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# Suicide Prevention in California

## Strategies from Science

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RAND Office of External Affairs

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Testimony presented before the California State Senate Select Committee on Mental Health on September 24, 2013

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The RAND Corporation**

***Suicide Prevention in California  
Strategies from Science<sup>2</sup>***

**Before the Select Committee on Mental Health  
California State Senate**

**September 24, 2013**

My name is Rajeev Ramchand - I am a Psychiatric Epidemiologist and Senior Behavioral Scientist at the RAND Corporation. Since 2008, I have been conducting research focused on suicide among both military and civilian populations. In 2011, I authored *The War Within* that highlighted how the Department of Defense's approach to suicide prevention could be enhanced.<sup>1</sup> The recommendations in that report were passed into law as part of the 2013 National Defense Authorization Act, including recommendations to increase awareness, ensure continuous access to care, and provisions to protect the privacy of those accessing behavioral health care and to improve the quality of this care.

Headquartered in Santa Monica, California, RAND has a long history of conducting public health research on the health and well-being of Californians. In 2011, RAND was chosen to evaluate the Prevention and Early Intervention activities funded under Proposition 63, the Mental Health Services Act, and administered by the California Mental Health Services Authority, or CalMHSA. I am leading the team that is evaluating the suicide prevention programs. I mention these two studies – the one for the Department of Defense and the ongoing one for CalMHSA – because this work will be the basis for my comments.

In 2010, the most recent year for which suicide data are available from the CDC, almost 4,000 Californians lost their lives to suicide. This makes suicide the tenth leading cause of death in the State; the first is heart disease, which takes the lives of 15-times more Californians than suicide each year.<sup>2</sup> This comparison is important because it emphasizes that suicide remains a relatively rare event: 1 in every 10,000 Californians will die by suicide each year.

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In California, most suicide decedents are adult, White men. Of the 4,000 deaths to suicide, over three-quarters are men, making suicide the **eighth** leading cause of death of males in California. A quarter of male suicide deaths are among those 60 and above, a proportion that grows to almost half when including men over 50; almost 90 percent of male suicide decedents are over 25. Though 76 percent of Californians are White, 86 percent of those who die by suicide in the state are White. In fact, White males over 25 account for 59 percent of suicides in the state.<sup>2</sup>

I do not, however, want to minimize the profound and deeply tragic loss of young lives to suicide. Twelve percent of Californians who die by suicide are younger than 25, equating to 440 Californians between 15 and 24 who took their lives in 2010. Suicide accounts for 15 percent of all deaths in this age group, and it makes suicide the third leading cause of death among 15 to 24 year-olds.<sup>2</sup>

With respect to geography, the proportion of people who die from suicide across the state generally parallels where people live. A third of all California suicides occur in the Southern region of the state – Kern and counties south of it excluding Los Angeles. Around 20 percent occur in each of three other regions: the Bay Area, Los Angeles, and the Central region, including counties between Kings and Yuba. In comparison, a relatively low proportion - 6 percent - occur in the northern, rural region including Mendocino and its northern neighbors.<sup>3</sup>

But these statistics do not imply that the north should be ignored. Although suicides in Northern, rural California account for only 6 percent of all California suicides, the suicide **rate** in that region is **double** that of the rest of the state. In other words, while in the rest of California 1 in 10,000 Californians will die by suicide, in the North it is 2 per 10,000 each year. In this less-populated area, 226 Californians died by suicide in 2010.<sup>3</sup>

Aside from these demographic characteristics, the research has identified three important groups at increased risk of dying by suicide. First, people who have attempted suicide in the past are 40-50-times more likely to die by suicide than members of the general population.<sup>4</sup> Second, those with a mental illness are more than 20-times more likely to die by suicide.<sup>4</sup> And third, persons who have a substance use disorder or who are heavy users of alcohol and other drugs are also at increased risk. For instance, people who misuse multiple drugs are up to 17-times more likely to die by suicide, and heavy drinkers are three-times more likely.<sup>5</sup>

By understanding the characteristics of those who die by suicide as well as those who are at increased risk, we have identified those most in need of suicide prevention resources in the state. These resources should include both a targeted approach, providing evidence-based mental

health care to those who need it, and a more universal approach that involves restricting access to the lethal means people use to take their lives.

Because suicide is so rare, it is difficult to conduct a randomized control trial – the “gold standard” of scientific inquiry – to detect whether a group receiving an intervention was less likely to die by or attempt suicide than one that did not receive that intervention. Though scant, there is evidence that suicide risk among those with mental illness can be mitigated if they receive effective behavioral healthcare. Certain psychotherapies that focus on not only the symptoms of mental illness, but also specifically on the patient’s desire to die, have led to reductions in suicidal behaviors.<sup>6,7</sup> But even providing evidence-based treatments for more general mental health symptoms is likely to have an impact on suicide. This is because evidence-based treatments help alleviate, mitigate, or allow patients to manage their mental health or substance use problems.

In order for these effective behavioral health treatments to impact suicide, however, those who can benefit from this care must get it. This means that evidence-based care must meet criteria that health services researchers commonly refer to as the “5-A’s of Access.” Effective behavioral health care must be **Affordable** and the type of care offered must be **Acceptable** to the patients who will benefit from it. It must also **Accommodate** the clinical needs of all patients. In addition, it is critical that care be **Available** and **Accessible**, meaning that there is both an adequate supply of clinicians offering evidence-based care throughout the state, and that patients can reach this care without much hassle.<sup>8</sup>

Unfortunately, fewer than half of those with a mental disorder actually receive treatment. Moreover, only one out of three of those who die by suicide have had contact with a mental health professional in the year prior to their death, and only 20 percent had contact with such a professional a month prior.<sup>9</sup> It is therefore important that those other than mental health professionals who are likely to encounter suicidal individuals know the proper strategies for ensuring their immediate safety and where to refer them for the care that we know works. Primary care providers are a good place to start. Across 40 research studies, three quarters of those who died by suicide had contact with a primary health care provider a year prior to dying; almost half had contact with a primary care provider within a month of their death. And of all of those who died by suicide, it was those who were older that were more likely to have had contact with a primary care provider.<sup>9</sup> The state cannot assume that primary care providers know how to detect and care for those at risk for suicide. In fact, there is evidence to suggest that training primary care providers about mental health problems may reduce suicides.

Such an approach might also work by training emergency responders like emergency department personnel, firemen, police, and EMTs. As I said earlier, those who have already attempted suicide are 40- to 50-times more likely to die by suicide than members of the general population.<sup>4</sup> In California in 2011, 29,000 individuals were seen in Emergency Departments throughout the state for self-inflicted injuries from which they did not die.<sup>3</sup> Ensuring that these individuals receive proper care – which may or **may not** involve hospitalization – as well as appropriate follow-up care would appear to be a promising approach to prevention. Though the scientific evidence is yet to emerge, there are a number of interventions in place in both adult and pediatric emergency departments; within the state, a number of local crisis centers are also starting to partner with Emergency Departments to provide this type of follow-up care. Funding for these interventions should be continued, if not expanded, and evidence-based follow-up care should be both promoted and evaluated.

Considerable effort has also been devoted to educating members of the lay community, and training professionals like clergy and teachers, on the warning signs of suicide and how to intervene. Although helpful, relying on this type of approach alone to identify those at risk for suicide will be insufficient, as research has identified that even those trained on warning signs and how to intervene miss people at risk or may lack the confidence or be reluctant to do so. This is why the state should consider **standardized screening** to identify persons at risk. Currently, everyone who calls the National Suicide Prevention Lifeline at 1-800-273-8255 is routinely assessed for suicide risk by being asked the same three questions.<sup>10</sup> There is evidence that universal screening in high school helps identify adolescents with mental health problems that would not otherwise be identified by teachers or parents as being at risk.<sup>11</sup> Though there are certainly both logistical and political challenges with this approach, the science suggests that this may be a key strategy for addressing the third leading cause of youth death in California.

There are great challenges to identifying people at risk for suicide who might need mental health care, facilitating their access to this care, and ensuring that those who access this care are getting evidence-based care. For approximately 10 percent of suicides, there is no evidence of a mental disorder.<sup>12</sup> Thus, it is critical that the state also employ environmental strategies to suicide prevention that makes it technically harder for Californians to take their own lives. In many instances, if the means are not readily available, more impulsive attempts will be thwarted. In other cases, individuals will try to find another method – in these instances, means restriction can still work if the **most lethal** means are **less available**, so that if individuals do attempt suicide they use a method that is less likely to result in their death.

Thirty-nine percent of suicides are the result of firearms, which are the leading cause of suicide deaths in the state.<sup>3</sup> Across the United States, there is a relationship between household gun ownership and suicide rates,<sup>13</sup> and there is evidence that reductions in household ownership are correlated with reductions in the same area's suicide rates.<sup>14</sup> In Arizona, Alaska, and Utah, where the suicide rate is double that of California,<sup>15</sup> there is significant room for legislation to prevent access to firearms. In contrast, the Brady Campaign to Prevent Gun Violence ranks California ahead of all the other states on having enacted gun laws that can prevent violence,<sup>16</sup> and there are a dozen more bills waiting for the Governor's signature. Ensuring that the resources needed to enforce these laws are available is critical. In California, there is regional variability in the ways in which people take their own lives as well. Although 40 percent of suicides **in the state** are inflicted by firearms, **55 percent** of suicides in Northern California are the result of firearms.<sup>3</sup> Moreover, it is known that guns are regulated differently throughout the state; for example, concealed carry permits are routinely denied in more urban areas yet approved in more rural areas.<sup>17</sup> Understanding which laws are most likely to prevent suicides, and examining how these laws are enforced throughout the state, is critical. In addition, focusing strategically on efforts that promote proper storage and handling of firearms, like the current campaign in Shasta County, is a smart way to tackle firearm suicides, and may be particularly pertinent in the Northern region of the state.

But Californians are dying by suicide using other means as well: 29 percent from hanging, strangling, or suffocation, 20 percent from poisoning, 4 percent from falls, and the rest from other means.<sup>3</sup> It is likely that there are environmental restrictions that can work here as well. Legislation in the United Kingdom in 1998 altering the packaging and distribution of paracetamol, the active ingredient in Tylenol, was followed by a 43-percent reduction in suicides using the drug.<sup>18</sup> Similar strategies may be available for reducing poisoning deaths in the United States. For example, drug take-back programs ensure that prescription drugs that are no longer medically necessary are inaccessible. CalRecycle currently lists 793 facilities throughout the state that will accept prescription medications for disposal.<sup>19</sup> Ensuring that consumers know about these centers and that they can easily access them is a suicide prevention strategy. But designing other effective restriction strategies for these and the other methods of death will require better surveillance regarding the specific circumstances of suicide deaths in the state. That way, researchers can identify patterns or trends in these deaths and work with our colleagues in politics and health care to think creatively about how the environment can be altered in ways that could prevent suicide.

In 2001, the Henry Ford Health System in Detroit established its "Perfect Depression Care" program, which has as its goal zero suicide deaths – a radical concept for its staff. Within four years, the suicide rate in the system decreased by 75-percent.<sup>20</sup> In 2009, Magellan Health

Services of Arizona challenged the ten largest behavioral health providers in the state to eliminate suicide among those enrolled in their Regional Behavioral Health Authority and subsequently observed a 38 percent reduction in suicide deaths.<sup>20</sup> Upon reviewing these two initiatives and their apparent successes, the National Action Alliance for Suicide Prevention's Clinical Care and Intervention Task Force concluded in 2012 that organizations that want to make meaningful impacts on suicide should adopt a core value that suicide is a "never event" for the population under their charge and that the culture must be one that never finds suicide acceptable.<sup>20</sup> What began as an initiative within health systems has escalated to the level of some states, as zero suicide deaths is now the official goal of both New York and Kentucky.

California is in a position today to set a goal of becoming a zero suicide state. To get there will require work. It will require that those of us assembled in this room, and our peers, be committed to this goal, that we think critically about the epidemiologic data on suicides in the state, that we rely on strategies that the science suggests will prevent suicides, and that we continue to study new and improved ways to reduce the burden of suicide on the state.

Thank you.

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