GARRETT LEE SMITH YOUTH SUICIDE EARLY INTERVENTION AND PREVENTION STRATEGIES NATIONAL OUTCOMES EVALUATION

Fiscal Year 2017
Report to Congress
June 2018

I. GLS National Outcomes Evaluation Overview

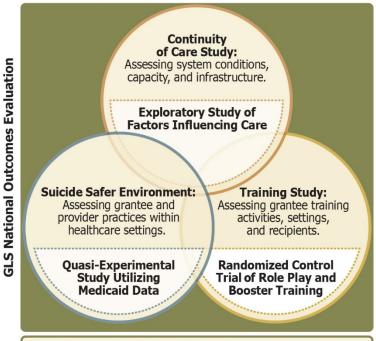The Substance Abuse and Mental Health Services Administration (SAMHSA) is pleased to present *Report to Congress, 2017*, for the Garrett Lee Smith (GLS) Youth Suicide Early Intervention and Prevention Strategies. This initiative and report were authorized by the Garrett Lee Smith Memorial Act of 2004 (GLSMA) (Public Law 108–355, p. 10) and was reauthorized by the 21st Century Cures Act (Public Law 114-255). The purpose of the program is to provide grants to support the planning, implementation, and evaluation of youth suicide early intervention and prevention strategies serving three types of grantees: (1) campuses, (2) states, and (3) tribes (GLSMA, 2004). During fiscal years 2005–2017, SAMHSA has awarded 199 state and tribal grants to 50 states, two U.S. territories, and 50 tribes. Two hundred and forty seven campus grants have been awarded to 232 colleges and universities in 48 states, two U.S. territories, and the District of Columbia.

National Outcomes Evaluation Design

The National Outcomes Evaluation (NOE), which began in 2005 with the inception of the GLS Program, has evolved based on initial findings and the subsequent new SAMHSA requirements for grantees. The design seeks to make the most efficient use of primary data already collected by grantees and relevant secondary data sources to reduce the data collection burden on grantees and assess the progress and impact of the program. The design takes into consideration the myriad grantee contexts: differences in length of funding cycles, variations in partnerships and provider networks/infrastructure, program activities, populations served, varying program goals and plans, existing data systems, and levels of participation. The evaluation design now supports more rigorous experimental or quasi-experimental approaches, as depicted in Exhibit 1. These approaches support initial findings that indicate the GLS Suicide Prevention Program-sponsored trainings have had a positive collective impact on subsequent identification behavior of trainees (Condron et al., 2015) and to establish the effect of the GLS Suicide Prevention Program on youth suicide mortality (Walrath et al., 2015) and suicide attempts (Godoy Garraza et al., 2015). The design includes evaluation of core data collection from all grantees that received awards between fiscal years 2005 and 2017 and enhanced experimental or quasi-experimental sub-studies on training, continuity of care (i.e., identification, referral, and services retention), and service provision through providers implementing a suicide safer environment approach.

Exhibit 1. GLS National Outcomes Evaluation Design

CORE & ENHANCED STUDY ANALYSIS
(Including Implementation and Proximal Outcomes)

GLS National Outcomes Evaluation

Continuity of Care Study: Assessing system conditions, capacity, and infrastructure.

Exploratory Study of Factors Influencing Care

Suicide Safer Environment: Assessing grantee and provider practices within healthcare settings.

Training Study: Assessing grantee training activities, settings, and recipients.

Quasi-Experimental Study Utilizing Medicaid Data

Randomized Control Trial of Role Play and Booster Training

Cross Program Analysis and Impact:

Addresses evaluation questions that cut across the three studies (core and enhanced) and utilizes secondary data sources as well as data collected from currently and previously funded grantees to assess the impact of suicide prevention activities on ultimate outcomes such as mental health service utilization, suicide attempts, and suicide deaths and explores where feasible the cost of implementation relative to the impact.

The revised design of the GLS National Outcomes Evaluation reflects an emphasis on specific components of the revised National Strategy for Suicide Prevention (NSSP): Goals and Objectives for Action (U.S. Department of Health and Human Services [DHHS], 2012), which are included in the state, tribal and campus Funding Opportunity Announcements. These updated goals and objectives for action emerged from recommendations from a national public and private partnership, the Action Alliance, created to advance and coordinate the implementation of suicide prevention in the United States (U.S. DHHS, 2012, p. 6). Of the 13 goals addressed in the revised NSSP, the most salient for the National Outcomes Evaluation are:

- Goal 7. Provide training to community and clinical service providers on the prevention of suicide and related behaviors (p. 45).
- Goal 8. Promote suicide prevention as a core component of health care services (p. 51).
- Goal 9. Promote and implement effective clinical and professional practices for assessing and treating those identified as being at risk for suicidal behaviors (p. 57).

The adoption of "zero suicides" as an aspirational goal for service systems is woven into objectives under goals 8 and 9. This includes developing appropriate pathways to care, based on the patient's level of risk and evaluating services in order to continuously improve the quality of care in a "blameless" environment (DHHS, 2012).

II. HIGHLIGHTS OF FINDINGS

This report provides key evaluation findings about the types of GLS activities that grantees conduct as well as the impacts of these activities. Findings are presented under the following sections: Program Activities; Training Study; Continuity of Care Study; Suicide Safer Environment Study; and Cross-program Analysis and Impact.

Program Activities

As the knowledge and understanding of the effectiveness and impact of comprehensive community-based suicide prevention programs continues to develop and new technology impacts the daily life of youth, strategies implemented by GLS grantees have also evolved. Suicide prevention interventions commonly implemented in comprehensive community-based suicide prevention programs, such as the GLS Programs, include mental health screening and referral, gatekeeper trainings, mental health and suicide prevention awareness programs, promotion of information about the National Suicide Prevention Lifeline, and strengthening of linkages with community providers. In addition, as the Zero Suicide approach (DHHS, 2012) has become a focus, grantees have begun to implement strategies related specifically to the follow-up of at-risk youth and care transitions throughout the cycle of service.

- Nearly all grantees implement outreach and awareness and gatekeeper training strategies (Exhibit 2). Additionally, a higher proportion of tribal grantees reported strategies related to coalitions and partnerships as well as direct services and traditional healing compared to state and campus grantees. A higher proportion of state grantees reported assessment, referral, and clinical trainings than campus or tribal grantees. Finally, a higher proportion of campus and tribal grantees reported life skills and wellness development strategies than state grantees.

> **Grantee Highlight: Clemson University**
>
> In response to the Netflix series "13 Reasons Why," GLS campus grantee Clemson University created a 3-minute video titled "50 Reasons to Live" where members of the campus community held white boards that highlighted a reason to live. The video was distributed via the university's social media accounts, YouTube and the university website. https://www.clemson.edu/campus-life/healthy-campus/suicideprevention/

> **Grantee Highlight: Northwest Portland Indian Health Board**
>
> This tribal grantee has developed a Suicide Ideation Protocol. This protocol was put in place to ensure that all clinic staff respond appropriately when a client presents with suicidal thoughts or behaviors. The protocol begins with reminding the provider to initiate the Question, Persuade, Refer (QPR) conversation, find out if there is a suicide plan in place and, in the most serious cases, call 911. The protocol includes a checklist to be completed when a client screens positive or presents with suicidal thoughts or behaviors.

Grantee Highlight: Washington State

After two suicides in a high risk, rural and geographically challenged county, this grantee has developed a postvention protocol which involved grant staff, local behavioral health staff, and local school districts in a two-day School Mobilization Assistance Response Teams (SMART) training. Five school districts (eight schools total) took the SMART training and now have the capacity to provide postvention services themselves.

Grantee Highlight: Oregon State University

Community partnerships developed over the grant funding period led to a locally funded 3 year grant ($110,000 per year) to sustain the work of the campus suicide prevention and student wellness program.

Exhibit 2. Percent of Campus, State, and Tribal Grantees That Report Implementation of Strategies[1]

	Campus (n=228)	State (n=121)	Tribe (n=73)
Outreach and Awareness	99.6%	99.2%	100.0%
Gatekeeper Training	96.1%	96.7%	95.9%
Assessment, Referral, and Clinical Training	35.1%	62.8%	37.0%
Life Skills and Wellness Development	71.1%	33.1%	91.8%
Screenings	63.6%	58.7%	58.9%
Hotlines, Helplines, Textlines, and Chatlines	28.5%	37.2%	21.9%
Means Restriction	11.8%	48.8%	38.4%
Policies, Protocols, and Infrastructure	54.4%	66.9%	65.8%
Coalitions and Partnerships	67.1%	76.0%	93.2%
Direct Services and Traditional Healing Practices		62.8%	89.0%
Care Transitions		36.4%	17.8%
Other Suicide Prevention Strategies	53.9%	52.1%	68.5%

Source: Prevention Strategies Inventory (PSI), July 2017. Campus Cohorts 1–10 and State/Tribal Cohorts 1–11.

Many grantees focus programming to address the unique needs of nine different priority populations in their outreach and awareness, gatekeeper trainings, life skills and wellness, and means restriction activities. The nine different priority youth populations that have been shown to be at an increased risk for suicide include: American Indians and Alaska Natives (AI/AN); persons grieving a death by suicide; self-injurers; youth who have attempted suicide previously; persons with mental and/or substance use disorders; lesbian, gay, bisexual, transgender, and
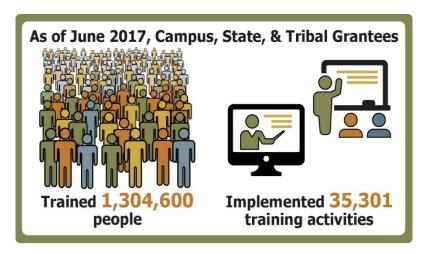
---

1 Within the PSI, grantees organize their activities under the categories listed in Exhibit 2.

questioning (LGBTQ) populations; members of the armed forces and veterans; Hispanic populations; and youth in transition to adulthood (18–24).

Training Study

The purpose of the Training Study is to increase understanding of the impact of suicide gatekeeper training on participant identification and referral behaviors; barriers and facilitators to using the skills learned; factors that may mediate this impact (e.g., different relationships and interactions with youth before the training); and implementation costs.

- Since 2005, over 1.3 million individuals have been trained in over 35,000 training events, with online trainings accounting for just over 275,000 of the trainees.

As of June 2017, Campus, State, & Tribal Grantees

Trained **1,304,600** people
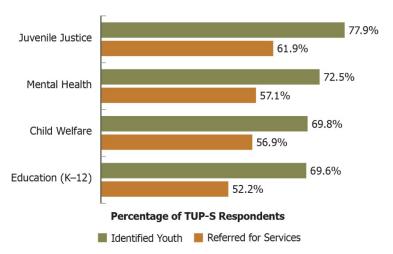
Implemented **35,301** training activities

- Question, Persuade, Refer (QPR) gatekeeper training was the most commonly implemented curricula for both state/tribe and campus grantees, and Kognito At-Risk was the most common online training.[2]
- As depicted in Exhibit 3, nearly 80 percent of trainees with roles in a juvenile justice setting reported that they have identified youth as at risk of suicide, and 61.9 percent of the participants in juvenile justice reported that they have referred youth to mental health services.[3] Schools (K–12) were the most common setting in which state and tribal trainees reported interacting with youth. Among those contacted from K–12 education, 70 percent reported using the training to identify youth who might be at risk for suicide following the training, and just over half (52.2 percent) had referred youth for services.

---

2 See http://www.sprc.org/resources-programs for a description of evidence-based suicide prevention programs.
3 According to the Early Identification Referral and Follow up Individual Form (EIRF-I), a National Outcomes Evaluation instrument utilized by state and tribal grantees, there are many reasons why identified youth do not receive services within three months of the referral. The top three reasons are: 1) Parent or youth refused services for personal reasons (i.e. moved out of the service area) (30.9 percent); 2) Made an appointment but youth did not attend (30.4 percent); 3) Youth was wait-listed for more than 3 months (5.0 percent).

Exhibit 3. Top Four Settings in Which State and Tribal Trainees Identified and Referred Youth

Source: Training Utilization and Preservation Survey, October 2010–July 2017; State/Tribal Cohorts 4–11.

- Ninety-nine percent of campus grantees (70 of 71) plan to sustain at least one of their gatekeeper trainings; 96.7 percent (29 of 30) of state grantees and 100 percent (17 of 17) of tribal grantees plan to sustain at least one of their gatekeeper trainings. As seen in Exhibit 4, across the many types of gatekeeper trainings, the majority of the campus, state, and tribal grantees reported consistently that they have plans to sustain QPR and Applied Suicide Intervention Skills Training (ASIST). However, there are differences between campus, state, and tribal grantees, with campus grantees planning to sustain Campus Connect, and Kognito At-Risk, and state and tribal grantees reporting that they plan to sustain Sources of Strength and SafeTALK.

Exhibit 4. Percent of Campus, State, and Tribal Grantees with Sustainability Plans by Training

	Campus	State	Tribe
QPR	94.3% (116 of 123)	91.9% (79 of 86)	100% (61 of 61)
ASIST	100% (11 of 11)	100% (13 of 13)	100% (26 of 26)
Campus Connect	93.3% (14 of 15)		
Kognito At-Risk	81.6% (40 of 49)		
Lifelines		87.5% (7 of 8)	0% (0 of 3)
Signs of Suicide	100% (2 of 2)	100% (8 of 8)	100% (1 of 1)
Sources of Strength	100% (1 of 1)	100% (6 of 6)	100% (13 of 13)
SafeTALK	50% (2 of 4)	88.9% (16 of 18)	100% (17 of 17)

Source: Prevention Strategies Inventory, July 2017; State/Tribal Cohorts 7–11 and Campus Cohorts 6–10.

Grantee Highlight: Grantee Approaches to Training Sustainability

Pennsylvania has adopted a two-pronged approach to sustaining their gatekeeper training. They have adopted a "train the trainer" approach to deliver QPR, and have developed videos of locally developed training that will be hosted on a state sponsored online platform to deliver free training to school districts.

Delaware passed HB 90, a bill mandating that Delaware's schools implement a suicide prevention curriculum. Specifically, the law, passed in 2015, requires 1) every public school employee must get 90 minutes of suicide prevention training per year; 2) that all public schools establish a suicide prevention committee, and 3) that local education agencies create a suicide prevention policy. Project SAFETY is working to assist in the implementation of that legislation and has participated in the creation of the MOU between the Delaware Department of Education; the Department of Services for Children, Youth, and their Families; and the Department of Health and Social Services, to begin implementation of the suicide prevention program.

Continuity of Care Study

The Continuity of Care (COC) Study is designed to gain an understanding of the process by which youth at risk for suicide are identified, referred to services, and monitored by the GLS Suicide Prevention Program. It assesses the extent to which GLS activities create an effective continuum of care and the outcomes realized by youth identified for mental health and related services as a result of the program.

- For most state and tribal grantees (85 percent, n = 171), gatekeeper trainings are an essential component of their program's approach to identifying youth at risk for suicide. In addition, a majority of state and tribal grantees (68 percent, n = 171) used a suicide risk screening tool to identify at-risk youth. Because of these efforts, begun in 2005, over 60,500 youth have been identified as at risk for suicide through GLS-sponsored screenings (n = 27,119) or by a GLS-trained gatekeeper (n = 33,446). Almost all youth (86 percent) identified as at risk were referred for services. Of youth for whom data are available (n=35,209), 87 percent referred to mental health services received services within 3 months.

Highlights along the Pathway to Care

State and tribal GLS grantees have identified 60,564 youth as at risk for suicide through trained gatekeepers or screenings.

Nearly all youth identified as at risk for suicide were referred for services (86 percent*; n = 46,803/54,708).

Eighty seven percent* of those referred to mental health services, and for whom data are available, had received services within 3 months of the referral (n = 30,784/35,209).

*Due to missing data, the denominators get smaller with each additional level of analysis.

- As seen in Exhibit 5, most identifications are occurring in school settings, including school-based health centers (34.2 percent), or at mental health agencies (28.4 percent).

Exhibit 5. Settings of Identifications from a Screening Tool or Trained Gatekeeper
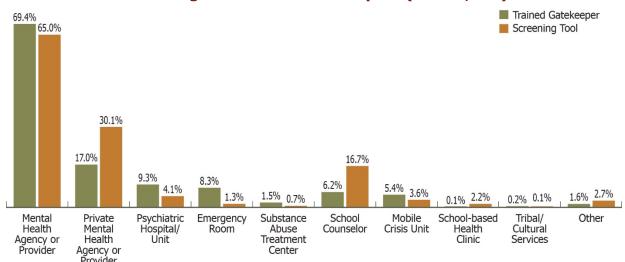
Settings	Screening Tool (n = 25,212)	Trained Gatekeeper (n = 32,366)	Total* (n = 59,708)
School/School-based Health Center or College/University	39.2%	28.9%	34.2%
Child Welfare Agency	0.6%	2.9%	1.8%
Juvenile Justice Agency	2.4%	1.1%	1.6%
Law Enforcement	0.2%	5.0%	2.8%
Community based organizations, recreation/after school	4.5%	3.6%	3.9%
Physical Health Agency	5.2%	2.1%	3.3%
Mental Health Agency	14.4%	38.3%	28.4%
Home	0.6%	5.8%	3.4%
Emergency Response Unit/Emergency Room	8.5%	9.0%	8.5%
Digital Medium	0.0%	1.8%	1.0%
Other (Including Substance Abuse Treatment Facilities)	24.4%	1.5%	11.1%

Source: Early Identification, Referral, and Follow-up Individual Form, October 2006–July 2017; State/Tribal Cohorts 1–11.

*The total is the total number of settings, including those that did not provide a mode of identification. Therefore the total is slightly more than the sum of the identification types.

- Most frequently, youth were referred to mental health agencies (after identification by a trained gatekeeper, 69.4 percent were referred to mental health agencies; after identification with a screening tool, 65.0 percent were referred to mental health agencies). For youth that were identified by a screening tool, private mental health agencies (30.1 percent), and school counselors (16.7 percent), referrals were more frequently made than for youth identified by a trained gatekeeper (Exhibit 6).
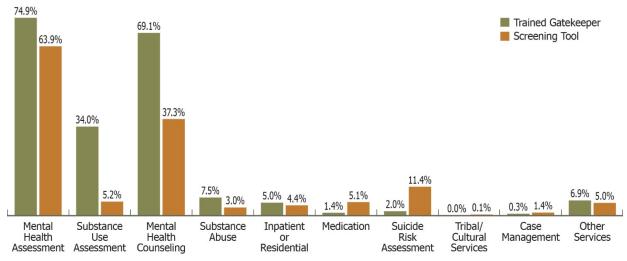
Exhibit 6. Types of Mental Health Referrals for Youth Identified by Screenings or Trained Gatekeepers (n = 38,796)

Legend: Trained Gatekeeper, Screening Tool

- Mental Health Agency or Provider: 69.4% / 65.0%
- Private Mental Health Agency or Provider: 17.0% / 30.1%
- Psychiatric Hospital/Unit: 9.3% / 4.1%
- Emergency Room: 8.3% / 1.3%
- Substance Abuse Treatment Center: 1.5% / 0.7%
- School Counselor: 6.2% / 16.7%
- Mobile Crisis Unit: 5.4% / 3.6%
- School-based Health Clinic: 0.1% / 2.2%
- Tribal/Cultural Services: 0.2% / 0.1%
- Other: 1.6% / 2.7%

Source: Early Identification, Referral, and Follow-up Individual Form, October 2006–July 2017; State/Tribal Cohorts 1–11. Referrals are not mutually exclusive and columns may add up to more than 100 percent.

- As shown in Exhibit 7, while both types of identifications most often resulted in youth receiving a mental health assessment, there were differences in the other types of services received between gatekeeper identifications and screening identifications. In particular, youth who were identified though screenings were less likely to receive substance use services or mental health counseling after a referral than those identified by gatekeepers.

Exhibit 7. Types of Services Received (n = 29,772)

Legend: Trained Gatekeeper, Screening Tool

- Mental Health Assessment: 74.9% / 63.9%
- Substance Use Assessment: 34.0% / 5.2%
- Mental Health Counseling: 69.1% / 37.3%
- Substance Abuse: 7.5% / 3.0%
- Inpatient or Residential: 5.0% / 4.4%
- Medication: 1.4% / 5.1%
- Suicide Risk Assessment: 2.0% / 11.4%
- Tribal/Cultural Services: 0.0% / 0.1%
- Case Management: 0.3% / 1.4%
- Other Services: 6.9% / 5.0%

Source: Early Identification, Referral, and Follow-up Individual Form, October 2006–July 2017; State/Tribal Cohorts 1–11. Services are not mutually exclusive and columns may add up to more than 100%.

Grantee Highlight: Montana State University

Montana State University employed a variety of methods, in addition to hiring staff, to increase their capacity to serve students. The counseling center strengthened their group services and increased their referrals to groups. They added an additional walk-in/crisis hour for a total of three per day. They eliminated the need for returning clients to attend another intake, instead assigning them directly into their counselor's schedule and re-defined scope of service more narrowly so that more students could be referred to community providers.

Highlight: College of the Canyons Suicide Prevention Program

Student Support
- Engage and support students in choosing options that help them to succeed academically and avoid acting out in ways that may compromise safety
- Implement the Autism Social Alliance to help integrate students on the spectrum
- Provide SAFE Zone* trainings to support LGBTQ students, co-led by peer educators
- Co-locate counselor at the VET Center on Campus
- Participate in a collaborative with NFL, local Sexual Assault Response Agency and athletic department
- Provide Crisis Text and Suicide Lifeline information
- Provide Body Image Programming
- Provide syllabus text to faculty that includes mental health information

Trainings
- Annual drug and alcohol trainings on campus for students and staff
- De-escalation of agitated students, identification and referral of students who may become violent
- Use of the "Red Folder" to teach staff and faculty to deal with crisis situations
- Suicide Prevention, Intervention and Response Trainings (SPIRT)
- Veterans Mental Health Trainings
- Sport Psychology
- Mindfulness Trainings
- Mental Health First Aide (MHFA)
- Applied Suicide Intervention Skills Training (ASIST)
- Autism Awareness

Outreach
- Work with local community mental health, domestic violence, and drug and alcohol treatment providers
- Provide mini-trainings several times a semester on tables on campus
- Provide campus and community-wide trainings including MHFA, SPIRT, Human Trafficking, Mindfulness, Safe Coping, Stress Reduction, SAFE Zones*, Sexual Assault Response and Autism Awareness
- Engage local media on safe messaging in the event of a suicide
- Participate in the Community Collaborative with Veterans Services
- Serve on the Body Mind Wellness Committee

A Student Health and Wellness Center (SHWC) Success Story

The SHWC received a referral for a student who was said to be identifying with mass shooters including an evil and violent movie character and a mass college campus shooter who were recently in the news. The student had discussed thoughts of replicating the violent acts with a fellow student. Having attended the SHWC's "See Something, Say Something" presentation, the fellow student proactively reported the conversation to a faculty member who contacted the Behavioral Intervention Team (BIT). The case was referred to the Department of Mental Health Student Threat Assessment Evaluating and Response Team (START) team who quickly engaged the student on multiple levels. The START team visited the student's home and searched for firearms, met with the parent and referred the student to mental health services. The BIT/SHWC monitored the student's progress on campus by providing counseling and regular contact and coaching with the faculty member. The student has been in therapy for several months with a community provider. The START team visited the student regularly and meets with the SHWC therapist occasionally while on campus. Mom is very cooperative and the student is no longer considered a threat on campus, is doing well in a part-time job and is making academic progress.
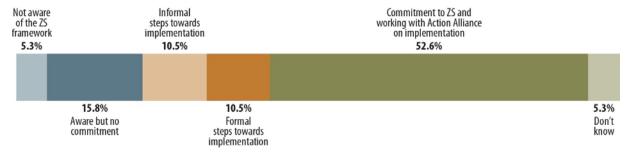
* For additional information on SAFE Zone Training, see http://thesafezoneproject.com.

Suicide Safer Environment Study

The Suicide Safer Environment (SSE) Study broadly assesses the extent to which grantees and partnering providers are implementing National Strategy for Suicide Prevention (NSSP) goals 8 and 9 Zero Suicide practices, and whether these practices lead to the long-term outcomes of reductions in suicide deaths and attempts. Data collection activities include an annual survey of providers partnering with state and tribal grantees (the Behavioral Health Provider Survey [BHPS]), and a survey of campuses regarding suicide safer practices on campus (the Student Behavioral Health Form [SBHF]). The evaluation's current focus on descriptive analyses of SSE practices from responses gathered in 2017 will be expanded in future years with the evaluation of the effect on suicide attempts and deaths.

- More than half of grantee partnering organizations (n = 19) reported a commitment to Zero Suicide and indicated they are working on implementation; 21 percent are taking informal or formal steps toward implementing a Zero Suicide approach. These include a variety of behavioral health provider organizations, including tribal organizations, community mental health organizations, and specified regions within state behavioral health systems. Exhibit 8 displays the state/tribal grantee partnering organizations' awareness and commitment to Zero Suicide from the 2017 administration of the Behavioral Health Provider Survey (BHPS).

Exhibit 8. Levels of Commitment and Implementation of Zero Suicide (n = 9)

Not aware of the ZS framework 5.3%

Informal steps towards implementation 10.5%

Commitment to ZS and working with Action Alliance on implementation 52.6%

15.8% Aware but no commitment

10.5% Formal steps towards implementation

5.3% Don't know

Source: Behavioral Health Provider Survey, 2017 Administration; State/Tribal Cohorts 9–11.

- Grantee partner organizations are using a variety of tools to conduct screenings: 57.9 percent use the Columbia Suicide Severity Rating Scale and 42.1 percent use the Beck Depression Inventory. Approximately 5 percent of organizations reported using the Patient Health Questionnaire or the Suicide Behaviors Questionnaire.
- Grantee partner organizations reported including various elements in their suicide care plans. More than three-quarters of organizations reported specifying outreach for missed appointments, protocols for client engagement, chart reviews, and coordination of care within the organization for high-risk individuals. Fewer than 40 percent of organizations reported policies related to drop-in visits, attempt-survivor groups, and psychoeducation groups specific to suicide (see Exhibit 9).

Exhibit 9. Elements Included in the Suicide Care Management Plan or Pathway (n = 16)

Topics Addressed by the Protocol for Care Management	Percent of Respondents
Coordination of care within the organization for high-risk clients	93.8%
Chart reviews to monitor risk assessments	81.3%
Protocols for client engagement and frequency of appointments	81.3%
Outreach/contact/protocol for missed appointments or transitions in care	81.3%
Drop-in visits without appointments	31.3%
Attempt-survivor groups	25.0%
Psychoeducation groups specific to suicide	18.8%

Source: Behavioral Health Provider Survey, July 2017; State/Tribal Cohorts 9–11.

- Grantee partner organizations used a variety of evidence-based or promising suicide treatment models (Exhibit 10). The most common model was Dialectical Behavior Therapy (DBT) (68.8 percent of organizations). More than 40 percent of partner organizations used Collaborative Assessment and Management of Suicidality (CAMS).

Exhibit 10. Grantee Partner Organizations Offering Staff Training on Evidence-based/Promising Suicide Treatment Models (n = 16)

Evidence-based/Promising Suicide Treatment Model	Percent of Organizations*
Dialectical Behavior Therapy (DBT)	68.8%
Collaborative Assessment and Management of Suicidality (CAMS)	43.8%
Cognitive Behavioral Therapy (CBT)	31.3%

Source: Behavioral Health Provider Survey, July 2017; State/Tribal Cohorts 9–11.
*Among organizations providing evidence-based treatments.

Grantee Highlight: The Florida Linking Individuals Needing Care (FL LINC) Project
In an attempt to implement effective care transition strategies within partnering behavioral health and community organizations, the project staff members working on the Florida Linking Individuals Needing Care Project have developed and piloted the LINC Care Coordination Monitoring Workshop. Over the past 2 years, project staff have trained 140 care coordinators and case managers across 13 workshops to comprehend the scope of suicide; understand the role and function of care transition; recognize the importance of using the Suicide Care Pathway (a collection of best-practice tools for assessing suicide risk and managing care); create a care transition or care coordination plan based on client data; refine client engagement strategies. Preliminary evaluation data show a significant increase in participants' ability to accurately document important information gathered from an at-risk client and to identify suicide risk factors and warning signs.

Cross-program Analysis and Impact

The data generated via the NOE provide important insight to understand suicide prevention and the impact these efforts have on youth suicide. Data were compiled from the state, tribal, and campus grantees, along with secondary data from the Integrated Postsecondary Education System (IPEDS), Centers for Disease Control and Prevention (CDC) Wide-ranging Online Data for Epidemiologic Research (WONDER), U.S. Census Bureau Small Area Income and Poverty Estimates (SAIPE) interactive data tool, U.S. Census Bureau Small Area Health Insurance Estimates (SAHIE), U.S. Census Bureau Region and Division Codes, and the U.S. Bureau of Labor Statistics Local Area Unemployment Statistics to examine and better understand the impact GLS has on youth and their communities. Campuses were examined for changes in the use of behavioral health services after implementing GLS screenings and programming. State and tribal county-level suicide mortality rates, as a whole, and tribal county-level suicide mortality rates, alone, were examined in the context of those who received GLS activities, and similar counties who did not.

> **Grantee Highlight: Feather River College**
>
> Feather River College is located in a rural area with very limited resources and access to mental health services. With seven people per square mile in the county, and an on-campus population just below 2,000 students, confidentiality and anonymity are concerns when tracking data. Historically, the campus had not kept records in an effort to protect students' privacy, but that impeded efforts to measure success of any programs.
>
> With funds from SAMHSA, the campus hired a full-time therapist to see students on campus, and also purchased software that allows tracking of what students are being seen for and how often, without compromising privacy. This data will allow the campus to understand the scope of the issue and make decisions about programming and messaging to best serve its students.

- When comparing use of behavioral health services the 4 years prior to campus grantees receiving GLS funding to the 3 years with funding, a statistically significant increase in behavioral health services use was found (see Exhibit 11). Prior to GLS funding, an average of 6.7 percent of students received behavioral health services. After funding, this percentage continually increased over the course of the grant. By the end of the 3-year funding period, an average of 8.7 percent of students had received one or more behavioral health services on their campus.
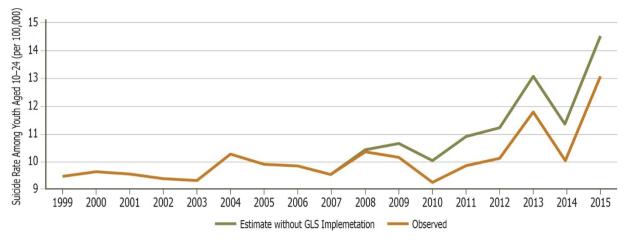
Exhibit 11. Change in Percent of Students Using Behavior Health Services

Source: Management Information System Data Abstraction and Student Behavioral Health Form, June 2012–June 2016; Campus Cohorts 5–9.

- Counties exposed to GLS programs exhibited youth suicide rates lower than expected following implementation of the activities. Two years after the implementation of the GLS activities, youth suicide rates were estimated to be 0.8 per 100,000 youth lower than they would have been had the program not taken place ($p < 0.05$). Further decreases were estimated by the third year, though the difference was no longer significant ($p \sim 0.1$) as shown in Exhibit 12.

Exhibit 12. Difference between observed youth suicide rate and estimated rate in absence of the GLS Programs in rural counties

- Analysis of the impact of GLS programs among tribal communities did not result in a statistically significant outcome, but the directional trend was for a lower suicide rate. Several limitations may explain the results, including, in particular, the extreme variability of suicide rates for relatively small areas that tend to be the focus of tribal efforts. There is anecdotal documentation that GLS programs are having a beneficial impact in reducing

suicide for some tribal communities (see textbox).

> **Grantee Highlight: California Rural Indian Health Board and United Indian Health Services:**
> These two grantees collaborated with community members of a rural tribal community of about 150 people and other community partners to address an alarming seven suicides occurring over 18 months. Since beginning GLS programming and collaboration on suicide prevention training, awareness, postvention, and prevention efforts, after a state of emergency was declared in December 2015, no further suicides have occurred.

Recommendations and Future Directions

While the GLS NOE has expanded in scope in recent years, findings from the current report indicate the need for evaluation to:

- Understand why the pattern of reduced youth suicide deaths and attempts associated with GLS activities is not consistently sustained over time and what is required to gain this understanding.
- Gain an in-depth understanding of the implementation and expansion of Zero Suicide practices by grantees and their provider partners; including the fidelity with which they are being implemented and their impact on suicide deaths and attempts.
- Determine how grantees use combinations of strategies to reach at-risk populations and determine which populations are most likely to be missed by current efforts
- Assess the processes that GLS grantees follow to identify youth, deliver effective mental health treatment and track and monitor at-risk persons;
- Identify the elements of training that contribute to more favorable outcomes for trained gatekeepers and lead to subsequent identifications of at-risk youth;
- Understand the barriers and facilitators to implementing effective gatekeeper training programs in high-need communities and identifying gatekeepers who are likely to benefit the most from training; and the extent to which this is part of a comprehensive coordinated effort to reduce youth suicide.

By continuing to build on the information gathered, lessons learned, and results of current studies, the GLS NOE will contribute to and enhance the field of suicide prevention by making further strides in understanding what works, why, and under what conditions. Greater insight into each of these areas will strengthen SAMHSA's ability to build the evidence base for suicide prevention, address factors that contribute to suicide attempts and deaths, and establish standards for developing, implementing, and evaluating all suicide prevention programs. In fact, the Garrett Lee Smith Youth Suicide Prevention and Early Intervention Programs were re-authorized under the 21st Century Cures Act with a broadening of allowable activities under the campus portion of these programs. Additionally, funds were made available for the National Strategy for Suicide Prevention Program to add five grantees to this program and a new program, Zero Suicide, just awarded funding to three grantees.

III. REFERENCES

21st Century Cures Act of 2016, P. L., 114-255 (2016).

Centers for Disease Control and Prevention, National Center for Health Statistics. (2016). *Compressed mortality file (CMF 1999-2015 Series 20 No. 2U)* [WONDER Online Database]. Retrieved January 12, 2017 from http://wonder.cdc.gov/cmf-icd10.html

Condron, D. S., Godoy Garraza, L., Walrath, C. M., McKeon, R., Goldston, D. B., & Heilbron, N. S. (2015). Identifying and referring youth at risk for suicide following participation in school-based gatekeeper training. *Suicide and Life-Threatening Behavior*, *45*, 461–476.

Garrett Lee Smith Memorial Act of 2004 [GLSMA], § 42 U.S.C. 201 (2004).

U.S. Bureau of Labor Statistics. *Local area unemployment statistics (LAUS)*. Retrieved January 12, 2017, from https://www.bls.gov/lau/#tables

U.S. Census Bureau (2015); *Small area health insurance estimates (SAHIE)*. Retrieved January 12, 2017, from https://www.census.gov/did/www/sahie/data/index.html

———. (2015); *Small area income and poverty estimates (SAIPE)*. Retrieved January 12, 2017, from http://www.census.gov/did/www/saipe/data/index.html

U.S. Department of Health and Human Services, Office of the Surgeon General, and the National Action Alliance for Suicide Prevention. (2012). *2012 National Strategy for Suicide Prevention: Goals and objectives for action*. Retrieved May 15, 2017, from www.samhsa.gov/nssp

Walrath, C., Godoy Garraza, L., Reid, H., Goldston, D. B., & McKeon, R. (2015). Impact of the Garrett Lee Smith Youth Suicide Prevention Program on suicide mortality. *American Journal of Public Health, 105*(5), 986–993.