<table>
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<th>Title: Pandemics in History (adapted from Newsela.com)</th>
<th>Grades: 7th-8th Grades</th>
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<td>Created by Newsela Staff  Date Created: 03/06/2020</td>
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| Content: Social Studies / English Language Arts |  |

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<thead>
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<th>Standards:</th>
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<tr>
<td>● <strong>RI.7-8.13:</strong> Read and comprehend high quality informational text of appropriate quantitative and qualitative complexity for Grade 6.</td>
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<td>● <strong>HGSS:</strong></td>
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<td>○ Choices have consequences.</td>
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<td>○ Individuals have rights and responsibilities.</td>
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<td>○ Societies experience continuity and change over time.</td>
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<td>○ Relationships between people, place, idea, and environments are dynamic.</td>
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| Objective: Students will understand how pandemics have affected human populations throughout history, from the Black Death, to the flu, to modern examples such as ebola and coronavirus. |  |

| Resources: Two of the nine articles from this link: Newsela Social Studies: Pandemics (All 9 articles can also be found at the end of this document.) |  |

| Introduction/Description: This is a sample Instructional Set from a collection on Newsela Social Studies. This collection, called History Comes to Life, brings together primary sources in history with current events, to allow students to make connections across time and place. |  |

Pandemics arise when infectious diseases spread across large territories, such as multiple countries or even worldwide.

Pandemics differ in their impact depending on how deadly the disease in question is as well as how equipped the affected populations are to respond.

These nine texts, organized chronologically, cover various pandemics that have affected human populations throughout history, from the Black Death, to the flu, to modern examples such as ebola and coronavirus.

You will have the opportunity to compare how diseases spread and how leaders and societies responded to them, and you'll consider who bears the greatest responsibility for addressing pandemics.
Activities and Steps: Choose to do either the Flowcharts or the Compare/Contrast activity.

- **Flowcharts:**
  - Choose a minimum of two articles in this set of nine articles: one historical and one more current.
  - Read the two articles you chose, and complete one flowchart graphic organizer for each, tracing how each pandemic spread.
  - Write two well-written paragraphs, one to answer each of these two questions: Did the pandemics spread the same way? Did countries respond in similar ways?

- **Compare/Contrast:**
  - Choose one current pandemic article and one historical pandemic article.
  - Complete a Venn diagram, noting similarities in the intersecting center and noting differences in the outer parts.
  - Write three paragraphs, explaining the similarities and differences you found in the sources in regards to 1.) how the diseases spread, 2.) how people responded to them, and 3.) how they impacted society.

Finished Product: Share your project/projects with your teacher and/or peers as directed.

Adaptations:

- Assign student groups to read different articles, having them meet using your choice of platform (Google Hangouts, SeeSaw, Zoom, etc.). Have the groups prepare questions to spur a class discussion at a later, set date. (Meets speaking listening standard #1.)

- Use this activity as a precursor for the Infographic assignment where students would take what they’ve learned and use it in making an infographic to educate people today.
Use this Venn if you choose “Compare and Contrast.”
The Black Death was one of the worst plagues that spread death to many countries. From 75 million to 200 million people in Eurasia and Europe died in the years between 1346 and 1353. The Black Death is thought to have come from rats and started in the plains of Central Asia. It moved west along the Silk Road, maybe with Mongol troops, reaching Eastern Europe by 1343. Cargo ships bringing riches from the east also brought rats that had a bacteria, Yersina Pestis, in their blood. Fleas on the rats bit them and drank the blood filled with Yersinia Pestis. Fleas then jumped onto humans and bit them. The Yersinia Pestis began killing humans by attacking the lungs and turning them to liquid. A cough spread the bacteria to other humans. The bacteria could also stop the blood from clotting, causing victims to bleed to death. Touching the blood or body of a sick person also spread the Black Death, which got its name because many victims were covered with black boils. There were at least two kinds of plague: pneumatic (lung) plague or bubonic (clotting) plague.

The Black Death arrived in Europe by sea in October 1347, when 12 trading ships docked in Sicily after a long journey through the Black Sea. Most of the sailors were dead and those that were still alive were very sick. The "death ships" were ordered out of the harbor, but it was too late,
and thousands in Sicily died. The expelled ships brought the disease to other ports in Italy and France. Over the next five years, the Black Death would kill almost half of the population of Europe, or 25 million people.

Henry Knighton, an Augustinian priest at St. Mary's of Leicester in England, wrote several books about the history of England. This piece is about the Black Death.

"48 Million People Died Suddenly"

In 1348 and 1349, many millions of people died throughout the world. It began first in India and moved west to Tarsus, Turkey, killing Muslims first and then Christians and Jews. The office of the pope believed that 48 million people died suddenly in those distant countries of Asia in the space of one year, from Easter to Easter. This did not include the death of Christians. When the king of Tarsus, a Muslim, saw this sudden loss of life among his people, he and his nobles set out to travel to the pope at Avignon, France. They wanted to become Christian and be baptized by the pope. The king believed that his people were being punished because they had not accepted Jesus Christ as the son of God. However, when he had completed 20 days of his journey, he heard that the fatal plague had killed many Christians, too. So they turned back to return to Tarsus. But Christians, who had been following the king and his people, attacked. They killed 1,312 people in Avignon the first day and 400 more on the second.

Then this most terrible plague came to the coast of England. It went through Southampton and came to Bristol. The cruel death took just two days to spread and almost the whole town was wiped out.

"The Scots Heard That The Plague Was Killing Their Enemy"

In the same year, a deadly sickness killed sheep throughout the country. In one place more than 5,000 sheep died in a single pasture. Their bodies were so decayed that no animal or bird would touch them. Because there was the fear of death, animals were sold at a low price. Sheep and cattle roamed through the fields eating the corn and no one stopped them.

The Scots heard that the plague was killing their enemy, the English. They felt God was punishing England. So they gathered in the forest of Selkirk, near the border, planning to invade England. However, the monstrous plague suddenly came upon them and within a short space of time around 5,000 died. They retreated to Scotland, but the English attacked and killed many of them.

"All Parties Feared The Spread Of The Plague"

At that time there were not enough priests in churches for masses, services, prayers for dying, or funerals. The plague moved through Dorset seaport, on to Devon, Somerset and up to Bristol. So the people of Gloucester stopped people escaping from Bristol. They feared the breath of those who had lived among the dying would spread the sickness. But in the end Gloucester, and then Oxford and London too, and finally the whole of England were so violently attacked that almost 90
percent of both men and women died. Cases in the courts of the king came to a stop, for all parties feared the spread of the plague. When the churchyards were not large enough to bury the dead, fields were used for the burials of the dead.

Hardly anyone dared to have anything to do with the sick. They fled from the things left by the dead, which had once been precious but were now poisonous to health. People who one day had been full of happiness on the next were found dead. Victims had little black boils scattered over their whole body. Of these people very few, indeed hardly any, recovered life and health. The plague, which began in Bristol on the feast of the Assumption of the Virgin [15 August] and in London around Michaelmas [29 September], raged for more than a year in England and completely emptied many villages.

In the following year it laid waste to the Welsh and English in Wales, and then it moved to Ireland, where the English residents were cut down in great numbers. But the native Irish living in the mountains and uplands were scarcely touched until 1357, when it took them unawares and killed them, too.
The influenza or flu pandemic of 1918 to 1919 was the deadliest in modern history. It infected an estimated 500 million people worldwide—about one-third of the planet’s population at the time. It killed an estimated 20 million to 50 million victims. More than 25 percent of the U.S. population became sick, and some 675,000 died.

The 1918 flu was first observed in Europe, the United States, and parts of Asia before swiftly spreading around the world. Surprisingly, many victims were young, otherwise healthy adults. At the time, there were no effective drugs or vaccines to treat this killer flu strain or prevent its spread. In the U.S., citizens were ordered to wear masks. Schools, theaters and other public places were closed. Researchers later discovered what made the 1918 pandemic so deadly: The influenza virus invaded victims’ lungs and caused pneumonia.

**Flu facts**

The flu is a virus that attacks the respiratory system. The primary organs of the respiratory system are the lungs. The virus is highly contagious. When an infected person coughs, sneezes, or talks,
respiratory droplets are generated and transmitted into the air. Someone nearby who inhales these droplets can become infected. Even a person who touches something with the virus on it and then touches his or her mouth, eyes, or nose can become infected.

Flu outbreaks happen every year. How severe they are depend in part on the type of flu virus spreading. Usually about 200,000 Americans a year are hospitalized for flu-related complications. These include pneumonia, ear and sinus infections, and bronchitis. Over the last three decades, between 3,000 and 49,000 people a year have died because of the flu. Some people face a higher risk of getting sick, including young children, people over age 65, and pregnant women, as well as people with certain medical conditions, such as asthma, diabetes, or heart disease. A flu pandemic, such as the one in 1918, occurs when an especially powerful new influenza strain appears and spreads to many people across a wide geographic area.

The flu strikes far and wide

The first wave of the 1918 pandemic occurred in the spring and was generally mild. The sick, who experienced typical symptoms as chills, fever, and fatigue, usually recovered after several days. Not many died. However, a second, highly contagious wave of influenza appeared in the fall of that same year. Victims died within hours or days of their symptoms appearing. Their skin turned blue and their lungs filled with fluid, causing them to suffocate.

It’s unknown exactly where the 1918 flu virus came from. It became known as the "Spanish Flu" because Spain was one of the earliest countries to be hit hard by the disease.

One unusual aspect of the 1918 flu was that it affected so many young men and women who were otherwise healthy. This is a group that is not usually affected by the flu. In fact, according to journalist Gina Kolata, more U.S. soldiers died from the 1918 flu than died in battle during World War I (1914-1918).

Although the death toll of the 1918 flu is estimated at 20 million to 50 million victims worldwide, other estimates run as high as 100 million. The exact numbers are impossible to know due to a lack of medical record-keeping in many places.

Fighting the flu

When the 1918 flu hit, doctors and scientists didn’t know what caused it or how to treat it. Unlike today, they had no effective vaccines or antiviral drugs.

World War I had left parts of America with fewer doctors and nurses than in the past. Many of them came down with the flu themselves. In some areas, hospitals were so crowded with flu patients that schools and private homes had to be converted into makeshift hospitals, staffed by medical students.

Officials in some communities quarantined the sick. They ordered citizens to wear masks and even banned spitting. They shut down public places, including schools, churches and theaters. People were advised to avoid shaking hands and to stay indoors.

The flu takes a heavy toll on society

The flu pandemic wiped out entire families.
It harmed every aspect of society, including the economy. In the U.S., businesses had to shut down because so many employees were sick. Basic services such as mail delivery and garbage collection were affected. In some places there weren’t enough farm workers to harvest crops.

**Flu pandemic finally ends**

By the summer of 1919, the flu pandemic came to an end. Infected people had either developed immunity or died. Almost 90 years later, in 2008, researchers announced they’d discovered why the 1918 flu was so deadly. It was a group of three genes in the virus that weakened a victim’s bronchial tubes and lungs. This made it easy for the flu victims to develop pneumonia. Pneumonia is a lung infection that inflames the lungs and air sacs, causing them to fill with fluid. Pneumonia can make you very sick.

Since 1918, there have been several other influenza pandemics, although none as deadly. One outbreak from 1968 to 1969 killed approximately 1 million people, including some 34,000 Americans. More than 12,000 Americans died during the H1N1 (or "swine flu") pandemic that occurred from 2009 to 2010.
Scientists are trying to figure out the best protection against the flu

By Associated Press, adapted by Newsela staff on 01.23.18
Word Count 908
Level 1020L

WASHINGTON, D.C. — The descriptions are haunting. Some victims felt fine in the morning and were dead by night. Faces turned blue as patients coughed up blood. Stacked bodies outnumbered coffins.

A century after one of history’s most tragic disease outbreaks, scientists are rethinking how to guard against another super-flu like the 1918 influenza that killed tens of millions as it swept the globe.

There is no way to predict what strain of the shape-shifting flu virus could trigger another worldwide pandemic. Or given modern medical tools, how bad it might be.

But researchers hope they are finally closing in on stronger flu shots. They want to make shots that boost much-needed protection against ordinary winter influenza and guard against future outbreaks at the same time.
Labs Around The Country Are Working Overtime

Dr. Anthony Fauci works for the National Institutes of Health (NIH) in Maryland. He said a vaccine is needed "to protect you against essentially all, or most, strains of flu."

Labs around the country are hunting for a super-shot that could get rid of the annual fall vaccination. Instead, they want a shot people could get every five or 10 years, or maybe, eventually, a childhood shot that could last for life.

It won't be easy. Despite 100 years of science, the flu virus too often beats our best defenses because it constantly mutates.

The immune system protects the body from outside substances that might harm it. It keeps the body healthy by attacking anything it sees as harmful. To get around our immune system defenses, the flu virus mutates from year to year. Researchers have a new plan, though. They are learning how the flu disguises itself and are finding what stays the same about the flu strains each year.

A Century Onward

The 100-year anniversary of the 1918 flu outbreak reminds scientists why this is so important.

Back then, there was no flu vaccine. It would not arrive for decades. Today vaccination is the best protection, and Fauci never skips his. But at best, the seasonal vaccine is 60 percent effective. Protection dropped to 19 percent a few years ago when the vaccine did not match an evolving virus.

If a never-before-seen flu strain erupts, it takes months to brew a new vaccine. Today's top concern is a deadly bird flu that jumped from poultry to more than 1,500 people in China since 2013.

Deadly Kansas Strain Spread

The NIH's Dr. Jeffery Taubenberger calls the 1918 flu the mother of all worldwide outbreaks. He should know.

He worked as a scientist studying diseases for the military. He led the team that identified and reconstructed the extinct 1918 virus. His team used traces found in autopsy samples from World War I soldiers and from a victim buried in the Alaskan permafrost.

Historians think it started in Kansas in early 1918. By winter 1919, the virus had infected one-third of the global population and killed at least 50 million people, including 675,000 Americans. By comparison, the AIDS virus has claimed 35 million lives over four decades.

Three more worldwide flu outbreaks have struck since, in 1957, 1968 and 2009, spreading widely but nowhere near as deadly. Taubenberger's research shows the flu family tree. It shows that each following outbreak was a result of flu viruses carried by birds or pigs mixing with 1918 flu genes.

Back To The Beginning

The quest for a new vaccine starts with two proteins called hemagglutinin and neuraminidase that coat flu's surface.
The "H" allows flu to latch onto respiratory cells, which allows people to breathe, and infect them. Afterward, the "N" helps the virus to spread.

A turning point toward better vaccines was a 2009 discovery that sometimes people's bodies make a small number of antibodies that can stop the flu. Antibodies are proteins in the blood that fight against an invading disease.

Scientists are trying different tricks to spur production of those antibodies.

In New York, Peter Palese a flu expert at Mount Sinai's Icahn School of Medicine uses "chimeric" viruses. They use parts from bird flu and parts from common human flu viruses to redirect the immune system.

NIH's Taubenberger is taking a completely different approach. He is brewing a vaccine cocktail that combines four different hemagglutinins that in turn trigger protection against other related strains.

Yet lingering mysteries are slowing the research.

**How Does Flu Jump From Birds To People?**

Scientists now think people respond differently to vaccination based on their flu history. The idea is that your immune system learns to recognize the first flu it sees. It might not respond as well to a vaccine against another. For this reason, a flu vaccine that works for all types of flu would probably work best when you give it to a child, Fauci said.

Still, no one knows the origin of that terrifying 1918 flu. But the key to how deadly it was is the bird-like hemagglutinin.

The Chinese bird flu that spread in 2013 "worries me a lot," Taubenberger said. The flu is a master at adapting and mutating to meet new conditions. We need to understand how it adapts in nature if we want to stop it. "How does an avian virus become adapted to a mammal?" Taubenberger wondered.

While scientists hunt for those answers, Fauci says it is foolish to predict what a next outbreak might bring to fruition. "We just need to be prepared," he said.
How cholera spread so quickly through Haiti in 2010

By National Geographic, adapted by Newsela staff on 09.21.19

Ten months after being hit by a huge earthquake in January 2010, a cholera epidemic struck the Caribbean nation of Haiti. As of 2016, there had been at least 770,000 cases of the disease and more than 9,200 deaths. It is the worst cholera outbreak in recent history. The United Nations recently admitted that it may have accidentally introduced the disease to the island.

The surge of cases in Haiti alone caused an 85 percent increase in the number of cholera cases worldwide. The U.N. has not taken full responsibility for causing the outbreak. However, the secretary-general’s office did admit that the U.N. may have played a part. Peacekeepers who arrived in Haiti after the earthquake may have helped trigger the epidemic.

How Did It Spread?

Cholera spreads through drinking water or food contaminated by the bacterium Vibrio cholerae. Large epidemics often start in water supplies contaminated by fecal matter, or human waste. The
Haitian outbreak is believed to have started near a U.N. camp. Peacekeepers from Nepal were living in this particular camp. They had come to Haiti to help with earthquake relief efforts.

The camp discharged its waste directly into the nearby Meille River. Nepal was suffering a cholera outbreak at the time, and the peacekeepers are suspected to have transmitted the disease through their waste. The river was a primary source of water for thousands of people. Without the ability to treat and sanitize the water, many Haitians may have consumed the contaminated water.

Many experts believe this outbreak was the first time cholera had affected Haiti in decades. As a result, the population lacked immunity, or a natural defense against the disease. This made the Haitian people particularly vulnerable to the illness.

**Why Was It So Devastating?**

Cholera is a messy disease. Its symptoms include diarrhea, vomiting, and cramping, and in severe cases dehydration and shock can take hold within hours. If left untreated, 25 to 50 percent of cases can be fatal.

City centers that lack water and sanitation facilities are especially vulnerable. In earthquake-ravaged Haiti, there was insufficient health care and a lack of sanitation. These conditions likely contributed to the spread of the disease.

The symptoms of explosive diarrhea and vomiting aid in the spread of disease. The waste, and the bacteria it carries, is harder to contain in such cases.

**How Can It Be Prevented?**

Cholera can be prevented through careful sanitation and hygiene. If possible, use bottled water with unbroken seals. If bottled water is unavailable, boil the water for at least one minute or treat it with chlorine or household bleach. Any food, especially shellfish and seafood, should be thoroughly cooked. Bacteria can attach themselves to the shells of crab, shrimp, and other shellfish.

Safe hand washing practices are very important for cholera prevention. Hand washing after using the bathroom, and again before preparing food or eating, is critical for prevention.

Lastly, cholera can be prevented by properly disposing of human waste. Latrines and outhouses should be located away from homes. Any solid waste should be buried at least 98 feet from a body of water.
Flu activity in the U.S. is the highest it's been in nearly a decade

By Agence France-Presse, adapted by Newsele staff on 02.02.18
Word Count 523
Level 1030L

Simone Groper (left) receives a flu shot at a pharmacy on January 22, 2018, in San Francisco, California. A strong strain of H3N2 influenza has claimed the lives of 74 Californians under the age of 65 since the flu season began in October of last year. People are being encouraged to get flu shots even though the vaccine has been only 30 percent effective in combating the influenza. Photo by Justin Sullivan/Getty Images

Flu is sweeping the United States. U.S. officials announced on January 26 that the flu has killed at least 37 children so far. And, it is sending more people to the doctor than any influenza outbreak has since 2009's "swine flu."

This year, the most common strain of flu is H3N2. Nearly every state has been hit hard by the illness, said the Centers for Disease Control and Prevention (CDC).

"For the past three weeks, the entire country has been experiencing lots of flu, all at the same time," Dr. Dan Jernigan told reporters. Jernigan heads the Influenza Division at the National Center for Immunization and Respiratory Diseases, part of the CDC.

This marks the "most flu activity since 2009," Jernigan told reporters over the phone.

The "Swine Flu" Pandemic Of 2009
A total of 6.6 percent of all people seeking medical care so far this season did so because of the flu, he said.

"This is the highest level of activity recorded since the 2009 pandemic, which peaked at 7.7 percent," Jernigan said. A pandemic is an illness that spreads over a large part of the world.

The 2009 H1N1 pandemic was widely known as "swine flu." People in the past used to get it after having contact with pigs. The World Health Organization (WHO) reports it swept 206 countries and overseas territories and killed more than 6,770 people.

The 2009 outbreak is considered very unusual. The CDC is not taking that flu pandemic into account. Instead, they consider the most recent season when as many Americans sought care for the flu was 2003–2004. The flu level peaked at 7.6 percent, said Jernigan.

**The Flu Season Is Halfway Over**

What really sets this season apart is that the flu became widespread in almost all states and at the same time, said Jernigan.

"Flu activity has stayed at the same level — at the national level — for three weeks in a row," Jernigan said. Forty-nine states have reported large numbers of cases.

The bulk of flu cases have been among those over 50.

The true severity of this season will not be known for months until all the data is collected and analyzed.

The flu season can run from October to May, meaning the current one is only about halfway over.

In past seasons that were like this one, Jernigan said, around 34 million Americans ended up getting the flu.

**Health Officials Want People To Get Vaccinated**

An average of 56,000 people died during each previous H3N2 outbreak, Jernigan added.

Doctors expect more children to die of the flu this year. In addition, the actual number of children who have died from the flu so far this season may be twice the current estimate.

Doctors are concerned by the high number of H3N2 cases this season because H3N2 is more deadly than many other types of the flu.

Health officials are urging people to get vaccinated to protect themselves from H3N2. There are questions about the shot’s effectiveness, however, though getting vaccinated is still better than nothing.

Unfortunately, the vaccines "just don’t do that well against H3N2," said Jernigan.
After 1,600 deaths, WHO officially declares Ebola crisis in Congo

By Associated Press, adapted by Newsela staff on 07.23.19

WORD COUNT 901

LEVEL 1030L

Geneva, Switzerland — The deadly Ebola outbreak in Congo is now an international health emergency. Congo is a country in Central Africa. The World Health Organization (WHO) made this announcement on July 17.

The emergency was declared after a case of the deadly disease was confirmed in Goma, a city of 2 million people. Ebola is a rare disease that spreads through contact with infected body fluids. Sick people usually have a fever, stomach pain and internal bleeding. Often, people are unable to get better.

A WHO expert committee declined three previous times to advise the United Nations health agency to make the emergency declaration for this outbreak. Other experts say the disease has long met the required conditions. More than 1,600 people have died since August 2018 in the second-deadliest Ebola outbreak ever, which is unfolding in a region described as a war zone.

Emergency Declared After Ebola Patient's Death
A declaration of a global health emergency often brings greater international attention and aid. It also brings concerns that nervous governments might overreact with border closures.

The declaration comes days after a single case was confirmed in Goma, the city with an international airport. Also, a sick Congolese fish trader traveled to Uganda and back — and later died of Ebola.

The risk of regional spread remains high, WHO chief Tedros Adhanom Ghebreyesus said after the announcement in Geneva, Switzerland. However, the risk outside the region remains low.

Ghebreyesus insisted the declaration wasn’t made to raise more money. Still, WHO estimated "hundreds of millions" of dollars would be needed to stop the epidemic, or widespread sickness.

Dr. Joanne Liu is president of Doctors Without Borders. The international group of medical professionals provides help in difficult areas. Liu hoped the emergency designation would improve Ebola response efforts.

"The reality check is that a year into the epidemic, it's still not under control, and we are not where we should be," she said. "We cannot keep doing the same thing and expect different results."

Liu said vaccination plans should be broadened. More efforts should be made to build trust within communities as well, she believed.

The U.S. Agency for International Development (USAID) applauded the WHO’s decision and said USAID officials would "continue to scale up lifesaving support" to end the outbreak.

Questions Over Delayed Declaration

This is the fifth such declaration in history. Previous emergencies were declared for the devastating 2014-16 Ebola outbreak in West Africa that killed more than 11,000 people. The others were the emergence of Zika in the Americas, the swine flu disease and polio.

WHO defines a global emergency as an out-of-the-ordinary event that constitutes a risk to other countries. It also requires a coordinated international response. In June, the outbreak spilled across the border for the first time when a family brought the virus into Uganda after attending the burial in Congo of an infected relative. Even then, the expert committee advised against a declaration.

Alexandra Phelan is a global health expert at Georgetown University Law Center. She said the July 17 declaration was long overdue.

"This essentially serves as a call to the international community that they have to step up appropriate financial and technical support," Phelan said. Still, she warned that countries should be cautious about creating travel or trade restrictions.
Tracking the spread of coronavirus with a map

By PBS NewsHour, adapted by Newsela staff on 01.29.20
Word Count 703
Level 1040L

A map created by U.S. researchers tracks the spread of a virus in China in real-time. The virus is a new strain in the coronavirus family of viruses. It has sickened almost 6,000 people and resulted in 132 deaths as of January 29. It is linked to an outbreak of pneumonia.

Global health officials are concerned about its potential to spread around the world. They are closely tracking the virus. Researchers at Johns Hopkins University's Center for Systems Science and Engineering launched the map that tracks the virus on January 22. The researchers suggest that the virus may be spreading faster than sources have reported.

A Map To Track The Virus

Lauren Gardner is a professor in civil and systems engineering at Johns Hopkins University. She led the team that produced the map tracking the virus.

"We think it is important for the public to have an understanding of the situation as it unfolds, with transparent data sources," Gardner said.
The map shows the official global number of people that have died from the virus. It also plots out a higher infection rate. It shows that the virus has made 555 people sick as of January 22.

**Centered In Wuhan, China**

The outbreak is centered in Wuhan, China, where the virus was traced back to a market that sold live animals. Outside of China, cases have been reported in the U.S., Taiwan, Thailand, South Korea and Japan, the Centers for Disease Control and Prevention (CDC) reported this week. The CDC is the primary public health institute in the United States.

The virus spreads through water droplets that spew into the air when an infected person sneezes or coughs. Those droplets spread the virus when they are inhaled through a person’s nose or mouth or wiped into their eyes, according to Daniel Kuritzkes. Kuritzkes leads the branch of infectious diseases at a hospital in Boston, Massachusetts. The coronavirus is infectious because it can spread from person to person through the environment.

Gardner said the map is a very simple collection of reported cases gathered from local sources.

**Making The Map**

To make the map, Gardner and her team gathered and combed through local Chinese media reports. Those reports were then translated into English and their locations were mapped. As new reports come in, the map is updated, Gardner said.

Since there is much the public health community still does not know about novel coronavirus, she said it is hard to keep the map up to date. People may not know they are infected until they show symptoms. Another important thing to keep in mind is that novel coronavirus resembles the common flu. As a result, many people may not realize they have it.

"There’s not a lot of other global cases reported yet," Gardner said. However, global cases will increase because people travel.

**Lunar New Year: A Dangerous Time**

The virus happened at a dangerous time. This week, millions of people are embarking on international travel, particularly in and out of East Asia, for Lunar New Year celebrations, which is the world’s largest annual human migration.

In China, authorities have taken extreme measures to prevent further spread of the virus. They suspended train and airplane travel from Wuhan along with bus, subway and ferry travel, a Chinese news agency reported. These measures effectively quarantine the city, isolating it from the rest of China.

"Public transport and other mass gatherings should be avoided," said World Health Organization (WHO) Director-General Tedros Adhanom.

**Two Cases in The U.S.**

As of January 24, there were two reported cases of the coronavirus in the U.S. One person in Washington state has been infected with the virus after traveling to Wuhan. A woman in Chicago, Illinois, was also diagnosed with the virus after traveling back to the U.S. from Wuhan.
The CDC increased its travel warning to U.S. residents. Great Britain also issued an advisory against all, except essential travel to Wuhan. A travel advisory provides information to citizens about the safety of traveling to certain areas of the world.

As the outbreak spreads beyond China, Gardner said her team will rely on data from WHO and CDC to keep their map up to date.
Misguided virus fears said to be hitting Asian American businesses

By Associated Press, adapted by Newsela staff on 02.26.20
Word Count 910
Level 1040L

Image 1. Frankie Chu, the owner of Vegetarian Dim Sum House in New York City’s Chinatown, sits in his empty restaurant that until recently was bustling with customers. February 13, 2020. Sales have plunged 70 percent over the last two weeks amid fears of coronavirus. Photo by: Bebeto Matthews/AP Photo

NEW YORK, New York — In major U.S. cities, Asian American businesses are seeing a big decline in customers. The reason for their loss: customer fear over the viral outbreak of COVID-19, also called coronavirus, a flu-like virus spreading from China. City and health officials are trying to stop the financial bleeding. They’re distributing information and making personal visits to shops. They are emphasizing to the public that, with just 57 cases diagnosed in the entire country, there is no reason to avoid Asian-American businesses.

Some business owners have seen their customer traffic cut by more than half. They are anxiously waiting for things to return to normal.

Consider Mesa, Arizona, with its newly named Asian District. The community was deep into organizing its night market when news broke that a case of COVID-19 was confirmed at nearby Arizona State University.
Xenophobic Comments On Social Media

Xenophobic comments on social media and phone calls started almost immediately, according to Arizona Asian Chamber of Commerce CEO Vicente Reid. Xenophobia is a fear or hatred of people who are considered foreign.

Mesa Mayor John Giles called the xenophobia directed at the event, which was designed to get the public acquainted with the district, "ridiculous."

"We certainly take any health crisis seriously but to make those kinds of connections is just offensive," he said.

The virus has sickened tens of thousands of people, mostly in China. Fifty-seven people have been diagnosed with the virus in the United States. Many had recently traveled from China.

Vegetarian Dim Sum House, a fixture in Manhattan's Chinatown for 23 years, has seen a similar decline in business. Suddenly, owner Frankie Chu said he will not be able to make his rent this month.

Restaurant Sales Plunge 70 Percent

Chu said sales have plunged 70 percent since the beginning of February at his restaurant. Three couples trickled in for lunch on a recent weekday (Chu said he normally gets up to 30 customers for lunch). At dinnertime, his narrow restaurant is usually packed with about 70 diners. These days, he gets about four.

Chu has sent some of his staff on vacation to cut costs. He plans to ask his landlord to forgive the normal 5 percent fee for late rent.

"I don't know how long I can stay here," Chu said.

The crisis has alarmed New York City officials and business leaders. They have launched a campaign to lure people back to hard-hit communities in Manhattan, Queens and Brooklyn.

"Chinatown is bleeding money," said Wellington Chen, executive chairman of the Chinatown Partnership, a local business and community group. "This thing is thousands of miles away. This fear is really out of proportion."

Being Made To Feel Like Foreigners

Small businesses in Manhattan's Chinatown have reported sales drops of between 40 percent and 80 percent in the past month, Chen said. New York City is home to more than half a million Chinese Americans, the biggest population of any U.S. city. Some New Yorkers of Chinese descent are frustrated. They are being made to feel like foreigners because of a disease outbreak that is as far away from them as any other resident.

Indeed, there are no confirmed cases of the virus in New York City. Officials and politicians are trying to drive home the point that there is no reason to avoid any neighborhood.
Allison Arwady is the Chicago Department of Public Health commissioner. She said she and her colleagues "continue to field rumors" about threats to public health. She said the health risk is low and urged people to not fear visiting and spending time at restaurants or stores in Chicago's Chinatown.

"Please do not allow stigma, xenophobia or fear to control your decisions," Arwady said.

**Workers' Hours Cut Back**

In the San Francisco Bay Area, the situation is dire enough that Sunny Wong’s family is considering temporarily closing one of the four restaurants they own in Oakland’s Chinatown. False rumors appear to be spreading. Friends have told Wong they’ve heard people talk about customers getting sick at one of his restaurants.

"People just are clueless. They hear stories and rumors and they just don't really look for the facts in a situation," said Wong, adding that he has had to cut back hours for his workers.

New York City Mayor Bill de Blasio recently visited Nom Wah Tea Parlor, the oldest restaurant in Manhattan’s Chinatown.

The restaurant has seen a 40 percent drop in business over the past three weeks, said manager Vincent Tang. Normally, the restaurant fills up at lunchtime. However, during a recent weekday, nearly half the tables were empty, although it was at least busier than many of its lesser-known neighbors.

"We're lucky to have loyal customers," said Tang, sitting near a row of green stools that he used to swing around in as a child. "Usually at this time we are packed and there is a line outside."

Customers at Nom Wah said they were perplexed that others were staying away.

"It didn't cross my mind at all," said Kate Masterson, an artist digging into dumplings with her uncle at a booth beneath signed framed photographs of celebrities like Kirsten Dunst.

"It's not happening here," she said of the outbreak.
Canceled foreign trips and anxiety: U.S. schools prepare for coronavirus

By Washington Post, adapted by Newsela staff on 03.06.20
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A school janitor walks up the stairs inside Bothell High School, which was closed for the day on February 27, 2020. The suburban Seattle, Washington, school was closed after a staff member's family member was placed in quarantine for showing symptoms of possibly contracting the new coronavirus. The school was to be cleaned and disinfected on February 27 while students stayed home. Photo: Elaine Thompson/AP Photo

Canceled international trips. Extra hand-washing and squirts of disinfectant between classes. Lengthy emails sent to parents to reassure them.

"A new disease is circulating," Northern Virginia school officials wrote of the coronavirus in a recent message to Fairfax County parents and staff. "It's natural for people to be concerned."

Hasty preparations are taking place in schools throughout the nation as Americans watch for the arrival of the coronavirus. The flulike illness, which first arose in China, had infected more than 93,000 people. As of March 4, it had killed 3,199 people worldwide.

At the end of February, officials at the Centers for Disease Control and Prevention (CDC) urged the public to prepare for the virus' spread inside the United States. Schools need to be ready too, they said.
Parents should ask their schools about plans for school closings and for online classes, said Nancy Messonnier, one of the CDC's directors. "I contacted my local school superintendent this morning with exactly those questions."

**Anxiety In Washington, D.C.-Area Schools**

Messonnier’s comments caused anxiety in Washington, D.C.-area schools. Fairfax County school officials have been flooded with concerned messages from parents, according to spokeswoman Lucy Caldwell.

The Fairfax County school system is one of the largest in the nation. It has stuck to the same message since the coronavirus surfaced.

"Our key messages remain: wash your hands frequently and stay home when ill to prevent contagion," Caldwell said.

The school system is also reviewing "emergency preparedness and response plans," Caldwell said — including the possibility of online classes. Several other school systems in the Washington region said they are doing the same thing.

Class closures are unlikely in the near future, experts said, because relatively few coronavirus cases have been diagnosed in the United States. As of March 4, there were only 135 people with the virus in the United States. Of those, 42 had been aboard a cruise ship traveling in Asia.

School officials developed plans for remote learning after weathering pandemics including SARS and the H1N1 swine flu, said Bob Farrace. He is the spokesman for the National Association of Secondary School Principals. SARS is a contagious and sometimes fatal respiratory illness caused by a coronavirus. It appeared in China in 2002. H1N1 swine flu is a respiratory illness that started in pigs in 2009.

"It could be webcam classes, it could be work students are submitting online, it could even be chat rooms that replicate a class," Farrace said.

**Hardship For Lower-Income Families**

Lower-income families will have a harder time adjusting if schools suddenly close, said Harvard University global health expert Jesse Bump. Harvard is in Massachusetts. School closings would end such services as free or reduced-price meals. What's more, if classes go online, households without WiFi will be at a severe disadvantage.

Authorities must be ready to step in if schools close, Bump said. Among other things, people are used to turning to schools for information.

Administrators in Maryland’s largest school district have certainly been reminded of that in recent weeks. Hundreds of parents have phoned or emailed to ask questions about the virus, Montgomery County Public Schools spokesman Derek Turner said.

Some parents wanted to know whether officials would quarantine, or isolate, students whose families recently visited Asia. One parent wondered whether a scheduled spring trip to South Korea could lead to quarantine.
Another asked if school officials are spraying classroom surfaces with disinfectant or scrubbing down laptops.

"We don’t have the capacity to wipe down everything that everyone touches every day," Turner said.

**Sending Parents CDC Guidelines**

Parents in Montgomery County are very worried, Turner said. The school system there is working to prevent panic by sending families the guidelines provided by the CDC.

Virginia’s Loudoun County public school system is taking the same approach. A February 13 email to parents provided links to four government websites, and repeated the email and phone number for the Loudoun County Health Department three times.

However, none of the emails prepared Rein Alyn for what happened to her daughter in February.

One day in mid-February, the Loudoun County third-grader — whose mother is from the Philippines — arrived home and told her mother the bus ride to school had been "really frustrating," A boy she knew had called her "an Asian immigrant," even though she was born in the United States.

That meant she "had the coronavirus" and must be avoided, the boy said.

It was the first time the child had come across this kind of racism, her mother said.

Bump said that throughout U.S. history, people have manipulated fears of disease to discriminate against minority groups.

"This is part of a long and ugly tradition," Bump said.

Rein emigrated from the Philippines at age 3 and served in the U.S. military. She hopes the next email from Loudoun County will condemn coronavirus-related bullying.

Rein also hopes the incident did not reduce her daughter’s patriotism. She explained to her daughter that some Americans may treat her differently because "her mom is from another country" — but that the United States is worth loving anyway.

Rein warned her daughter she might hear more comments if the coronavirus becomes widespread. The girl said nothing in response.

Instead, Rein said, her daughter just shook her head.