



**REPORT / CHILDREN'S METAL HEALTH**

**DECEMBER 15, 2017**

# **Zero Suicide in Texas Initiative: Final Evaluation Report**



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**Texas Institute for Excellence in Mental Health**

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# Introduction

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In 2013, the Texas Department of State Health Services was awarded a three-year Garrett Lee Smith State Suicide Prevention grant to reduce suicide attempts and deaths in children, youth, and young adults age 10 to 24. The purpose of initiative, named Zero Suicides in Texas (ZEST), was to reduce deaths by suicide and suicide attempts among youth in Texas by creating Suicide Safer Care Centers within the public mental health system. Using a Zero Suicide framework, ZEST partnered with Denton County MHMR Center to implement best practices for identifying and managing suicide risk within the behavioral health system. Following the initial year of implementation, Denton County MHMR joined ten additional Local Mental Health Authorities (LMHAs) in a learning collaborative focused on implementation of the Zero Suicide model. The learning collaborative involved opportunities for a variety of training, planning, on-going technical assistance, and peer-to-peer learning. Additional communities were engaged in new learning collaborative cohorts in the following two years of the grant, with continued support for implementation and quality improvement for the early adopters.

The Zero Suicide efforts within public mental health agencies was strengthened by support for the development of Suicide Safer Care Communities, which were envisioned as communities implementing best practices in identifying and referring individuals at risk of suicide, reducing access to lethal means, coordinating care across health care providers, and providing best practice postvention support. To support Suicide Safer Communities, the ZEST initiative provided gatekeeper training aimed at ensuring stakeholders who interact with youth and young adults are aware of warning signs of suicide, comfortable asking about suicidal thoughts and plans, and able to encourage and refer youth to seek appropriate care. Additional support for Suicide Safer Communities included awareness building, coalition building, and community planning to identify and address local needs. Regional suicide prevention summits were held in several areas throughout the state to bring relevant stakeholders together, share information about community activities, and plan for activities to strengthen the community response. ZEST also continued to enhance state infrastructure to create a Suicide Safer Care State through support of the Texas Suicide Prevention Council, the development of the Texas Suicide Prevention State Plan, communication strategies to increase awareness and reduce stigma, technical assistance around prevention and postvention, and means restriction strategies.

Key partners implementing the goals and activities are the Texas Department of State Health Services (DSHS), later reorganized to join the Texas Health and Human Services Commission (HHSC), Mental Health America of Texas (MHAT) in conjunction with the Texas Suicide Prevention Council (TSPC), Denton County MHMR, and the Texas Institute for Excellence in Mental Health (TIEMH) at the University of Texas at Austin.

## Goals of Zero Suicide in Texas Initiative

The following goals and objectives were outlined in the initial project proposal. The ZEST initiative maintained a focus on these goals throughout the project period.

**Goal One.** To improve treatment and support services for high risk youth ages 10-24 in the public mental health delivery system.

- Objective 1.1: Promote the adoption of “zero suicides” as an aspirational goal by the community mental health system, which provides services and support to defined populations.
- Objective 1.2: Promote and implement effective clinical and professional practices for assessing and treating those identified as at risk for suicidal behaviors.

- Objective 1.3: Create a comprehensive suicide care health care system through the adoption, dissemination, and implementation of guidelines for the assessment of suicide risk among persons receiving care and the policies and procedures to assess suicide risk and intervene to promote safety.

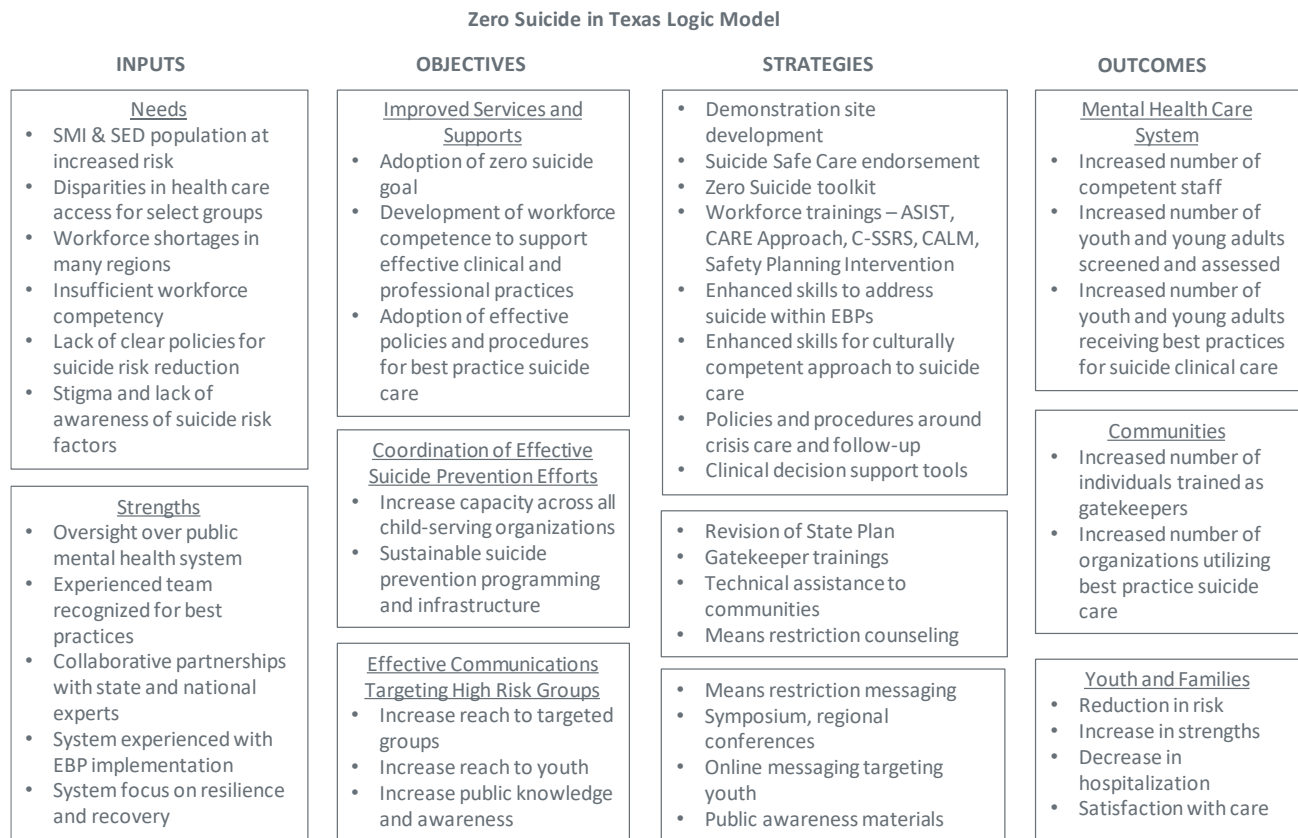
**Goal Two.** Integrate and coordinate suicide prevention activities statewide and within communities by extending Suicide Safe Care Centers to Suicide Safe Care Communities.

- Objective 2.1: Integrate suicide prevention into the values, culture, leadership, and work of a broad range of organizations and programs with a role to support suicide prevention activities.
- Objective 2.2: Establish effective, sustainable and collaborative suicide prevention programming at the state and local levels to advance suicide prevention.

**Goal Three.** Implement research-informed communication efforts designed to prevent suicide by changing knowledge, attitudes and behaviors.

- Objective 3.1: Develop, implement, and evaluate communication efforts designed to reach defined segments of the population.
- Objective 3.2: Increase youth-related communication efforts conducted online that promote positive messages and support safe crisis intervention strategies.
- Objective 3.3: Increase knowledge of the warning signs for suicide and of how to connect individuals in crisis with assistance and care.

**ZEST Logic Model.** The following represents the logic model that was established for the Zero Suicide in Texas initiative. The model highlights the strengths and needs of the system, the objectives of the grant program, the planned strategies to achieve those objectives, and the measurable outcomes used to examine impact of the strategies. The logic model forms the basis for the multi-level evaluation plan.



## Overview of the Evaluation

**State Level Impact.** The ZEST initiative aimed to create a state system that supported the development of a Zero Suicide public mental health system. To create a Suicide Safer Care State, Texas recognized the need to build buy-in throughout the public mental health system, first by raising awareness of the need for a system approach to preventing suicides for individuals served within the system and then by engaging community organizations in active change. Texas also recognized that the state oversight agency, DSHS, needed to lead the way through both communication of the goal and its importance and by creating policies and procedures that embedded key aspects of suicide prevention best practices within the agencies standards and contracts. Texas also aimed to ensure that partner agencies and other stakeholders shared in the vision of Zero Suicide and could contribute to the goal by becoming skilled gatekeepers, sharing information, messages of hope and resilience, and resources within their community. The state level evaluation was intended to answer the following questions:

1. Has DSHS established effective policies and procedures to support suicide safe care?
2. Has the project increased the awareness and engagement of additional LMHAs or community organizations for expansion of suicide safe practices?
3. Has the project increased awareness of suicide risks and resources and increased exposure to messages of hope and resilience?

**Community Level Impact.** Denton County served as the pilot community for the ZEST initiative and served as the initial community to strive to develop a suicide safer care center, within Denton County MHMR. Denton County MHMR used the three-year period to implement all of the elements of Zero Suicide within their behavioral health care system. While services were targeted to children, youth, and young adults, organizational changes were targeted across the entire agency, broadening the impact. While the primary focus was on the Denton County community, the community level impact was extended to additional communities impacted through learning collaboratives with other community mental health centers. While these communities had fewer resources to affect desired changes, the impact within these communities was also a component of the evaluation. The community level evaluation addressed the following questions:

1. Has the demonstration site increased the capacity of its workforce to provide suicide care evidence-based and best practices?
2. Has the demonstration site increased access to suicide care best practice?
3. Has the demonstration site enhanced partnerships with community child-serving organizations to expand the impact of transformation suicide care best practice?
4. Have the communities enhanced their implementation of core organizational elements of the Zero Suicide framework?
5. Has the behavioral health workforce within organizations participating in the learning collaborative changed behaviors to align with the Zero Suicide model?
6. What do participating organizations report as benefits and challenges to the Zero Suicide implementation?

**Child and Family Level Impact.** The impact of the grant activities was primarily measured within the Denton County site. Additional analysis of impacts within other participating agencies was limited to available administrative data. The following child and family-level evaluation questions were addressed:

1. Do youth and young adults in the organization show increased access to services that align with suicide best practices?
2. Do youth and young adults show decreased use of crisis services and hospitalization over time?
3. Do youth and young adults show decreased suicide risk following care?
4. Do youth and young adults show improvements in behavioral health needs following care?
5. Do youth and young adults show differences in access, use or outcomes by different racial and ethnic sub-populations?

## Evaluation Design and Methodology

The local evaluation of the ZEST initiative incorporated process measures, focused on what activities have occurred and whether the strategies were implemented as planned, as well as outcome measures focused on the impact of the project activities. The ZEST initiative was focused on organizational and system changes; therefore, many elements of the evaluation focus on the impact of these changes on the behavioral health system. Additional measures examine the impact of ZEST activities on individuals at risk of suicide. While an understanding of the public health impact of these activities is the ultimate evaluation goal, the project timeframe was too short to fully ensure the program was implemented within participating agencies and the public health impact observed. Information on suicide deaths is not available in near time in Texas, so even initial estimates of impact are unlikely to be available for several years. While suicide deaths were examined in the evaluation, data was available only for the year that the first cohort implemented the Zero Suicide approach. An overview of the evaluation measures and process for collection are discussed in this section, with additional information on specific methodologies provided within the relevant sections.

**Process Measures.** The process evaluation focused on whether the proposed strategies were accomplished and the extent of the reach of these strategies. Project partners conducting training activities documented the nature of trainings, location, and the number and types of participants and submitted to the evaluators. The ZEST team captured information on collaborations, councils, and other workgroups supporting the grant, measuring progress towards creating partnerships across the state. Measures of communication activities and reach were documented by project partners. Denton County MHMR maintained documentation of suicide screenings conducted within the organization and the results of those screening activities. Youth who were referred for follow-up care were contacted to document whether they received additional services during the three months after the referral.

**Outcome Measures.** The impact of Zero Suicide implementation activities on the organizations was measured in several ways. The behavioral health workforce within participating sites was surveyed at multiple timepoints, both prior to participation in learning activities and following it. Similarly, organizational surveys were completed prior to participation in learning collaboratives and after the first year of implementation. The impact of these system change activities on suicide deaths is examined in the demonstration site, Denton County MHMR. While the evaluation design did not allow for randomized control groups, some analyses allowed for the examination of groups prior to and after exposure to change activities, as well as the comparison of groups exposed to project interventions and those experiencing fewer or no project interventions. While this quasi-experimental design does not allow for the definitive testing of a causal relationship, it does allow the state to build credible support for the relationship between implementation activities and the targeted outcomes.

# Achievement of Goals and Accountability

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Cross-site evaluation measures were put in place by SAMHSA to monitor many of the project goals that were shared across all grantees. These measures are used to examine the accomplishment of goals in the following domains: (a) the number of individuals trained in mental health promotion; (b) the number of people in the mental health or related workforce trained in practices consistent with the grant; (c) new partnerships and collaboration; (d) the number of individuals exposed to suicide prevention awareness messages; (e) the number of youth and young adults screened for mental health concerns; (f) the number of individuals referred for mental health services; and (f) the percent of individuals receiving mental health services after referral. This section summarizes the results across each of these areas. The goals and accomplishments documented in the three project years are reflected in the call-out boxes. However, in some areas, additional trainings or awareness activities have been conducted in the fourth (no cost extension) year of the project, and these additional results are reflected in the narrative and graphic summaries.

## Community Training in Prevention

As a part of the ZEST initiative, community members were supported in increasing their skill at identifying suicide warning signs, asking questions to further recognize suicide risk, and connecting individuals with professional assistance. ZEST focused on training community gatekeepers with the ASK about Suicide to Save a Life workshop and Kognito's At Risk Training for Elementary, Middle School, High School, and Universities. In addition to these primary gatekeeper trainings, trainings in practices to support Suicide Safer Schools and Counseling on Access to Lethal Means were provided to community groups. Over the course of the four-year project, a total of 4,233 individuals were trained in ASK, 136,643 individuals were trained with Kognito At Risk, 321 in Suicide Safer Schools, and 371 in other related topics. Overall, 141,568 community members were trained in suicide prevention activities as a result of the grant.

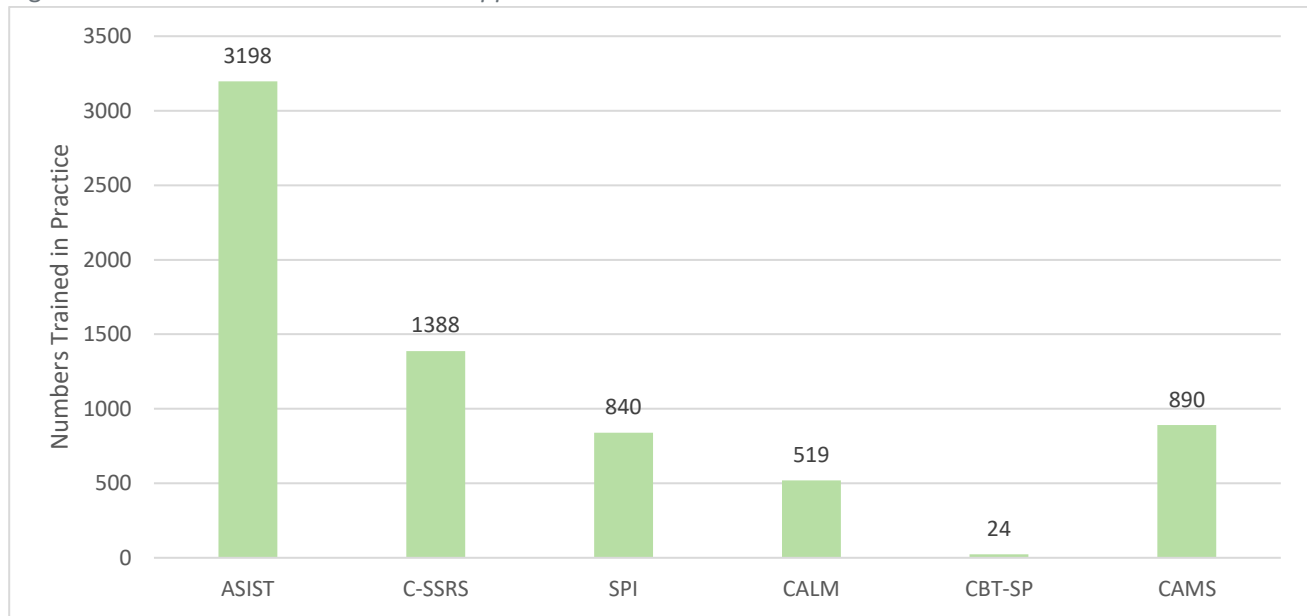
**3-Year Goal:** 2,800 individuals  
**Accomplishment:** 106,354 individuals

## Workforce Training in Suicide Prevention Practices

The ZEST initiative aimed to increase the capacity of the behavioral health and related workforce to utilize a variety of evidence-based and evidence-supported suicide prevention practices. One of the primary aims of ZEST was to increase the workforce's capacity in the Applied Suicide Intervention Skills Training (ASIST), the Columbia Suicide Severity Rating Scale (C-SSRS), Counseling on Access to Lethal Means (CALM), the Safety Planning Initiative (SPI), the Collaborative Assessment and Management of Suicidality (CAMS), and Cognitive Behavioral Therapy for Suicide Prevention (CBT-SP). A variety of other trainings were also conducted to increase the workforce's competence in suicide prevention best practices. The number of providers trained over the grant period is presented in Figure 1. A total of 6,859 individuals were reported to be trained as a result of the grant. This figure is likely to underestimate the training impact, as some participating organizations did not report all training activities.

**3-Year Goal:** 1,200 individuals  
**Accomplishment:** 5,158 individuals

Figure 1. *Providers Trained in Evidence-Supported Suicide Prevention Practices*

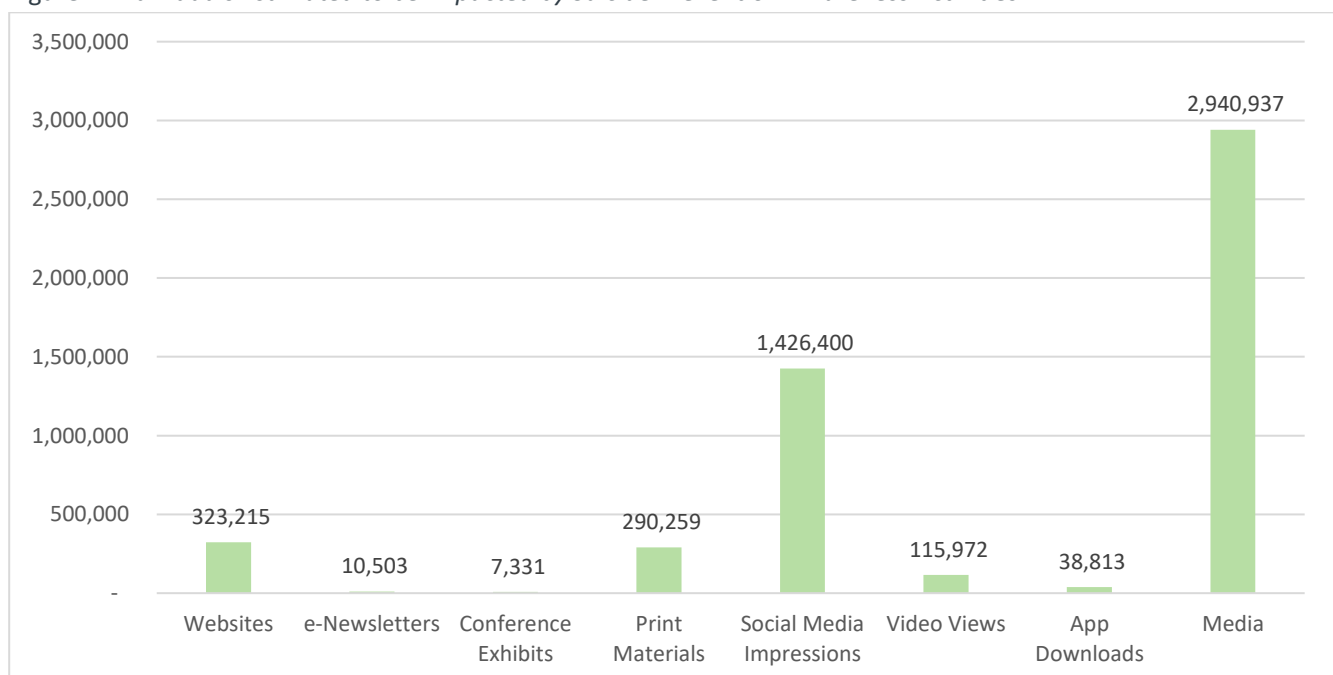


## Awareness Messaging

The ZEST initiative aimed to increase the public's awareness of suicide risks, prevention resources, and messages of hope and recovery through a variety of communication strategies. Communication activities included outreach and informing through television, radio, and print media, social media campaigns, a state suicide prevention website, print communication materials, video content, and mobile applications. The reach of each type of communication is measured or estimated based on documented readership rates, web analytics, social media analytics, or distribution of materials. The reach of each type of communication strategy is illustrated in Figure 2.

**3-Year Goal:** 150,000 individuals  
**Accomplishment:** 3,353,695 individuals

Figure 2. *Individuals Estimated to be Impacted by Suicide Prevention Awareness Activities*



## Collaborations

The ZEST initiative developed a variety of collaborations to support the strategies within the grant. A key mechanism for collaboration is the state Suicide Prevention Council, which includes representatives of state agencies, universities, advocacy organizations, and local suicide prevention coalitions. Additionally, many collaborations were developed in which organizations partnered to distribute suicide prevention awareness materials to staff, youth, and their families. Other collaborations were developed when organizations partnered to develop postvention plans or share resources following one or more suicide deaths. Partnerships were also developed within local communities, including agencies collaborating on regional Suicide Prevention Summits, agencies supporting training for the workforce or gatekeepers, and creating formal relationships to support care transitions. Agencies also partnered through three learning collaboratives to implement zero suicide initiatives.

**3-Year Goal:** 60 organizations  
**Accomplishment:** 237 organizations

## Screening and Referral

Youth were screened for suicide risk within the Denton County region and referred for additional services when appropriate. As the primary services site within the ZEST initiative, Denton County MHMR was asked to document all screenings with youth and young adults and contact individuals who were referred for services to identify if those services were received. Many of the organizations participating in the Zero Suicide initiative also implemented formal screening for suicide risk, but were not asked to document these screenings; therefore, data on the number of youth screened underrepresents the full impact of the initiative. A total of 2,079 youth and young adults were screened over the three-year period.

**3-Year Goal:** 825 individuals screened  
**Accomplishment:** 2,079 individuals

**3-Year Goal:** 775 individuals referred  
**Accomplishment:** 1,934 individuals  
**3-Year Goal:** 80% accessing services  
**Accomplishment:** 95.6% accessed

Recognizing that Denton County MHMR is screening a high-risk population, it was estimated that 775 individuals would be referred for assessment or further services. This goal was exceeded, with 1,934 individuals referred for a subsequent service, representing 93.0% of those screened. Denton County MHMR also exceeded their goal of 80 % of those referred accessing services. Almost all youth

receiving a referral for subsequent care received at least one follow-up appointment, due to the staff's efforts to ensure strong continuity of care and continued follow-up.

# Impact in Denton County

## Overview of Activities in Denton County

Denton County MHMR, the local public mental health authority for the Denton County region, served as the pilot region for Zero Suicide activities. Denton County is located in North Texas and has a population of 113,383. Denton County MHMR received funding to increase the screening of children, youth, and young adults for suicide risk, provide suicide risk assessments when indicated, conduct safety planning with individuals at risk, and provide targeted suicide-focused treatment and care management. The organization also committed to making the necessary organizational changes to support a competent workforce, a safety-oriented, leadership-driven culture, and on-going quality and accountability processes. As a result of their role as early adopters of the Zero Suicide model, leaders from Denton County MHMR served as champions within Texas for the initiative, demonstrating both their passion for achieving the goal of zero suicides within their organization and the lessons learned through implementation.



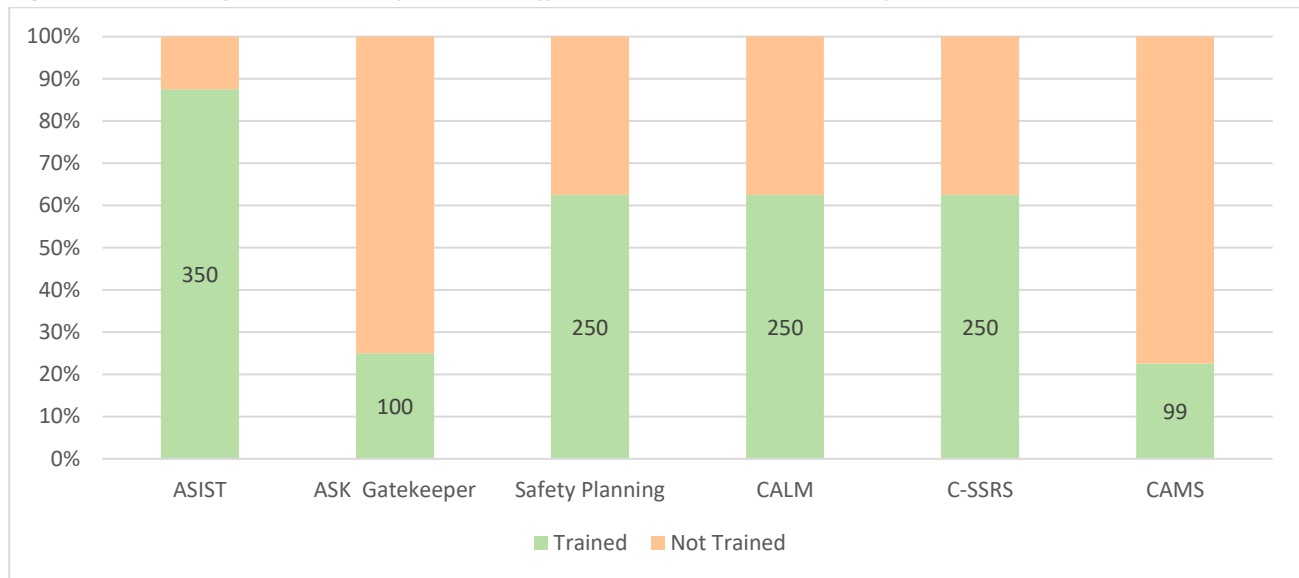
Table 1. *Key Accomplishments in Denton County*

Grant Year	Description
2013-2014	Trained 100% of workforce in ASIST
	Trained assessment staff in CASE approach
	Implemented Columbia Suicide Severity Rating Scale on hotline and mobile crisis
	Implemented Safety Planning Intervention for all individuals at risk of suicide
	Held a Denton County Suicide Prevention Summit
2014-2015	Trained 22 individuals to serve on a LOSS team for Denton County
	Trained 99 individuals to provide CAMS
	Provided technical assistance to new Zero Suicide organizations
2015-2016	Implemented organizational policies to formalize zero suicide activities
	Received financial support from a local foundation to sustain LOSS team
	Full expansion across all divisions, achieved 100% of staff trained in CALM, C-SSRS, and SPI
	Implemented a suicide attempt survivors group, using the Didi Hirsch model

## Workforce Competency

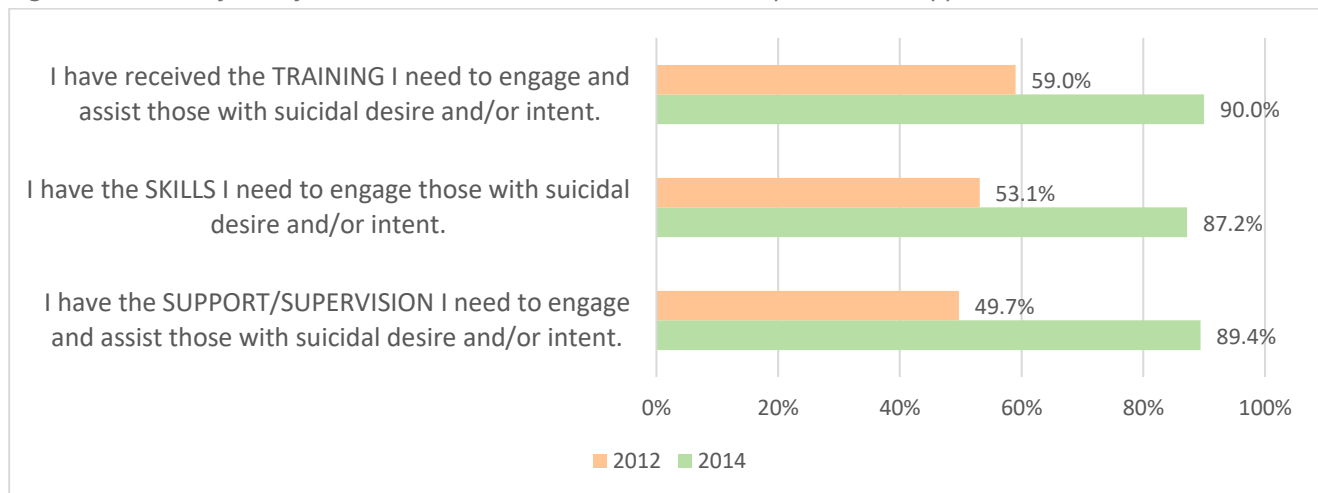
Denton County MHMR opted to utilize a variety of workforce training strategies to enhance the competency of the agency staff. Denton utilizes ASIST as the core training for identification and engagement of individuals at risk. The agency also trained staff in other Zero Suicide best practice models, based on their role within the organization. Figure 3 illustrates the number of staff trained in each of the core areas at the end of the third year. Denton County MHMR employees about 400 staff at any point in time.

Figure 3. Number of Denton County MHMR Staff Trained on Zero Suicide Competencies



The Denton County MHMR workforce completed the Zero Suicide Workforce Survey in 2012 ( $n=309$ ), prior to initiation of the ZEST initiative and again in 2014 ( $n=324$ ). In 2012, only slightly more than half of the workforce indicated that they feel they have the skills and training that they need to engage individuals who may be suicidal. Similarly, about half of the workforce felt that they had the support and supervision that they need for suicide prevention activities. When the survey was repeated in 2014, following the initiation of agency-wide training in ASIST and specialty training for clinical staff, 90% of staff indicated that they had the training that they needed to engage and support individuals who are suicidal. Similar changes were noted on staff's perception of their skills and supervision or support.

Figure 4. Percent of Workforce Who Perceive Themselves to be Competent and Supported

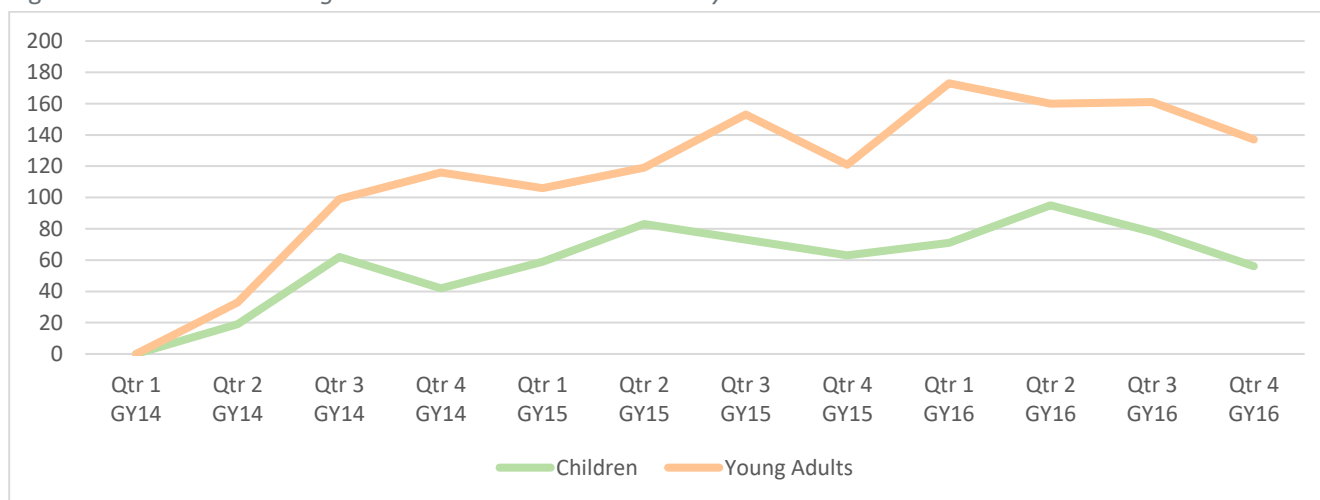


Staff also completed several questions assessing their knowledge of suicide facts at both time points. In 2012, staff answered an average of 55.7% of the items correctly, with this increasing slightly to 60.1% in 2014. Eighteen percent of staff at both time periods reported that they had worked with a service recipient ("consumer") who had died by suicide. In 2012, only two individuals (0.65%) indicated that they had participated in ASIST while 220 staff (67.9%) reflected having been trained by 2014.

## Screening and Referral

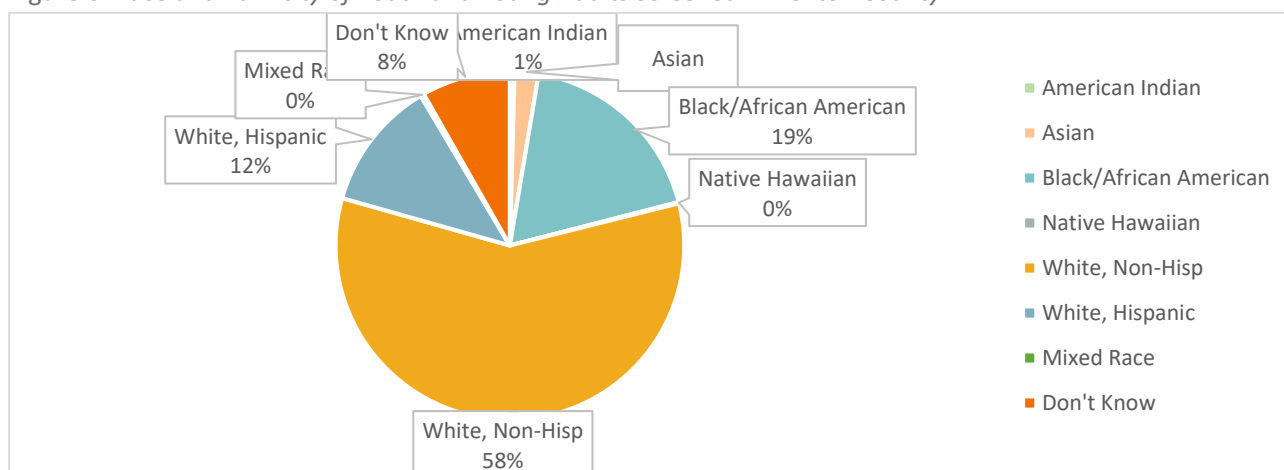
Denton County MHMR conducted formal suicide screening using the Columbia Suicide Severity Rating Scale (C-SSRS) and referred individuals with elevated screenings to further assessment and treatment. Screening was initially implemented within the crisis division, including all hotline calls, mobile crisis outreach deployment, and individuals entering crisis clinics. Screening procedures were later expanded to include intake appointments and other assessment opportunities within the agency. The ZEST goal was to screen at least 300 adolescents and young adults each year of the grant. This goal was exceeded in each year, with an average of 694 individuals screened each year. Figure 5 illustrates the number of children (10 through 17) and young adults (18 through 24) screened during the grant period.

Figure 5. *Children and Young Adults Screened in Denton County*



**Characteristics of Youth.** The children and young adults screened in Denton County had a mean age of 18.9 years ( $SD=3.5$ ). Fifty-two percent of individuals identified as female; 46.9% as male. Sixteen individuals (0.8%) identified as transgender and eight (0.3%) identified as gender non-conforming or “other”. Information was missing for 21 individuals. Race and ethnicity of the individuals screened for suicide risk is presented in Figure 6. The sample is predominantly White, non-Hispanic (58%), which is similar to the population of the county (60.3%). Hispanic youth were under-represented in the sample (12% vs. 19%), and Black youth were over-represented (19% versus 10%). Asian young people were also under-represented in the screened sample (2% versus 8%).

Figure 6. *Race and Ethnicity of Youth and Young Adults Screened in Denton County*



The largest proportion of youth and young adults identified for screening were identified by a mental health provider (43.5%). Other frequent referral sources were family members (13.8%), emergency responders or emergency room staff (13.5%), law enforcement (12.5%), and teacher or school staff (3.5%).

**Suicidal Risk within Youth and Young Adults Screened.** The C-SSRS responses were available for 2,011 initial screenings. Responses to initial triage questions are presented in Table 2.

Table 2. *Responses to C-SSRS Triage Items*

C-SSRS Item	Percent Positive Last 30 Days	Percent Positive Lifetime
Wish to be dead	63.9%	72.1%
Non-specific suicidal thoughts	60.5%	71.9%
Suicidal thoughts with method (no plan or intent)	49.9%	61.3%
Suicidal intent (no plan)	32.9%	47.7%
Suicidal intent with specific plan	26.7%	50.8%
	<b>Percent Positive Last 3 Months</b>	<b>Percent Positive Lifetime</b>
Any suicide behaviors (calculated)	38.8%	61.3%
Any suicide behaviors (documented by assessor)	20.1%	26.6%

Overall, 48.7% of the youth and young adults met the C-SSRS criteria warranting emergent risk. Clinicians conducting the assessment also provided an overall rating of risk of harm, finding 66.5% were a “danger to self.” The correlation between the C-SSRS rating of risk, using the evidence-based triage criteria and the clinician rating was only moderate ( $\phi=0.349$ ). The extent of agreement between the information sources is illustrated in Figure 7. Overall, clinicians were more conservative in their ratings, judging some young people to be at risk who were measured to be lower risk by the C-SSRS. An examination of the 498 individuals rated high risk by clinicians, but lower risk according to the C-SSRS, shows that about one-half had non-specific suicidal thoughts (50.1%) and one-third had suicidal thoughts with method (33.5%), but a significant proportion (39.3%) did not respond positively to any of the initial screening questions (wish to die, non-specific suicidal thoughts, or suicidal thoughts with a general method but no plan).

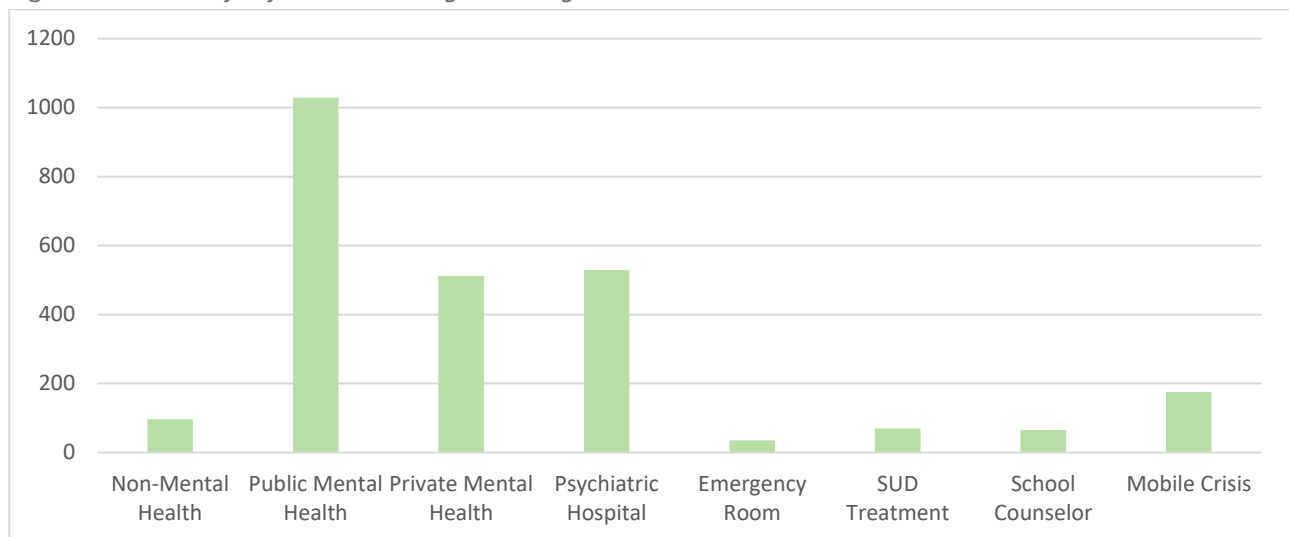
The majority of those screened indicated having at least one suicide attempt in their lifetime (53.2%), with 24.7% reporting multiple attempts. Clinicians indicated that 9.3% of those screened had access to weapons.

Figure 7. Agreement on Risk

		Clinician Rating	
		Low Risk	High Risk
C-SSRS Criteria	Low Risk	488 25.4%	498 25.9%
	High Risk	155 8.1%	781 40.6%

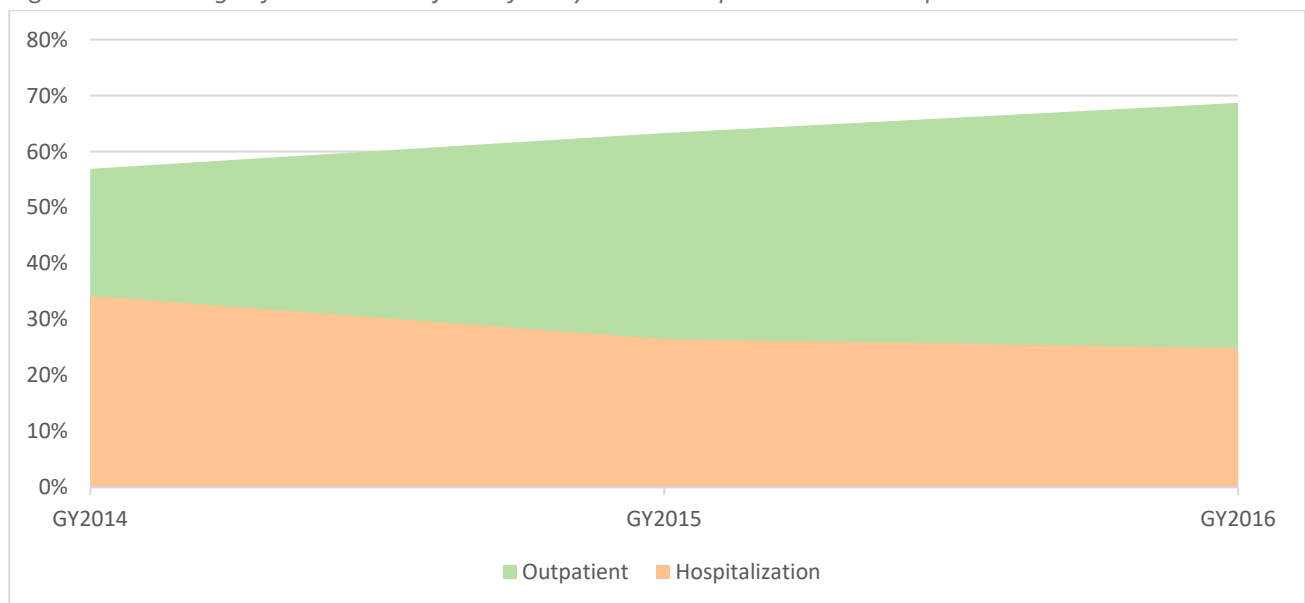
**Response to Positive Screens.** Following the screening, less than one percent of individuals received no suicide prevention action. A safety plan was developed for the majority (86.2%) of individuals screened, and psychoeducation on suicide prevention was provided to 17 % of individuals. Less than half of those screened (34.4%) were counseled on restricting access to lethal means. Almost all of the youth and young adults screened were referred as a result of the screening (95.5%). Of the 4.5 % not referred, most were already engaged in services and were to remain in care (77.9%). Figure 8 illustrates the variety of referrals that providers in Denton County made for the young people screened for suicide risk.

Figure 8. *Number of Referrals Following Screening*



One of the aims of creating a Suicide Safer Care Center was to support effective outpatient management and treatment of individuals at risk of suicide, allowing some young people to remain in a less restrictive environment than a psychiatric hospital. Therefore, changes in the use of hospitalization following an assessment of suicide risk was hypothesized with implementation of suicide prevention best practices. Figure 9 illustrates the percentage of youth and young adults referred for psychiatric hospitalization versus outpatient mental health following a suicide risk assessment. Over the course of the grant period, the proportion of youth referred for hospitalization decreased, with a similar increase in outpatient referrals over time.

Figure 9. *Percentage of Individuals Referred for Psychiatric Hospitalization or Outpatient Care*



For individuals referred to services within Denton County MHMR, the services recommended for the individual were documented. The majority of individuals (81.8%) were recommended to receive psychiatric services, and 26.2% were recommended to receive Cognitive Behavioral Therapy. Other recommendations for best practices were less frequent, with 3.4% referred to Seeking Safety, 2.3% to Wraparound, 0.3% to Assertive Community Treatment, 0.9% to Peer or Parent Peer Support Services, and 0.3% to a Suicide Attempt Survivor Support Groups.

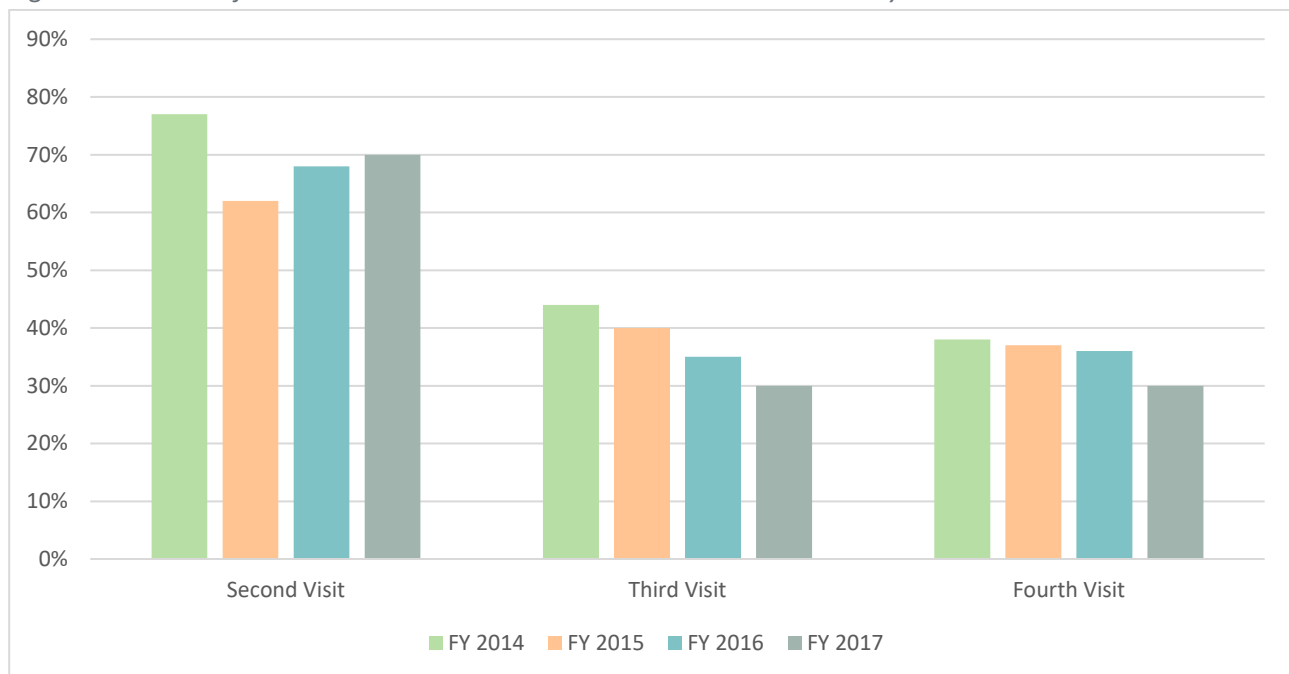
**Receipt of Services Following Referral.** Staff were asked to follow up with youth and young adults to inquire if the individual received services following the referral. Overall, 95.6% of individuals referred received mental health

services in the three months following the referral. Sixteen percent of individuals received a mental health assessment as the first service, with 65.7% receiving case management or crisis follow-up as their first service following referral. Fifteen percent received inpatient or residential services. Only 69.8% were reported to have attended a second mental health encounter during the three-month follow-up period. Many individuals received follow-up care management through the crisis service system within the first few days following the screening; however, this may not reflect full engagement in mental health services.

## Service Use

**Visit Frequency.** The protocol for individuals served on the pathway instructed providers to maintain contact with an individual every three days while at increased risk. The data system at Denton County did not allow for an indicator that an individual was on the suicide care pathway; however, those individuals in the target age range who were initially assessed with elevated risk on the CANS or ANSA were examined to identify the frequency of initial visits following identification. As illustrated in Figure 10, the majority of youth and young adults received follow-up within three days at the visit following identification; however, the frequency of follow-up did not meet these criteria at the next two visits. Furthermore, the percentage of individuals seen within three days did not increase over the course of the grant, suggesting that this component of the Zero Suicide guidelines was not fully implemented.

Figure 10. *Percent of Individuals at Elevated Suicide Risk Seen within Three Days*

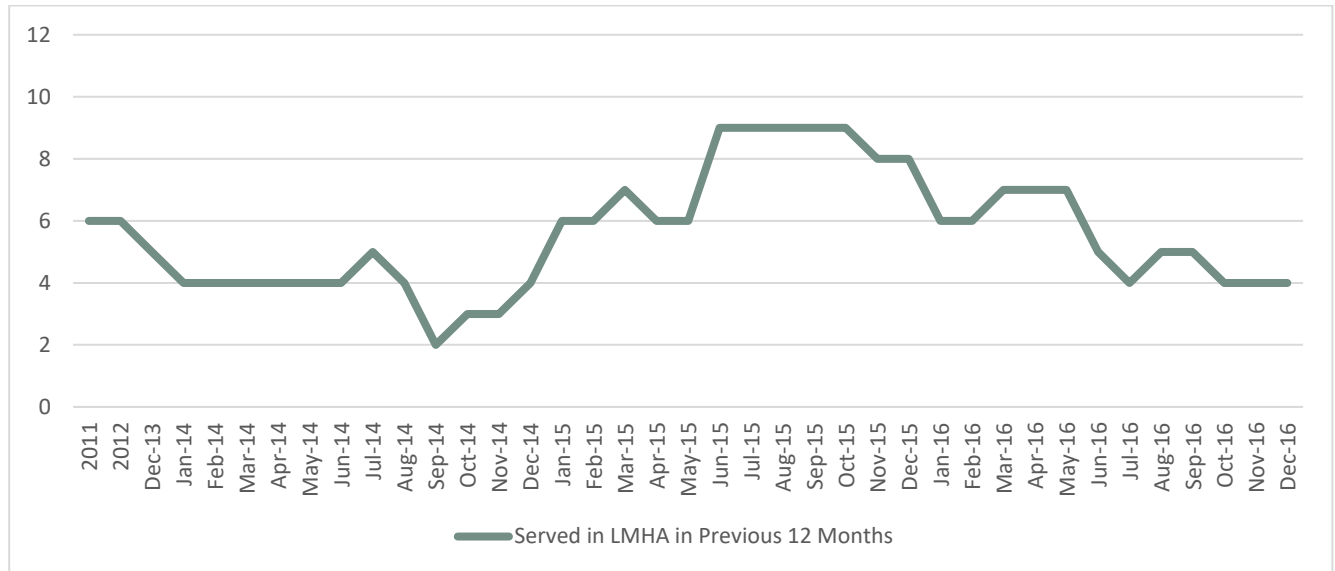


## Impact on Rates of Suicide Deaths for 12-Month Period

The suicide rate in Denton County was 9.6 per 100,000 in 2012, at the initiation of the ZEST initiative. Denton County MHMR established an agreement with the local medical examiner's office to receive timely information on suicide deaths in the county. This information was used to examine the number of individuals who died by suicide who had been seen in care by Denton County MHMR within 12 months of their death. This number is reported in Figure 11 for each month of the grant, through December 2016. For any particular month, the number reflects the number of individuals in care who died by suicide over the previous 12-month period. Denton County MHMR had

an average of six deaths per year in 2011 and 2012. In 2013, the annual total dropped to four deaths and then dropped further in 2014, at one point reaching a total of only two suicide deaths in the past 12 months (10 months with zero suicides). In 2015, there was an increase in deaths by suicide, up to a high of nine deaths over the previous 12 months. This elevated rate in 2015 was mirrored in the suicide rate within Denton County, which went from 9.0 in 2014 to 10.1 in 2015. In 2016, the annual total again decreased, dropping below the initial two-year baseline prior to the Zero Suicide initiative.

Figure 11. *Rolling Annual Total of Suicide Deaths for Individuals in Care in Denton County MHMR*

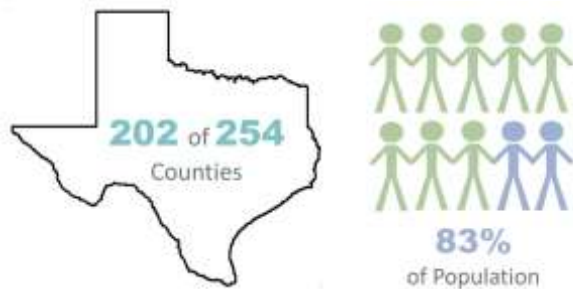


# Impact of the Learning Collaboratives

## Engagement in Learning Collaboratives

The ZEST initiative offered learning collaboratives as a model for supporting local organizations in implementing Zero Suicide practices. Communities were recruited and selected through an application process, requiring stated commitment from the executive director. A total of three cohorts began learning collaboratives over the grant period. Following the initial grant year, when the opportunity to participate in the first learning collaborative

Figure 12. *Expansion of Zero Suicide within the Texas Public Health System*



began, ten LMHAs volunteered to participate along with Denton County MHMR. In the second learning collaborative, an additional 12 LMHAs began to participate in learning collaborative. In the final cohort, during the no cost extension period, seven additional LMHAs joined a learning collaborative. Additionally, the North Texas Behavioral Health Authority (NTBHA) joined the collaborative. NTBHA served Dallas and the surrounding area and involved several behavioral health organizations serving the public mental health population. Together, these organizations serve as the public mental health provider for 202 of Texas' 254

counties, representing coverage of 79.5 % of all counties. They serve as the safety net behavioral health provider for the 23.4 million people living in these counties, representing 83.0 % of the state's population.

## Zero Suicide Academies

In the second and third years of the initiative, Texas hosted three Zero Suicide academies attended by 103 individuals. Two academies launched the beginning of learning collaborative cohorts. One academy was held after the initial cohort had finished the first year of implementation and was focused on "Going from Good to Great". Participants in the initial two cohorts were surveyed about their impression of the impact of the academy; the advanced cohort was also surveyed about their technical assistance needs. Table 3 outlines the perceptions of academy participants on each of the core components of the beginning and advanced academies. Participants in the initial academy found the screening and assessment, treatment, workforce development, and planning time most helpful. Participants in the advanced academy found the section focused on going from good to great and incorporating individuals with lived experience most helpful. Participants were asked to indicate how confident he/she was to incorporate what was learned in the academy into their work over the next six months, with the average rating of 8 on a scale of 1 (not at all confident) to 10 (extremely confident).

Table 3. *Perceptions of Zero Suicide Academy Participants*

**To what extent did the following conference elements advance your capacity to make changes in your organization?**

Academy Component	Not at All/ A Little	Somewhat	Moderately	A Lot
<b>Novice Participants (n=6)</b>				
Leadership	0%	33.3%	50.0%	16.7%
Screening & Assessment	0%	33.3%	16.7%	50.0%
Engagement & Pathways	16.7%	16.7%	33.3%	33.3%
Care Transitions	16.7%	16.7%	50.0%	16.7%
Treatment	16.7%	0%	33.3%	50.0%
Using Data	0%	16.7%	50.0%	33.3%
Workforce Development	0%	16.7%	33.3%	50.0%
Team Planning Time	0%	33.3%	16.7%	50.0%
<b>Advanced Participants (n=7)</b>				
How to Go from Good to Great	14.3%	0%	42.9%	42.9%
Evaluation and Data	0%	28.6%	42.9%	28.6%
Embedding ZS in State & Local Systems	0%	14.3%	71.4%	14.3%
Discussion on Lived Experience	0%	28.6%	28.6%	42.9%
Creating a Suicide Safe Care Community	14.3%	14.3%	42.9%	28.6%
Suicide Attempt Support Groups	28.6%	14.3%	42.9%	14.3%
Effective Clinical Practices	0%	14.3%	57.1%	28.6%
Team Planning Time	14.3%	0%	57.1%	28.6%

## Organizational Assessment

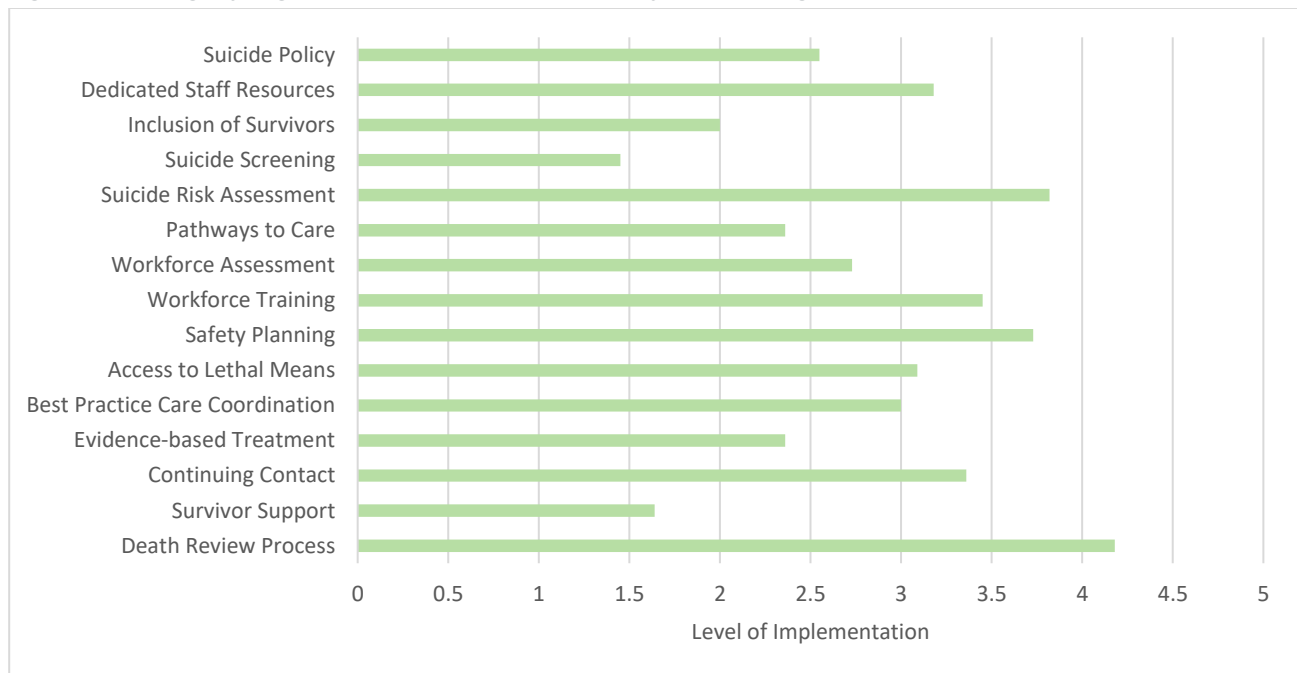
During the application process for the Zero Suicide learning collaborative, agencies were asked to complete and submit the Zero Suicide Organizational Assessment. Since representatives from the organizations were not fully versed in the Zero Suicide framework at this time, staff followed up with interviews with each organization, gathering additional information about what practices were currently in place. Evaluation staff adjusted the ratings when the initial ratings were not consistent with the information provided during interviews. All organizations were asked to complete the assessment again, sixteen months following the initial assessment. Three organizations failed to provide updated assessments, each of which participated minimally in the learning collaborative.

**Organizational Status at the Beginning of the Learning Collaborative.** The agencies began the initiative with a few strengths that were fairly representative of all agencies. Almost all agencies had a robust death review process, including a multi-disciplinary committee responsible for a review of potential quality improvement issues within the system. Nine of the eleven organizations scored a 4 or 5 on this item. Remaining sites indicated that they lacked a review process or the process was conducted by only one individual. Many sites also indicated that they utilized a locally developed standardized suicide risk assessments performed by trained clinicians (8 of 11), resulting in a state strength in this element. Only one however, indicated use of a validated instrument and reassessment at each visit. Safety planning was also a relative strength across the organizations, with 6 out of 11 organizations using a safety plan for all individual at risk, including risks and triggers. An additional two organizations indicated they use an evidence-based safety plan template.

At the time of the initial assessment, very few organizations were conducting screenings using a validated suicide screening measure. Denton County, as the initial pilot site, was the sole organization who had put this practice in place. Very few organizations offered any suicide survivor support services (6 of 11), and those that did provided general peer support or more informal outreach. An additional area that was not well-developed was the inclusion of suicide survivors or suicide loss survivors within various roles in the agency's suicide prevention efforts. While two organizations had suicide attempt and loss survivors actively participating in the oversight team and guiding implementation, most had no or only informal involvement of attempt and loss survivors.

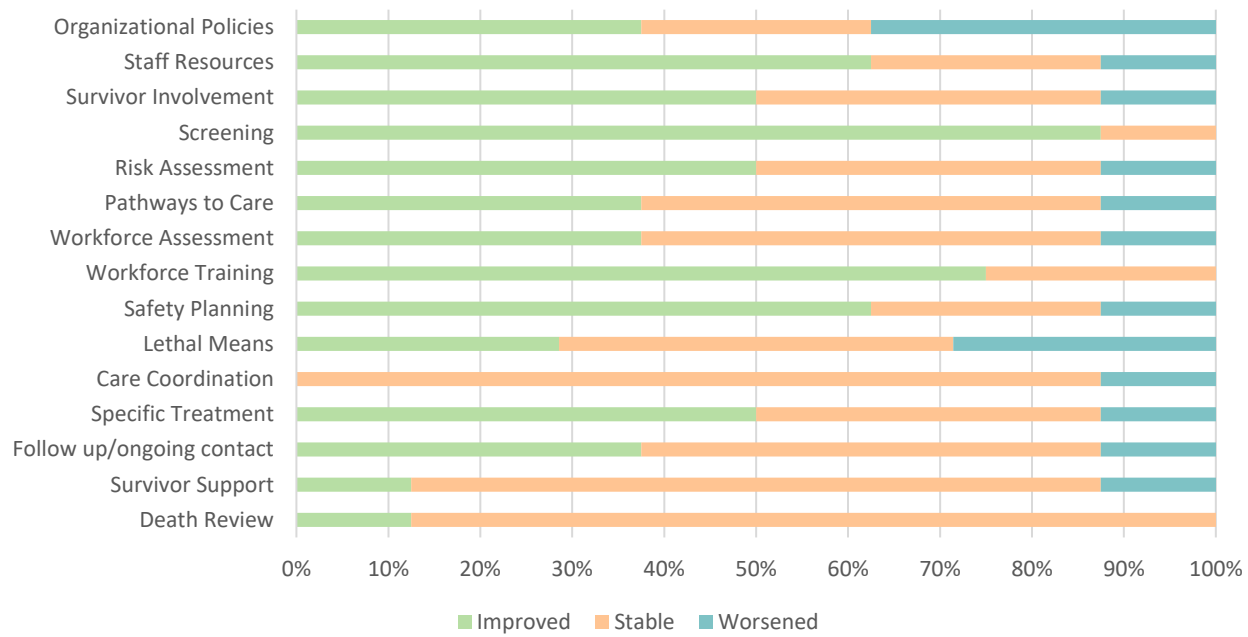
Figure 13 shows the average rating of implementation on each Zero Suicide component measured by the instrument at baseline. Items can range from 1, indicating no implementation of that element to 5, indicating full fidelity of the Zero Suicide element.

Figure 13. *Ratings of Organizational Status at Initiation of the Learning Collaborative*



**Organizational Changes at Follow-up.** All organizations who completed follow-up assessments reported improvement on at least one domain. For seven of the eight organizations, there was significant change across multiple domains, with improvements noted on a range of six to eight domains. One organization noted improvement on only one domain, as well as poorer implementation at follow-up on twelve of the fifteen domains. It should be noted that this organization scored very high across the domains at baseline. At follow-up, the organizational assessment was completed by a different rater, who had been more closely tied to the implementation efforts. It is suspected that the baseline assessment may have over-represented the implementation within the organization, which was later corrected by the second rater. Greater understanding of the elements of Zero Suicide and the meaning of full implementation can lead to poorer ratings at subsequent times. A description of the changes occurring in the various domains is presented in Figure 14.

Figure 14. *Changes in Zero Suicide Organizational Implementation at Follow-up*



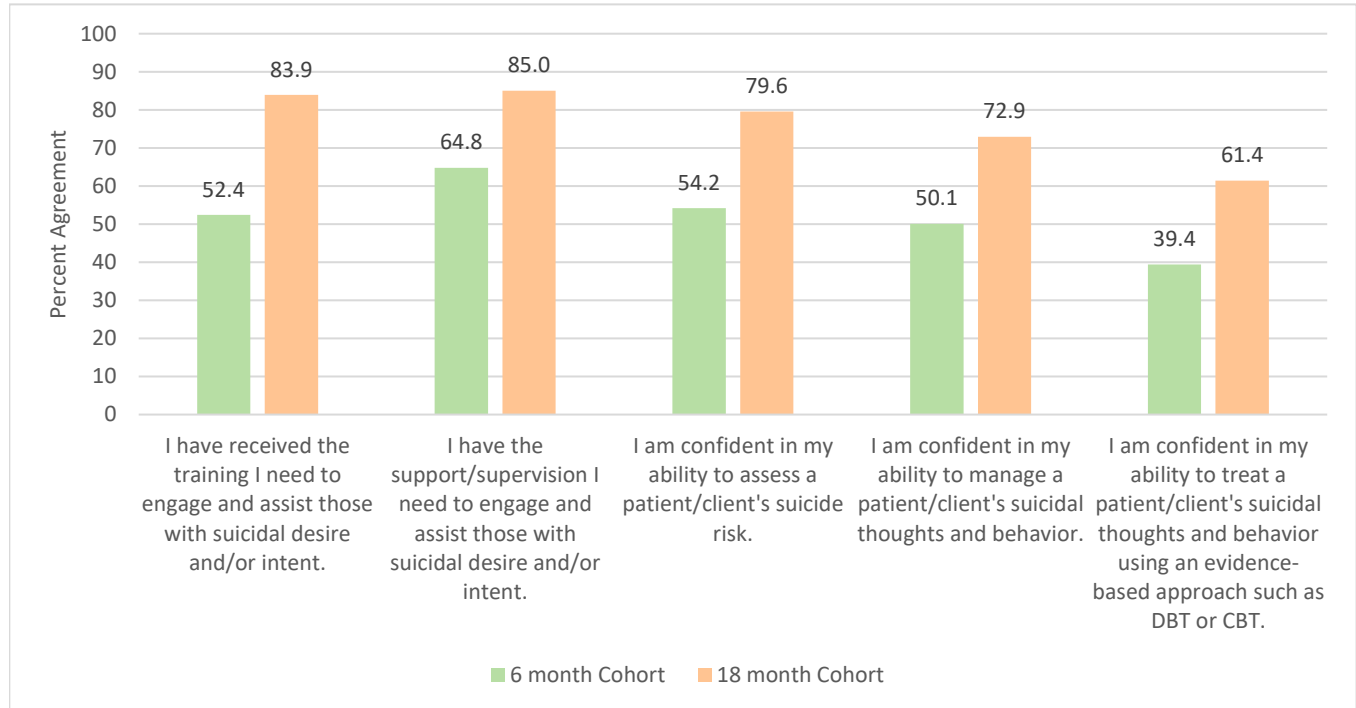
The domains with the greatest number of organizations demonstrating improvement were suicide screening (7 of 8) and basic workforce training (6 of 8). Both of these domains were supported with concrete recommendations in the learning collaborative, including the use of the Columbia Suicide Severity Rating Scale for screening, along with an available online training program, and the use of the Applied Suicide Intervention Skills Training (ASIST), and later safeTALK, to train all employees. A train-the-trainer workshop in ASIST was offered at the initiation of the learning collaborative, providing local trainers to almost all of the participating organizations. No organizations made changes on the use of best practice care coordination strategies (e.g., wraparound, assertive community treatment), perhaps because access to these programs is impacted by utilization review frameworks, staffing, and financing. Only one organizations advanced access to survivor support within their organization. Although several organizations expressed an interest in providing more formal survivor support, this was considered a later priority for system change. The domain with the most changes reflecting poorer implementation was Organizational Policies (3 of 8). At baseline, many organizations were not fully aware of what policies existed on suicide prevention practices, especially outside of crisis programs. Many relied primarily on the crisis standards provided in the state contract. It is unlikely that the organizations had fewer policies after participating in the learning collaborative, but rather conducted more research on existing policies.

## Workforce Survey

The workforce survey was conducted in 2012 and 2014 with a selection of organizations. It has now been repeated twice in 2016. The March 2016 survey represented a second assessment for Cohort 1 sites and an initial assessment for Cohort 2 sites. The November 2016 survey represented an initial assessment for Cohort 3 sites and a follow-up assessment for one Cohort 2 site. In the initial 2012 survey with 3,728 staff members, 53.3% of respondents indicated that they did not have the training that they needed to engage and assist those with suicidal desire or intent. Similarly, 50.3% of respondents indicated that they did not have the skills that they needed to engage those with suicidal risk, supporting the assertion that the majority of the behavioral health workforce feels that they lack the capacity to manage suicidal risk in individuals they serve.

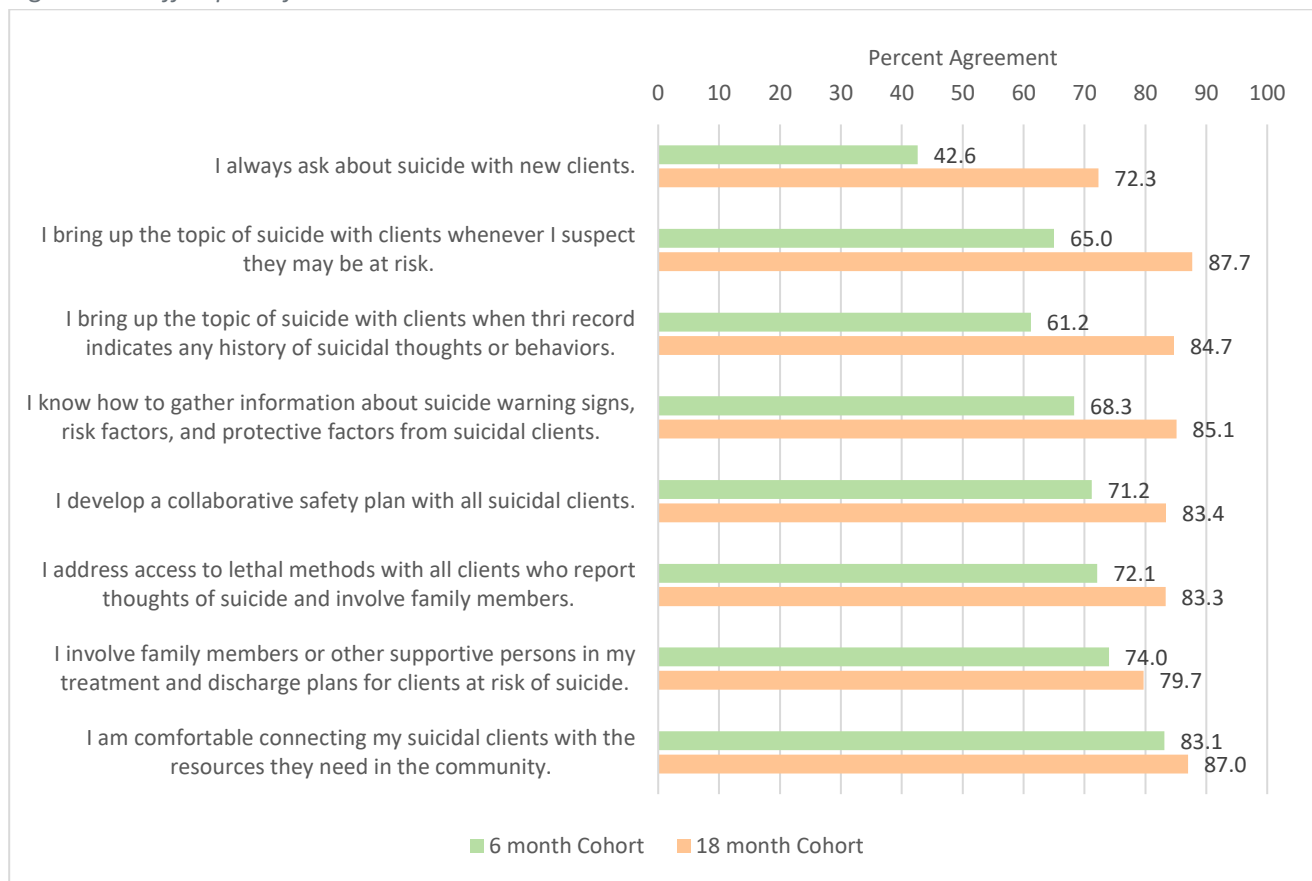
**Comparison between Early and Advanced Learning Collaborative Agencies.** To examine the impact of participation in the learning collaborative, comparisons were made between organizations assessed after participating for 18 months in the collaborative ( $n=1,299$ ; 8 organizations) to those who had only been involved for six months ( $n=1,403$ ; 7 organizations). As illustrated in Figure 15, providers surveyed after participation in the learning collaborative for over a year were significantly more likely to report that they had sufficient training ( $\chi^2=266.0$ ,  $df=1$ ,  $p<.0001$ ) and support or supervision ( $\chi^2=117.7$ ,  $df=1$ ,  $p<.0001$ ). In addition, respondents from the organizations with more experience with Zero Suicide reported greater confidence in their assessment abilities ( $\chi^2=154.1$ ,  $df=1$ ,  $p<.0001$ ), management abilities ( $\chi^2=113.1$ ,  $df=1$ ,  $p<.0001$ ), and treatment using an evidence-based treatment approach ( $\chi^2=90.7$ ,  $df=1$ ,  $p<.0001$ ).

Figure 15. *Staff Perception of Preparedness and Support*



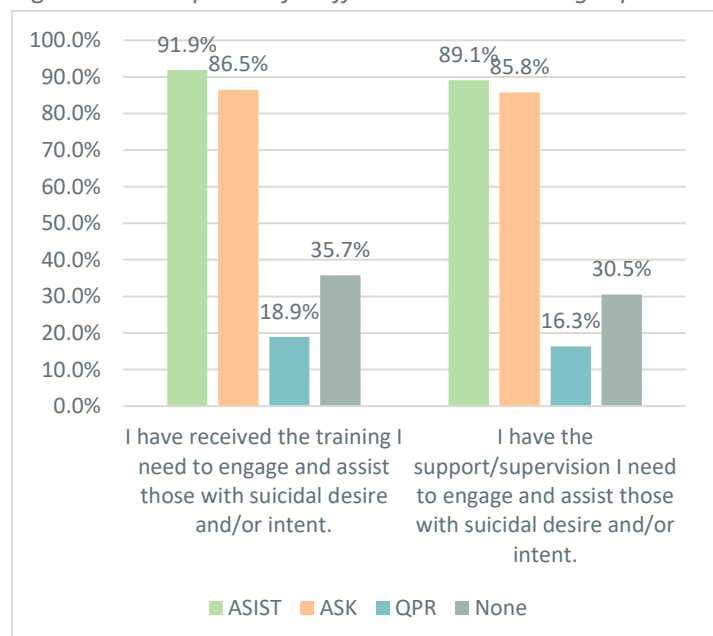
The respondents were also asked whether they regularly engaged in a variety of suicide prevention best practices. Figure 16 illustrates differences between the novice and experienced organizations. Staff within organizations that had participated in over a year of the learning collaborative were significantly more likely to report that they inquired about suicide with new clients ( $t=173.24$ ,  $df=1$ ,  $p<.0001$ ) or those suspected to be at risk ( $t=145.51$ ,  $df=1$ ,  $p<.0001$ ). Providers also were more likely to report bringing up the topic of suicide when there is any indication in their record of risk ( $t=138.64$ ,  $df=1$ ,  $p<.0001$ ) and that they know how to gather key information that should be included in a suicide risk assessment ( $t=83.85$ ,  $df=1$ ,  $p<.0001$ ). Other critical indicators of implementation of the Zero Suicide model were also assessed, with providers in the experienced sites more likely to report that they develop a collaborative safety plan with all suicidal clients ( $t=37.23$ ,  $df=1$ ,  $p<.0001$ ), address access to lethal means ( $t=32.24$ ,  $df=1$ ,  $p<.0001$ ), and involve family members or supportive others in discharge plans ( $t=7.85$ ,  $df=1$ ,  $p=.005$ ). Respondent's comfort with accessing community supports for clients at risk was also higher for the experienced cohort ( $t=5.38$ ,  $df=1$ ,  $p=.02$ ); however, this appears to be a skill that many staff possess prior to participation in the Zero Suicide activities.

Figure 16. *Staff Report of Suicide Prevention Best Practices*



**Impact of Suicide Prevention Trainings.** The full sample of workforce surveys allowed for an examination of the impact of various suicide prevention trainings, as staff identified the trainings that they had completed as a part of the survey. While sites were at different points in their efforts when surveyed, overall 10.1% ( $n=977$ ) of the full sample ( $n=9,688$ ) had completed ASIST training, 3.4% ( $n=324$ ) participated in ASK gatekeeper training, 2.9% ( $n=279$ ) participated in Question, Persuade, Refer (QPR). Eighty-five percent ( $n=8,189$ ) participated in none of these core workforce trainings. To explore the impact of each training, staff members who had received ASIST (but not QPR or ASK) were compared with staff who had completed none of these trainings. Similarly, those receiving ASK were compared with those completing none of the trainings, as were those participating in QPR only. Figure 17 illustrates the perceptions of providers who participated in the various workforce trainings. Individuals who had been trained with ASIST or ASK were more likely to report that they had the training and supervision they needed to engage and intervene with people at risk than those with no training. Differences were statistically significant on both items ( $p<.0001$ ). There was a small but statistically significant

Figure 17. *Perceptions of Staff with Varied Training Experiences*

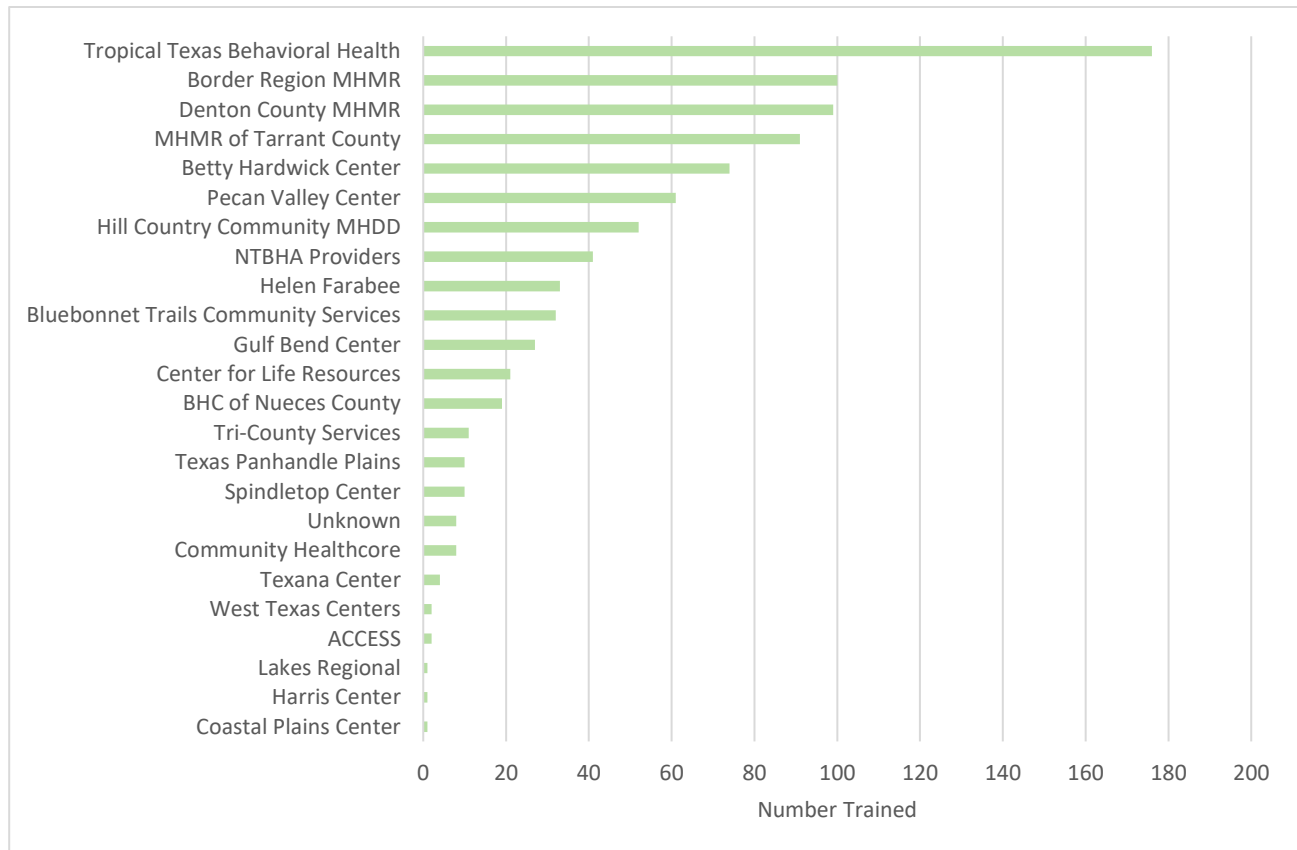


difference between those trained with ASIST and those with ASK ( $p>.01$ ). While a smaller number of staff had been trained with QPR, those staff were less likely to report that they had sufficient training and support/supervision to care for those with suicidal intent than even individuals with no training ( $X^2=27.1$ ,  $df=1$ ,  $p<.0001$  for training;  $X^2=21.2$ ,  $df=1$ ,  $p<.0001$  for supervision).

## Implementation of Evidence-based Suicide-Focused Treatments

The learning collaborative participants were supported in implementing both CAMS and CBT-SP. The CAMS training was available through an interactive, web-based training, while the CBT-SP training was through a live workshop and additional coaching phone calls. CAMS training licenses were provided to 957 behavioral health providers, mostly from organizations participating in the learning collaborative. A total of 890 fully completed the training, representing 93.0% of participants. The number of providers completing the trainings from participating organizations is provided in Figure 17. Staff who reported participating in CAMS training ( $n=147$ ) on the behavioral health workforce survey were more likely to report that they feel confident in their ability to treat a patient/client's suicidal thoughts and behavior using an evidence-based approach (77.6% versus 49.4%;  $X^2=43.7$ ,  $df=1$ ,  $p<.0001$ ).

Figure 17. *Learning Collaborative Providers Completing CAMS Training*



## Rates of Hospitalization

The impact of the participation in Zero Suicide activities on rates of psychiatric hospitalization was examined over the course of the project. Organizations can refer individuals to state psychiatric hospitals, but limited access has led to many LMHAs identifying local psychiatric hospitals to which they also refer individuals. State administrative

data includes both state and local hospitalizations, although information is reported in different ways. The analysis examined seven sites who participated in the initial learning cohort, excluding three who had limited participation and opted to “restart” the collaborative with Cohort 2. This group was compared to a control sample of all sites ( $n=6$ ) who never participated in one of the learning collaboratives. The number of unique individuals who were hospitalized in each year were calculated. Unique individuals were selected so as to ensure that individuals were not counted multiple times if they moved between facilities or from local to state hospitals.

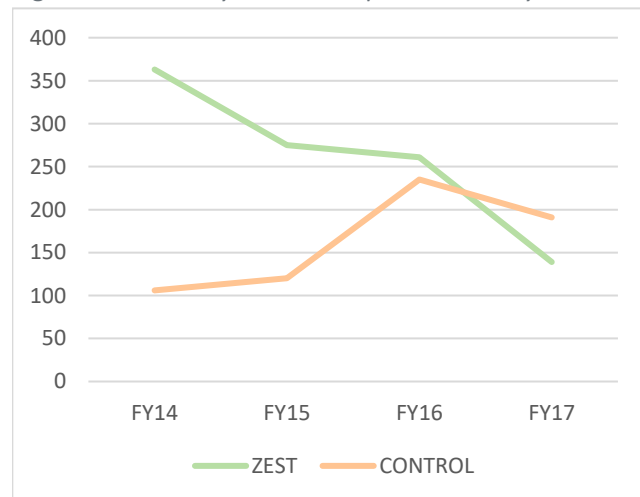
**State Hospitalization.** The number of individuals admitted into state hospitals over the course of the project are illustrated in Figure 19. Overall, the trend shows an increase in hospitalizations in the first year, with a reduction in the number of individuals admitted in the final year. The trend is similar across both the ZEST and control sites. Access to state hospitals is likely to be impacted primarily by forces outside the control of the LMHAs. State hospitals have been increasingly focused on serving individuals with forensic commitments, which allows very little access for individuals seeking hospitalization due to risk of self-harm.

Figure 19. *State Psychiatric Hospitalizations by Sites*



**Local Hospitalization.** LMHAs have increasingly turned to local psychiatric hospitalization for individuals that they feel need this level of care due to suicide risk. The number of individuals admitted into local hospitals over the course of the project are depicted in Figure 20. The trend for ZEST sites demonstrates a steady reduction in the number of individuals hospitalized across the time period. Control sites, in contrast, showed an increase over the first two years, with a slight decrease in the final year. While the LMHAs within the ZEST cohort are overall larger than those in the control sample, the control sample ultimately had more individuals hospitalized in the final year of the project than the ZEST sites.

Figure 20. *Local Psychiatric Hospitalizations by Sites*



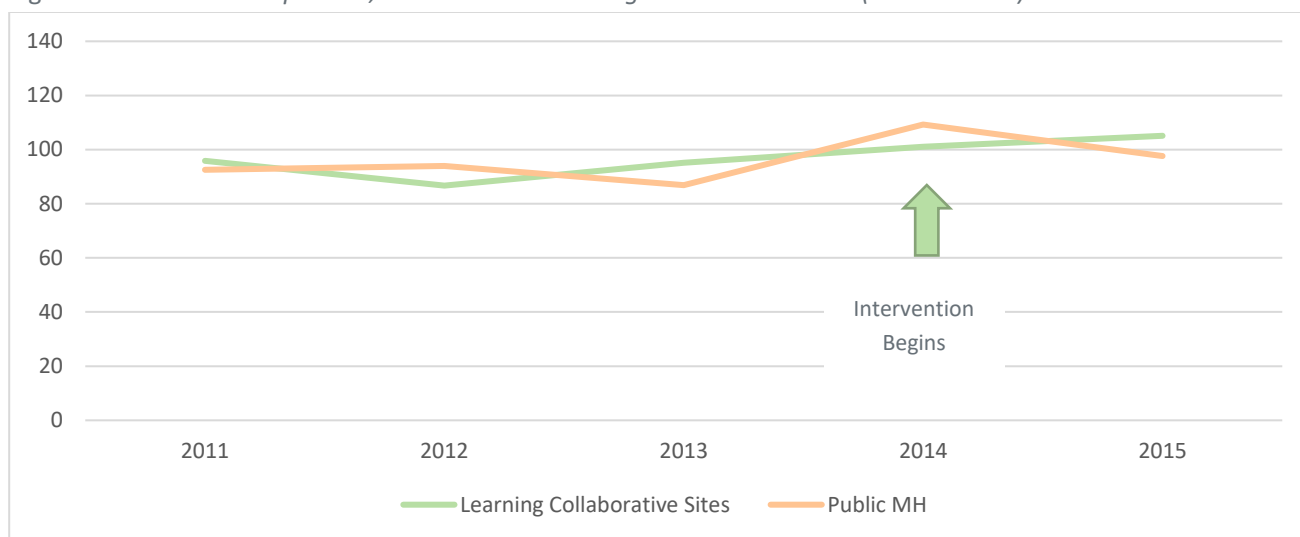
## Suicide Rates

The ZEST initiative examined the rates of suicide deaths per 100,000 for individuals served within the public mental health system. Individuals were considered “served” if they had an outpatient service claim or state hospital stay within 12 months of their death. The suicide rate within the Texas public mental health system is about 8 times that within the general public. The evaluation began monitoring the impact of Zero Suicide activities on the suicide rates within the system; however, there are significant limitations to this analysis. The availability of data on suicide deaths has an approximately two-year delay. Therefore, the data that is presented reflects suicide

deaths in the first year of the learning cohort only. Data will be monitored over time as it becomes available to continue to examine the impact on suicide rates within the system.

Figure 21 presents the suicide rates for six of the larger organizations participating in the initial learning collaborative cohort along with the overall rate for the full public mental health system. Moderate to larger organizations were selected for the analysis because rates in smaller communities with fewer than 10 suicide deaths are not available in order to ensure confidentiality of the information. As can be seen in the graph, suicide rates within the learning collaborative sites were rising prior to the initiative and continued to rise in the initial project period. Rates were generally consistent with the broader public mental health system and the two groups did not separate in the first year of the learning collaborative (2015). Each organization participating also received site specific information to review local outcomes.

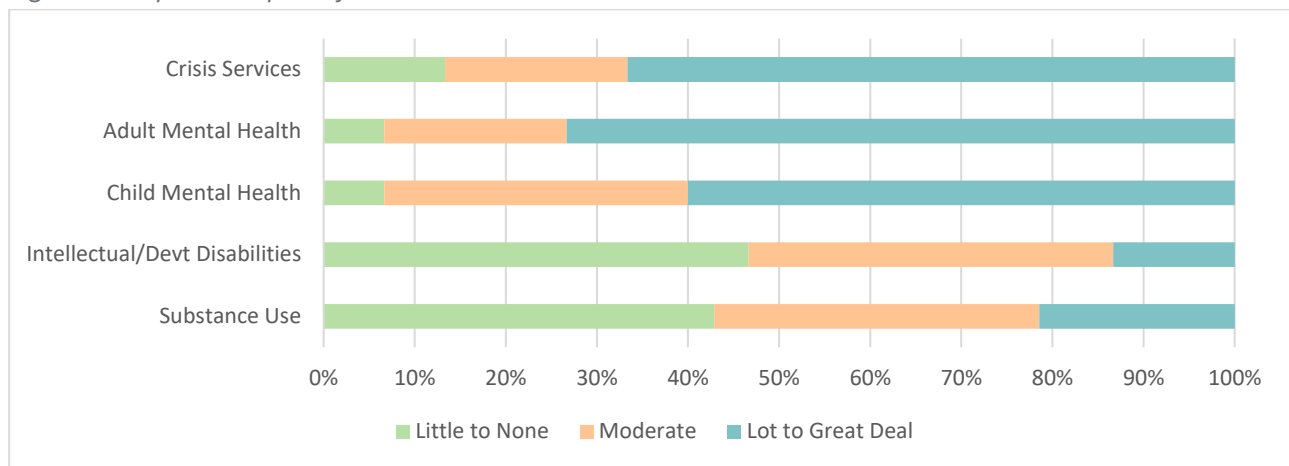
Figure 21. *Suicide Rates per 100,000 within Six Learning Collaborative Sites (Initial Cohort)*



## Perceptions of Impact

Learning collaborative sites were asked to complete a survey at the end of the third year documenting the impact of the suicide prevention trainings they undertook and the overall impact on their organization. Fifteen organizations responded, representing 6,500 behavioral health providers. Organizations were asked to identify the percentage of their staff that had been trained in either ASIST, safeTALK, or ASK training. All agencies had completed some training, with 60.0% ( $n=9$ ) having trained over 75% of the workforce. As illustrated in Figure 22, organizational leaders reported the greatest impact on the adult mental health division, followed by the crisis division, and children's mental health (a great deal to moderate). Leaders reported a smaller impact (moderate to none) on the Intellectual and Developmental Disability (IDD) and Substance Abuse Services.

Figure 22. *Reported Impact of Zero Suicide Initiative*



The following anecdotes were shared about the impact of ZEST on the public mental health system:

*The ASIST training provided to all staff at our agency has probably been the most well-received training and has had a profound effect on our staff. We began hearing after only a few trainings reports from staff who were actively using the methods learned in their personal lives, as part of their work, even on social media, as they identified people at risk of suicide. Our staff feel much more comfortable today discussing suicide with those at risk.*

*This Learning Collaborative has helped our agency to look at how we assess and intervene with persons at risk of suicide. We are implementing new trainings, including ASIST, ASK, CALM, Safety Planning, and C-SSRS and we kick it off with ASIST this month! We have been able to develop a protocol for identifying those persons at risk, in the "Pathway", and are working to improve interventions with those individuals. We have been able to incorporate all departments in this project, including IT, MH, IDD, and Admin. Additionally, we are including those who have past suicide attempts and those who suffered a loss through suicide on our committee. This project has been challenging, a lot of work, but rewarding as well. We look forward to seeing how we can share the evidenced-based practices with our community as well.*

*We have brought suicide to the forefront as an issue to be dealt with. Our new hires are usually young and inexperienced. ASIST helps them feel more comfortable about broaching the subject of suicide. The C-SSRS and Safety Plan are useful tools that help structure assessment and intervention. As for myself, the training through ZEST helped equip me to be a local suicide "expert" who participated in several community education and consultation projects.*

*I don't know how to do this in a sentence. Zero suicide has completely reframed our center's view on suicide care.*

*We had an individual come into our clinic who was in crisis. We had multiple staff approach her to help, which is something which would not have happened before. Staff waited with her until MCOT arrived and followed the ASK guidelines to get her the help she needed.*

# State Impact

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## Changes to Policies and Procedures

The state mental health agency oversaw a policy workgroup aimed at informing the state's recommendations for organizations participating in Zero Suicide efforts and exploring opportunities to embed key elements of the program into agency policy. The workgroup was effective at identifying key guidelines for suicide safer care that the state wanted to support, and these were reflected in the Suicide Safe Care pathway. The pathway served as guidance to participating organizations, but has not been formally implemented within contracts or state policy. However, the following elements of the Zero Suicide model have been incorporated into state policy guidance.

**Safety Planning Intervention.** Public mental health agencies that serve children, youth, young adults, and adults with severe emotional disturbance or serious mental illness are required to provide crisis services to anyone who reports experiencing a crisis. The [Texas Recovery and Resiliency Utilization Management Guidelines](#), which provides guidance to public mental health providers on service levels and available services and supports within those levels, was modified to require the use of the Safety Planning Intervention. The Guidelines provide a description of the intervention, identify training resources for SPI, and provide a template for a safety plan. The document also directs providers to the Action Alliance for Suicide Prevention for information on best practices, and identifies the Zero Suicide in Texas toolkit for additional resources.

**Columbia Suicide Severity Rating Scale.** Texas has also made significant steps towards requiring the use of the Columbia Suicide Severity Rating Scale (C-SSRS) as a screen for suicide risk. At the beginning of the project period, the public mental health system had an indicator of suicide risk that is embedded within the Child and Adolescent Strengths and Needs (CANS) assessment and the Adult Needs and Strengths Assessment (ANSA). There is no standardized way that providers assess risk in order to reflect need on this indicator. The state mental health authority opted to adopt the C-SSRS as a screening measure to be embedded within the CANS, formalizing the process for identifying risk. Providers would ask a subset of questions as a screen, and then complete additional questions if positive on the screening items. The ZEST team collaborated with Dr. Kelly Posner, developer of the C-SSRS, to translate the results of the C-SSRS into a CANS rating of 0 to 3, reflecting the severity of risk. The revisions to the CANS were submitted to the agency division responsible for updates to the state electronic database, but the revisions had not been fully implemented by the end of the grant. Changes to the state electronic system are both costly and require significant time to implement, as they impact the record systems of providers.

The Department of Family Protective and Regulatory Services (DFPS), which oversees the state's foster care system, sought consultation from the public mental health agency when required to utilize the CANS for the assessment of children in care. DSHS had the opportunity to share the revised CANS that included the C-SSRS screening measure, which was later adopted by DFPS. Therefore, the ZEST grant had the opportunity to impact state policies requiring screening for suicide risk, using the C-SSRS, for all children four years or older entering the foster care system in Texas.

**Zero Suicide Organizational Assessment.** Initially, organizations who applied to participate in the Zero Suicide learning collaborative were required to complete the Zero Suicide Organizational Assessment as a part of the application process. These assessments were repeated after one year as a part of the evaluation. However, in 2017, the state decided to embed this requirement within the annual performance contracts for local mental

health authorities. In the FY17 performance contract, the state began requiring that all contractors submit the Zero Suicide Organizational Assessment annually.

**Establishment of Suicide Safe Care Endorsement.** Texas planned to create a formal endorsement to recognize organizations that achieved select benchmarks in implementation of the Zero Suicide framework. The policy team created a draft of endorsement criteria and discussed a process for gathering data within a site review to determine whether these criteria were met. However, the team was not able to establish formal criteria and pilot test the site review methodology within the grant period. The project team recognized that some components of the model were not fully implemented within the project period, and no sites were likely to have achieved all benchmarks. There were also insufficient resources to finalize this activity within the final year of the grant project, and the decision was made to focus on continuing expansion through an additional learning collaborative.

## Awareness and Engagement in Suicide Safe Care Practices

**Zero Suicide Presentations.** The ZEST initiative aimed to increase the awareness of public mental health providers about the Zero Suicide framework and suicide safe care practices. ZEST team members presented in a variety of manners to raise awareness and build interest in participation. Presentations were made to the following audiences or groups with the aim of increasing state buy-in for Zero Suicide and engaging the public behavioral health system in steps towards active implementation. Audiences for these presentations included:

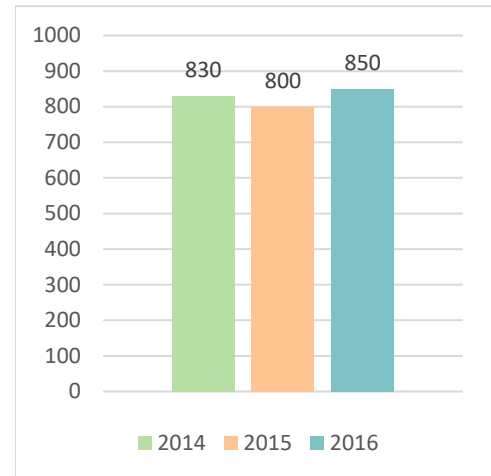
- Suicide Prevention Coordinators of the Local Mental Health Authorities
- Behavioral Health Consortium of the Texas Council of Community Centers
- Executive Directors Consortium of the Texas Council of Community Centers
- Quality Management Consortium of the Texas Council of Community Centers
- Managers of the Mobile Crisis Outreach Team (MCOT) Network
- Directors of the Psychiatric Emergency Service Centers (PESCs)
- Medical Directors of the Medicaid Managed Care Organizations (MCOs)
- Texas Suicide Prevention Council
- Health Providers through the DSHS Grand Rounds (with Dr. Mike Hogan)
- Texas Drug and Alcohol Abuse Councils
- Substance Use Outreach and Referral Organizations
- State Behavioral Health Agency Staff

Presentations on the Texas Zero Suicide initiative were also made at the following state or national conferences:

- 2014 Garrett Lee Smith Grantee Meeting
- 2014 Texas Suicide Prevention Symposium (with Dr. Richard McKeon)
- 2015 Texas Suicide Prevention Symposium (with Dr. Ed Coffey and Dr. Mike Hogan)
- 2016 Research and Policy Conference on Child, Adolescent, and Young Adult Behavioral Health
- 2016 Department of State Health Services Crisis Conference
- 2016 Texas Behavioral Health Institutes
- 2016 Texas Trauma Informed Care Summit
- 2016 Texas Suicide Prevention Symposium (with Dr. Richard McKeon)
- 2016 Garrett Lee Smith Grantee Meeting

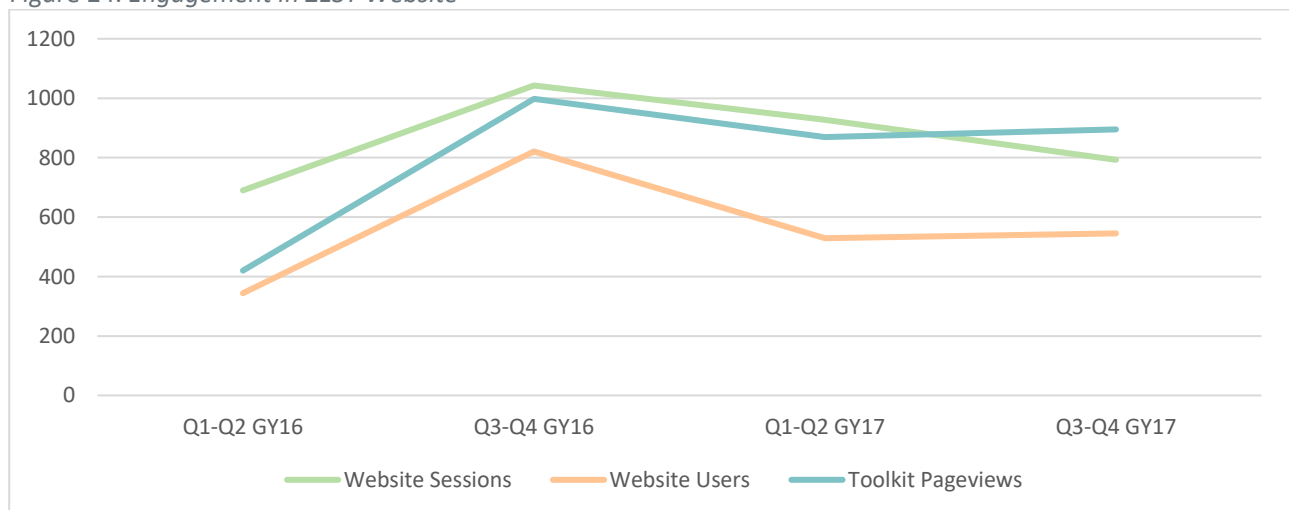
Zero Suicide best practices were a substantial component within the Texas Suicide Prevention Symposium, held each year of the project. In each year, national leaders led a keynote presentation with ZEST team members sharing information about national, state, and local Zero Suicide activities. Additionally, the symposium included presentations and workshops on best practices, such as Counseling on Access to Lethal Means (CALM), Safety Planning Intervention (SPI), Brief CBT, and Collaborative Assessment and Management of Suicidality (CAMS). Figure 23 depicts the number of individuals who attended the Symposium during the grant period.

Figure 23. Attendance at Texas Suicide Prevention Symposium



**Zero Suicide Website and Toolkit.** ZEST team members created the Zero Suicide in Texas toolkit to enhance engagement of providers in the Zero Suicide work and provide clear guidance to organizations interested in implementing these practices. The ZEST toolkit was hosted on the ZEST website and staff shared this resource during presentations to interested organizations. The reach of the Zero Suicide in Texas website and toolkit was tracked through google analytics and presented in Figure 24. Since its launch in December 2015, the website reached a total of 2,196 users, with 63.4 % new visitors to the site and 36.6 % returning visitors. Most visitors to the website accessed the toolkit link on the site, demonstrating engagement beyond the landing page.

Figure 24. Engagement in ZEST Website



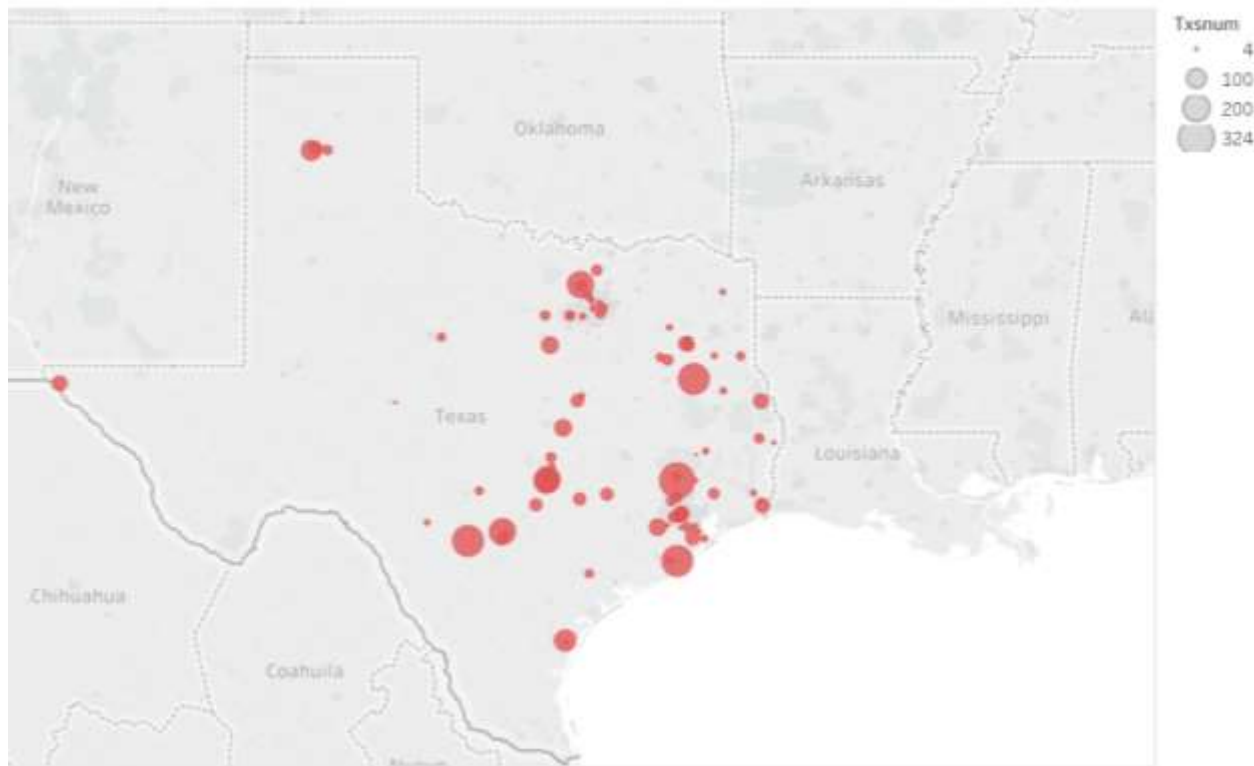
Website users were predominantly from the United States (75.7 %), with the greatest representation from cities being Austin, Houston, Dallas, New York, and Abilene, suggesting that the website generally reached its intended audience within the state. The significant representation of visitors from New York can be explained by the substantial collaboration between Texas and the state of New York on suicide prevention activities. Users averaged 2.52 pageviews and 3 minutes and 10 seconds on the site.

## Public Awareness and Messaging of Hope and Resilience

**Community Gatekeepers.** One of the goals of the ZEST initiative was to increase the capacity of community members in identifying children and youth who may be at risk of suicide and connecting them to appropriate mental health services. The ZEST initiative supported the ASK about Suicide to Save a Life gatekeeper training for

the general public, with 6,503 gatekeepers trained in 295 workshops over the four years of the grant. Primary and secondary education settings were the most common setting for ASK gatekeeper training (31.7 %), followed by mental health settings (21.7%) and other community groups (26.4 %). Texas also supported the use of Kognito's online At Risk trainings within primary, secondary, and post-secondary education settings. A total of 149,052 educators were trained through the Kognito programs, with the vast majority representing primary and secondary education (98.2%). Kognito gatekeeper programs were conducted online, therefore the location of individual receiving the training was not tracked; however, Figure 25 demonstrates the geographic distribution of ASK gatekeeper workshops around the state. The greatest impact was seen along the I-35 corridor (San Antonio to Austin to Dallas/Ft. Worth), the greater Houston area, and East Texas. There was little reach in the western region of the state.

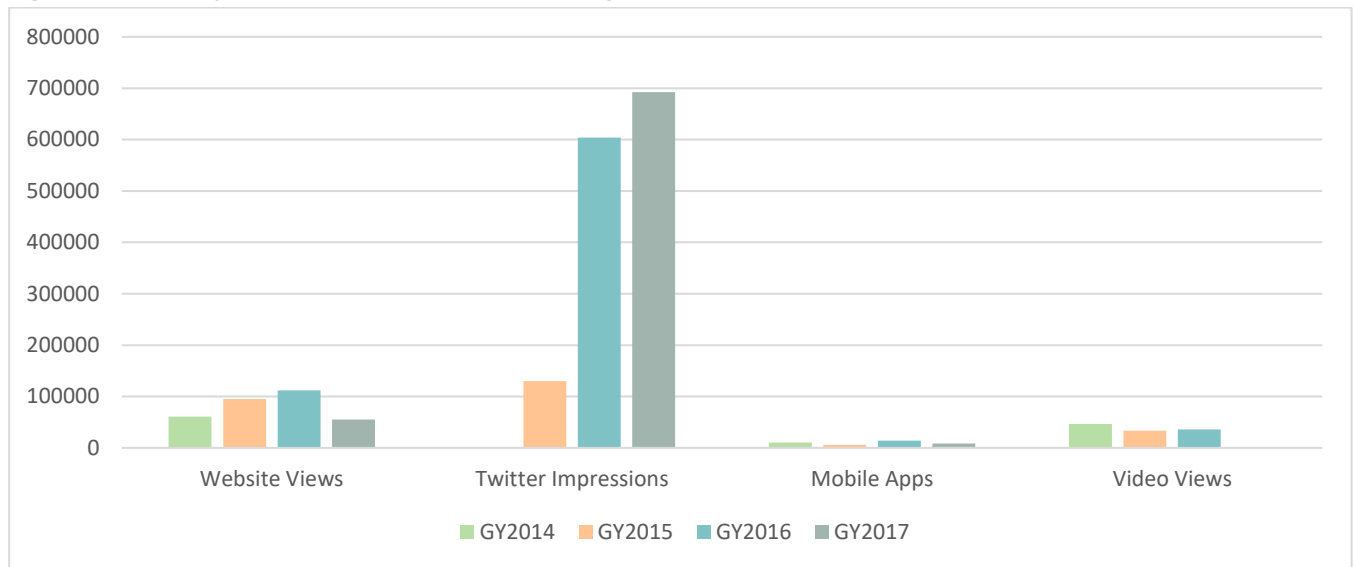
Figure 25. *Gatekeepers Trained through ASK about Suicide to Save a Life*



**Stop Texas Suicide Website and Social Media.** The ZEST initiative also aimed to increase the awareness of suicide risk factors and available resources through the state suicide prevention website. Reach of the various strategies are depicted in Figure 26. The website, located at [TexasSuicidePrevention.org](http://TexasSuicidePrevention.org), houses national and state resources, information on ASK gatekeeper trainings, and information on local suicide prevention resources. The website also serves to link communities with resources for suicide postvention and opportunities to contribute to suicide prevention activities. The website views ranged between 55,000 and 110,000 views per year, representing one of the strategies with the greatest reach. The website has become the main resource site in the state for information and resources on suicide prevention. The ZEST team also managed the @STOPTxSuicides twitter account, from which 15,400 tweets or retweets were sent to share messages of help and hope and resources related to suicide prevention. At the end of the project period, the twitter account had 1,667 followers. The website hosts 25 videos and public service announcements promoting messages of hope and resilience. These videos are promoted through trainings and communication strategies, and resulted in a total of 115,972 views over the grant period. Additionally, ZEST partners promoted three mobile apps developed by Mental Health America of Texas, one of which was developed during the grant period. The mobile apps provide resources to

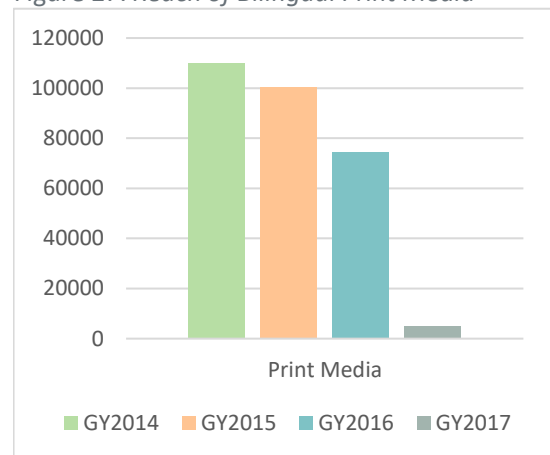
support ASK gatekeepers, allow individuals to develop a virtual Hope Box, and support families in reducing access to lethal means within the home. A total of 38,813 downloads of mobile applications occurred over the course of the project.

Figure 26. *Reach of Electronic Communication Strategies*



**Suicide Prevention Print Media.** ZEST partners at Mental Health America of Texas coordinated the provision of suicide prevention print media to a wide variety of individuals and organizations across the state. As the state hub for suicide prevention messaging, materials were provided to suicide prevention community coalitions, behavioral health providers, health care providers, universities and colleges, schools, and workplaces. Reach of the print media is depicted in Figure 27. During the third year of the grant, to address sustainability, the brochures were migrated to the website to be accessed through downloads. Therefore, a limited number of brochures were printed and distributed during the no cost extension period.

Figure 27. *Reach of Bilingual Print Media*



# Summary and Lessons Learned

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## Summary of Key Findings

Key findings from the Zero Suicide in Texas evaluation include:

- Texas was successful in initial widescale implementation of the suicide safer care framework within the public mental health system. The initiative met or exceeded all goals and objectives and key benchmarks for success. Some highlights include screening more than 2,000 youth and young adults for suicide, with more than 95% of those referred for further services accessing care, providing training to more than 5,000 members of the behavioral health workforce, and training over 100,000 community suicide prevention gatekeepers.
- Texas' outreach and education efforts were successful in engaging community mental health organizations in participating in a learning collaborative focused on implementing the Zero Suicide framework. With the offer of training and technical assistance, 30 of the 38 public mental health authorities engaged in the effort, covering the catchment areas of 83% of Texas citizens.
- All organizations participating in the Zero Suicide learning collaborative made some organizational changes towards suicide prevention best practices. The greatest change was seen in the Suicide Screening and Workforce Development domains. Only one organization made advances on the Survivor Support domain. Agencies were also somewhat less successful at addressing access to lethal means.
- Learning collaborative participants found the Zero Suicide Academy to be an effective mechanism for getting exposed to all elements of the Zero Suicide model and found concrete tools and guidance, such as those provided through the Texas Zero Suicide Toolkit, to provide implementation teams with a roadmap for their change efforts.
- Organizations that lacked an adaptable electronic health record system struggled to implement components of the Zero Suicide framework. Those with a flexible EHR had greater success embedding elements such as the screening instrument, safety plan, and follow-up protocols. Organizations that were able to track data on quality of care through the EHR reported it to be useful to their change activities.
- Behavioral health staff trained in suicide prevention through ASIST or ASK were significantly more likely to report that they had the training and the supervision that they needed to assist individuals at risk of suicide, while many of the staff receiving QPR or no training reported feeling unprepared.
- Behavioral health staff working within organizations who had been participating in the learning collaborative for over a year were significantly more likely to report they engaged in a variety of best practices, such as asking about suicide with all new clients, knowing how to gather information on risk factors and warning signs, developing a collaborative safety plan, and developing a plan to reduce access to lethal means.
- Providers trained in the C-SSRS did not always follow the scoring guidelines for identifying suicide behaviors, with assessors under-representing the number of individuals with suicidal behaviors both in the past 3 months and lifetime. There was a match between the C-SSRS-derived rating of "risk" and clinicians' indication of "risk" for 66% of the youth screened, but 25.9% were identified as at risk by clinicians despite lower risk on the C-SSRS.
- Within Denton County MHMR, the proportion of youth and young adults assessed for suicide risk who were referred for psychiatric hospitalization decreased over the grant period, with a corresponding increase in the proportion referred for outpatient care. The agency changes to allow for increased use of suicide-focused, outpatient treatment and crisis alternatives is likely to be associated with reduced costs of care.

- Many organizations did not fully implement a suicide-focused, evidence-based treatment. While training was offered for CBT for Suicide Prevention and CAMS, some organizations needed additional support to problem solve around barriers and ensure fidelity to the treatment approach. Participation in the training did not always result in full implementation of the model within the agency.
- Measurement of the impact of project activities on suicide deaths was challenging, primarily due to the delayed access to data. Preliminary review of trends of suicide deaths for individuals served by Denton County MHMR within a year prior to death showed an initial drop in the suicide rate following initiation of the project, followed by an increase in the second year and then a decrease in the third to below the baseline. State trends were also unclear, with only one year of data available following initiation of the first learning collaborative.
- Over 140,000 community members were trained in suicide gatekeeping models to increase the identification and referral of individuals at risk. The primary focus of this effort was within school systems, including elementary, secondary, and post-secondary education systems. Online training systems allow for significant reach within a large, diverse state.
- Coordinated state support for suicide prevention, which included a state Suicide Prevention Council, a state Suicide Prevention Strategic Plan, support for communication and messaging around suicide prevention resources and messages of hope, and technical assistance to support suicide postvention, set the stage for implementation of a Zero Suicide framework within the state's behavioral health system and built interest and engagement from other systems.

## Limitations

The evaluation of the ZEST initiative focused primarily on the implementation of suicide safe care practices within organizations participating in a learning collaborative. While results related to organizational change and change in providers' behaviors were strong, the evaluation did not allow for an assessment of the impact on individuals served within the organizations and an examination of any changes in suicide attempts or deaths for those in care. The authors hope to continue to examine these trends as additional data becomes available. The primary focus of individual-level data collection was within Denton County MHMR. The interventions, and consequently the evaluation, focused primarily on the identification of youth at risk and referral processes; therefore, data on longer-term outcomes of participation in care and change in suicide risk over time is not available. As the state moves towards collection of the C-SSRS within the state's electronic database, this type of data will be easier to collect and monitor.

## Recommendations

1. Initial results suggest that ZEST improved the capacity of the behavioral health workforce to engage and assist individuals at risk of suicide. Continued support of these efforts should be strongly considered, as being able to better allocate the limited resources for psychiatric hospitalization is likely to increase the efficiency of the system and reduce costs or the growth in costs over time.
2. The public mental health system serves as the crisis safety net for all communities in Texas, operating community hotlines, mobile crisis teams, and other crisis programs. Establishing public mental health centers as specialty providers for individuals at risk of suicide is a logical public health approach to reducing the state's overall suicide rate.
3. Texas should continue to examine the development of an endorsement process to recognize provider agencies that implement suicide prevention best practices. Having a provider agency endorsed in suicide

safer care could be a contractual requirement for Medicaid managed care organizations, ensuring that individuals have access to best practice care across the state.

4. Investment in a broad suicide prevention training for all providers in the behavioral health workforce has a large impact on provider confidence in addressing suicidal risk and continued support for local certified trainers in ASIST or ASK should be prioritized as a way to maintain workforce competency.
5. Training in the use of the C-SSRS should include demonstrating competence in scoring of the instrument, identifying research-based risk levels, and documenting decisions that deviate from assessed risk. Establishing the C-SSRS within an electronic system, such as the state's CMBHS, will assist with automating some aspects of the screening and assessment process and reduce opportunities for human error.
6. Texas Health and Human Services Commission should expand upon current examinations of suicide rates within the public mental health system to conduct matching of suicide death data with information from Medicaid Managed Care Organizations, providing further guidance to the state on the populations at highest risk of suicide. Texas should also explore opportunities to improve the recognition and reporting of suicide deaths by medical examiners, coroners, and justices of the peace.