For 10 consecutive years, the University of Michigan has ranked number one in research volume among US public universities, according to the National Science Foundation. In this episode of Michigan Minds, U-M Vice President for Research Rebecca Cunningham discusses how U-M is advancing society through research, the Firearm Injury Prevention Research Initiative at U-M, and the importance of encouraging more participation among women and girls in STEM fields.

Cunningham explains that in order to seriously address societal challenges, researchers rely on support from the university and external partners to allow them to make advancements in myriad areas, including COVID-19 solutions, driverless vehicle technology, social justice, carbon neutrality, and more.
“We also have generous support from our external partners that’s incredibly competitive. So our research volume, when we talk about that, is really a testament to the dedication and expertise of our research community,” she says.

“Whether those solutions are vaccines or how to make my phone or car work more efficiently, those are all part of this research volume that we’re working on every day. It’s a real thing, not an abstract thing.”

Cunningham has conducted vast research in injury prevention. As an emergency physician, she was often tending to patients who were injured by a car crash or gun violence, and started dedicating time to finding a way to keep those patients from getting those devastating injuries.

“We can do great things in medicine to help them heal from these injuries, but really the biggest thing we could do is to help them not wind up there in the first place,” Cunningham says.

“In learning more about the science of injury prevention, and it is indeed a science, of how we think about changing either human behavior around let’s say drunk driving or changing the way roads are built so that they’re safer. And the same thing with the gun violence work that we’ve done really understanding that there is a lot we can do; that violence is preventable. Gun violence is preventable.”

U-M established the Firearm Injury Prevention Research Initiative to study gun violence further and generate new knowledge and innovative solutions to reduce firearm injury in the U.S.

Firearm injuries cause a massive impact to society, Cunningham says. It is the second leading cause of death for children, and there is a high rate of firearm suicide among adults in the nation.

“We are now coming out of that time in our country and realizing collectively that this is a public health problem,” she says, adding that U-M is poised to lead this research because of the breadth of knowledge across the university.

“Between our folks in public health, our folks in the medical school, our researchers and engineers, social work, nurses...there are many people in research across the university who are able and are interested in positioning themselves now to address this. And it’s
really great because we’re going to need all of their voices and all of their perspectives to be able to really make a change.”

As a female in a leading role at a major public research research institution, Cunningham shares how thrilled she is to be in her position and hopes she is a role model for other women who want to be in STEM.

“I’m incredibly proud and honored to be in the position to have this kind of conversation with you where other women can see themselves in roles of higher leadership across universities. Those roles were not always obvious to people, myself included, as we were looking around for how leaders act. Having more role models around and more examples of what it looks like in leadership is good for everyone,” she says.

Cunningham emphasizes the importance of encouraging more women and girls to work in STEM fields because having a diversity of voices brings more perspectives to help solve challenges facing society.

“We can do better. We need more women in STEM fields. We need more women in all the STEM fields. We need more diversity in race and gender across all of these fields. So we have to keep talking about it. We’re not done yet.”

She also shares the advice that she gives her daughters and her mentees: “The men and the boys that are sitting next to you will often appear quite confident and may be very confident, but the women’s voices are just as brilliant and contribute just as much. And that’s something I always want them to remember.”

This episode of Michigan Minds is a part of a special series focused on women in STEM as we celebrate International Day of Women and Girls in Science on February 11. Listen to more episodes from this series ➔