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Dan LeDuc, host: Welcome to “After the Fact.” For The Pew Charitable Trusts, I’m Dan LeDuc, and we’re continuing our conversations on science.

We might tend to think of science as experiments and research. But often for science to have any meaning in our daily lives, it has to become part of the policies and laws that help frame our behavior. Scientific studies have shown us how alcohol can impair our judgment, so we have laws against drunk driving. Science tells us that vaccines are important for public health, so schools require students to have them.

That leads us to our data point for this episode: 60 percent. According to the Pew Research Center, six out of every 10 Americans say that scientists should take an active role in policy debates about scientific issues.

Esther Krofah, executive director, FasterCures: What public policy allows us to do is to set the foundation and create a level playing field. If we don't get it right, I think, patients suffer.

Dan LeDuc: That’s Esther Krofah, executive director of FasterCures, a center at the Milken Institute, which is working to speed up and improve the medical research system. We begin our conversation this episode with her—and it turns out that getting faster cures isn’t nearly as easy as it sounds.

Esther Krofah: Creating that level playing field that allows access to medicines and treatments, that allows access to clinical trials and allows access to the broader medical research enterprise. We need to embolden individuals to say, we need access to health care, anyone, wherever you are, from whatever socioeconomic background that you
have. That’s where it needs to start from.

**Dan LeDuc:** So, we all have a role to play but, of course, we have to rely on the experts to guide us in seeking good laws and policies. The Pew Research Center has surveyed Americans and found that 86 percent of adults have confidence that scientists act in our best interest. To learn more about how science becomes policy, we spoke with Molly Irwin, The Pew Charitable Trusts’ vice president for research and science.

We’re talking about science and its role in society, and you have created a career around the intersection of science and policy. Science exists—can exist in the abstract, but for it to actually start mattering in the world, it’s got to be translated into public policy. So how does science become policy, and how does it inform policy, what is that process all about?

**Molly Irwin:** A lot of times, we really think about research and science influencing policy in sort of an instrumental way, there’s a study, there’s a new discovery, and, based on that, legislation is passed enacting this new thing.

And, in some ways, maybe that’s ideal. It would be easy. But, in reality, that doesn’t happen. It doesn’t happen always. It’s usually a much more roundabout process.

**Dan LeDuc:** Let’s talk more about this roundabout process that starts with experiments in a lab, or studies in the field, and eventually leads to changes in the way we live our lives. That’s a big leap; how does it happen?

**Molly Irwin:** You or I, when we’re making any important decision—when we’re buying a car, we look at, what do we know about this make and model? What’s its service record? What’s its safety record? We take that information into account and hopefully make the right decision. What we want to happen in policy is the same thing.

We want to make sure that policymakers have the best information they can to make decisions. It’s really a process of working with researchers to help them think about, with the input of decision-makers, what questions they want to answer.

And then, the other part of that is working with the decision-makers to help them incorporate research into the decisions that they’re making.

**Dan LeDuc:** That makes a lot of sense when you think about it. What’s a good example of this research becoming policy?

**Molly Irwin:** One example is research in the late 1990s—looking at a number of states who had a decrease their blood-alcohol levels down to 0.08%, to understand what impact that made on fatalities. Looking across those states, it led to a decrease in
fatalities by about 7%. So, these decisions are made at the state level, but what the federal level did was attach funding to incentivize states to change their laws. So federal legislation linked to highway funding resulted in all states bringing down their blood-alcohol level.

[Music]

Dan LeDuc: We’re talking about the ongoing conversation between the science community and the policymaking community—a conversation that takes on added urgency amid a global pandemic. Mary Woolley is president and CEO of Research!America; we heard from her earlier in the season and she joins us again.

Let’s put COVID aside—and I do want to talk about it, because it’s obviously central to our lives right now. But let’s put that aside for a moment and speak more generally. You’ve been watching this intersection of science and public policy for a long, long time. Can you trace the progress of how well that’s worked, and whether we’re at a good place, whether we’ve been making the sort of linear progress that we would hope we would make?

Mary Woolley: I think it’s been fits and starts, to be honest. The reality is that science, like everything else in life, exists in a context—a public context. And part of that context is political. And by political, I’m talking not about partisan politics, but about the policies of the nation, the funding for the agencies that are the relevant agencies. And, of course, this is way beyond—goes way broader than medical and health research.

There is a public context, and that public context, if it’s ignored by the science community, or only intermittently attended to, can rear up and take you by surprise. And as a result, we see way skewed up and down and erratic funding policies that maybe don’t seem to make sense to the science community. But sometimes that’s to be laid right at the feet of the science community itself for failing to pay attention, and to be responsive and accountable to the public and its policymakers to think about public engagement and how they can make sure the public knows that science is there working for everyone.

Dan LeDuc: When it comes to the COVID-19 pandemic, we know that much of the science community is “working for everyone,” as you say—trying to find ways to treat this deadly virus. We have scientists around the globe who are putting aside other less urgent research and collaborating as never before to battle the coronavirus. How is this effort reshaping the world of research?

Mary Woolley: I think, Dan, it’s shaping us profoundly, and it will never be the same again. We’re finding out that we can move more quickly in science—not only if we’re well-resourced, but if we determine to work together more effectively, and that is
happening right now. That’s a good thing. Another good thing is that the public is paying more attention. That’s terrific.

So, there’s progress in the right direction. And just to add one more thought, right now with COVID, we’re seeing science in real time like never before. And it’s every day, every hour, every minute of the day. And more people who aren’t scientists are realizing that science doesn’t move in a linear, constant progress way—it’s three steps forward, two steps back. So we are getting used to this, and I think progress is being made.

Dan LeDuc: Scientific discovery isn’t linear, and science, as you’ve said, exists in a public and political context.

Mary Woolley: Policymakers listen to their constituents. Their role in thinking about science is no different in many respects than their own thinking about defense or thinking about the economy in broad strokes and very limited ones. But they have to respond to the crisis of the moment. And right now, the crisis of the moment is the pandemic. And they rely on the science community as a source of information and advice, and also to be responsible to the American public.

So, having found out that we can cut a lot of red tape, speed things up, we’re not going to go back.

I think that people care about finding solutions to what ails us. And I don’t mean just our health. And science, historically, has provided those solutions and, given a chance, will continue to do so.

[Music]

Dan LeDuc: Let’s return for more with Esther Krofah.

Esther Krofah: If policymakers don’t understand that entire end-to-end process, how can they meaningfully ensure that we have the most efficient process that saves money, but yet also achieves the right health care outcomes for patients?

So, I’ve spent my entire career focused on policy from the state perspective, from the federal perspective, my time in pharma industry. And one thing is consistent, which is because we have allowed fragmentation, patients really suffer at the end of the day.

Dan LeDuc: Well, let’s talk about the complexity of that, because when we talk policymakers, it’s a vague term maybe to some people, right? But it’s happening, as you mentioned, at the state level. At the federal level it means regulatory agencies like the FDA. It means elected officials like members of Congress who decide appropriations. That’s a real intertwined network of policymakers at work there. How do we get them
to start collaborating as we want scientists to start collaborating?

**Esther Krofah:** I think we have to focus on what the actual goal is, if we look at where patients have disproportionate health impacts. We know that smoking has led to lung cancer. We see the effects of chronic conditions like COPD, which is a chronic pulmonary condition. We see the effects of diabetes. So, for me, if you can find and tell the patient story, you work backward from there, because if you don’t do that, it’s hard to collaborate around a process that seems very vague, and it feels very technical.

I’m sure you’ve spent a lot of time on the Hill, people don’t have a lot of time. They’re dealing with education and transportation and the economy and a whole variety of issues.

If we look at where the public health impacts are for the population, and then can tell that story to the policymakers, right? The policymakers being in a congressional staff in the House, in the Senate, at the state and local level, we can start to rationalize our medical research. We can say, my goodness, a majority of our population are suffering from chronic conditions.

At the end of the day, I think we have to be realistic that people play toward where the incentives are. And so what I’m not suggesting is we need any less incentives in oncology or any less incentives in rare diseases, but we need to raise the bar for all of it.

A good way to do that is to have these ongoing conversations between policymakers and all of the rest of the ecosystem on the medical research side.

**Dan LeDuc:** You’ve mentioned the role and the voice of patients, rightly so. But what is the role of just the general public, because we are all potential patients. We are all relatives of patients. And we all want a healthy society. So is there a role for the public in terms of being civically engaged as we are when we vote, or when we do anything else when it comes to science and science policy?

**Esther Krofah:** I think we need to start by demanding more out of our health care. And we’re seeing an increased movement toward consumerism with patients actually finally getting the transparency of information they need to shop around. It starts there, I think, because it’s really difficult for me as an individual to say, how do I contribute to science policy? That’s a very difficult question to answer.

But if I said, well, I’m going to ask my physicians and my doctors if I have an issue, to tell me what the full range of drugs are. Not what’s covered by the insurance company, but what can help me achieve the best outcome for my condition. Where are clinical trials that I can participate in if they’re experimental medicine. In that way, I am participating
in science policy, because it’s all tied together.

[Music]

Dan LeDuc: In our next episode, we close out the season exploring ways to make science accessible to all.

Shirley Malcolm, Head of Education and Human Resources Programs, the American Association for the Advancement of Science: There is research that is really telling us that the creativity and innovation that comes along with this diversity is really what we need in order to move to the next level.

Dan LeDuc: Thanks for listening. For The Pew Charitable Trusts, I’m Dan LeDuc, and this is “After the Fact.”