

Hi, I'm Deboki Chakravarti, I'm a science educator, and today we're going to talk about heart disease and what public health does about it.

We tend to associate heart disease with aging men, but it can affect anyone. The Centers for Disease Control and Prevention says that heart disease accounts for one in four of all deaths in the U.S.

And while some studies have shown a decline in these rates since the 1960s, it's still the single leading cause of death in the world today for adults of all races and genders.

Now, heart disease isn't actually a single disease, but a group of them. And all of those diseases fall under the broader category of cardiovascular disease. Which is itself an umbrella term for all the health conditions affecting the heart and blood vessels. In 2016, nearly half of U.S. adults were living with some form of cardiovascular disease.

Part of what makes heart diseases so deadly is that they often don't show many obvious signs until they're already late-stage.

Take coronary artery disease, or CAD, which happens when the arteries supplying oxygen-rich blood to the heart muscle narrow or harden. And when the heart muscle doesn't get enough oxygen, it can start to die. That's what we call a heart attack.

Unfortunately, most people don't know they have coronary artery disease until they experience a heart attack. It's no wonder that CAD killed over 300 thousand people in 2019 -- and that's just in the U.S.

What's more, heart attacks themselves don't always look like we'd expect. 1 in 5 of them are "silent," meaning they're so mild or brief that people ignore them or confuse them with exhaustion or heartburn.

It also doesn't help that the most well-known symptoms of heart attacks, like sudden chest pain, were based on medical studies done on men. Women, on the other hand, are more likely to experience subtler symptoms during a heart attack, like nausea and vomiting, lightheadedness or pain in the back, stomach or jaw.

Heart attacks are actually increasing among young women. But because research and prevention of heart disease has been focused on older men for so long, women who present different symptoms tend to be overlooked, which can lead to worse health outcomes. One study, which looked at data between 1995 to 2014 from various parts of the U.S., found that hospitalizations for heart attacks increased 10% for women between the ages of 35 and 54, and only 3% for men in the same age group.

These women were more likely to have high blood pressure or diabetes, which are conditions that can damage blood vessels and make circulation more difficult, often leading to heart

disease. But doctors were less likely to screen or treat women for heart disease, even if they showed these risk factors.

One piece of good news here is that many of the risk factors for heart disease are modifiable, which means we can make lifestyle changes to address them. We can avoid smoking to prevent the hardening of blood vessels and eat nutritious foods like vegetables and whole grains to ensure heart health.

But similar to how gaps in heart disease research can affect individual health outcomes, public health recognizes that there are factors outside of us that can impact how easy it is to make heart-healthy choices.

For instance, the American Heart Association found that people were more likely to experience cardiovascular disease if they lived in neighborhoods with limited access to healthy food, spaces to be physically active or health care facilities.

That means that sometimes, the best medicine for heart disease isn't a pill — it's a public health program.

Like the program that the American Heart Association sponsored in 2018. The AHA brought a team of health care professionals and educators to under-resourced neighborhoods in Philadelphia to help raise awareness of heart disease risks and prevention. The team also offered blood pressure checks, nutrition counseling and an on-site farmer's market.

At first, the project only reached around 30 people at each site. But after connecting with the local church and building trust in their community, the team was able to connect with almost 1,300 people. Which is a great example of how a tight-knit community can improve public health.

So heart disease may be the leading cause of death in the U.S. But because there are so many factors contributing to its prevalence, public health professionals aren't locked into any one solution. Everything from improving education to bringing in healthy food options can make a meaningful impact, and help people live healthier lives.

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.

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