

Hi, my name is Mighty Fine, I'm an expert with the American Public Health Association, and today we're going to talk about pandemics.

We can think of public health kind of like the air on the International Space Station or even here on Earth -- we don't really notice it until something goes wrong.

But keeping people healthy is a full-time job. In the U.S., the public health system includes health departments at the federal, state, local and tribal levels which work together to keep people healthy.

And that involves working on systemic problems like making access to health care more equitable, routine issues like food and water safety and long-term problems like the opioid epidemic.

A lot of this work isn't always obvious and we might even take it for granted. But the same systems addressing all of these problems also have another vital mission: preparing for and controlling epidemics. Which is when many more people get a disease than what is normal for an area.

And when an epidemic spreads over several countries or continents, it becomes a pandemic. So the public health system is balancing a lot, and there are steps we can take to strengthen it. At the most basic level, public health agencies need the staff, funding and technology to handle all public health duties at the same time and have the ability to rapidly respond to pandemics when they happen.

That means paying qualified experts to work in public health, and funding large-scale efforts to collect disease-related data.

One critical task for pandemic preparation is expanding widespread disease surveillance in people, livestock and other organisms capable of transmitting disease to humans.

In practice, this means doctors will send a message to the local health department when a patient comes in with unusual symptoms, or tests positive for a disease that could cause a larger outbreak if it spreads, like measles.

Scientists might then do lab testing on samples from that patient, which will help us identify what we're up against.

According to APHA, the U.S. could also prepare for the next pandemic by guaranteeing universal health coverage to all residents now. In 2021, the cost of health insurance is the leading reason 32 million people in the U.S. don't have coverage.

This barrier disproportionately affects low income families and people of color. And it's worsened by pandemics, which have historically led to economic recessions and millions of people losing their jobs and health benefits.

But universal health coverage would ensure all U.S. residents have access to comprehensive care even if they lose their job. So instead of avoiding health care because of the hefty price tag, sick patients could seek care immediately and have much better odds of recovering.

And while U.S. public health organizations prepare for a pandemic at home, they need to collaborate with public health systems in other countries, too. After all, infectious diseases don't stop at borders.

A 2020 study suggested that one of the most cost effective strategies would be to reduce deforestation.

Most novel human viruses have been transmitted to humans from wild animals. Like bats, the suspected source of Ebola.

So preserving their habitats reduces the odds that wild animals will come near humans or livestock.

But even with plenty of funding and preparation, we likely won't be able to prevent every pandemic – because there will always be some infectious diseases that spread despite our best attempts at containing them.

That's why the Global Vaccine Alliance suggests that countries start working together to build more vaccine factories around the globe, so that when a pandemic does happen, we can quickly develop and distribute vaccines worldwide.

This will prevent people from getting sick and prevent more infectious disease variants from having a chance to crop up.

Whatever we choose, all preparedness efforts should be grounded in equity to ensure no one

group is disproportionately impacted by a pandemic.

Addressing disease outbreaks is a crucial part of the public health mission. And by ensuring health care access for all, minimizing human contact with wild animals and cooperating across borders, public health officials can help limit the impact of future pandemics.

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](https://www.apha.org).

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