Dan Leduc, host: Eighty-eight percent. It offers an important insight on public health. We'll be talking with researcher Cary Funk in today's episode to tell us more.

This is "After the Fact," a podcast that explores the facts, numbers, and trends shaping our world. I'm Dan LeDuc. And this new series is brought to you by the nonpartisan Pew Charitable Trusts, which works to improve public policy, inform the public, and invigorate civic life.

In this podcast, we explore the story behind the numbers as we interview experts who inform the public about the challenges facing the world today. One of them is Cary Funk. She's the associate director for research on science and society at the Pew Research Center. The nonpartisan fact tank is a subsidiary of The Pew Charitable Trusts and informs the public through polling, demographic research, and other analysis on issues affecting society. The center does not take positions on public policy. And that independent approach has made its data respected across the political spectrum.

Cary is here to tell us about a recent report she worked on that looked at the public perceptions of childhood vaccines. The center's survey found that a vast majority of Americans—88 percent—believe that the benefits of vaccines for children outweigh the risks. She's here to tell us more, and so we welcome Cary to the studio today. Hi.

Cary Funk, associate director, research, Pew Research Center: Thank you so much.

Dan LeDuc: So childhood vaccines have been around for a couple of generations at least now. So why did the Pew Research Center decide this was the time for a survey?

Cary Funk: Well, as you mentioned, this has been an ongoing public discussion over the safety of childhood vaccines. And it really connects with a broader public discourse over the role of science research and scientific understanding in public views and broader policy matters. So what we did in this study was really a set of three studies that took a look at different aspects of science and how people think about the science itself, and scientists and their research. And here we focused on people's views about medical scientists and their work connected with
childhood vaccines. But the other studies look at public views about climate scientists and GM food scientists. So together, this set of studies looks really in-depth at areas about science that connect with relevant issues in people's everyday lives.

**Dan LeDuc:** Well, before we get into the actual findings, let's take one quick second and talk about how you do what you do. The methodology at the Pew Research Center is one of the reasons its data stands out. How did you go about doing this?

**Cary Funk:** This is based on a nationally representative survey of all adults in the U.S. So it's all 50 states. And people are surveyed in proportion to their group size in the population at large. So this is about 1,500 people altogether. And this study really took a much more in-depth approach to try to better understand where there is potential concern and which groups in the population have comparatively more concern about the measles, mumps, rubella vaccine in particular.

**Dan LeDuc:** And so give us the high-level view of your findings on all of this. We've mentioned this number. Eighty-eight percent think that the benefits outweigh the risks. What else are some of the takeaways from your survey?

**Cary Funk:** Well, as you mentioned, the major takeaway is that overall, most Americans believe the benefits of the measles, mumps, rubella vaccine outweigh any risks. In addition, most are rating the preventive health benefits as high and the risk of side effects from the vaccine as low. Similarly, we see about 8 in 10 Americans support the idea of a school-based requirement for children to attend schools needing to have the MMR vaccine. So that's the big picture. At the same time, we also see several groups in the U.S. who have comparatively more concern about the MMR vaccine. So these include parents of young children and younger adults, more generally, whether or not they have children, just to name two.

**Dan LeDuc:** That's an interesting finding. Younger folks have more skepticism. Is that an appropriate way to term it?

**Cary Funk:** Two things going on. I think one in terms of parents of young children, they're of particular concern to the public health community, who are focused on whether these parents are having their children immunized at the recommended ages. And so that's of particular concern. And this group, on average, tends to see less benefit and is more concerned about the risk of the MMR vaccine. We also find that younger adults, more generally—those under 30—regardless of whether or not they have children also tend to be less convinced of the benefits of the MMR vaccine. And that's especially compared with the oldest generation, 65 and over.
Dan LeDuc: Is there anything that the Pew Research Center knows about millennials and its research that can help explain maybe some of the millennials and that generation's perception of vaccines today?

Cary Funk: Yeah. What’s interesting here is that we found that younger adults in general, compared with the older generations, are less convinced of the benefits from the measles, mumps, rubella vaccine. And we’ve seen this kind of pattern in previous Pew Research surveys, where we see a pretty wide divide by generation, in terms of ideas about requiring childhood vaccines more generally. In 2015, we put out a study where we compared public attitudes with those of members of the American Association for the Advancement of Science. And they are the largest multidisciplinary professional society of scientists. It's very difficult to actually measure and understand what is public opinion among scientists. So this was a survey that the Pew Research Center did in collaboration with that group to measure their members and to use those survey responses as an indicator of what more broadly the scientific community is thinking about some of these issues. And what was striking about those findings is the differences between members of the scientific community and the general public, including in views about requiring childhood vaccines more generally. And so that really was part of the rationale for why did we want to know more about these issues.

Dan LeDuc: And you were able in your survey to delve into the public's knowledge of science as well. Beyond asking them their thoughts and attitudes, you were able to drill down a little bit about, “Well, how much scientific knowledge do they have?” What did you learn about that? And how did it seem to correlate to their views about some of these broader societal subjects?

Cary Funk: This has been an ongoing question for many years, and really, it's a question coming from the scientific community—that if the public knew more about science, would they think more like the scientific experts? And what we find is that sometimes how much people know about science is not at all related to their attitudes about these kinds of science-related issues. But in the case of vaccines, we do see a connection where people who know more about science were more convinced of the benefits of the MMR vaccine and less concerned about the risks.

Dan LeDuc: A lot of what we’re talking about today, as you say, it relates to scientific knowledge and how it translates to people's values. What about the scientists' views?

Cary Funk: Well, what's interesting here is we saw really kind of mixed views of the public about medical scientists. But most Americans—I think 73 percent—thought that medical scientists should have a major role in policy decisions related to vaccine issues. So even if they
have more skeptical views or sometimes mixed views of scientists in general, most Americans thought they should have a seat at the policymaking table.

Dan LeDuc: So we've talked a lot about millennials and parenting-age folks who have some skepticism about the benefits of vaccines. But break down the respondents to the survey for me in some other categories. Did religious views or political views play a role?

Cary Funk: That's an interesting question. We found that most of the major religious groups hold similar beliefs about the benefits and risks of the measles, mumps, and rubella vaccine. So for example, about 7 in 10 Catholics and 7 in 10 white evangelical Protestants think the preventive health benefits of the vaccine are high. There were some modest differences by religion with white evangelical Protestants and religiously unaffiliated people—somewhat less likely than those in other groups to support the school-based requirement. But even there, about three-quarters of those groups favor these requirements. It's interesting because, of course, we're living in an era where there are wide political divides on a host of issues. But the study finds Republicans and Democrats tend to have similar beliefs about the MMR vaccine. Republicans hold roughly the same views as Democrats about the health benefits and risk of side effects of these vaccines. And that's consistent, I think, with our research more broadly on science topics. Some are very strongly divided along political lines, and some are not.

Dan LeDuc: So the Pew Research Center has really tackled a fascinating subject here, sort of this understanding of science by the general public. Sounds like it's a subject that can be mined for even further research. What are the plans?

Cary Funk: Well, science and the scientific enterprise is vast. And so there is much to cover. When people think about science, they tend to say that the benefits of science for society have been mostly positive. And what we've done here is really take a more detailed look at people's beliefs about one area connected with biomedical issues. And there's obviously much more to do.

Dan LeDuc: If you'd like to learn more about the work of the Pew Research Center or to read the report we've been discussing today, go to PewTrusts.org/AfterTheFact. And please tune in to our next episode, when we'll be talking about protecting America's best idea: the national park system.

[Music]
If you like what you've heard on this podcast, subscribe on iTunes and other streaming services. We'd like to hear from you, too, so write a review and let us know what you think. Thanks for listening. For the Pew Charitable Trusts, I'm Dan LeDuc. And this is "After the Fact."

[Music]