National Advisory Committee on Rural Health and Human Services

Understanding the Impact of Suicide in Rural America

Policy Brief and Recommendations

December 2017

EDITORIAL NOTE

During its September 2017 meeting in and near Boise, Idaho, the National Advisory Committee on Rural Health and Human Services (hereinafter referred to as "the Committee") examined the impact of suicide among rural communities. Specifically, on the first day, the Committee heard about suicide epidemiology as well as national and Idaho-specific suicide prevention efforts. On the second day, the subcommittee tasked with this topic traveled to Emmett and heard from an array of community stakeholders, which included local behavioral health providers and practitioners, first responders, school-based counselors, and faith-based leaders.

ACKNOWLEDGEMENTS

The Committee would like to acknowledge and give thanks to all whose participation and work helped make the meeting in Boise, the site visit in Emmett, and this policy brief possible.

The Committee expresses its gratitude to each of the presenters for their contributions to the meeting and for their subject matter knowledge and expertise. These individuals are Dr. Holly Hedegaard (Centers for Disease Control and Prevention); Dr. Richard McKeon (Substance Abuse and Mental Health Services Administration); Kim Kane (Idaho Department of Health and Welfare); Jeni Griffin (Suicide Prevention Action Network of Idaho); Dotti Owens (Ada County Coroner); and Dr. J. Robert Polk (Saint Alphonsus Health System, formerly affiliated, now retired).

The Committee would also like to thank each of the community stakeholders who shared their experiences and insights during the site visit. These individuals are Steve Kunka (Chief of Police for the City of Emmett); Janelle Schneider (Chief Juvenile Probation Officer for Gem County); John Buck (Coroner for Gem County); Melisa Blackwell (Suicide Prevention Action Network of Idaho); Sarah Ludovic and Tim Heinze (Valley Family Health Care); Camille Evans and Scott Conklin (Valor Health Hospital); Dr. Ryan J. Hulbert (Psychologist for EPIC Psychological Services); Joy Husmann (Community Liaison for Intermountain Hospital); Matthew Macy and Stephanie Smith (Emmett School District); and Dr. Andrew Sapp and Ryan Hale (Cherry Gulch and Novitas Academy).

The Committee extends its appreciation to Pastor Lance Zagaris and First Baptist Church for hosting the site visit in Emmett.

Special thanks goes to the Committee host, Mary Sheridan and for her leadership in helping coordinate and bring together key community panelists. Additionally, special thanks goes to Kathleen Belanger, who served as the subcommittee chair, and the other members of this subcommittee: Barbara (Barb) Fabre, Constance (Connie) Greer, Octavio Martinez, Jr., Benjamin (Ben) Taylor, Donald (Don) Warne, and Peggy Wheeler.

Lastly, the Committee extends its gratitude and appreciation to Alfred Delena for coordinating the activities of this meeting, the Committee's findings, and this policy brief.

NOTES ON TERMINOLOGY

Defining Key Terms

The Centers for Disease Control and Prevention (CDC) provide the following definitions for *suicide*, *suicide attempt*, and *suicidal ideation*. While the justification for offering concrete definitions is meant primarily for researchers to collect and disseminate data on suicide, having a shared language creates consistency and a common understanding among individuals involved in this work (e.g., educators, researchers, practitioners, and policy makers).[i]

- *Suicide*: Death caused by self-directed injurious behavior with an intent to die as a result of the behavior.
- *Suicide attempt*: A non-fatal, self-directed, potentially injurious behavior with an intent to die as a result of the behavior; might not result in injury.
- *Suicidal ideation*: Thinking about, considering, or planning suicide.

Words Matter

When addressing suicide, it is important to be mindful of the language that one uses as certain words and phrases have the potential to isolate people and/or unintentionally contribute to existing misconceptions of suicide. Below are some words and phrases to avoid along with alternatives to use in lieu of.

- For language to report a suicide death, refrain from saying "successful/unsuccessful suicide," or "commit/committed suicide". Instead, use phrases such as "took his/her/their own life," "ended his/her/their own life," or "died by suicide".
- For language that touches on a "suicide attempt," avoid using the phrase "failed suicide," and instead, say, "made an attempt on his/her/their life" or "non-fatal attempt".

For language to describe suicide rates, use words such as "higher," "increasing," or "concerning" in place of "epidemic," "outbreak," or "skyrocketing".

[i] For more information about suicide terminology, refer to the CDC's "Self-directed violence surveillance: Uniform definitions and recommended data elements, version 1.0".

RECOMMENDATIONS

Research and Evaluation

1. The Committee recommends the Secretary require the Department of Health and Human Services conduct a national comprehensive evaluation that assesses existing state and tribal efforts to reduce rural suicide rates and that identifies successful evidence-based, rural-specific strategies that can be implemented within states and tribal communities.

2. The Committee recommends the Secretary require the Agency for Healthcare Research and Quality and the National Institute of Mental Health conduct research on the use of community health workers to determine if these efforts can reduce suicide risk and increase referrals for at-risk individuals. The study should also look at cost- and clinical-effectiveness of these efforts and broadly disseminate findings.

Outreach, Promotion, and Awareness

3. The Committee recommends the Health Resources and Services Administration expand and increase the promotion of the Rural Health Care Services Outreach, Network and Quality Improvement grant programs through HHS partners to inform rural communities on the opportunity to incorporate suicide prevention activities and increase access to mental health services using grant funding.

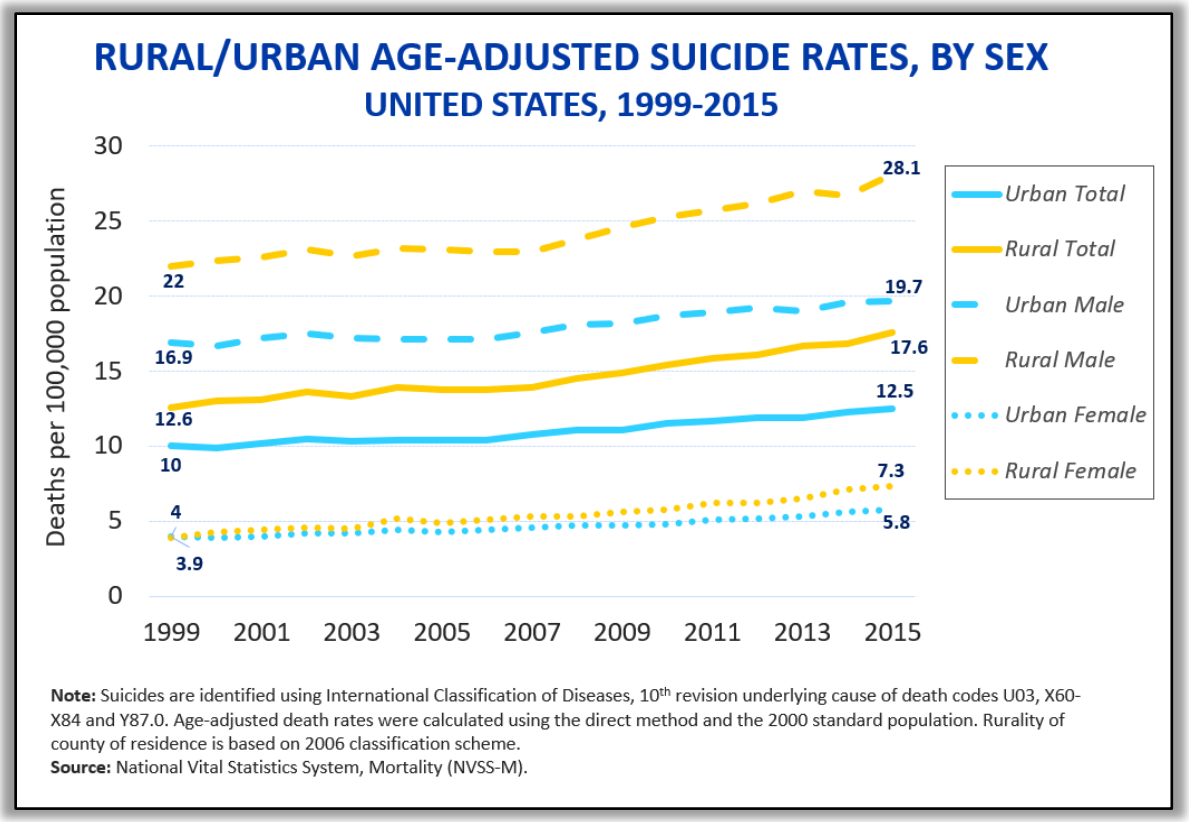
4. The Committee recommends HHS Agencies and Offices promote the broader use of the PHQ-9, a clinically validated depression screening and monitoring instrument, in rural health facilities and to educate providers on how to bill for services.

5. The Committee recommends the Substance Abuse and Mental Health Services Administration include rural-specific research and considerations for prevention into the National Strategy for Suicide Prevention, if it is revised and updated, to reflect existing rural suicide trends and disparities.

INTRODUCTION

Suicide continues to be a deeply concerning public health challenge that affects all individuals involved—family, friends, colleagues, and community members. In 2015, an American took their own life roughly every 12 minutes,[1] making suicide the 10th leading cause of mortality in the United States.[2] Mortality data from the National Vital Statistics System (NVSS) demonstrates a significant increase in the national age-adjusted suicide rate from 2000 to 2015.[3] Moreover, from 1999 to 2015, the age-adjusted suicide rate (deaths per 100,000 population) rose from 10.5 to 13.3.[4]

Although suicide affects every geographic region in the U.S., when compared to their urbanized counterparts, research suggests rural populations face persistent and widening increases in suicide (see figure below).[5]



Researchers from the CDC observed a rural-urban disparity that continued to widen over time and diverged even further around 2007-2008.[5,6] Data indicates that the rate of suicide among nonmetro (rural) counties was consistently higher compared to medium/small and large metro (urban) counties;[6] however, this difference can be traced back well before 2000.[7] Previous research has documented this divergence,[8] highlighting the fact that as counties become less urbanized, the prevalence of suicide becomes increasingly higher.[9] In 2015, rural counties had an age-adjusted suicide rate (deaths per 100,000 population) of 17.6 compared to 12.5 among urban counties.[10] Consistent with previous findings,[11] NVSS data from 2015 showed that age-adjusted suicide rates were higher among males than females for both rural and urban areas. In 2015 alone, male suicide rates based on urbanization began to diverge around early adolescence (ages 10-14) and remained relatively separate throughout the lifespan.[10] Similarly, rural-urban female suicide rates deviated from each other during adolescence; however, they began to converge, slowly, around age 24, only to diverge and widen throughout the lifespan until around ages 60-65 when the trend gap seems to close.[10] (See **Appendix A** for graphs displaying rural-urban suicide rates, by gender and age, in 2015. See **Appendix B** for graphs that show rural-urban suicide rates, by gender and age, across the lifespan.) In addition to sex differences, NVSS data revealed that among rural counties, about 60 percent of all suicide deaths were attributable to firearm, 24 percent to suffocation/hanging, 12 percent to poisoning, and 5 percent to "other" means.[10] By comparison, for urban counties, 47 percent of all suicide deaths were attributable to firearm, 28 percent to suffocation/ hanging, 16 percent to poisoning and 9 percent to "other" means.[10]

While the direct *causes* of suicide remain uncertain, the exposure to and coalescence of various biological, psychological, social, and cultural factors can *increase* an individual's risk and susceptibility. Risk factors include previous suicide attempt(s); a history of mental illness; lacking

Suicide in Indian Country

Amongst other health-related outcomes,[12] Native communities face disproportionally high rural suicide rates[6] and mental health challenges.[13] In 2015, suicide rates (deaths per 100,000) were highest among non-Hispanic American Indian/Alaska Natives (AI/ANs) (19.9)[2] and particularly among young Native people, ages 15-24 (34.1),[10] compared to their racial counterparts. Though, it is important to note that reported suicides for Native people is likely to be underrepresented as overall deaths for this group have historically been poorly documented.[14]

AI/ANs represent roughly 2 percent of the total U.S. population[15] with more than half (54 percent) residing within rural or small-town areas and 68 percent living on or near tribal designated areas (e.g., reservations).[16]

social support; hopelessness; intense stressful events; witnessing another person's suicide; and having access to lethal means. Among rural populations, additional obstacles related to the *accessibility*, *availability*, and *acceptability* of mental health care services may be significant.[17,18] Some of these rural-specific factors—health professional workforce shortages, difficulty accessing care, and "stigma" associated with seeking and receiving treatment—may explain, in part, the widening gap between rural and urban suicide rates.

Accessibility, Availability, and Acceptability of Rural Mental Health Care

The lack of social integration[ii] (i.e., social isolation) is a well-documented risk factor[19] that may also explain rural-urban differences in suicide rates. Because of their geographic isolation, one of the challenges rural residents face is difficulty accessing health care. In addition to having slightly higher uninsured rates, compared to urban areas,[20] a commonly identified barrier among rural communities has been the lack of transportation services (public or private). While a 2004 study found that 60 percent of all rural counties had some form of public transit services, transportation is was often limited.[21] Only 32 percent of those rural counties had full access while 28 percent had limited services, leaving the other 40 percent without any options for public transportation.[21] Without transportation, accessing health care services may increase delayed or missed appointments or disrupt ongoing treatment for a chronic illness. This, combined with an inability to pay for health care, creates further challenges and may serve only to increase isolation.

Geography also poses added challenges for the recruitment and retention of rural mental health professionals. A 2016 WWAMI Rural Health Research Center data brief highlighted the disparity in the allocation of behavioral health providers based on urbanization levels.[22] Specifically, among non-metro counties:

- Sixty-five percent had no psychiatrists (compared to 27 percent of metropolitan counties);
- Forty-seven percent of these counties were without psychologists (versus 19 percent);
- Twenty-seven percent were without social workers (contrasted with 9 percent);
- Eighty-one percent were without psychiatric nurse practitioners (compared to 42 percent); and
- Eighteen percent were without counselors (versus 6 percent).

With a lack of mental health professionals, accessing care and treatment for individuals with mental health challenges becomes limited. This is particularly concerning as research suggests individuals in urban areas who died by suicide were more likely than their rural counterparts to

[ii] Social integration refers to the level of connectedness an individual feels to a group or community in society.

have had a psychiatric diagnosis and received proper mental health care.[23] In addition, because of stigma, individuals often do not seek the services they need or if they do, they do not fully engage in the treatment,[24] which may be significant in rural areas. Thus, it appears that smaller population densities may lead to an increase in mental health stigma because of decreased anonymity. This stems, in part, from a trait often identified among rural areas referred to as "rugged individualism."[iii]

FEDERAL EFFORTS

The U.S. Department of Health and Human Services' (HHS) Agencies and Offices, specifically the Substance Abuse and Mental Health Services Administration (SAMHSA), the Indian Health Service (IHS), and the Health Resources and Services Administration (HRSA) have federal programs that either directly address suicide prevention or more broadly target mental health-related outcomes. HHS also funds a range of clinical and health services' research—which may include issues related to suicide—through the CDC, the National Institutes of Health's (NIH) National Institute of Mental Health (NIMH) and the Agency for Healthcare Research and Quality (AHRQ). (See **Appendix C** for a preliminary analysis of federal suicide prevention programming.[iv])

SAMHSA Programs[v]

SAMHSA administers funding through state block grants, discretionary grants, contracts, and cooperative agreements that address a range of behavioral health and substance abuse issues. Specifically, SAMHSA's Suicide Prevention Branch manages programs that target suicide prevention and crisis intervention efforts. These actions are spearheaded through several funding mechanisms, namely, the Garrett Lee Smith Memorial Act, the National Strategy for Suicide Prevention, the National Suicide Prevention Lifeline, and two Native-specific programs.

Enacted in 2004 and reauthorized in 2015, the Garrett Lee Smith (GLS) Memorial Act (P.L. 108-355) authorizes SAMHSA to oversee two youth-focused prevention programs and a resource center.

- The GLS State/Tribal Youth Suicide Prevention and Early Intervention Grant Program provides states and tribes with funding to develop and implement suicide prevention and early intervention approaches, in collaboration with youth-serving organizations. To date (2017), 180 grants have been awarded to 50 states, the District of Columbia, 47 tribes/tribal

[iii] Rugged individualism refers to the belief that existing problems and challenges are handled by the individual or within one's own family and not to be vocalized outwardly—a "suck-it-up" or "pull-yourself-by-the-boot-straps" mentality.

[iv] HRSA and AHRQ programs were not included in this early, higher-level analysis because HRSA programs do not specifically target suicide-related activities and although AHRQ does fund various suicide-related projects, funding information for these efforts were available. Importantly, because **Appendix C** serves as a first attempt at displaying a collective federal impact on suicide-related activities, not all HHS agencies were accounted for, only primary agencies. The current table was constructed from various sources, including Congressional budget justifications and funding information graciously provided to the Committee by the CDC and NIMH. ***Future efforts should consider compiling funding information from all HHS agencies to provide a more accurate picture of suicide prevention activities at the federal level.***

[v] SAMHSA's detailed 2018 Justification of Estimates for Appropriations Committee provides further information about SAMHSA-specific programming; see *pp. 54-62 & 82-84* for specific suicide-related activities.

organizations, and 2 U.S. territories. Evaluations conducted by SAMHSA have shown counties that implemented GLS youth suicide prevention activities had lower rates[25] and fewer attempts[26] when compared to matched counties that did not have such activities.

- The GLS Campus Suicide Prevention Program has enabled higher education institutions to offer training and awareness through campus-, tribal-, and state-sponsored activities.[vi]

- The Suicide Prevention Resource Center (SPRC) offers a wide range of resources and technical assistance to support SAMHSA grantees, organizations, tribes, and states for the development of and implementation of suicide prevention practices and/or policies.[vii]

SAMHSA also manages grants for the National Strategy for Suicide Prevention and the National Suicide Prevention Lifeline. Originally issued in 2001 by the Office of the Surgeon General and updated in 2012, the National Strategy guides comprehensive suicide prevention efforts in the U.S. with the goal of reducing overall deaths.[27] In addition, grants from the National Strategy offer states funding to address its outlined strategic goals and objectives, specifically among working-aged adults (ages 25-64). In 2017, Zero Suicide grants were awarded for the first time by SAMHSA to strengthen suicide prevention efforts within health care systems. In addition, the Suicide Lifeline (1-800-273-8255) provides 24/7 crisis intervention and emotional support to individuals in distress while also linking those individuals with local resources through a network of 164 certified crisis centers located across the country.[viii] Additionally, in collaboration with the U.S. Department of Veterans Affairs (VA), the Veterans Crisis Line was set-up to provide support to veterans, active service members, and their families.[ix] In the same year (2007), the Joshua Omvig Veterans Suicide Prevention Act (P.L 110-110) was also signed into law.

Suicide Prevention among U.S. Veterans

With the passage of the Joshua Omvig Veterans Suicide Prevention Act, a comprehensive effort for veterans was formally established. Specifically, the act permits, among other things, the provision of health assessments, the designation of prevention counselors at medical facilities, and the inclusion of research for best practices and sexual trauma. Additionally, the act authorizes 24-hour mental health care, a toll-free 24-hour hotline staffed by trained personnel, and outreach and education for veterans and their families, with a specific focus on those who served in Operation Iraqi Freedom and Operation Enduring Freedom.

In 2014, on average, 20 veterans died by suicide each day, which attributed to 18 percent (7,403 deaths) of all suicides.[28] Of those deaths, only six were enrolled in the VA healthcare system. Moreover, data from the U.S. Census Bureau's American Community Survey demonstrate that, from 2011 to 2014, an estimated 24.1 percent (5 million) U.S. veterans (ages 18 and over) resided in rural-designated parts of the country.[29]

Lastly, SAMHSA funds two programs that explicitly focus on Native populations. Firstly, the Tribal Training and Technical Assistance Center (Tribal TTAC) provides an array of resources,

[vi] As of April 2017, 1,280,249 individuals have participated in 34,562 training events or educational seminars hosted by recipients of both the GLS State/Tribal Youth Suicide Prevention and Early Intervention Grant Program and the GLS Campus Suicide Prevention Program.

[vii] The SPRC has dedicated resources for rural areas.

[viii] According to SAMHSA's Suicide Prevention Branch Chief, Dr. Richard McKeon, an estimated 2 million calls were answered through the Lifeline in 2017.

[ix] The VCL is linked to the Suicide Lifeline, after dialing 1-800-273-8255, callers can reach the VCL by pressing 1.

training, and education to help implement prevention strategies to reduce mental health and substance use challenges in Indian Country. Secondly, the Tribal Behavioral Health Grants (TBHG) awards five-year contracts to tribal entities to fund the development and implementation of promising community-based projects that address suicide, trauma, and substance abuse while also promoting the mental health and resilience of high risk AI/AN youth. As of FY 2017, SAMHSA has supported 113 TBHG grantees.

IHS Programs[x]

Within HHS, IHS is the principal agency charged with improving the holistic well-being of federally recognized tribes by increasing access to effective, culturally appropriate health and human services. Through the Mental Health/Social Services (MH/SS) program, IHS oversees community- and prevention-based service activities that target a wide range of issues. In addition to suicide prevention, MH/SS programming also includes trauma-informed care, the integration of behavioral health with primary care, and telebehavioral health and workforce development. As part of its suicide prevention portfolio, in FY 2015, IHS collaborated with SAMHSA to introduce the Zero Suicide Initiative as a way of extending its reach into Indian Country. Zero Suicide is a comprehensive approach geared towards improving care and outcomes for at-risk individuals within health systems. Since its launch, IHS has supported the AI/AN Zero Suicide Training Academy. It has also provided funds to offer specialized technical assistance to IHS health facilities that are implementing Zero Suicide into their health systems.

In addition to MH/SS, IHS also manages the Substance Abuse and Suicide Prevention (SASP) program, formerly known as the Methamphetamine and Suicide Prevention Initiative (MSPI). Initially a demonstration project that began in September 2009, MSPI was later renamed SASP, making it an official IHS funded program after its successful six-year pilot trial.[xi] SASP awards funding to support projects that address at least one of four purpose areas, with "Suicide Prevention, Intervention, and Postvention" (Purpose Area 2) being one of the four. The current SASP cohort is in its third year of a five-year grant cycle that began in September 2015 and will end in September 2020. In Year 1 of the program, SASP projects under Purpose Area 2 have reported the frequent utilization of several practice-based strategies such as the Question, Persuade, Refer (QPR) suicide prevention training and Mental Health First Aid. Prior to its name change, MSPI supported 130 IHS, tribal and Urban Indian health pilot projects. Currently, IHS funds 175 projects.

HRSA Programs

HRSA administers funding to provide and increase access to quality health care services for geographically, economically or medically underserved populations nationwide. HRSA programs cover a range of issues, including primary care, maternal and child health, HIV/AIDS, workforce development, and rural health. Although HRSA's programs do not explicitly target suicide prevention, opportunities that include improving broader mental health care challenges can be addressed through the work of the Community Health Centers, rural health programs, and the recruitment, training, and placement of mental health professionals in underserved and rural areas.

[x] IHS's detailed 2018 Justification of Estimates for Appropriations Committee provides further information about IHS-specific programs; see *pp. CJ-85-CJ-90 & CJ-93-CJ-94* for suicide-related activities.

[xi] A letter from IHS's Principal Deputy Director to Tribal leaders informing the name change and program achievements.

HRSA-funded Community Health Centers offer mental health services that can help address the reduction of suicide. Similarly, HRSA's National Health Service Corps and NURSE Corps recruits and places mental health clinicians and practitioners in underserved and rural areas. In addition, programs under the Rural Health Outreach authority, administered through the Federal Office of Rural Health Policy (FORHP), can support rural pilot programs that focus on suicide reduction and treatment for those at risk. Moreover, in partnership with SAMHSA, HRSA co-funds the Center for Integrated Health Solutions, a training and technical assistance portal that supports the management of resources for integrating primary care and behavioral health services.

POLICY RECOMMENDATIONS

Although suicide prevention can be traced back to as early as the 1950s,[xii] addressing rural suicide through federal programs seems take a more general approach. Given the scale and scope of the issue, overall, **the Committee urges HHS Agencies and Offices to focus more explicitly on emphasizing and including the rural aspects of suicide into their programs, research, and outreach efforts to address existing knowledge gaps and strengthen the evidence base.**

Research and Evaluation

Analyze National Rural- and Tribal-specific Suicide Prevention Efforts

To the Committee's knowledge, SAMHSA's National Registry on Evidence-based Programs and Practices (NREPP) serves as the primary online database of existing, evaluated mental health and substance use interventions. According to the registry, to date (2017), there are 24 evidence-based programs for suicide prevention—of those, 12 interventions can be and have been implemented in rural as well as urban settings. While the Committee recognizes and commends NREPP for being a significant national resource, additional research is needed to examine and evaluate rural-specific best practices. These efforts can further contribute to NREPP's aim of building and disseminating an evidence base. Moreover, as emphasized in their 2017 MMWR Surveillance Summary about the topic, researchers from the CDC highlighted "the need for [the] development and evaluation of suicide prevention efforts [that are] specific to rural communities."[6] Furthermore, robust, evidence-based practices that center on Native populations, specifically for young Native people and rural tribal communities,[xiii] are also essential, given their higher rates. In a 2014 review of existing strategies in Indian Country, Gary and McCullagh conclude, "Although there are several different suicide prevention programs that are being utilized across AI/AN communities, very few have been adequately empirically evaluated and, thus, it is difficult to make more than preliminary interpretations of the result of these programs."[30]

Given the persistent and widening disparity in suicide rates between rural and urban counties, the Committee believes that a targeted evaluation of current rural-specific strategies, followed up with recommendations for further activities is needed as part of developing an ongoing, sustainable effort.

[xii] For a brief history of suicide prevention efforts, refer to *pp. 94-95* in the 2012 National Strategy for Suicide Prevention.
[xiii] In their analysis, researchers from the CDC reported, "When comparing rates by race/ethnicity across urbanization levels, suicide rates are highest for non-Hispanic whites in metropolitan counties and for non-Hispanic American Indian/Alaska Natives in nonmetropolitan/rural counties."

Recommendation 1: The Committee recommends that the Secretary require HHS conduct a national comprehensive evaluation that assesses existing state and tribal efforts to reduce rural suicide rates and that identifies successful evidence-based, rural-specific strategies that can be implemented within states and tribal communities.

Outreach and Awareness for Suicide Prevention Strategies

During its site visit to Emmett, Idaho, the Committee repeatedly heard from local stakeholders about the importance of and need for implementing NREPP-identified programs such as Sources of Strength (SOS) and the Applied Suicide Intervention Skills Training (ASIST).

Although this is beyond the Secretary's purview, the Committee emphasizes the need for having some outreach and awareness mechanisms in place that link rural communities with the use of NREPP-identified strategies. Programs such as SOS and the American Indian Life Skills (AILS) curriculum can provide strength-based approaches, especially since both SOS and AILS have rural and Native origins. Moreover, the Committee also acknowledges the CDC's work in developing and disseminating its technical package on best practices for suicide prevention, which serves as an important resource for rural populations.[31]

Ultimately, the Committee believes outreach and awareness will help with the implementation of prevention programs, which benefits rural populations and will further strengthen the rural evidence base.

Understand the Contributions of Community Health Workers

With workforce shortages, increased stigma, and barriers to accessing care, the use of community health workers (CHWs) is a potential area for improving rural mental health care and reducing suicide risk, attempts, and deaths. The widely used definition of a CHW is "...a frontline public health worker who is a trusted member of and has an unusually close understanding of the community served. This trusting relationship enables the CHW to serve as a liaison/link/ intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery." Although CHWs face various challenges, vis-à-vis restricted professional recognition, difficulty sustaining finance mechanisms, and limited best practices,[32] CHWs have been shown to improve people's health, reduce health care costs, and address the social determinants of health.[33] Importantly, the National Rural Health Association reported, "CHWs can play an important role in the transition to value and care support in rural settings with work in the community to support chronic disease management, insurance enrollment, and prevention."[34]

Based on the growing body of literature on the benefits and contributions CHWs provide to the health care system, especially in rural areas, the CHW model serves as a promising prevention and intervention strategy for reducing suicide attempts and deaths. However, research and evaluation of these efforts are needed to better quantify impact and further identify successful strategies.

Recommendation 2: The Committee recommends the Secretary require AHRQ and NIMH conduct research on the use of CHWs to determine if these efforts can reduce suicide risk and increase referrals for at-risk individuals. The study should look at cost- and clinical-effectiveness of these efforts and broadly disseminate findings.

The Potential Impact of CHWs on Reducing Suicide Rates

In a rural setting where resources are already limited, CHWs that are trained in mental health would fill critical roles within health systems, law enforcement, and educational environments. In the context of suicide prevention, CHWs specialized in mental health care would serve as bridges for providing essential, additional services beyond traditional health facilities. Specifically, CHWs have the potential to assist in hospitals with screening and assessment and important follow-up after a suicide hospitalization discharge; provide on-the-ground support with local law enforcement; and/or offer mental health services and administer suicide prevention programming within school settings. Community stakeholders identified these challenges and potential solutions during the Committee's site visit to Emmett.

Outreach, Promotion, and Awareness

Increase Broader Awareness of Rural Health Funding

The Rural Health Care Services Outreach, Network and Quality Improvement grant programs are key investments by FORHP in improving community health in rural areas. Funded out of Section 330A of the Public Health Service Act (42 U.S.C. 254c), these grants aim to improve care coordination, the integration of services, access to care, and quality improvement. The Outreach, Network, and Quality Improvement authority permits competition for grant funding strictly for and among rural communities, as larger urban communities tend to have greater resources. Additionally, these grants are "among the only non-categorical grants within HHS [that] allow the grantees to determine the best way to meet local need. This flexibility in funding reflects the unique nature of health care challenges in rural communities and need to allow communities to determine the best approach to addressing need."[xiv]

Due in part to this flexibility and because these grants are specifically tailored to meet the needs of rural populations, the Committee believes that future applicants should be made more aware of funding implications. As identified earlier, community stakeholders expressed the importance of and need for implementing evidence-based programs. They also voiced limited funding as an obstacle to incorporating these efforts. Thus, greater awareness of Section 330A grant funding can help to overcome this barrier as funds can be used to include suicide prevention.

Figure 1. Cycle of impact of Section 330A and additional grant programs awarded through FORHP's Community-Based Division (CBD).

To better leverage federal resources from HRSA, SAMHSA, and other HHS agencies, the Committee believes broader awareness and promotion from the Department about grant funding and existing suicide prevention

[xiv] For more about the Rural Health Care Services Outreach, Network, and Quality Improvement Grants, refer to *pp. 259-263* of HRSA-FORHP's FY 2018 Justification of Estimates for Appropriations Committee.

strategies is important for developing a comprehensive, sustainable effort to reduce risk, attempts, and deaths.

> **Recommendation 3:** The Committee recommends HRSA expand and increase the promotion of the Rural Health Care Services Outreach, Network and Quality Improvement grant programs through HHS partners to inform rural communities about the opportunity to incorporate suicide prevention activities and increase access to mental health services using grant funding.

Promote the Use of the PHQ-9 Instrument among Rural Health Facilities

Although suicide risk screening and assessment[xv] are important upstream prevention strategies,[35] there has been less empirical evidence documenting and supporting overall effectiveness.[36] Nevertheless, in agreement with the Zero Suicide[xvi] approach, the Committee believes that screening and assessment should be implemented within health systems as health facilities are key places for intervention. Data from a 2015 study published in the *Journal of Medical Care* showed that between 2009 and 2011, approximately 22,400 individuals made a non-fatal attempt. Of those individuals, more than a quarter (38 percent) of patients made a visit to a health care facility within a week prior to attempting suicide. Researchers further noted 64 percent and 95 percent of patients had visited a health care facility within a month and within a year of attempting suicide, respectively.[37]

As such, because the healthcare setting (primary care or behavioral health) is an ideal environment for intervention and prevention, the Committee encourages the use of clinically validated instruments such as the PHQ-9[38] to help facilitate this process. While the PHQ-9 is meant for the screening of depression severity, item 9 does screen for the presence of suicidal ideation: "Over the past 2 weeks, how often have you had thoughts that you would be better off dead or of hurting yourself in some way?" To date, two existing studies—one conducted among 84,418 outpatients (2007-2011)[39] and the other conducted among 447,245 Veterans Health Administration patients (2009-2010)[40]—demonstrated positive associations between responses to item 9 (i.e., higher scores for suicidal ideation) and a significant risk for attempting or dying by suicide. Billing for services using the PHQ-9 in primary care or behavioral health settings can be achieved through the application of CPT Code 96127, a code that is appropriate for brief behavioral or emotional assessment reimbursement. These assessments may include any standardized screening instruments that will provide both scoring and further documentation to the health care provider.

> **Recommendation 4:** The Committee recommends HHS Agencies and Offices promote the broader use of the PHQ-9 in rural hospitals and clinics and to educate providers on how to bill for services.

[xv] Whereas *screening* refers to a standardized procedure to identify individuals who may be at risk, *assessment* is a robust evaluation completed by a clinician to confirm assumed risk, calculate any direct danger to the patient, and develop a treatment plan.

[xvi] "Systemically identify and assess suicide risk among people receiving care" is one of the seven foundational elements to the Zero Suicide approach.

Include Rural Considerations into the National Strategy for Suicide Prevention

As previously noted, the 2012 National Strategy for Suicide Prevention serves to guide America's suicide prevention efforts as it aims to reduce the suicide rate by 10 percent.[41] However, research on rural suicide trends and considerations for prevention are not included in the 2012 National Strategy. The inclusion and implications of suicide in rural America is paramount as a majority of states, including Idaho, have adopted or included the strategic goals and objectives into their state prevention plans to align with the National Strategy.

> **Recommendation 5:** The Committee recommends SAMHSA include rural-specific research and considerations for prevention into the National Strategy, if it is revised and updated, to reflect existing rural suicide trends and disparities.

Idaho Suicide Prevention Efforts

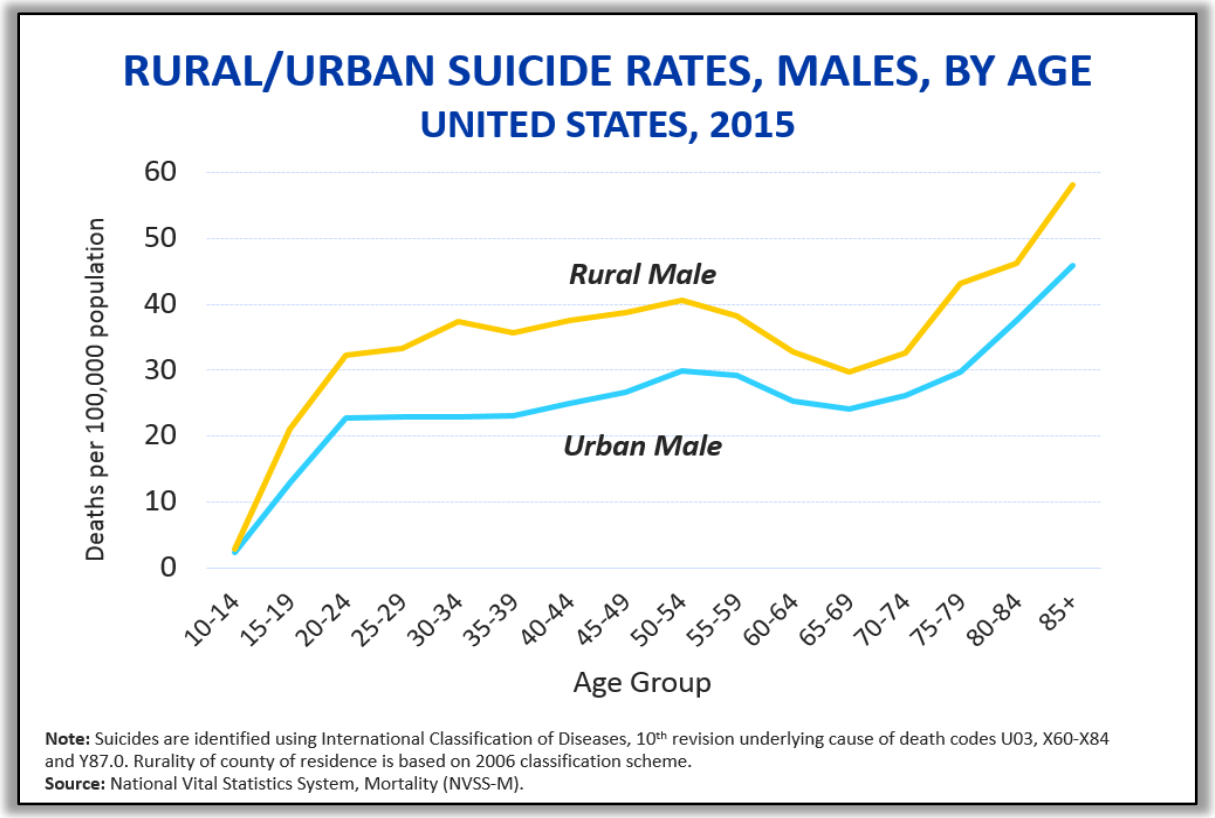
With the release of the 2001 National Strategy, the Idaho Suicide Prevention Plan (ISPP) was developed in 2003 to guide local, regional, and statewide prevention initiatives. The year previous (2002), the Suicide Prevention Action Network (SPAN) of Idaho was created as a 501(c)(3) to formally develop, plan and execute activities across the state. Comprised of dedicated volunteers and a part-time executive director, SPAN Idaho aims to reduce suicide through "statewide advocacy, collaboration, and education in best practices."

Following these two major milestones, in 2006, then-Governor Dirk Kempthorne established the Idaho Council on Suicide Prevention, which was commissioned, in part, to oversee the implementation of the ISPP. Ten years later, the Idaho Suicide Prevention Program (SPP) was instituted to further implement strategies in alignment with the ISPP. Housed within the Division of Public Health at the Idaho Department of Health and Welfare, SPP "provides funding for upstream youth education, funding for the Idaho Suicide Prevention Hotline, and conducts a public awareness campaign." While much work in the field of suicide prevention remains, through the combined grassroots efforts and institutional reform, Idaho serves as an example of elevating public awareness and inspiring action for preventing suicide.

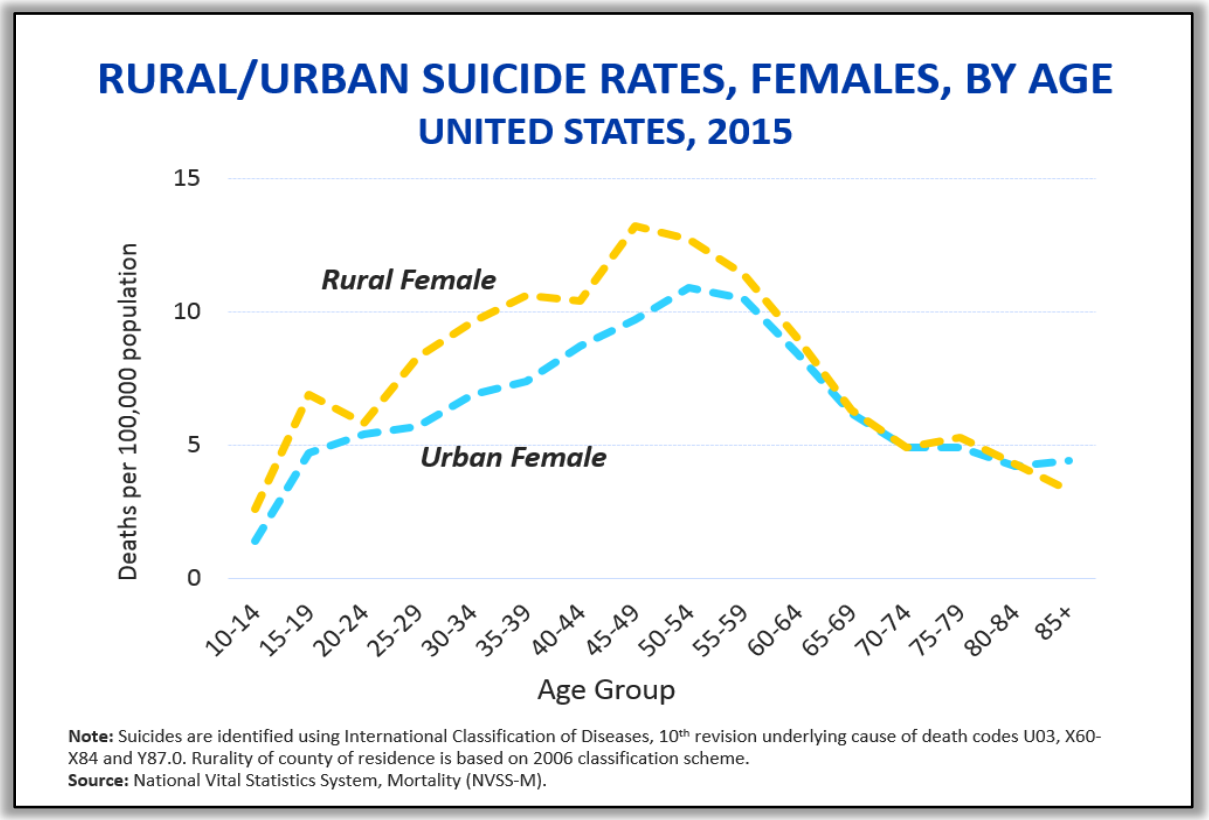
CONCLUSION

Given that suicide is influenced by the interplay of multiple risk factors (biological and environmental), multifaceted strategies are needed to develop and sustain ongoing comprehensive federal efforts. Throughout the brief, the Committee emphasizes the importance of suicide prevention being a collective endeavor and not simply an issue that should be solely restricted to the healthcare industry. In its policy recommendations, the Committee underscores key areas to address suicide prevention among at-risk populations including rural and tribal communities. This brief also contributes to the broader, ongoing HHS prioritization of and conversations about how to best address and improve the mental health of all Americans.

Appendix A: 2015 Suicide Rates among Males and Females by Age

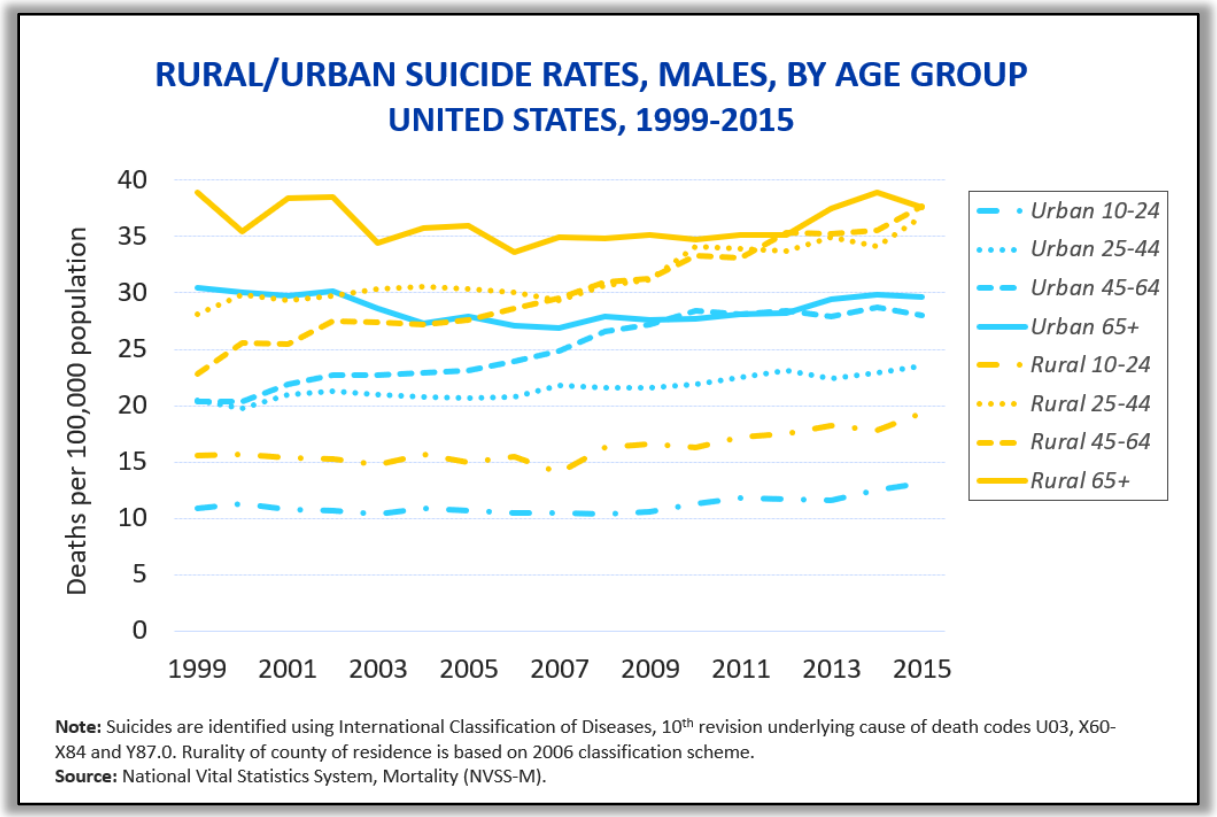


Note: Suicides are identified using International Classification of Diseases, 10th revision underlying cause of death codes U03, X60-X84 and Y87.0. Rurality of county of residence is based on 2006 classification scheme.
Source: National Vital Statistics System, Mortality (NVSS-M).

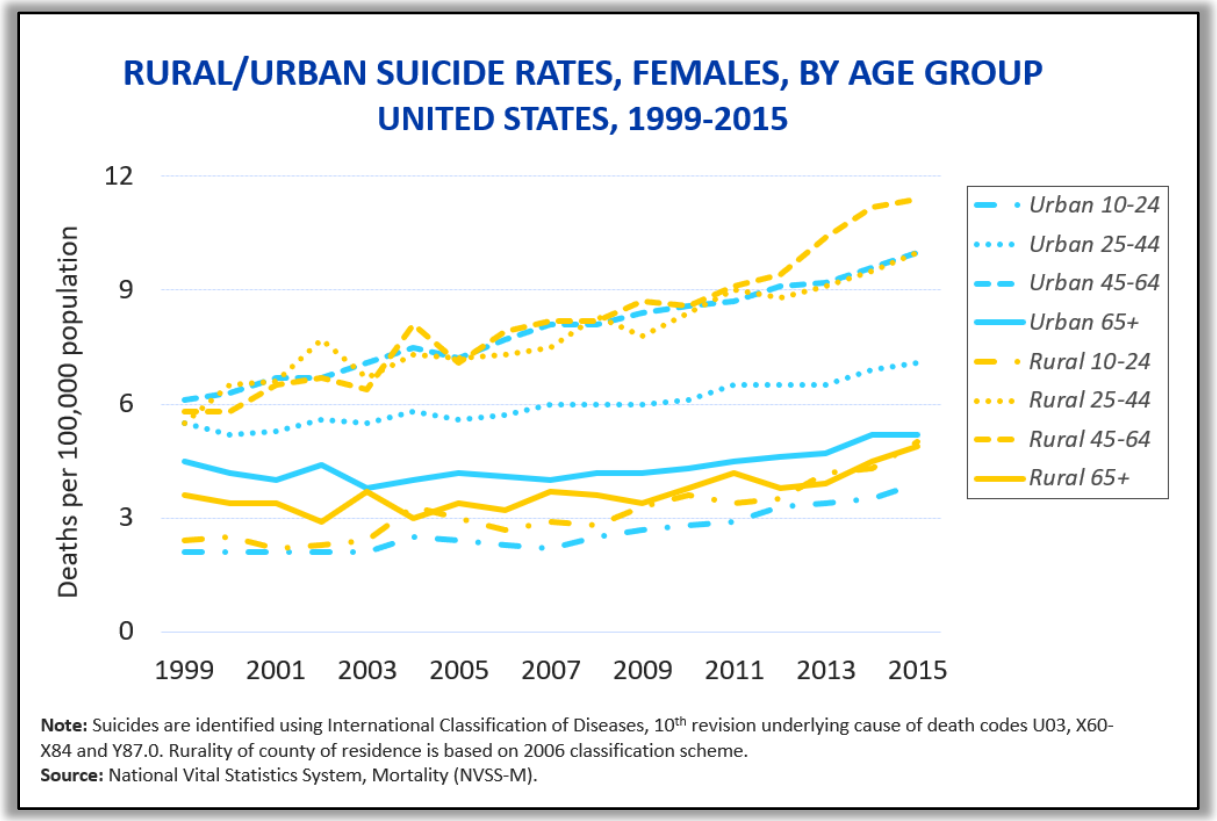


Note: Suicides are identified using International Classification of Diseases, 10th revision underlying cause of death codes U03, X60-X84 and Y87.0. Rurality of county of residence is based on 2006 classification scheme.
Source: National Vital Statistics System, Mortality (NVSS-M).

Appendix B: Male/Female Suicide Rates by Urbanization Levels across the Lifespan



Note: Suicides are identified using International Classification of Diseases, 10th revision underlying cause of death codes U03, X60-X84 and Y87.0. Rurality of county of residence is based on 2006 classification scheme.
Source: National Vital Statistics System, Mortality (NVSS-M).



Note: Suicides are identified using International Classification of Diseases, 10th revision underlying cause of death codes U03, X60-X84 and Y87.0. Rurality of county of residence is based on 2006 classification scheme.
Source: National Vital Statistics System, Mortality (NVSS-M).

Appendix C: Federal Suicide Prevention Programming

		Funding History		
Agency	**Program/Project Name**	**FY 2016 Final**	**FY 2017 Annualized CR**	**FY 2018 Estimated**
SAMHSA	**Suicide Prevention**	$60,032,000	$59,940,000	$59,940,000
	National Strategy for Suicide Prevention	$2,000,000	$1,996,000	$1,996,000
	Suicide Lifeline (1-800-273-TALK)	$7,198,000	$7,184,000	$7,184,000
	Garrett Lee Smith State/Tribal Youth Suicide Prevention and Early Intervention Grant Program	$35,427,000	$35,382,000	$35,382,000
	Garrett Lee Smith Campus Suicide Prevention Program	$6,488,000	$6,476,000	$6,476,000
	Garrett Lee Smith Suicide Prevention Resource Center	$5,988,000	$5,977,000	$5,977,000
	Tribal Training and Technical Assistance Center	$2,931,000	$2,925,000	$2,925,000
	Tribal Behavioral Health Grants	$15,000,000	$14,971,000	$14,971,000
	Projected Total Dollars Spent	**$75,032,000**	**$74,911,000**	**$74,911,000**
IHS	**Mental Health/Social Services (MH/SS)***	$82,100,000	$81,944,000	$82,654,000
	Substance Abuse and Suicide Prevention (SASP)	$15,475,000	$15,475,000	$15,475,000
	Generation Indigenous (Gen-I)	$10,000,000	$10,000,000	$10,000,000
	Projected Total Dollars Spent	**$107,575,000**	**$107,419,000**	**$108,129,000**
NIH	**Suicide Research**	$41,041,913	$43,319,800	$33,641,800
	Suicide Prevention Research	$27,488,875	$29,014,500	$22,532,400
	Projected Total Dollars Spent	**$68,530,788**	**$72,334,300**	**$56,174,200**
CDC	*National Electronic Injury Surveillance System – All Injury Program*	$51,959	$51,959	$51,959
	Evaluating Innovative and Promising Strategies to Prevent Suicide Among Middle-Aged Men	$695,960	$658,370	$658,370
	*Injury Control Research Centers – Suicide-related projects***	$1,600,000	$1,600,000	$1,600,000
	State of Suicide – Environmental Scan of Suicide Prevention Among States and Tribes	$299,942	$276,341	$277,129
	Non-Fatal Suicide Attempts Project	--	$29,990	$29,990
	Building Capacity Among Governors to Address Suicide in Suicide Belt States	--	$150,000	--
	Veteran Informed Plan for Suicide Prevention	--	$150,000	--
	Projected Total Dollars Spent	**$2,647,861**	**$2,916,660**	**$2,617,448**

* Provided funding for MH/SS displays the total amount; specific numbers for suicide-related funding were not available as MH/SS funds multiple services, not just suicide.
** These projects are part of larger funded initiatives; the funding amount is estimated based on a percentage of suicide-related work.

REFERENCES

[1] Drapeau, Christopher W., and John L. McIntosh. "U.S.A Suicide 2015: Official Final Data." American Association of Suicidology, 2016. Retrieved from http://www.suicidology.org/Portals/14/docs/Resources/FactSheets/2015/2015datapgsv1.pdf?ver=2017-01-02-220151-870.

[2] Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting Systems (WISQARS). Atlanta, GA: National Center for Injury Prevention and Control. Accessed at www.cdc.gov/injury/wisqars/fatal_injury_reports.html.

[3] Curtin, Sally C., Holly Hedegaard, and Margaret Warner. "QuickStats: Age-adjusted rate for suicide by sex – National Vital Statistics System, United States, 1975-2015." *Mortality and Morbidity Weekly Report*, 66.10 (2017): 285. Retrieved from https://www.cdc.gov/mmwr/volumes/66/wr/mm6610a7.htm.

[4] Xu, Jiaquan, et al. "Mortality in the United States, 2015." *NCHS Data brief no. 267*. Hyattsville, MD: National Center for Health Statistics, 2016. Retrieved from https://www.cdc.gov/nchs/data/databriefs/db267.pdf.

[5] Kegler, Scott R., Deborah M. Stone, and Kristin M. Holland. "Trends in suicide by level of urbanization – United States, 1999-2015." *MMWR Surveillance Summaries*, 66.10 (2017): 270-273. Retrieved from https://www.cdc.gov/mmwr/volumes/66/wr/mm6610a2.htm.

[6] Ivey-Stephenson, Asha Z., et al. "Suicide trends among and within urbanization levels by sex, race/ethnicity, age group, and mechanism of death – United States, 2001-2015." *MMWR Surveillance Summaries*, 66.18 (2017): 1-16. Retrieved from https://www.cdc.gov/mmwr/volumes/66/ss/ss6618a1.htm.

[7] Singh, Gopal K., and Mohammad Siahpush. "Increasing rural-urban gradients in U.S. suicide mortality, 1970-1997." *American Journal of Public Health*, 92.7 (2002): 1161-1167.

[8] Eberhardt, Mark S., and Elsie R. Pamuk. "The importance of place of residence: Examining health in rural and nonrural areas." *American Journal of Public Health*, 94.10 (2004): 1682-1686.

[9] Chen, Li-Hui, and Deborah D. Ingram. "QuickStats: Age-adjusted rates for suicide, by urbanization of county of residence – United States, 2004 and 2013." *Mortality and Morbidity Weekly Report*, 64.14 (2015): 401. Retrieved from https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6414a9.htm.

[10] Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2015 on CDC WONDER Online Database, released December 2016. Data are from the Multiple Cause of Death Files, 1999-2015, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at http://wonder.cdc.gov/mcd-icd10.html.

[11] Curtin, Sally C., Margaret Warner, and Holly Hedegaard. "Increase in suicide in the United States, 1999-2014." *NCHS Data brief no. 241*. Hyattsville, MD: National Center for Health Statistics, 2016. Retrieved from https://www.cdc.gov/nchs/products/databriefs/db241.htm.

[12] James, Cara V., et al. "Race/ethnic health disparities among rural adults – United States, 2012-2015."*MMWR Surveillance Summaries*, 66.23 (2017): 1-9. Retrieved from https://www.cdc.gov/mmwr/volumes/66/ss/ss6623a1.htm.

[13] Gone, Joseph P., and Joseph E. Trimble. "American Indian and Alaska Native mental health: Diverse perspectives on enduring disparities. *Annual Review of Clinical Psychology*, 8.1 (2012): 131-160.

[14] Arias, Elizabeth, et al. "The validity of race and Hispanic origin reporting on death certificates in the United States." *Vital and Health Statistics. Series 2, Data Evaluation and Methods Research* 148 (2008): 1-23. Retrieved from http://www.cdc.gov/nchs/data/series/sr_02/sr02_148.pdf.

[15] U.S. Census Bureau. "FFF: American Indian and Alaska Native Heritage Month: November 2017." (2017). Retrieved from https://www.census.gov/newsroom/facts-for-features/2017/aian-month.html.

[16] Dewees, Sarah, and Benjamin Marks. "Twice invisible: Understanding rural Native America." *First Nations Development Institute, Research Note no. 2* (2017). Retrieved from https://www.usetinc.org/wp-content/uploads/bvenuti/WWS/2017/May%202017/May%208/Twice%20Invisible%20-%20Research%20Note.pdf.

[17] Fontanella, Cynthia A., et al. "Widening rural-urban disparities in youth suicides, United States, 1996-2010." *JAMA Pediatrics*, 169.5 (2015): 466-473.

[18] Smalley, K. Bryant, and Jacob C. Warren (Eds). "The current state of rural mental health." Rural Mental Health: Issues, Policies, and Best Practices. Springer Publishing Company, LLC, 2012, pp. 3-16.

[19] Trout, Deborah L. "The role of social isolation in suicide." *Suicide and Life-Threatening Behavior*, 10.1 (1980): 10-23.

[20] Foutz, Julia, Samantha Artiga, and Rachel Garfield. "The role of Medicaid in rural America." The Henry J. Kaiser Family Foundation, 2017. Retrieved from https://www.kff.org/medicaid/issue-brief/the-role-of-medicaid-in-rural-america/.

[21] Brown, Dennis, and Eileen Stommes. "Rural governments face public transportation challenges and opportunities." *Amber Waves* (2004). Retrieved from https://www.ers.usda.gov/amber-waves/2004/february/rural-governments-face-public-transportation-challenges-and-opportunities/.
[22] Larson, Eric H., et al. "Supply and distribution of the behavioral health workforce in rural America." *Data brief no. 160*. WWAMI Rural Health Research Center, University of Washington, 2016. Retrieved from http://depts.washington.edu/fammed/rhrc/wp-content/uploads/sites/4/2016/09/RHRC_DB160_Larson.pdf.
[23] Searles, Veronica B., et al. "Suicides in urban and rural counties in the United States, 2006-2008." *Crisis*, 35.1 (2014): 18-26.
[24] Corrigan, Patrick. "How stigma interferes with mental health care." *American Psychologist*, 59.7 (2004): 614-625.
[25] Walrath, Christine, et al. "Impact of the Garrett Lee Smith youth prevention program on suicide mortality." *American Journal of Public Health*, 105.5 (2015): 986-993.
[26] Garraza, Lucas G., et al. "Effect of the Garrett Lee Smith Memorial suicide prevention program on suicide attempts among youths." *JAMA Psychiatry*, 72.11 (2015): 1143-1149.
[27] Office of the Surgeon General (U.S. Department of Health and Human Services and the National Action Alliance for Suicide Prevention). "2012 National Strategy for Suicide Prevention: Goals and objectives for action." U.S. Department of Health and Human Services, 2012. Retrieved from https://www.surgeongeneral.gov/library/reports/national-strategy-suicide-prevention/full-report.pdf.
[28] U.S. Department of Veterans Affairs. VA suicide prevention program: Facts about veteran suicide, July 2016. (2016). Retrieved from https://www.va.gov/opa/publications/factsheets/Suicide_Prevention_FactSheet_New_VA_Stats_070616_1400.pdf
[29] U.S. Census Bureau. *Nearly one-quarter of veterans live in rural areas, Census* Bureau *reports*. (2017). Retrieved from https://www.census.gov/newsroom/press-releases/2017/cb17-15.html.
[30] Gray, Jacqueline S., and John A. McCullagh. "Suicide in Indian Country: The continuing epidemic in rural Native American communities." *Journal of Rural Mental Health*, 38.2 (2014): 79-86.
[31] Stone, Deborah M., et al. "Preventing suicide: A technical package of policy, programs, and practices." Centers for Disease Control and Prevention, 2017. Retrieved from https://www.cdc.gov/violenceprevention/pdf/suicidetechnicalpackage.pdf.
[32] Pittman, Mary, et al. *Bringing community health workers into the mainstream of U.S. health* care. Institute of Medicine of the National Academies, 2015. Retrieved from https://nam.edu/wp-content/uploads/2015/06/chwpaper3.pdf.
[33] Families USA. "How states can fund community health workers through Medicaid to improve people's health, decrease costs, and reduce disparities." (2016). Retrieved from http://familiesusa.org/sites/default/files/product_documents/HE_HST_Community_Health_Workers_Brief_v4.pdf.
[34] Mock, Kailyn Dorhauer, et al. "Community health workers: Recommendations for bridging healthcare gaps in rural America." National Rural Health Association, 2017. Retrieved from https://www.ruralhealthweb.org/NRHA/media/Emerge_NRHA/Advocacy/Policy%20documents/Community-Health-Workers_Feb-2017_NRHA-Policy-Paper.pdf.
[35] Mann, J. John, et al. "Suicide prevention strategies: A Systemic Review." *JAMA*, 294.16 (2005): 2064-2074.
[36] Suicide Prevention Research Center. "Suicide screening and assessment." (2014). Retrieved from http://www.sprc.org/sites/default/files/migrate/library/RS_suicide%20screening_91814%20final.pdf.
[37] Ahmedani, Brian K., et al. "Racial/ethnic differences in healthcare visits made prior to suicide attempt across the United States." *Medical Care*, 53.5 (2015): 430-435.
[38] Kroenke, Kroenke, Robert L. Spitzer, and Janet B. W. Williams. "The phq-9." *Journal of General Internal Medicine*, 16.9 (2001): 606-613.
[39] Simon, Gregory E., et al. "Does response on the PHQ-9 depression questionnaire predict subsequent suicide attempt or suicide death?" *Psychiatric Services*, 64.12 (2013): 1195-1202.
[40] Louzon, Samantha A., et al. "Does suicide ideation as measured by the PHQ-9 predict suicide among VA patients?" *Psychiatric Services*, 67.5 (2016): 517-522.
[41] U.S. Department of Health and Human Services. Healthy People 2020. U.S. Department of Health and Human Services. For "Mental Health and Mental Disorders" objectives, see https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders/objectives.