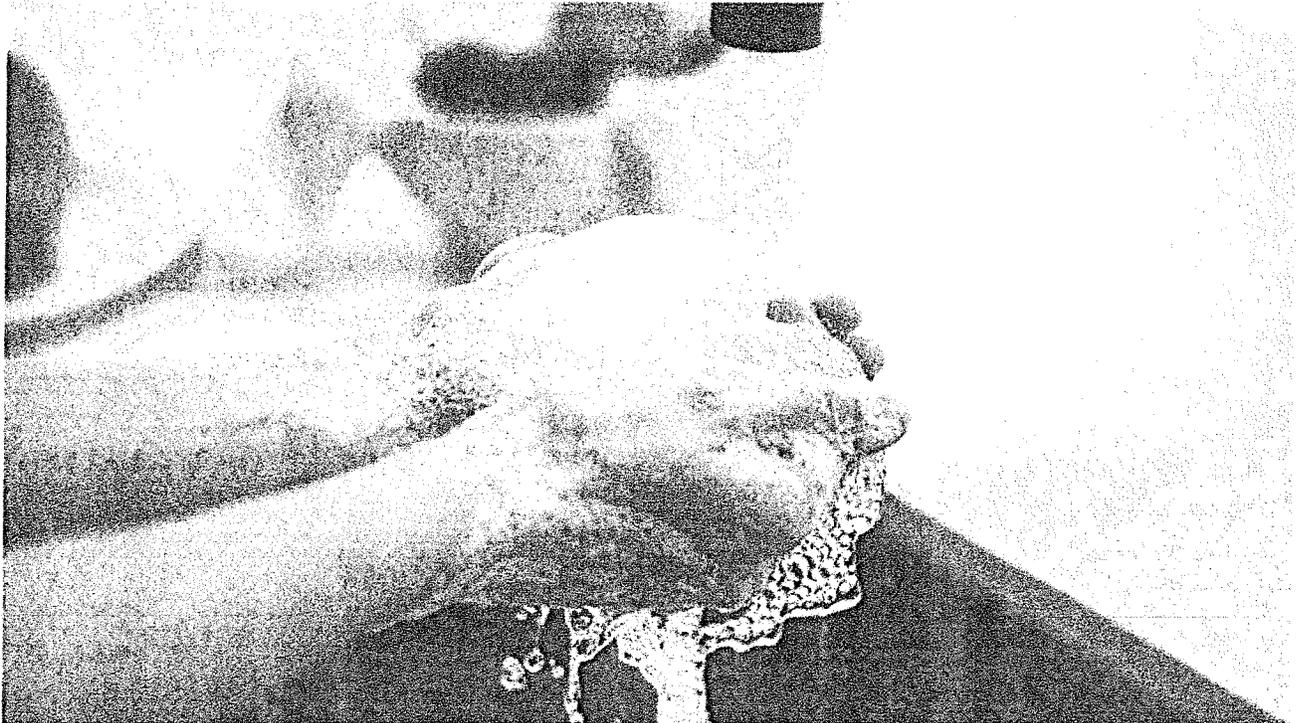


How to wash your hands properly

By Rose Gallagher, The Guardian on 03.05.20

Word Count 315

Level MAX



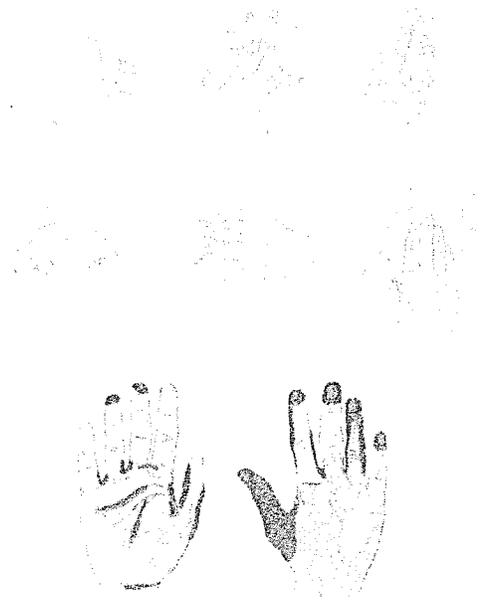
One of the best ways to combat the coronavirus is to wash your hands. Photo: Burst/Pexels

Two types of bacteria live on our hands: resident bacteria, which are rarely implicated in infection and are good for the skin, and transient bacteria, which we pick up on our fingertips when we touch surfaces. The latter are the ones we want to remove.

You should wash your hands after going to the toilet, or changing a sanitary napkin or tampon; after changing a diaper; before preparing food, after handling raw meat; and before eating. It is easy to pick up bacteria and viruses when traveling on public transport, so wash your hands afterward.

You need soap and, ideally, running water, but a bowl of water will do. Wet hands thoroughly and apply liquid or bar soap – if you apply soap to dry hands, it can act as an irritant and you don't get coverage all over your hands. Rub your palms together, then interlink your fingers and rub them together. Next, place the fingertips of one hand in the palm of the other and rub, and vice versa. Rubbing the hands together creates friction, which removes the bacteria and creates a lather. Within that lather is the bacteria you have removed, ready to be washed away. Once you have worked up a good lather and rubbed all the surfaces together, rinse your hands and dry thoroughly, not forgetting in between the fingers. If you are out and using a paper towel, don't lift

the lid of the waste bin with your clean fingers. At home, change hand towels twice a week, or more often if someone has an infection such as norovirus.



Quiz

1 Read the following statement

It is especially important to wash your hands after touching things that many other people have touched.

Which sentence from the article provides the BEST support for the statement above?

- (A) It is easy to pick up bacteria and viruses when traveling on public transport, so wash your hands afterward.
- (B) Rubbing the hands together creates friction, which removes the bacteria and creates a lather.
- (C) If you are out and using a paper towel, don't lift the lid of the waste bin with your clean fingers.
- (D) At home, change hand towels twice a week, or more often if someone has an infection such as norovirus.

2 Select the sentence from the article that suggests some bacteria can be harmless.

- (A) Two types of bacteria live on our hands: resident bacteria, which are rarely implicated in infection and are good for the skin, and transient bacteria, which we pick up on our fingertips when we touch surfaces.
- (B) You should wash your hands after going to the toilet, or changing a sanitary napkin or tampon; after changing a diaper; before preparing food, after handling raw meat; and before eating.
- (C) Wet hands thoroughly and apply liquid or bar soap – if you apply soap to dry hands, it can act as an irritant and you don't get coverage all over your hands.
- (D) Once you have worked up a good lather and rubbed all the surfaces together, rinse your hands and dry thoroughly, not forgetting in between the fingers.

3 Which option accurately summarizes the article without judgment?

- (A) Bacteria can cause illness or infection in people who change diapers or prepare food for a living. People who have these jobs should wash their hands more often. First, run your fingers under hot water, then rinse with cold water and rub them dry. If you do this, you can even skip soap!
- (B) Bacteria can cause illness or infection in people who fail to wash their hands often. People who want to remain healthy should always follow some important steps. First, cover dry hands with soap, then add water to create a lather. With a little practice, hand washing can be fun!
- (C) People pick up many types of bacteria without noticing in our daily activities. Many people forget about germs because they are too small to be seen. To learn more about bacteria, students should pay attention in science class and closely study the bacteria under a microscope.
- (D) People pick up transient bacteria that can cause illnesses when touching surfaces. Washing hands after certain activities can keep people from getting sick. To wash hands properly, use water and soap to create a lather by rubbing them together, then dry them on a clean towel.

4 Which statement is a central idea of the article?

- (A) It is important to scrub between your fingers when washing your hands.
- (B) People who cannot access running water can use a bowl to wash their hands.
- (C) Washing your hands thoroughly can help stop the spread of germs.
- (D) Many people are unaware that two types of bacteria live on their hands.

WHO joins TikTok to share "reliable" information about coronavirus

By Dalvin Brown, USA Today on 03.09.20

Word Count 373

Level MAX

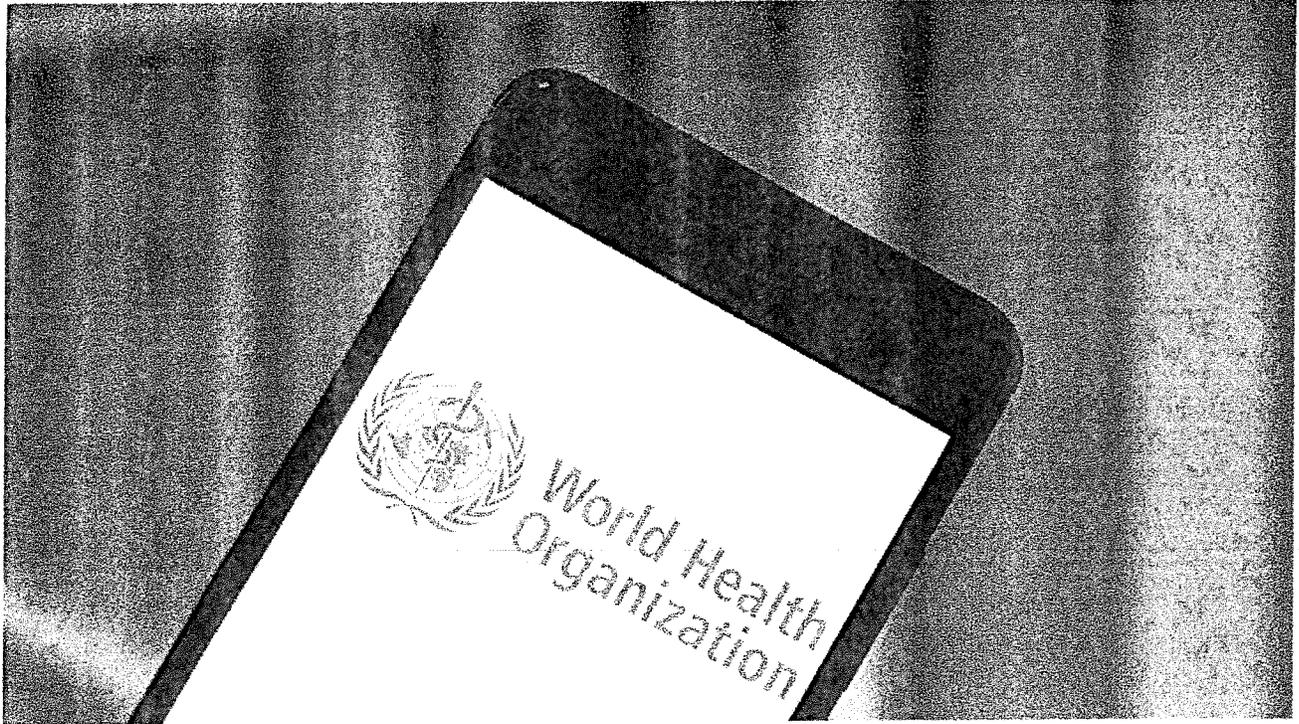


Image 1 World Health Organization (WHO) logo displayed on a smartphone. Photo illustration, Rafael Henrique/SOPA Images/LightRocket via Getty Images

Social media is being flooded with misinformation about coronavirus, and the World Health Organization (WHO) joined TikTok on February 28 in an effort to stop some of it.

Since the outbreak began, people have shared false information through coronavirus-related memes on Facebook, Twitter, Instagram and TikTok. Some of the online posts claim that vitamin C can "stop" the illness. Another says garlic will help.

Each of these ideas has been debunked. The United States has started human testing of a drug to treat the virus, but so far there isn't a cure, according to the Centers for Disease Control.

"We are joining @tiktok to provide you with reliable and timely public health advice! Our first post: How to protect yourself from #coronavirus," the public safety organization wrote in its first post on the platform.

In the video, Benedetta Allegranzi, the organization's technical lead of infection prevention and control, explained how people can slow down the spread of coronavirus. She also directs viewers to the organization's website for more resources and information.

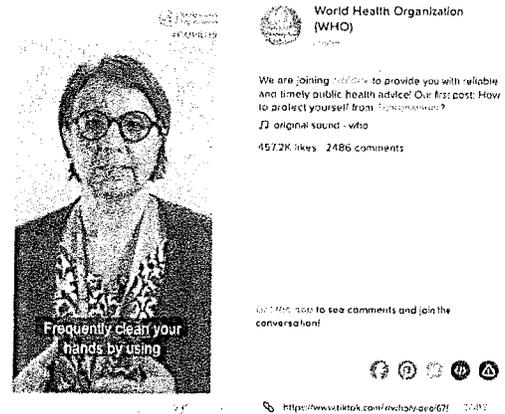
Allegranzi tells viewers to wash their hands, cough and sneeze into their elbows and avoid close contact with sick people. WHO previously announced social media efforts to combat what it calls an "infodemic" or "an over-abundance of information ... that makes it hard for people to find trustworthy sources and reliable guidance when they need it."

The organization uploaded a second video over the weekend explaining how to properly wear a respiratory mask. The agency doesn't advise most people to go out and buy them.

"If you don't have respiratory symptoms, such as fever, cough, or runny nose, you don't need to wear a medical mask," WHO notes in the video.

It's been widely reported that medical masks are in short supply as the coronavirus spreads across the globe.

The coronavirus has killed at least 3,000 people across the world, mostly in China. There have been 11 reported deaths in the United States as of March 5, and over 100 confirmed cases, but experts predict a "boom" is on the way.



Quiz

1 Read the selection from the article.

WHO previously announced social media efforts to combat what it calls an "infodemic" or "an over-abundance of information ... that makes it hard for people to find trustworthy sources and reliable guidance when they need it."

Which of the following options BEST supports the idea that a flood of information can make it difficult for official agencies to share accurate information?

- (A) Since the outbreak began, people have shared false information through coronavirus-related memes on Facebook, Twitter, Instagram and TikTok.
- (B) Some of the online posts claim that vitamin C can "stop" the illness.
- (C) She also directs viewers to the organization's website for more resources and information.
- (D) The organization uploaded a second video over the weekend explaining how to properly wear a respiratory mask.

2 Which option would Benedetta Allegranzi most likely AGREE with?

Option 1: Social media is the most effective way to communicate with people.

Option 2: Misinformation might prevent sick people from being properly treated.

Which sentence from the article supports your response?

- (A) Option 1; Since the outbreak began, people have shared false information through coronavirus-related memes on Facebook, Twitter, Instagram and TikTok.
- (B) Option 1; In the video, Benedetta Allegranzi, the organization's technical lead of infection prevention and control, explained how people can slow down the spread of coronavirus.
- (C) Option 2; Allegranzi tells viewers to wash their hands, cough and sneeze into their elbows and avoid close contact with sick people.
- (D) Option 2; It's been widely reported that medical masks are in short supply as the coronavirus spreads across the globe.

3 Which of the following details is MOST important to the development of the central idea?

- (A) the symptoms of the coronavirus
- (B) the surplus of incorrect information on social media
- (C) the incorrect suggestions for preventing the coronavirus
- (D) the number of people who have died so far from the coronavirus

4 Which of these statements would be MOST important to include in an objective summary of the article?

- (A) People are sharing false information about the coronavirus to initiate panic.
- (B) The U.S. government is not capable of controlling a virus outbreak this severe.
- (C) WHO thinks that only it can provide reliable information about the coronavirus.
- (D) The spread of false information is making it more difficult for WHO to communicate to people.

Understanding flu and cold viruses can help you overcome their effects

By PBS News Hour, adapted by Newsela staff on 01.07.19

Word Count 887

Level 1080L



Torrey Jewett looks on as her roommate Donnis Cardenas recovers from the flu at the Palomar Medical Center in Escondido, California, January 10, 2018. Photo by Gregory Bull/AP Photo

During the holidays, people get together, celebrate — and come down with the cold and flu.

As temperatures drop, both illnesses rise. The Centers for Disease Control and Prevention, or CDC, studies illnesses and health issues in the United States. It estimates that the average person gets two to three colds per year, mostly in the winter and spring. The whole country sees 9.3 to 49 million cases of the flu annually.

The cold and flu are caused by pathogens, or germs, called viruses, which can be powerful forces within our bodies. However, outside of our bodies, these pathogens are physically wimpy and cannot stand the harsh conditions of the dry, outside world.

It's Alive! No, Not Really

The cold is caused by rhinoviruses and other pathogens, while the flu is caused by influenza A viral strains. Viruses are technically not alive. They are pieces of genetic code, called DNA or RNA, that

are covered in protein coats and layers of fat. The coverings protect them, while the genetic code is used to make more viruses.

Viruses cannot multiply on their own, but must infect the cells of a living creature. Dr. Anthony Fauci is the director of the National Institute of Allergy and Infectious Disease, a government agency that studies illness. He says that it is a little misleading to talk about how long viruses stay "alive."

"People say, 'Well (a virus) can live on a doorknob for four days,'" Fauci said. "Well, maybe you can isolate it and grow it in culture by swabbing a doorknob, but that doesn't mean that it's infectable for four days."

Viruses outside the body can be better described as infectious or identifiable. A virus is infectious if it can make a person sick. A virus must be whole to be infectious. A virus that is not whole and not infectious might still be identifiable.

Say you had an influenza virus on top of a clean desk, said Dr. Paul Auwaerter, who is in charge of the Division of Infectious Diseases at the Johns Hopkins University School of Medicine. Maybe you could run a cotton swab on the desk and run a lab test that finds the virus, but that does not mean the virus can make people sick. "It just means you've found the DNA."

A virus's ability to infect humans falls apart as its outside coverings fade. Once weakened, the virus is less able to attach to cells and spread its genetic material.

Flu Viruses Fall Apart Faster On Porous Surfaces

We don't know a lot about how long viruses can stay infectious for.

A 1982 study found that influenza A remained contagious up to 48 hours on smooth, non-porous surfaces, like metal or plastic. A 2008 publication said the virus lasted for three days on some bank notes

Flu viruses may actually have a much shorter lifespan, based on more recent work by scientist Dr. Jane Greathouse, who studies viruses. Her team studied influenza A in 2011. The virus was still contagious after nine hours if it was on smooth, hard surfaces. On softer surfaces with holes, like clothes, the viruses fell apart after four hours.

Common cold viruses are harder to figure out, but most are no longer dangerous after 24 hours.

Our skin is the best surface for breaking down viruses according to Greathouse. Our hands are actually a bad place for viruses to live.

Moisture Sustains Viruses

Cold and flu viruses fall apart because of the way they are made. The genetic code is contained within an "envelope" of protein and fat that falls apart easily. They also need moisture in order to survive, and surfaces with small holes, like our skin, suck up the moisture.

Greathouse said enveloped viruses are set up for destruction. If the proteins in the envelope are disrupted, the virus is done.

"Viruses tend to be more stable in environments for which they're known to reproduce," Auwaerter said. The viruses might do well in a warm, moist environment like your nose. "But when they're exposed to a different material or to a non-moist environment, they can break down."

When we sneeze, the mucus protects the virus and keeps it moist, so the virus will be contagious for longer. However, Greatorex said mucus weighs the virus down so it does not travel far.

Get A Flu Shot And Wash Hands Regularly

Flu viruses do not often last beyond nine hours. Public spaces that are empty at night, like a classroom, should be free of contagious flu viruses the next morning. For people who want to be extra careful, Auwaerter recommends sanitizing surfaces with wipes or other chemicals. The chemicals break apart the coverings of the virus, so it is no longer contagious, he said.

Even if these viruses seem to disappear quickly, do not let down your guard. The CDC and National Institutes of Health still recommend that everyone get a flu shot and wash hands regularly. Greatorex also recommends using tissues to cover the mouth or nose when sneezing. Then, the tissue should be thrown away and hands washed.

"Hand-washing trumps everything," Fauci said. "Even if the virus lives 20 minutes on your hands, it may touch you, shake your hands, touch something that you touch and then you put your hand to your mouth."

New hand-washing tool prevents germs from spreading

By Smithsonian.com, adapted by Newsela staff on 09.06.18

Word Count 850

Level 1070L



A toddler at the Child Development Center gets a "germ inspection" after washing her hands at McConnell Air Force Base, Kansas, April 3, 2018. In honor of National Public Health Week, medical technicians instructed children how to properly wash their hands and prevent spreading germs. Photo by: U.S. Air Force/Ann Michaela R. Stancliff

You have probably seen signs in bathrooms that say "employees must wash their hands before returning to work." Right now, this is as far as illness prevention efforts in restaurants go.

Engineers Christine Schindler and Dutch Waanders had a better idea.

"We thought, that's crazy, there should be something that scans people's hands to see if there's any foodborne illness," says Schindler. "When people were saying that they've been waiting 10 years for a product like this, that's when we left our jobs."

Schindler and Waanders both studied biomedical engineering at Duke University. They started researching foodborne illnesses. They created a device called PathSpot last year, placing test devices in restaurants starting in January.

Beams Of Light Bounce Off Microbes

The Pathspot uses beams of light, says Schindler. The light beams bounce off of microbes on a person's hand. The reflection of the beams is received by the tablet's camera. The light reflects slightly differently based on the shape of whatever it bounces off of, even tiny microbes.

A computer program knows the different ways that light can bounce back for different contaminants. The program can recognize *E. coli*, salmonella, norovirus, hepatitis A and listeria. The device turns red or green to show the presence or absence of contaminants. The device mounts on the wall next to a sink.

Bad Hand-Washing

We are bad at washing our hands effectively, according to a Food and Drug Administration (FDA) study released this summer.

The study watched 383 people prepare turkey burgers in test kitchens. Fewer than 3 percent of participants washed their hands for the recommended 20 to 30 seconds. Then researchers analyzed microbe samples from refrigerator handles, spice containers and salads. They found up to 41 percent of them had been contaminated. The Centers for Disease Control and Prevention says this sort of behavior contributes to the 48 million sicknesses, 128,000 hospitalizations and 3,000 deaths from food contamination in the United States yearly.

Ben Chapman is an associate professor and food safety professional at North Carolina State University. Chapman says hand-washing failure can be broken into two categories: effectiveness and compliance.

Chapman is one of the researchers on the FDA study. He is quick to point out that the study tested people cooking in home kitchens, not people working in professional kitchens. Professional food handlers are held to hand-washing standards by law.

Furthermore, the study has not yet shown the difference between effectiveness and compliance. Someone who skipped a wash after handling poultry but before handling lettuce (a compliance failure) and someone who did not wash long or well enough (an effectiveness failure) both count as failing to wash appropriately. Only one of those people would be caught by a device like PathSpot.

Routine Inspections Best Way To Measure Compliance

"We don't really have a great understanding of how compliant food handlers are with the law," says Chapman. "The best way we've measured it is through routine inspections."

PathSpot considers effectiveness the bigger issue, but Chapman thinks it is compliance. It is not so much that people fail to wash their hands before food prep or after using the restroom, he says. Rather, they are unaware of the washing that needs to take place in between the steps of food preparation. For example, people should wash when they change from handling raw to ready-to-eat food. People also might skip washes because they feel they do not have time.

In a 2010 study in the *Journal of Food Protection*, Chapman put video cameras in restaurant kitchens. He used them to observe hand-washing practices. He found that workers washed their hands more often and spread germs to food less frequently when food safety info sheets were placed in kitchens. In some places, that washing is unnecessary because people do not always use

their hands, he says. Many fast food restaurants, for example, use tongs or other easily cleaned tools to cook and move food.

Pilot Program Shows Success

Still, a clear answer to whether employees washed their hands well enough could be valuable. The information could help improve employee practices. In a pilot program in 20 locations in Detroit, New York City and Durham, North Carolina, PathSpot saw contamination rates decrease by 60 percent over a month, according to Schindler. The company also saw managers use information on when, where and how hand-washing could be improved.

Schindler says the information from PathSpot can tell a restaurant how to better train their employees and tell them what the employees need to change. Schindler hopes PathSpot will inspire people to be excited about cleanliness.

PathSpot just received \$2 million from investors. The company has applied for a patent. It plans to focus on making the devices affordable and placing them in locations that need them. Schindler envisions similar technology that could detect peanut oil in schools, flu in the workplace or staph infections in hospitals.

"The thing that we really care about with this product is the ability for it to grow far beyond detecting foodborne illness on hands to a system for instantaneous detection of illness at large," says Schindler.

Quiz

- 1 Which statement would be MOST important to include in a summary of the article?
- (A) Christine Schindler and Dutch Waanders were both students at Duke University and studied biomedical engineering.
 - (B) The spread of germs in food happens when there is ineffective hand-washing and failure to comply with food safety rules.
 - (C) Fewer than 3 percent of participants in a study washed their hands for the recommended time and they contaminated the kitchen.
 - (D) Many fast-food restaurant workers use tongs and do not need to wash their hands as often as other restaurant workers or people in their own kitchens.
- 2 One of the CENTRAL ideas is that the PathSpot device is designed to help detect microbes that can be spread with food. How does the author introduce this CENTRAL idea?
- (A) by describing the reason why the PathSpot inventors decided to make it and explaining how it works
 - (B) by highlighting the results of one study where the PathSpot effectively decreased contamination rates
 - (C) by comparing and contrasting the studies of PathSpot with Chapman's study of food-safety info sheets
 - (D) by explaining that Schindler and Waanders are planning to get a patent and \$2 million in investments
- 3 How did the info sheets in the kitchen affect hand-washing practices and the spread of germs in Chapman's study?
- (A) The info sheets caused hand-washing to decrease and the spread of germs to increase.
 - (B) The info sheets caused hand-washing to increase and the spread of germs to decrease.
 - (C) The info sheets did not noticeably affect hand-washing practices or the spread of germs.
 - (D) The info sheets increased hand-washing but did not affect the spread of germs.
- 4 According to the article, which of the following MOST influenced Schindler and Waanders to develop the PathSpot?
- (A) the hope that it would be able to detect peanut oils and other allergens at restaurants and schools
 - (B) the competition between themselves and Chapman to find a solution to foodborne illness at restaurants
 - (C) the need to detect when restaurant workers did not comply with safety procedures while making food
 - (D) the desire to make restaurant workers more interested in cleanliness and skilled at preventing illness

Your most urgent questions about the new coronavirus

By Science News for Students, adapted by Newsela staff on 02.10.20

Word Count 1,292

Level MAX

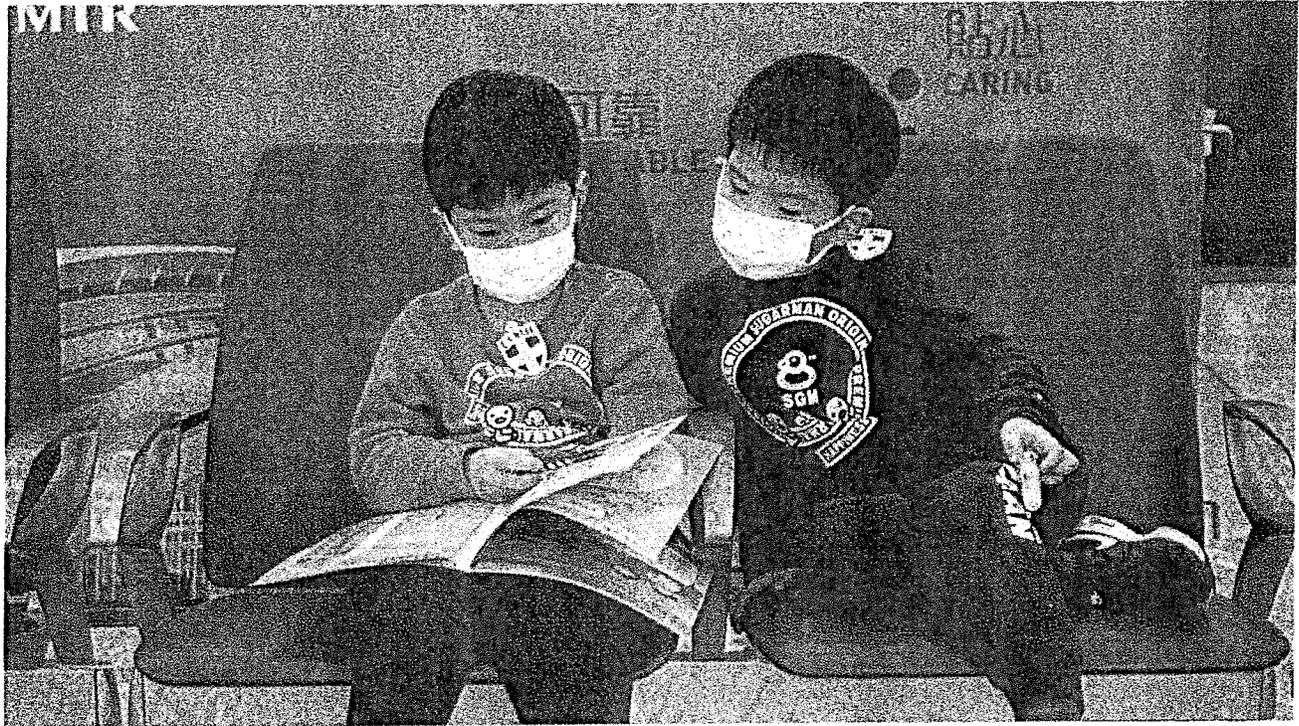


Image 1. Children wear masks at a train station in Hong Kong January 22, 2020. A new coronavirus emerged in Wuhan, China, in December 2019. As of February 10, 2020, it had infected more than 40,000 people globally and resulted in more than 900 deaths. Photo: Kin Cheung/AP Photo

Scientists are racing to unravel the mysteries of a new coronavirus that recently emerged in China. The outbreak is now a global public health emergency, the World Health Organization said on January 30. As of February 10, the virus had infected more than 40,000 people globally and resulted in more than 900 deaths. Its rapid spread has sparked global concern. It also is triggering many questions from researchers and the public alike. In this rapidly evolving epidemic, many unknowns remain.

Here's what we know so far about what's known as the 2019 novel coronavirus, or 2019-nCoV.

What is 2019-nCoV?

Coronaviruses are one of a variety of viruses that typically cause colds. But three members of this viral family have caused more severe outbreaks that include pneumonia (a type of inflammatory lung disease) and risk of death. The first was severe acute respiratory syndrome, or SARS. Then

came Middle East respiratory syndrome, or MERS. Now there is 2019-nCoV. This latest coronavirus first emerged in Wuhan, China.

When did the outbreak start?

Chinese officials notified the World Health Organization on December 31, 2019, of an unknown pneumonia-like disease in 44 patients. Initial reports tied this disease to a seafood market in Wuhan, a city in central China's Hubei Province.

But the earliest cases may not be related to exposure at the market. That's what a team of Chinese researchers reported January 24 in *The Lancet*. The earliest known patient got sick on December 1. He had not been exposed to the market, according to the study, although the first person who died had been.



"The market was not the [source of the] index case. It was an amplifier," said Anthony Fauci. "People crowded in the market infected each other." Fauci directs the National Institute of Allergy and Infectious Diseases in Bethesda, Maryland.

Where did the virus come from?

Coronaviruses originate in wild animals. Sometimes they leap to humans.

Current data suggest that the virus made the leap from animals to humans just once and that since then it has been moving between people. Based on how closely related the viruses are that have been isolated from patients, animals from the seafood market probably didn't give people the virus multiple times (as researchers once thought).

Can it infect pets?

There are currently no reports of pets getting sick with 2019-nCoV.

Several types of coronaviruses can infect animals, and in some cases it can make them ill. So the U.S. Centers for Disease Control and Prevention, or CDC, advises avoiding contact with pets and wearing a face mask if you are sick.

While the CDC recommends that people traveling to China avoid animals, the agency says there is no reason to believe that animals or pets in the United States can transmit the virus.

What are the symptoms of a 2019-nCoV infection?

People sickened by the new virus may develop a fever, cough and difficulty breathing, according to the CDC. Though many people with 2019-nCoV might experience mild symptoms, others can develop pneumonia.

The CDC reports that symptoms of 2019-nCoV may appear from two to 14 days after exposure. On average, it may take someone five days to become visibly sick, researchers reported January 29 in the *New England Journal of Medicine*. That number, however, is based on only 10 patients, so it needs further study, the researchers wrote.

How infectious is the virus?

Researchers don't yet know, but since 2019-nCoV has never infected humans before last year, people have not yet developed immunity to it. So it's likely that everyone is vulnerable to becoming infected.

How long does it stay on surfaces?

Researchers aren't sure, but not very long. Or that's what they expect, based on what they know about other coronaviruses. These viruses typically survive on a surface for only a few hours, notes Nancy Messonnier. She directs the CDC's National Center for Immunization and Respiratory Disease in Atlanta, Georgia.

While it's still unclear how the new virus spreads, coronaviruses in general are thought to be spread primarily by respiratory droplets. These are spread when patients cough, for instance. There is no evidence suggesting 2019-nCoV can be transmitted from things such as imported goods, according to the CDC.

How does it spread?

The new virus is spreading from person to person. Like SARS and MERS, it probably spreads between people similarly to other respiratory diseases, the CDC says. Respiratory droplets from an infected person's cough or sneeze can carry the virus to someone new.

Some coronaviruses can cause the common cold. Severe coronaviruses infect deeper parts of the respiratory tract than cold viruses do. So infected people are not usually contagious until they start to show symptoms, says Stanley Perlman. He's a virologist at the University of Iowa in Iowa City.

There have been some reports of people without symptoms spreading 2019-nCoV. And because people might be infected and not show obvious symptoms, doctors should isolate patients and trace their contacts as soon as possible.

How far has 2019-nCoV spread?

So far, it's not clear how many people the virus has sickened. Epidemiologists — researchers who work as disease detectives — are attempting to come up with a good estimate.

Through the end of January, most of the thousands of people with confirmed diagnoses of the new virus have been in China. But several other countries — 27 as of February 7 — also reported isolated cases. Many of these patients had just returned from a trip to China.

A few countries outside China are now reporting human-to-human transmission, including Vietnam, Germany and the United States.

How deadly is the disease?

The coronaviruses that cause colds usually bring fairly mild symptoms. They tend to just affect the upper airways (sinuses and throat). But the new virus is more like SARS and MERS. It penetrates much deeper into the respiratory tract. 2019-nCoV is "a disease that causes more lung disease than sniffles," says Fauci of the National Institute of Allergy and Infectious Diseases. It's damage to the lungs that can make these viruses deadly.

An analysis of 99 hospitalized patients, including the first cases from Wuhan, shows that 17 developed what is known as acute respiratory distress syndrome. It's a condition that affects the lungs and can limit the blood from getting enough oxygen. Eleven of these patients would go on to die from multiple organ failure.

Right now, the 2019-nCoV death rate appears to be about four in every 100 infected people. That's what the World Health Organization reported on January 23. But that number may well change as more cases are diagnosed, Fauci notes.

What is the situation in the U.S.?

As of February 4, health officials had confirmed the coronavirus in 11 people. These included two infected by someone else in the U.S.

Twenty U.S. airports began actively screening travelers from China for symptoms in late January. Because of the relatively rapid release of information from China, countries like the U.S. have had time to put strong screening procedures in place.

What are the best ways to protect yourself?

There is no drug or vaccine to treat or prevent 2019-nCoV. But there are things people can do to limit the chance they will become infected. And they aren't much different from what you'd do to keep from picking up colds or the flu, the CDC says.

Wash your hands with soap and water for at least 20 seconds. Other tips include covering your mouth when you cough or sneeze. Finally, don't touch your eyes, nose or mouth. Who knows what viruses might have been on surfaces that you touched?

Quiz

- 1 Which statement is a central idea of the article?
- (A) The coronavirus had infected 11 people in the United States as of February 4.
 - (B) The coronavirus is a serious health concern for people all over the world.
 - (C) The coronavirus is a new type of illness that is similar to the common cold.
 - (D) The coronavirus has symptoms such as cough and difficulty breathing.
- 2 Which sentence from the article would be MOST important to include in a summary of the article?
- (A) Current data suggest that the virus made the leap from animals to humans just once and that since then it has been moving between people.
 - (B) Several types of coronaviruses can infect animals, and in some cases it can make them ill.
 - (C) She directs the CDC's National Center for Immunization and Respiratory Disease in Atlanta, Georgia.
 - (D) 2019-nCoV is "a disease that causes more lung disease than sniffles," says Fauci of the National Institute of Allergy and Infectious Diseases.
- 3 What is MOST likely the reason the author included the information about SARS?
- (A) to explain that another virus was much more deadly than the coronavirus
 - (B) to emphasize that most types of the coronavirus originated in Wuhan, China
 - (C) to describe another type of coronavirus that posed a threat to humans
 - (D) to stress that some diseases are not directly spread by contact between humans

- 4 Read the following selection.

*But the earliest cases may not be related to exposure at the market. That's what a team of Chinese researchers reported January 24 in *The Lancet*. The earliest known patient got sick on December 1. He had not been exposed to the market, according to the study, although the first person who died had been.*

Why did the author include this idea?

- (A) to introduce uncertainty about the origin of the coronavirus
- (B) to explain how many people have been infected by the coronavirus
- (C) to stress the danger that the coronavirus poses to humans
- (D) to describe how people can protect themselves from the coronavirus

Officials say coronavirus targets elderly and ill, children mostly unaffected

By Los Angeles Times, adapted by Newsela staff on 03.09.20

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Centers for Disease Control and Prevention Director Robert Redfield (center), National Institute of Allergy and Infectious Diseases Director Anthony Fauci (far left) and other government officials speak about coronavirus to reporters at the White House in Washington, D.C., March 2, 2020. Photo: Manuel Balca Ceneta/AP Photo

People who have contracted the coronavirus were recently identified near Christina Arnold's Northern California home. Arnold started worrying about herself and her two teenage sons.

They all have asthma. Their condition puts them at a higher risk of death if they were to contract the virus, which affects people's respiratory system.

"I try to keep my paranoia inside, under control," she said. As of March 4, the death toll in the United States reached 11. "I don't want to show my kids I'm scared because there is not much we can do about it."

Elderly People Most At Risk

COVID-19 (short for "coronavirus disease 2019") has continued to spread in the U.S. Although many Americans have become more anxious, health officials agree on one point. They say the

coronavirus is more of a risk to certain groups of the population, such as the elderly. Health experts stress that the coronavirus does not represent a serious threat to most people.

"The risk is low," said Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases.

A healthy adult who contracts the rapidly spreading illness might get little more than a cough or runny nose. However, the elderly and those with certain medical conditions are at greater risk for a serious infection or even death.

People With Long-Term Illness Also Threatened

Seven fatal cases are now linked to a nursing home outside Seattle, Washington, the state where most of the deaths have been. The deaths of these elderly people highlight that the virus is particularly vicious to those past middle age. The risk is especially high for people who have a long-term illness, such as high blood pressure, or are overweight. Some of the recent casualties included a man and woman in their 70s and a woman in her 80s.

"Older populations of people and people with health conditions may have much bigger problems," said Tom Frieden on March 2. Frieden is the former director of the Centers for Disease Control and Prevention (CDC). He added that about 60 percent of American adults have conditions that could worsen the coronavirus.

The facts about who the virus kills and how to best contain it is of growing concern as coronavirus cases begin to pop up across the country. There is as much fear and uncertainty as there is actual illness.

Children Not Hit With Severe Cases

Children are one group that hasn't been hit with severe cases.

"For reasons we don't understand, children don't seem to get severely ill," Frieden said.

As of March 4, there were 152 known cases of the coronavirus in the U.S., most of which have been in Washington and California. Some contracted the illness through travel or contact with someone who traveled. Some got the virus through its spread in the community.

Faced with the growing numbers of cases without a known cause, dozens of businesses and organizations have canceled events or restricted travel for employees. Late March 2, Twitter urged employees to work from home. Uber said the virus posed a threat to its business.

In Washington, Governor Jay Inslee said residents "should begin to think about avoiding large events."

Experts warned the virus will continue to spread in the coming days. Yet just how deadly it is and who exactly faces the most danger beyond the elderly is not yet clear. Long-term illnesses like diabetes and heart problems have been linked to more serious outcomes, as have severe illnesses such as cancer. Smoking can add to the severity of a coronavirus as well, researchers said.

"We could learn a lot more in the next week," said Stephanie Christenson, a doctor and lung specialist at the University of California, San Francisco (UCSF). "All of this is kind of changing."

China's CDC recently released a paper that detailed more than 70,000 instances of the coronavirus there. It found that in confirmed cases, nearly 15 percent of the people with the virus over 80 years old died from it. In comparison, only about 2 percent of all confirmed people with the coronavirus have died so far. Researchers also saw higher rates of death for people with cardiovascular disease, diabetes, respiratory disease, high blood pressure and cancer.

Broader Look At All Cases Could Lower Fatality Rate

Jeffrey Klausner is a professor of medicine and public health at the University of Southern California, Los Angeles. Klausner warned that early data might not present a fully accurate picture. Initial research depends on rates of confirmed cases, largely treated in medical facilities. He said a broader look at all cases, including those not severe enough for serious treatment, could lower the rate of fatalities.

Peter Beilenson is a health officer for Sacramento County in California. Beilenson explained that "a healthy 72-year-old is not at as great a risk as an unhealthy 72-year-old."

"It's about lung function and the compromise of lung function," said George Rutherford, a disease specialist at UCSF, explaining why the disease hits some harder than others.

George Rutherford is a doctor and disease specialist at UCSF. Rutherford explained that the disease affects some more than others because of the health of their lungs. "The lungs of an 80-year-old aren't the lungs of a 20-year-old."

Rutherford said older people's lungs have accumulated years of air pollution and secondhand smoke. This makes them weaker.

Only Minor Lifestyle Changes Needed

Most health experts say that even groups with increased risk should make only minor lifestyle changes. They should wash their hands, avoid sick people and limit foreign travel.

Arnold, the mother whose sons have asthma, plans on keeping life as normal as possible. Her family "still has to get on with their lives." Despite the worry, they continue going to the gym, movies and beach.

"Your best bet is just washing your hands," she said.

Quiz

- 1 Which two of the following sentences from the article include CENTRAL ideas of the article?
1. *Seven fatal cases are now linked to a nursing home outside Seattle, Washington, the state where most of the deaths have been.*
 2. *"Older populations of people and people with health conditions may have much bigger problems," said Tom Frieden on March 2.*
 3. *Experts warned the virus will continue to spread in the coming days.*
 4. *Beilenson explained that "a healthy 72-year-old is not at as great a risk as an unhealthy 72-year-old."*
- (A) 1 and 2
- (B) 1 and 4
- (C) 2 and 3
- (D) 3 and 4
- 2 Which statement would be MOST important to include in a summary of the article?
- (A) A Chinese government report indicates that the overall mortality rate of the virus is about 2 percent.
- (B) For reasons experts do not fully understand, coronavirus does not seem to seriously affect children.
- (C) As of March 4, there were 7 fatalities amongst 152 known cases of coronavirus in the U.S., mostly in Washington state and California.
- (D) Experts advise that diabetes, heart problems, cancer, obesity and smoking are all linked to more serious coronavirus outcomes.
- 3 Why was Jeffery Klausner cautious about the implications of early coronavirus data?
- (A) The data so far focuses on serious cases requiring hospitalization, not the total number of cases.
- (B) Most of the data gathered has come from small hospitals or doctor's offices without proper testing equipment.
- (C) The data so far has been gathered by the Chinese government, which is interested in minimizing its impact.
- (D) Most of the data so far focuses on elderly people who have been infected with the virus, not the general population.
- 4 According to the article, why do people with respiratory conditions like asthma face greater risk from coronavirus?
- (A) Coronavirus is transmitted through the air.
- (B) Coronavirus primarily attacks and affects the respiratory system.
- (C) Respiratory medications weaken the immune system.
- (D) Respiratory illnesses are strongly correlated with coronavirus infection.

