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INTERVIEWER: Megan Ranney has been an emergency room physician for 14 years. She's seen a lot of gunshot wounds in that time. After the Parkland shooting in Florida, she asked other ER docs around the country to share their experiences with firearm injuries. Everyone had a story. The boy caught in crossfire paralyzed for life, the child who accidentally shot his sibling, the hunter who shot off his own arm, the young man who used heroin since finding his father dead from a self-inflicted shot to the head.

It's a public health emergency, Ranney says. But she's not against guns. She is against preventable firearm injury and death. So, Megan, thank you so much for being here today.

MEGAN RANNEY: It's my pleasure.

INTERVIEWER: First of all, I want to just take a step back and have you help us understand what makes firearm injury a public health issue.

MEGAN RANNEY: Great question. Many people, when they think about guns, think about it being either a criminal justice issue, as they think about homicides and gang violence, or they think about it being an issue of control, and particularly gun control. But what firearm injury really is just another mechanism of injury.

And we have a science of injury prevention, right? We know how to reduce injuries from cars. We know how to reduce injuries from pools. We know how to reduce the number of kids who get a hold of their parent's medications and accidentally take them and end up in the ER. And we can use all of those tools and all of that science that we use for other types of injuries for guns, right?

INTERVIEWER: Explain what you mean.

MEGAN RANNEY: So one of the reasons that firearm injury is a public health problem is because it is a source of injury and death. Nationally, injury is the leading cause of death for Americans age 1 through 44. And guns are among the top three leading causes of injury for youth aged 15 through 25, as well as for older adults.

So I think that one of the things when we talk about firearm injury is that people tend to

conflate gun injury and death with a criminal justice issue. But in reality, it's much more than that. And if you look at the patterns of firearm injury, we see that actually, around 2/3 of firearm deaths nationwide are suicides, and another third are homicide.

Those third of deaths that are homicide mostly occur among young minority men. The 2/3 of the death that are suicide actually mostly occur among older white men. Very few of firearm deaths across the country are women.

Those that do happen tend to be domestic violence homicides. And even fewer are kids. And most of those deaths that are kids are actually accidental or unintentional injuries. And then of course, there are the mass shootings, which are horrific and have a huge impact on our public consciousness, but are, thank god, relatively rare.

INTERVIEWER: So they're episodic, while these other deaths are sort of a constant.

MEGAN RANNEY: A constant, exactly. They are a daily occurrence. So nationally, over 100 Americans die each day from gun injury.

And the thing is is that guns are no different than any other kind of injury if you really think about it. If we take away the politics, and let's look at how we can change those patterns of injury and death, let's look at how we can change the epidemic, and that's where it becomes a public health problem, is when we say can we apply the same tools and the same science to this type of injury as we can to any other, whether it be cars, or pools, or prescription drugs.

INTERVIEWER: Can and have.

MEGAN RANNEY: Right. We have more cars on the road than ever before. We have more miles driven than ever before. And yet the rate of car crashes and car crash deaths has decreased.

And we've done that through a really multifactorial approach that uses the public health approach, which combines engineering, education, certainly, some legislation, but that's a minor part of what's worked to reduce occurrences of car crashes, but also car crash deaths. We have made no progress on firearm injury. So whereas if you look at a graph of cars, of car crash deaths you see it at this high, and then it drops precipitously in the 70s and 80s and has stayed low ever since, with a little blip due to texting, which we're addressing now.

For firearm injuries, it's been basically constant, the rate of firearm injuries since the 1950s. It increased a little bit in the 1980s, related largely to drugs, but then has been otherwise at the

same baseline for the past 60 years. And we've made no impact on it.

INTERVIEWER: It's as though we had sat by and watched the opioid crisis continue and not reacted.

MEGAN RANNEY: And done nothing. Absolutely. It would be like if the opioid crisis had been going on for decade after decade, and we continued to watch it and do nothing.

INTERVIEWER: With the whitening of the opioid crisis came more attention and more funding and more public health awareness and more acknowledgment that this was a problem that merited attention. Parkland was a much more white privileged face of tragedy than the daily reality in Chicago.

MEGAN RANNEY: I think there is a large social justice aspect to firearm injury prevention. But I think that it's much bigger than just the fact that the kids at Parkland were white and upper middle class, because Sandy Hook was too, and so was Las Vegas. I think that the change in momentum around Parkland has been more around who was injured there and the age of those youth and their empowerment.

INTERVIEWER: Because they have a voice?

MEGAN RANNEY: Because they have a voice, which kids in the inner city often don't. But I'll also highlight that this is a social justice issue because, as I mentioned before, 2/3 of gun deaths are actually middle aged white men. And those are deaths that are not talked about.

And so these are largely people who live in rural communities who are suffering under the burden of mental illness, hopelessness, often addiction, and they see that their only option is to end their life. And because they have easy access to a firearm at that moment of crisis, they're able to take their own lives. We know from studies that if people don't have access to a gun when they have that moment of suicidal impulse they're very unlikely to die. And if someone survives a first suicide attempt, we can almost always prevent future deaths.

INTERVIEWER: Through intervention.

MEGAN RANNEY: Through interventions. Only about 10% of people who try and don't complete a suicide actually go on to die. And this is an issue that's just not talked about.

So it's a social justice issue in so many ways. It's an issue for the kids who are having to live everyday in inner city with fear and for their communities and for their parents. It's also an issue for these ignored and unacknowledged victims across the rural United States.

INTERVIEWER: And that becomes not just an issue of gun control, because they may very well be-- the vast majority might be law-abiding gun owners who hunt, but who have unaddressed mental health issues.

MEGAN RANNEY: So I would say that none of this is an issue of gun control. I think it's a really important point to make. Doing good injury prevention is about reducing the chance that someone will get hurt with a pool, a car, a hockey stick, a hair dryer.

INTERVIEWER: It's like knowing to build a fence around a pool.

MEGAN RANNEY: Exactly.

INTERVIEWER: Or buckle a seat belt.

MEGAN RANNEY: I'll date myself here. But when I was a kid, my mom taught me don't ever blow dry your hair near the bathtub or near the sink because you'll electrocute yourself. Now we have ground fault interrupters on hair dryers. The incidence of electrocution deaths from hair dryers was pretty darn low, but we decided it was enough of a risk as a society that we said we're going to do something really simple. We're not going to take hair dryers away from people, but we're going to put something in place to reduce the risk of injury and death should that hair dryer happen to be dropped in a body of water.

INTERVIEWER: But 36,000 people in one year is not enough.

MEGAN RANNEY: Part of the big challenge here is getting rid of this sense that it's about either that on the one side it's gun control and on the other side it's Second Amendment rights. It's really not about either of those. It's about using science and evidence to bridge that gap in a way that protects people's rights.

I'm from Western New York. Many of my family members are military or are-- my husband's military, hunters, own guns as tools or own guns for fun. Going to the shooting range can be fun.

And so it's not about changing the Constitution or about taking away those rights of my family members, my friends, as you say, the vast majority of gun owners. It's about changing circumstances so that people who are at risk don't accidentally or intentionally hurt themselves or others. And I think putting it as a pure criminal justice issue distracts us. But similarly, I bristle when I hear people say, well, all we have to do is ban guns. That's just an absolutely

baloney answer.

INTERVIEWER: We didn't ban cars.

MEGAN RANNEY: We didn't ban cars. We didn't ban pools. We sure as heck haven't banned hairdryers, right? We haven't banned cigarettes.

INTERVIEWER: Well, let's talk about how to find out how to be safer. What does science have to do with all this?

MEGAN RANNEY: Great question. So there's a lot that science has to do with this. Again, taking that car analogy, we used great science to identify how to make our whole country safer with cars.

So part of that is doing surveillance. Not in a like, freaky government surveillance kind of way, but in the public health sense of surveillance, which is where you're monitoring the patterns of injury and death, and you're monitoring if there are certain areas where you're seeing clusters of deaths. So that's kind of step one.

Then step two is saying, well, what can we do to change those risk factors? Is it something about education? And so with the car crash analogy, one thing that we identified over the years was that people who drove drunk were more likely to hurt themselves or others.

And we said, well, part of that was saying, OK, it shouldn't be legal to drive drunk, but part of it was also education. It was saying, I want to teach every person that if they're out at a party and their friend is buzzed, that you should take the keys from them and offer to drive home if you're sober. I'm not saying that that's the answer for guns. We don't know what it is. But there's probably similar things where there's elements of education, and then we use science to see, does it work or not?

INTERVIEWER: Well, why don't we have more data?

MEGAN RANNEY: Great question. The big reason why we don't have more data is because of lack of funding. There was a study that was published last year in *JAMA, The Journal of the American Medical Association,* that looked at the rate of funding for firearm injury prevention versus for other disease and injury states. It found that based on the mortality rate of guns, funding was less than 2% of what would be predicted compared to other diseases. And it found that compared to say, sepsis, which has the same mortality rate as guns, guns get less than 0.2% of the funding that sepsis does.

INTERVIEWER: So we should be funding it 98% more, at least, than we are?

MEGAN RANNEY: Than we are, yeah.

INTERVIEWER: Well, the good news is you just got a $5 million five-year grant from the NIH.

MEGAN RANNEY: So the whole goal of this grant is to restart the science of pediatric firearm injury prevention. In the next five years, we are going to start to pilot some of the research that is so desperately needed to reduce rates of kids and adolescents hurting themselves and others. But that $5 million grant, that's a million dollars a year over five years, which sounds like so much to the average person. Gosh, I'd love to have a million dollars a year, right?

But in the world of NIH grants, when you split that between all the people on that grant, and when you divide it up between all the different institutions, it's really not much money. And then if you compare it to other disease entities, I talked about sepsis already, but let's talk about opioids. So the opioid crisis is horrific and deserves every dollar that is being spent on it. The burden of disease and the toll on communities is horrible.

But the NIH spent $500 million on opioid research last year alone. Now, this $5 million five-year grant for pediatric firearm injury prevention is great, but it is a drop in the bucket compared to the amount that's being spent on other similar public health problems. And the trouble is without that funding, we simply cannot do the rigorous research that allows us to have confidence that we are making the right recommendations for our society. And this issue is too important and it is too fraught with politics to risk taking subpar data. We really need to be doing the highest quality research and engaging all stakeholders to get really good answers that can then inform what we do as a community and as a country to help protect our own.

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INTERVIEWER: You tell this very effective story of seeing this boy who took his own life with his father's gun.

MEGAN RANNEY: Yeah.

INTERVIEWER: So it's not just kids shooting at each other in the street, it's--

MEGAN RANNEY: It's them shooting themselves too.

INTERVIEWER: And that makes me think about the, let's say, unintended consequences, that it's not just death and it's not just death and injury, it's the aftermath. It's the trauma. It's the family. It's the people who don't heal because their injuries are so bad because of what bullets do.

MEGAN RANNEY: And then it's the fear that the family or the community has to live in. And it's also the effect on the first responders and the physicians.

INTERVIEWER: Yeah, the ED.

MEGAN RANNEY: Right, the emergency physicians, the trauma surgeons.

INTERVIEWER: Can you talk a little bit about your call?

MEGAN RANNEY: After Parkland, I think many of us were searching for something to do, just as we have after every other mass shooting, and as we should be doing every day, because more people die every day than died in Parkland from guns. But it was a big media event, galvanized many. And one of the things that became apparent to me and the people that I worked with was that the stories, those everyday stories of gun violence were not being told.

And so I, with the help of others, started to solicit from physicians and other health care professionals the stories of the victims of gun violence that we have touched or encountered through the years, and every doctor has at least one story, most of us have dozens or hundreds. One of the things that struck me most about those stories was how those encounters effected the physicians on a personal level, how so many of us had taken care of these patients or their families and carried that grief and the sense of a life lost before its prime with us, for some of us, for decades. The other thing that surprised me, shouldn't have, but did surprise me about those stories were how many of the stories were personal. So I know that there are 36,000 to 38,000 Americans who die each year from gun violence.

INTERVIEWER: And 80,000 who are injured.

MEGAN RANNEY: And 80,000 who are injured. So inevitably, doctors are bound to have family members and loved ones who've died or been injured. But you kind of forget about that. And one of the things that really surprised and effected me out of the stories were how many of them were physician's sisters, brothers, nurses, aunts and uncles. And then the burden that that created for them and for their families, again, for decades.

INTERVIEWER: So back to why it's a public health issue too. Speaking of research and funding for research,

tell me about a firm, this group and your hashtag.

MEGAN RANNEY: Yes. As we were saying, NIH and CDC-- well, NIH has had limited funding for firearm injury research. CDC has had zero appropriations for firearm injury research since 1996.

So it dates back to the Dickey Amendment, which was passed in 1996 by Representative Jay Dickey from Arkansas that basically said that CDC funds could not be used for gun control advocacy. And this was passed in response to some studies that had been done suggesting that having a gun in the home increased the risk of suicide and increased the risk of homicide. And that perception was that those studies consisted of advocacy.

Now as a scientist, my job is to create a hypothesis, gather the best data I can, and then prove or disprove my hypothesis. Honestly, I would love to do research showing that say, training for gun owners reduces risk of suicide and unintentional injury. I would love to do research that shows that there are ways for people to keep guns in the house that make them safer. Right now, I can't do that research, just as I can't do research looking at whether having a gun in the house makes you less safe. None of it is possible right now.

INTERVIEWER: So you decided to take matters into your own hands?

MEGAN RANNEY: Exactly. So I and many others have been lobbying the government, not for changes in gun laws, but for money to do this research. Many of us have gone to The Hill and testified about the need for firearm injury prevention research funding, but Congress continues to not move.

And so a lot of us said, enough. We've been asking for 22 years to have this issue funded. The death rate continues to grow.

The incidence of horrific events like mass shootings continues to increase. More people are committing suicide with guns. Homicide deaths stay stable, and we have no more data than we had 10 years ago or 20 years ago.

I'm still quoting studies that were done in the 90s, despite the huge changes in society. Imagine if I were talking about cancer research that was the same as it had been in 1990. That would be crazy.

And so a bunch of us came together and said, well, you know what, the American Cancer Society was funded because the government wasn't funding cancer research in the 1940s and '50s. And they said, we need to put together a private source of money to do this work to

reduce both the rate of cancer and the death rate from cancer, and to help support people who are living with cancer. In the same way, our society needs more funding to do research on how do we decrease the number of firearm injuries? How do we decrease the death rate? And then what do we do to help all those people who are touched by the aftermath of gun violence?

And so with that in mind, we founded the American Foundation for Firearm Injury Reduction in Medicine, or AFFIRM. We are a new 501(c)(3)-pending philanthropy. And our goal is to fill the void that has been left by the federal government, to restart the science of firearm injury prevention, and to use knowledge and science to reduce the toll of gun violence on our society. I've done work with the Massachusetts attorney general's office and with colleagues out at University of California, Davis to create guidelines for physicians on how to best help patients who are at risk of gun violence and death. And wouldn't it be nice for us to be able to disseminate those, to do a better job of helping doctors to take care of their patients in the way that all of us want to do.

So I'm the chief research officer for a firm, and the day before I decided to take that on as a position, I sat down with my family and I talked to them about this. My kids are nine and six, old enough to know what's going on in the world. We don't talk a lot about it, but I said to them that there's this lack of research on how to prevent gun violence and I have the opportunity to make a difference in helping to create that research. But it's going to mean I'm going to be away from home a little more and I'm going to be working harder than I have because it's not replacing anything else that I'm doing, it's a add-on.

And my kids both looked at me and they're like, mom, of course you're going to say yes. And my daughter, just last night, I got home late and she said, mom, are you home late because you were working on gun stuff? And I said, well, yes. And she goes, then it's OK, mom.

INTERVIEWER: As if you didn't have enough to do, you were also recently appointed co-chair of the governor's Gun Safety Working Group here in Rhode Island.

MEGAN RANNEY: Correct.

INTERVIEWER: So what are the goals of that group? And what's the time frame?

MEGAN RANNEY: Our task, per the governor, is to come back to her sometime in the fall with recommendations for what we as a state can do to reduce the impact of firearm injury on our state, but also to

prevent, obviously, horrific occurrences like mass shootings. I would be lying if I said that I thought that any policy would have 100% success. But there is a lot that we can do that doesn't require policy change.

I talked earlier about some of the educational initiatives that we could undertake, things like providing resources for doctors who are caring for suicidal patients. Going back to the opioid epidemic is that we've done a lot as a to create united data sources to help us target resources at the communities that are most affected by opioid overdose. We can and should do the same for guns, both for the people who are living in the city and are affected by gang violence, but also for the people scattered across the state who are affected by suicide. 80% of gun deaths in this state are suicide deaths.

INTERVIEWER: Wow.

MEGAN RANNEY: Mm-hmm. We're just trying to come back with a kind of big and wide-ranging set of recommendations that the governor can choose among.

INTERVIEWER: Maybe we can move the needle in Rhode Island.

MEGAN RANNEY: I think we can now. And I think it's important to recognize we are already in a great spot. We have the fourth lowest rate of gun deaths of any state in this country.

That said, sitting at that working group and hearing the stories of kids and teachers, mental health workers across the state, there's still more to be done. Because again, that impact of a gunshot does not stop with the victim. It extends so much bigger. And there's so much more that we can do, whether it's providing mental health resources, providing, again, guidelines for schools or for clinicians, there's a lot we can do to help mitigate the impact of those deaths that do happen.

INTERVIEWER: Do you have your kids in mind when you do this work?

MEGAN RANNEY: I have my kids in mind always, with everything I do. And I hope they listen to this. I'm going to put on my public health hat here. Statistically, chances are-- knock on wood, cross your fingers-- my kids will be OK. They are upper middle class white kids who live in East Greenwich, right?

I'm doing this for all the other kids. I'm doing this for all the kids who live in South Providence or off of Elmwood. I'm doing this for all the kids whose parents have committed suicide. I'm

doing this for much more than my own family.

INTERVIEWER: For anyone who's going to be in the wrong place at the wrong time.

MEGAN RANNEY: Absolutely.

INTERVIEWER: That's a great answer. Just one more question. How did you come to work in firearm injury prevention in the first place?

MEGAN RANNEY: I've been working in violence prevention for a long time. I did a fellowship in injury prevention here at Brown, and very quickly came to realize that although I could talk about violence prevention in general, and I could talk about suicide and domestic violence and youth violence, I couldn't talk about or do research on guns. Which was weird to me, because the mortality rate from guns, the number of people who die after being shot from guns is so much higher than the mortality rate from any other kind of violence. So I said, why is this?

And then there were a confluence of a few events. One was a couple of really upsetting encounters that I had in the emergency department where it was highlighted to me how different guns are as a mechanism from any other kind of violent injury. That kind of toughened my resolve to try to address this issue. And then, of course, Sandy Hook. It was after Sandy Hook that I really started working on a national level within the American College of Emergency Physicians, as well as other national medical organizations, to try to increase federal funding for the issue and to increase awareness of firearm injury as a public health problem.

INTERVIEWER: So you're hopeful?

MEGAN RANNEY: Oh my gosh, I'm hopeful. I mean, I'm an inherently hopeful person. I am a glass half full kind of woman.

But I have seen year on year progress in the number of people addressing this issue, the number of people talking about it, and to a large extent, in the tone of the discussion. The fact that people are acknowledging now that youth violence and suicide are important, in the number of people acknowledging that this is a public health issue, and in the number of people discussing the fact that we need research to be able to create a comprehensive and state and country-wide solution to not prevent every gun death, because that will not be possible, but to reduce it as low as we possibly can.

INTERVIEWER: Well, please, go back to work now, because your work is so important. And thank you for doing it, and thank you for taking the time to talk to us about it.

MEGAN RANNEY: It's totally my pleasure. I'm so honored to have been invited. Thank you.

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