

Hi. My name is Mighty Fine, I'm an expert with the American Public Health Association, and today we're going to talk about climate change. In October 1998, Hurricane Mitch hit Central America, causing the deaths of over 11,000 people, along with massive destruction to property and infrastructure.

Some people survived the storm, only to die of cholera, malaria and other preventable diseases. Because when the health infrastructure broke down, diseases hit harder.

This is a devastating example of how extreme weather can affect public health. And unfortunately, major weather events like Hurricane Mitch are becoming more common because of climate change.

In the last several hundred years, people have been burning more and more fossil fuels. This releases an excess of greenhouse gases like carbon dioxide into the atmosphere, which trap heat and cause global temperatures to rise.

Worldwide, this is causing a shift in the average temperature and weather over many years. In other words, changing the climate. And these shifts will affect our health, environments and the way we live.

Higher temperatures cause ice caps to melt and sea levels to rise. They also promote water evaporation and thus rain cloud formation, leading to more frequent flooding from rainfall.

And as we saw with Hurricane Mitch, extreme weather like flooding and hurricanes will directly cause injuries and deaths and have other long-term effects. Like if flooded roads or downed telephone lines disrupt people's access to treatment and prescription drugs, that can worsen pre-existing conditions that need ongoing care. But that's just one aspect of how climate change can impact public health.

As temperatures rise, researchers predict heat waves will grow longer and more frequent, leading to higher numbers of heat-related deaths and illnesses. Like among immigrants who travel to the U.S. for seasonal farm labor. Folks in agriculture are already 20 times more likely to die from heat illness than any other industry.

The increased heat and higher carbon dioxide levels also promote plant growth. That sounds like a good thing until you consider that more plants means more pollen and extra-bad allergy seasons, which can also impact chronic conditions like asthma and respiratory illnesses.

And this isn't a problem for the future — it's already happening. From 1995 to 2011, allergy season across the U.S. extended by up to 27 days due to increased temperatures.

Warmer climates can also increase the abundance of fleas, ticks and mosquitoes. So more of these critters means more opportunities to catch

the vector-borne illnesses they can spread, like Lyme disease, malaria, West Nile virus and plague. Higher temperatures and heavier rainfall will likely also increase the quantity of bacteria growing on our crops. That can make outbreaks of foodborne illnesses more common everywhere. And those same temperature changes and major weather events will disrupt the food chain distribution, potentially causing significant food spoilage and driving up costs.

Limited and expensive food will increase rates of food insecurity, which is the lack of consistent access to enough food to live a healthy life — something that already affects almost 14 million U.S. households.

Not to mention these weather events can be so severe that they drive people from their homes, creating environmental migrants.

In 2020, 31 million people around the world had to flee their homes because of weather-related disasters. In the U.S., the Biloxi-Chitimacha-Choctaw tribe already moved once to Isle de Jean Charles to avoid persecution. But because of coastal erosion and inadequate governmental action, they had to move again.

All of this will have an impact on people's mental health — whether it's from the ongoing stress of a longer allergy season or the trauma of losing your home to a hurricane.

Ultimately, climate change will affect everyone's

Climate change is happening right now, but together we can control how much it affects our nation's health.

Check out the Center for Disease Control's "climate effects on health" and the APHA website to learn more.

Thanks for watching! This video is part of a series created by Complexly and the American Public Health Association to shed a little light on the important work that public health does. To learn more, visit [APHA.org](http://APHA.org).

## SOURCES

1. <https://www.ncbi.nlm.nih.gov/books/NBK50958/>
2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4610409/>
3. <https://www.cdc.gov/climateandhealth/effects/default.htm>
4. [https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-water-resource\\_s\\_.html#Supply](https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-water-resource_s_.html#Supply)
5. <https://health2016.globalchange.gov/>
6. <https://www.aafa.org/extreme-allergies-and-climate-change/>
7. <https://www.climate.gov/news-features/climate-qa/doesnt-carbon-dioxide-atmosphere-co-me-natural-sources>
8. <https://www.ipcc.ch/report/ar6/wg1/#SPM>
9. [https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_Headline\\_Statements.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Headline_Statements.pdf)
10. <https://www.iaf.gov/content/story/reflections-on-the-20th-anniversary-of-hurricane-mitch>
11. <https://www.iaf.gov/content/story/reflections-on-the-20th-anniversary-of-hurricane-mitch>
12. <https://www.aafa.org/extreme-allergies-and-climate-change/>
13. <https://www.nasa.gov/audience/forstudents/k-4/stories/nasa-knows/what-is-climate-change-k4.html>
14. <https://www.sciencedirect.com/science/article/pii/S0924224421002235?casa>
15. <https://www.hopkinsmedicine.org/health/conditions-and-diseases/malnutrition>
16. <https://www.feedingamerica.org/hunger-in-america/food-insecurity>
17. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx>
18. [https://www.migrationdataportal.org/themes/environmental\\_migration\\_and\\_statistics](https://www.migrationdataportal.org/themes/environmental_migration_and_statistics)
19. <https://www.epa.gov/arc-x/public-health-adaptation-strategies-climate-change>
20. <https://www.brookings.edu/blog/the-avenue/2021/04/22/weatherizing-homes-could-be-one-of-the-most-vital-legacies-of-bidens-infrastructure-plan/>
21. <https://www.annualreviews.org/doi/abs/10.1146/annurev-publhealth-040617-013714>
22. <https://www.nytimes.com/interactive/2020/08/24/climate/racism-redlining-cities-global-warming.html>