Using Data to Prevent Suicide

Transcript of SPARK Talks

Speaker: Alex Crosby, MD, Medical Epidemiologist, Centers for Disease Control and Prevention

Part 1: The Importance of Data

Well, my name is Alex Crosby. I work for the Centers for Disease Control & Prevention, and I work in the division of Violence Prevention at CDC. My role there is primarily as a medical epidemiologist, and I focus in the area of suicide and suicidal behavior prevention.

Data is one of the foundations when we talk about the public health approach to addressing any particular condition or problem—whether that's something like hepatitis, whether that's something like asthma, whether that's cancer, or heart disease, or suicidal behavior. We really need to understand the "who, what, when, where" of that particular issue.

The data help us in understanding the extent of the problem, but it can also help us in understanding what are the factors that play a role in a particular issue. What are the risk factors? What are the protective factors? And especially when you talk about a multi-faceted condition, such as suicidal behavior, in which it can have many different factors that play a role in it. If we don't understand what the problem is, then we might be missing it when we try to develop some sort of program.

One of the areas in which we've been able to help expand the amount of information that's available is the National Violent Death reporting system. This is a system that's now expanded to 32 states in the United States, and one of the benefits of this system is it collects information from three primary data sources. It includes information from death certificates, includes information from medical examiners and coroners, and then also includes information from law enforcement. By putting together these three data sources, it gives us a much broader bit of information about what was occurring when someone died as a result of suicide.

In Oregon for example, the state had developed a youth-focused suicide prevention plan, which means they focused on the age group from 10 to 24. Children, adolescents, young adults was where they focused their suicide prevention activities. Once they had started collecting their violent death reporting system data, what they found out was actually the highest rates were among those who were older adults, and actually found out that among the older adults that had died as a result of suicide, many of them had visited their primary care physician within the 30 days before they had died of suicide.

They were able to come back to their decision makers and say, we need to really focus some programs on this particular population and those primary care providers. And what they were able to do is develop some materials for those primary care providers that helped them to better identify older adults that they were seeing but also make sure that those primary care providers were well-trained in regards to treating, especially clinical depression, and so that they could treat that better, identify those patients better, and then hopefully have some better outcomes as a result of decreasing suicide within their state among that older adult population.

In the state of New Jersey, they also had looked at their violent death reporting system data and found out that the highest number of suicides were among working-aged adults. They brought together three of the largest employers in their state, and said: You know, we need to start looking at programs for your businesses that might help prevent suicides among this population, especially those in their 30s, 40s, and 50s. How can we work with you businesses to develop stronger employee assistance programs or other kinds of programs that focus on this particular age group.

That's really one of the foundations, if you will, of collecting surveillance and monitoring information, is that it's supposed to be information for action. You're supposed to be getting it into the hands of those people who are actually running and administering the prevention activity, so that they can do something about whatever that problem is. So that when they take action that action can be very focused.

Part 2: Sources of Data

Oftentimes in public health we talk about kind of a four-step approach to addressing any particular problem. And the first step is really the data and the surveillance. Do we know how much of it exists? Do we know what populations? Do we know that it occurs more in males or in females, or maybe in teenagers or in middle-aged adults or maybe in older adults. So the way we can better we can understand and explain what the patterns are helps us in terms of moving towards the next steps which involve understanding and developing the prevention program—which is really where we want to go.

There are a number of different challenges that communities face in regards to getting the most relevant information about what's going on in their community. Oftentimes national data is available, but that doesn't always give the full picture of what's happening locally.

One example is when we look at the national average of suicide rates in the United States, often times the Rocky Mountains are some of the highest states that we've got. And for many, many decades, when we rank the states and look at which states are the top 10 or 15 in regards to suicide rates, the Rocky Mountain states tend to be the highest. But when you look within those Rocky Mountain states, you can find certain counties that are much lower than the national average. So it's important for those people in those counties, and those people in those states, to be able to have data that is the most appropriate for their communities and for their populations.

There are a number of different levels of data that communities might want to have. Often times, death certificates are available, but they only give you a small piece of the picture. We oftentimes talk about something called a *pyramid* in regards to the different kinds of information that's available, and the very tip of the pyramid are deaths.

You'll have even more hospitalizations that are due to suicidal behavior and that, of course, is more serious suicide attempts. And you also have emergency department visits that are due to suicide attempts. That's an even bigger number.

And then when we've done surveys that are population-based surveys, in which we ask people in the past 12 months, or over your lifetime, have you made a suicide attempt or thought about suicide. So we ask about suicidal thoughts and suicidal behavior. That's an even bigger picture, and that gets down to the base of the pyramid.

Definitely getting access to already-existing data is an important step. Sometimes there are folks in local communities who don't know about data that's already being collected. So that you don't have to reinvent the wheel. If it's already there, just finding access to it. Who's holding this data? Which organizations, which

groups already have information that you might be able to use? And that may involve developing partners, developing collaborations with other groups.

And so at local communities, they will often have access to death certificate data from their state or their county vital statistics department. Maybe the local coroner or medical examiner might get you information or more information about deaths that occurred due to suicides. Maybe working with local law enforcement that may have responded to a death due to suicide.

One of the areas in which we've been able to help expand the amount of information that's available is the National Violent Death Reporting System. It includes information from death certificates, includes information from medical examiners and coroners, and then also includes information from law enforcement.

Local hospitals will have information about in-patient data. Those people who are hospitalized due to suicide attempts—they will oftentimes have that information. There are state hospital associations that oftentimes are willing to share information about in-patient data. And so you may be able to go to one of those state hospital associations, find out information from them, work to develop partnerships in that way.

There's information that's collected at the federal level. One of those data systems is called HCUP system—and that's Healthcare Utilization Project—that has a national in-patient sample as well as an emergency department sample. And so for many states—although not all states, but many states—there's information in that HCUP data.

There are databases like the National Survey of Drug Use and Health, the Youth Risk Behavior Survey that does high school students, and in which sometimes communities can get that kind of information.

I think that there are some critical things in the field of suicide prevention that people in local communities really need to know. One is expanding the data so that you look beyond—where you can—beyond just deaths due to suicide. Where can you look for information about suicide attempts and non-fatal suicidal behavior? I think another place is the partnerships, because I think the partnerships actually help you be more effective in targeting those vulnerable populations for improving their health outcomes.