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A Healthcare Service Agency

Connecticut Youth Suicide Prevention Initiative

Final Report

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Table of Contents

I. Project Description, Implementation, and Results

A. Executive Summary

In 2006, the Connecticut (CT) Department of Mental Health and Addiction Services (DMHAS) received a federal grant from the Substance Abuse Mental Health Services Administration (SAMHSA) Center for Mental Health Services (CMHS) to develop the *CT Youth Suicide Prevention Initiative (CYSPI).* Building upon the state's existing youth suicide prevention infrastructure, CYSPI goals and objectives were to implement, evaluate, and sustain statewide suicide prevention and early intervention programs and services for youth ages 10-24 years-old from various urban, suburban, and rural areas of the state in accordance with the federal Garrett Lee Smith Memorial Act.

The CYSPI encompassed a variety of components addressing youth suicide including the: 1) Connecticut Urban Middle School Indicated Early Intervention Project: Assessing Depression and Preventing Suicide in Adolescents (ADAPSA); 2) Connecticut High School Universal Suicide Prevention Project: Signs of Suicide (SOS); 3) Connecticut State University Suicide Prevention Project; 4) CYSPI Training and Workforce Development; and 5) Statewide Youth Suicide Prevention Education and Awareness Campaign.

DMHAS worked collaboratively with the CT Youth Suicide Advisory Board (YSAB), managed by the CT Department of Children and Families (DCF), through the CYSPI Advisory Committee (sub-committee of the YSAB), and other local, state and national agencies, organizations, groups, systems, schools, and individuals in order to carry out the CYSPI. This collaboration contributed to the success of the Initiative and the capacity to sustain most of its efforts beyond the initial funding period.

Suicide as a Public Health Problem in CT

As of 2006, suicide was the 3rd leading cause of death in CT for both youth ages 10-17 and young adults ages 18-24, and 2nd for college students (CDC, 2010). The 2007 Connecticut School Health Survey, which incorporates the Youth Risk Behavior Survey (YRBS), a survey of 9th - 12th graders administered by the State Department of Public Health and funded by the CDC that assesses health-risk behaviors, found that 15.1% (U.S =16.9%) of students seriously considered attempting suicide during the past 12 months; 13.8 % (U.S.=13.0%) of students made a plan about how they would attempt suicide during the past 12 months; and 12.1 % (U.S.=8.4%) of students actually attempted suicide one or more times during the past 12 months (CDC, 2007). The 2009 CT YRBS data is now available and shows a continuing decline in all three measures: 14.1% considered attempting, 11% made a plan, and 7.4% attempted. This decline coincided with the CYSPI, although it is not possible to attribute these results directly to the CYSPI itself.

The CT Department of Public Health published a report in 2008 examining the 8,654 of self inflicted injuries identified by Emergency Department personnel between 2000 and 2004 with an average of 1,731 each year. Overall, Latinos had the highest rates (67.7/100,000) of self inflicted injury, whereas CT's African American (40.4/100,000) and White (39.3/100,000) populations had similar rates of self injury. The highest rates of self-inflicted injuries were among youth 15-19 years (183.8/100,000), followed by young adults 20-24 years (129.6/100,000) and the most common method of self-inflicted injury is by poisoning drugs, highest rates were among youth 15-19 years (102/100,000), followed by young adults 20-24 years (66.4/100,000). Girls and young women were seen in emergency departments at greater rates than males for ages 10-14 (82.0 vs. 26.3/100,000) for ages15-19 (243.1 vs. 127.5/100,000) and for ages 20-24 (143.3 vs.116.4/100,000). For all ages 10 to 24 the most frequently identified self inflicted injury was for poisoning and drug overdose followed by cutting (Mohamed, 2008).

According to the fall 2008 American College Health Association's National College Health Assessment, a nationally recognized research survey that collects data about college students' health habits, behaviors, and perceptions, in the 12 months prior to the assessment 21% of college students felt hopeless, 15% felt so depressed it was difficult to function, 18% felt overwhelming anxiety, and more than 50% expressed higher than average stress. In addition, 20% had a history of being diagnosed with depression (American College Health Assoc., Fall 2008). As major depressive disorders account for about 20 to 35 percent of all deaths by suicide, this disorder is the one that places youth and young adults at highest risk (U.S. D.H.H.S., 1999).

The United Way of CT operates the crisis hotline for the State of CT that is part of the National Suicide Prevention Lifeline crisis response network, 2-1-1. There was a notable increase in the calls to the crisis hotline between 2006 and 2007 for ages 10-17 (119 to 143 calls) and for ages 18-24 (265 to 357 calls). The numbers remained relatively stable between 2007 and 2008 (United Way of CT, 2009).

In 2008, the CT Chief Medical Examiner's Office reported a total of 300 deaths by suicide. Six of them were youth age 10-14; 15 of teens age 15 and 19; and 16 of young adults age 20-24 (OCME, 2009). According to the CT Office of the Child Advocate, 67 youth suicides in 46 towns of 10-17 year-olds occurred between January 1, 2001 and December 31, 2008, with some towns having experienced multiple suicides. Males made up the majority of the deaths; hanging was the most common method, and in 2008 it was the only method (CT OCA, 2009).

Components of the CYSPI

Connecticut Urban Middle School Indicated Early Intervention Project: Assessing Depression and Preventing Suicide in Adolescents (ADAPSA)

The *ADAPSA Program* served middle-school-aged youth (7^{th}-9^{th}-graders) attending the Hartford-based St. Francis Hospital and Medical Center (St. Francis) Adolescent and Young Health Program, and Hartford Public School's Quirk Middle School (Quirk) and Hartford High School (Hartford High) School-Based Health Centers (SBHC) for mental health services in primary care settings. The objective was to integrate selected youth suicide prevention/early intervention depression screening and brief mental health treatment (up to 6 sessions) with primary care in an effort to provide early identification and treatment of youth at risk for suicide. In addition, the local evaluation studied variations in service provision and youth treatment adherence between the St. Francis hospital/community-based site and the Quirk and Hartford High School-based sites.

Hartford is an urban center stressed by significant social problems, having among the highest national rates for poverty, crime, violence, school dropout, teen pregnancy, and drug arrest. In 2006, there were 124,512 residents (US Census Bureau, 2006), and the median family income was $27,051; 35.8% of families with youth under 18 were in poverty, and 46% of these were female led with no husband present (U.S. Census Bureau, 2000). According to the 2000 Census: 30.1% were youth under 18 years old (8.2% 10-14, 8.5% 15-19) and 8.8% 20-24 years-old, 52.2% female, 27.7% White, 38.1% African American, 40.5% Latinos, 0.5% American Indian, and 1.6% Asian American; 53.5% spoke English at home, and 46.5% spoke another language and English less than "very well."

In 2008, the hospital-based site at St. Francis had 1,269 patients with 3,053 visits (39.4%=1 visit and 25.6%=2 visits): 57.9% female, 47.4% African American, 44.4% Latino, 4.2% White, 1.3% Asian American, and 1.4% other. The Program provided comprehensive healthcare and counseling services to youth/young adults 13-21 years old, but 77.9% of youth are 17 and under and require parental consent (St. Francis, 2009).

Quirk had a total of 575 seventh- and eighth-graders enrolled in 2007-2008. The school was predominantly made up of Latino students (78.1%), followed by African American (19.5%), White (1.2%), Asian American (0.9%), and American Indian (0.3%). The majority of students were eligible for free/reduced-price meals (>95%), 82.5% of students above the entry grade attended Quirk the previous year, and 73% of K-12 students spoke a non-English home language (CT SDE, 2009).

Middle School Outcomes:

- A total of 806* 7th-9th-grade youth were screened at all three sites, 117* of which screened positive at-risk for suicide. A total of 388 youth had consent to participate in the study, 69 of which screened positive at-risk for suicide.
- All youth who screened positive were offered on-site brief mental health treatment services for up to 6 sessions. However, when comparing St. Francis and Quirk, students at Quirk were provided about 3 times as many appointments and kept almost all of the appointments offered. Although the brief treatment model was to offer services for 4-6 sessions, the average number of clinical appointments was more than double that target at the Quirk SBHC.
- Consented students with 12-month follow-up data had an average screening score (60.3) that was significantly lower than the baseline average score (76.3) showing that the services they received significantly helped to reduce their risk.
- Treatment adherence was significantly greater for youth at the school-based sites versus the hospital/community-based site, primarily due to youth access and staff outreach, leading to conclude that SBHCs are in a unique position to provide mental health screening, referral and treatment to youth.

*CT state law doesn't require parental consent for screening or brief treatment, but the federal act funding the grant does for study participation. Consequently services were provided to all youth, but only those with consent were in the study.

Connecticut High School Universal Suicide Prevention Project: Signs of Suicide (SOS)

The CYSPI implemented the evidence-based Screening for Mental Health, Inc. (SMH) *Signs of Suicide (SOS)* High School curriculum that has been proven to reduce suicidality in youth at risk. SOS incorporates a video-based curriculum that seeks to raise awareness of suicide and its related issues and a brief screening for depression and other risk factors associated with suicidal behavior. SOS promotes the concept that suicide is directly related to mental illness, typically depression, and that it is not a normal reaction to stress or emotional disturbance. The purpose of the program is to teach high school students to respond to the signs of suicide as an emergency. They are taught to recognize the warning signs and symptoms of suicide and depression in themselves and others, and to follow specific action steps needed to respond to those signs.

The CYSPI High School Program served 9th-grade youth with objectives to:

- Develop a quality, sustainable infrastructure and expertise in the implementation of the evidence-based Screening for Mental Health, Inc. SOS (Signs of Suicide) High School Model to 9th-grade students at selected high schools;
- Enhance relationships and communication between the high schools' student support teams/crisis teams and local community mental health providers (including DCF Emergency Mobile Psychiatric Services-EMPS); and
- Ensure that suicidal and at-risk youth receive timely and effective crisis intervention, screening and appropriate medical treatment and/or referral to therapeutic counseling.

Partners included the CT Technical High School System (CTHSS) of 17 schools (Grasso Southeastern, Platt, Bullard-Havens, Henry Abbott, H.H. Ellis, Eli Whitney, A.I. Prince, Howell Cheney, H.C. Wilcox, Vinal, E.C. Goodwin, Norwich, J.M. Wright, Oliver Wolcott, W.F. Kaynor, Windham, and Emmett O'Brien Technical High School), and the Trumbull High School and Trumbull Agriscience and Biotechnology Center. A total of 9,971 students were enrolled in the CTHSS 2007-2008 representing all 169 towns in Connecticut; 57.9% White, 0.6% American Indian, 0.8% Asian American, 14.8% African American, and 25.8% Latino; 32% of students are eligible for Free/Reduced-Price Meals; and 8.6% of students came from homes where English was not the primary language. As of October 1, 2007, 9th grade enrollment was reported to be 2,800 of 10,588 (26%) students. A total of 2,094 students were enrolled in Trumbull High School 2007-2008; 85.6% White, 0.0% American Indian, 4.1% Asian American, 4.8% African American, and 5.4 % Latino; 4% of students were eligible for Free/Reduced-Price Meals; and 3.1% of students come from homes where English is not the primary language. The number of non-English home languages is 27 (CT SDE, 2009).

High School Outcomes

- A total of 1,638 9th-grade students consented to participate in the SOS High School Program; 1,274 took pretest, 1,256 took post-test, 1,052 took both pre and post-test.
- Pre and post-test results showed a 70% reduction in reported suicide attempts 3-months post SOS exposure, and the program resulted in students' greater knowledge of depression and suicide and more adaptive attitudes toward these problems.
- 15 of 16 schools reported that at least one student came to the attention of the school mental health staff as a direct result of the SOS Program through either self or peer referral (average was 3 students/school, range was 0-18 referrals/school).
- Based on their introduction to the SOS High School Program via the CYSPI, DCF EMPS now endorses the use of the SOS High School Program by their sub-contracted providers for universal education to local schools they serve, and some providers purchased and utilize the curriculum.

Connecticut State University Suicide Prevention Efforts

DMHAS worked with the CT State University System (CSU) of four universities- Central CSU (CCSU), Eastern CSU (SCSU), Southern CSU (SCSU), and Western CSU (West Conn) to provide a system-wide suicide prevention program of quality that sought to ensure suicidal and at-risk young adults receive timely and effective screening and treatment within a sustainable infrastructure. The College Program served young adults ages 18-24 attending the CSU schools and the faculty and staff employed at them.

The Counseling Centers at each college implemented the Screening for Mental Health, Inc. College*Response* Model, which included the: 1) *SOS College Program*, similar to the evidence-based high school program mentioned above, but targeted at this specific population; 2) *NDSD-National Depression Screening Day*- an event that encourages brief screening of mental health concerns and referral to treatment as needed; and, 3) web-based mental health screening available 24 hours/day, 365 days/year with a link to resources. In addition, staff at each of the schools became trainers of the QPR (Question, Persuade, Refer) Institute's *QPR Gatekeeper Program*, an emergency mental health training intervention that teaches lay and professional people to recognize and respond positively to someone exhibiting suicide warning signs and behaviors, and trained faculty and staff in the curriculum. In suicide prevention, a gatekeeper is defined as someone who knows basic suicide information, believes suicide is preventable, is familiar with and able to employ basic suicide intervention skills, and can assist in post-vention suicide efforts (i.e. suicide aftermath). Gatekeepers act as a "safety net" for vulnerable individuals and those seeking help for their friends and family. Ultimately, implementation of these programs and services worked to ensure that young adults in need of mental health treatment services would go to the Counseling Centers on campus for help, whether by themselves or through referral from a friend or gatekeeper.

The CSU System is the largest public university system in Connecticut and consists of four comprehensive universities (Central, Eastern, Southern, and Western CT State University). The universities offer graduate and undergraduate programs in more than 160 subject areas and provide extensive opportunities for internships, community service and cultural engagement. Students from all 169 Connecticut towns, all 50 states, and 82 foreign nations attend CSUS universities. Ninety-three (93%) percent are Connecticut residents. There were 28,503 undergraduate and 7,292 graduate students enrolled in fall 2006; 58% female, 42% male, and 17% of color. In order, the most popular undergraduate programs are: Education, Psychology, Business Administration, Communication, Accounting, and English; and the most popular graduate programs are: Education, Library Science, English, Business Administration, and Social Work (CSU System, 2009).

College Outcomes:

- SOS College Program: 758 first-year students received the program, 455 submitted evaluations. Over 80% of the 455 students reported being satisfied or very satisfied with the quality of the College SOS program and indicated that they expected to use the information gained.
- NDSD/web-based screening: 1,622 students total in-person & web-based were screened. One-third of in-person students scored high enough to warrant a recommendation of further evaluation for depression, generalized anxiety disorder, or Post Traumatic Stress Disorder (PTSD); an additional third screened positive for depression, and almost 12% screened positive for bipolar disorder. Approximately ¾ of web-based students screened positive for depression with 2/3 of those deemed "likely" depressed and the other 1/3 as "very likely." Thus, a much higher proportion of web-based screening participants screened positive for depression compared to in-person screening participants, suggesting that the two types of screening reached different populations of students.
- QPR: 335 faculty and staff were trained; primarily Residence Assistants (see outcomes in training and workforce development). Implementation coincided with increased rates of referrals at campus counseling centers.
- Counseling Center: 2,152 suicide assessments were performed at CSU Counseling Centers; depression was identified 1,423 times and suicide was identified 286 times as students' presenting concern. From the 2007-2008 academic year to the 2008-2009 academic year, all referral types increased in number. Of referral types, self was most common, but friend referrals increased the most, by almost 25% between academic years.

CYSPI Training and Workforce Development

The objectives of the Training and Workforce Development Component were to: 1) train DCF and juvenile justice personnel, foster parents and school nurses statewide to recognize and respond to the signs and symptoms of suicidality, and depression in youth, and 2) increase the capacity of the State's clinical workforce to assess and manage suicide risk in their clients.

The first objective was accomplished utilizing the LivingWorks *Applied Suicide Intervention Skills Trainings (ASIST)* Gatekeeper Training and Training for Trainers (T4T). The *ASIST* trainings were managed by the United Way of CT, the state association for the 16 independent United Ways in the State that help meet the needs of Connecticut residents by providing information, education and connection to services. The *ASIST Gatekeeper Training* is a two-day workshop designed to provide participants with gatekeeping knowledge and skills to recognize the warning signs of suicide and to intervene with appropriate assistance.

The second objective was accomplished utilizing the one-day clinical training and Training of Trainers (TOT) *Assessing and Managing Suicide Risk (AMSR): Core Competencies for Mental Health Professionals*, developed by the National Suicide Prevention Resource Center (SPRC) and the American Association of Suicidology. The *AMSR* trainings were coordinated by Wheeler Clinic, a provider of behavioral health services and the CT Clearinghouse, the statewide library and resource center for information on substance use and mental health disorders, prevention and health promotion, treatment and recovery, wellness and other related topics.

The *AMSR* is a one-day workshop which focuses on clinical competencies that are core to assessing and managing suicide risk. Both the *ASIST Gatekeeper* and *AMSR* trainings were opened to other interested and eligible individuals when space and funds permitted. The *ASIST T4T* and *AMSR TOT* trained people who successfully completed an application process to become trainers of each of the curriculums.

The *AMSR* clinical training predominantly served masters and PhD-level clinicians of the 17 CT Technical High Schools and Trumbull High School (counselors, social workers and psychologists), DCF Emergency Mobile Psychiatric Services clinicians, CSUS Counseling Services staff, DMHAS Crisis Responders who work with the CSU system, and the clinicians funded through the CYSPI in the ADAPSA Program. According to the Department of Public Health Licensing Bureau there are a total of 9,512 mental health clinicians (social workers, psychologists, marriage and family therapists, and licensed professional counselors) licensed in CT; however, some may not reside or actively practice in the state (CT DPH, 2009).

Training Outcomes

ASIST:

- 144 people attended the gatekeeper training
- 15 people completed that ASIST-T4T (8 from CT and 7 US Army Chaplains)
- Over 140 people have been trained by the 8 CT ASIST T4T graduates thus far.

AMSR:

- 154 AMSR-trained clinicians, primarily CT Technical High School and DCF EMPS providers.
- 23 AMSR TOT-trained clinicians, 19 CT Clinicians and 4 out-of-state
- Over 120 additional people have been trained by 10 of 19 AMSR TOT graduates thus far.

Combined Training Outcomes:

Surveys of training participants who attended all AMSR, ASIST and QPR trainings were collected as part of the federal evaluation and results were combined:

- Participants reported overall satisfaction with their training experiences, trainers' knowledge, and the sites.
- 81% reported they attended to increase their general awareness and knowledge of suicide for themselves and others.
- 69% reported they attended to identify youth who might be at risk for suicide.
- The highest area of impact was scored 3.4 of 4 and was "I will use a lot of what I learned from this training."
- Other areas of high impact were: increased knowledge, helped people feel more prepared to offer help, and is pertinent to their work.

However, AMSR TOT participants also had to complete an evaluation on-line for the SPRC in order to get their certificate of attendance.

AMSR TOT Training Outcomes:

- Twenty-one of the twenty-three completed the evaluation.
- On average the clinicians had 20 years of experience (range 8-32)
- Majority were very satisfied with: the training, the trainer and the training manuals; felt the content was "just right" for their level; increased their confidence in assessing suicidal risk; increased their confidence in managing clients at risk for suicide; increased their familiarity with the core competencies for mental health professionals; increased their familiarity with the fundamentals of Suicidology; and increased my knowledge in the nine core competencies featured in the workshop. In addition, all stated they would recommend the workshop to their peers.

Gatekeeper Training Comparative Study

The CYPSI was able to perform a comparative study between the 2-day *ASIST* and 1.5 hour *QPR* gatekeeper trainings to determine whether one or another may better prepare a person to recognize and respond to someone at risk of suicide, and help to inform entities looking to sponsor gatekeeper trainings. All of the individuals who had completed either *ASIST* or *QPR* were invited via email to complete an anonymous online survey that would assess knowledge, attitudes, and suicide prevention skill utilization.

Gatekeeper Comparative Study Outcomes:

- 76 (50%) of 144 ASIST and 166 (53%) of 335 QPR trainees participated in the study.
- Results show QPR and ASIST being comparable despite their differences in content, cost and length.
- QPR and ASIST were well-received by trainees and both types of trainees reported that the training introduced them to new concepts about suicide prevention.
- QPR and ASIST trainees assessed their preparedness similarly as "quite well prepared to competently interact with a suicidal young person."
- QPR and ASIST trainees rated their average knowledge about a variety of skills for assessing, interacting, and referring a suicidal young person very similarly, and both groups revealed similar levels of knowledge about suicide.

The Statewide Youth Suicide Prevention Education and Awareness Campaign

The Statewide Campaign was a mini-grant program that was first released September 2007, and then again March 2008 and served communities statewide through the use of a youth driven, positive community development approaches. The Campaign's objective was to increase awareness statewide about suicide, suicide prevention, mental health promotion, and reduce stigma associated with seeking treatment. Approved strategies included establishment of an *Active Minds on Campus* chapter, participation in *Yellow Ribbon Campaign* activities, and/or development of a "*Design Your Own*" evidence-based, innovative local approach based on community interest, needs and input. Grantees represented a variety of youth and young adult serving agencies, organizations and schools with pre-existing youth groups or prior experience with youth. Examples included: middle and high schools, colleges, universities, Youth Services Bureaus, faith-based youth groups, school-based health centers, and community-based prevention groups.

Statewide Campaign Outcomes:

- Fourteen mini-grants (7 each year) located across the state in urban, suburban and rural areas were awarded to a variety of youth and young adult serving agencies, organizations and schools with pre-existing youth groups or prior experience with youth.
- 2007-2008: 2 Yellow Ribbon Programs, 2 Active Minds on Campus Chapters, and 4 "Design Your Own" approaches.
- 2008-2009: 4 Yellow Ribbon Programs, 1 implemented and 1 enhanced Active Minds on Campus Chapters, and 2 "Design Your Own" approaches.
- A total of over 3,000 people of all ages participated in CYSPI funded activities through this initiative. Populations involved included: youth, parents, schools, colleges, universities, community members, community-based and youth organizations, hospitals, fraternal organizations/lodges, town departments, politicians, and mental health clinicians.

CT-GLS Sustainment Efforts

As with all grant-funded efforts, it is important to identify a permanent funding source to sustain the strategies and activities initiated during the grant period, and to support statewide replication and implementation where possible. Sustainability is most successful when it is addressed throughout an initiative, not just at the end. This is how it was approached in the CYSPI and as a result there has been great success in sustaining much of the efforts through local provider resources.

Sustainment Outcomes:

- Middle School- Screening, brief treatment, and referral services continue at Saint Francis Hospital Adolescent Clinic.
- High School- The SOS High School Program was adopted and is utilized at some schools involved in the study.
- College- The four CSUs maintain their clinical services, and use of QPR, NDSD, web-based screening tools, and awareness activities and expansion efforts involving student organizations and campus task forces all continue at the CSUs. The SOS College Program curriculum was discontinued by the developer; therefore, the CSUs are not able to continue its utilization despite positive outcomes and interest to do so. They are using QPR for students as well as faculty and staff at this time.
- Training- ASIST and AMSR training is available per request; researching integration of training programs into DMHAS Prevention Training and DMHAS Education and Training services.
- Campaign- Awareness campaign mini grantees continue local efforts.
- Advisory Committee- The group will reconvene if and when SAMHSA releases a new GLS request for proposals in 2011.
- Relationships- Continued enhancement and development of relationships with suicide prevention partners.

Lessons Learned and Recommendations

A. *ADAPSA* -Will embedding services in school clinics improve treatment outcomes? Yes.

Our results suggest that the provision of mental health services in school-based health clinics could lead to increased rates of identification of depressed students and better access to students for the provision of counseling services. Efforts to reach young at-risk urban students, securing consent for evaluation, and providing mental health services were far more successful in school-based health centers than in an outpatient, hospital based pediatric clinic. Youths seen at the school-based health clinic also were seen more frequently for mental health appointments and received more follow-up screenings, even though the school-based clinics were only available for the 10 months of the school year while the community clinic was open year round. The proportion of kept appointments was quite high for a community outpatient clinic, particularly one serving younger clients from a largely Latino Population (Kruse, Rholand, & Wu, 2002; Donaldson, Spirito & Esposito-Smythers, 2005). Our findings support conclusions made by other researchers who have examined the accessibility and efficacy of school-based mental health services (Kataoka et al 2003; Flaherty et al 1996; Flaherty & Weist, 1999). However, follow-up rescreening rates were low in both the school and hospital contexts, suggesting that targeted efforts to improve tracking and follow-up procedures are warranted in order to document and hopefully improve student outcomes.

The adoption of screening as part of the standard of care at all three sites may potentially serve as a model for the 41 of 59 school-based health clinics in Connecticut which serve middle and/or high school students. This effort would be consistent with the 2005 Connecticut Comprehensive Suicide Prevention Plan (DPH, CT State Judicial Branch). The stated goal to "conduct rapid assessment and planning of care for children and youth; promote system changes to expand the scope of services in schools and assess utilization of school-based mental health services," may be well served by the adoption of a standard of care in which all youth utilizing school-based health clinics are screened for depression. As of this report however, there are no plans to adopt mental health screening at the other school-based clinics.

B. *Youth Suicide Prevention Training*- Will suicide prevention training improve knowledge concerning depression and suicide among foster and adoptive parents, juvenile justice personnel? Yes.

Two gatekeeper training programs were offered: Question Persuade Refer (QPR) (Quinnett, 2007) suicide prevention gatekeeper training program was offered at each of the four Connecticut State University (CSU) campuses, and Applied Suicide Intervention Skills Training (ASIST), was provided to professionals who work with high-risk populations. An online survey of the QPR and ASIST trainees revealed that both QPR and ASIST were well-received by trainees and both types of trainees reported that the training introduced them to new concepts about suicide prevention. QPR and ASIST trainees assessed their preparedness similarly as quite well prepared to competently interact with a suicidal young person. In addition, both types of trainees rated their average knowledge about a variety of skills for assessing, interacting, and referring a suicidal young person very similarly, and both groups revealed similar levels of knowledge about suicide.

C. *College Suicide Prevention Programs*- Research Question: Can suicide prevention programs focusing on gatekeeper training and peer education increase help-seeking among college students? Yes.

One of the goals of the college suicide prevention effort was to increase the number of referrals from self, friends, faculty and staff. Counseling center utilization rates increased at each CSU campus. In addition, from the 2007-2008 academic year to the 2008-2009 academic year, all types of referrals (self, faculty, friend, Residential Life or other) increased in number.

Although the reason for the increase in counseling center utilization and referral rates from 2007-2008 to 2008-2009, and from fall to spring, is impossible to determine, it is consistent with an effect from the QPR Gatekeeper training on faculty and Residential Life/other staff referrals and from the college SOS program on friend referrals. However, at least some of the increase is likely due to changes in policies at several of the sites limiting the number of individual sessions per student. In addition, the pattern of increases in depression and suicide as presenting concerns from fall to spring is consistent with prior research (Kposowa, & D'Auria, 2009; Milane, Suchard, Wong, & Licinio, 2006). It is somewhat surprising that the numbers of suicide assessments do not follow this seasonal pattern on all campuses. It should be noted that suicide assessments were counted, not individual clients, however, so it is possible that chronically suicidal clients

could bias the number of assessments upward compared to the number of clients served; this further complicates interpretation of these data.

D. *SOS High School Program*- Does the SOS program reduce suicidal behavior among high school students? Yes.

Results from the current study generally corroborate findings from previous SOS intervention evaluations that participation in the SOS program is associated with lower rates of suicide attempts at 3 months following the program (Aseltine, 2003; Aseltine & DeMartino, 2004; Aseltine, James, Schilling, & Glanovsky, 2007). As in previous studies, the SOS program had an important short-term impact on the attitudes and behaviors of high school aged youth, and increased students' knowledge of, and adaptive attitudes toward, depression and suicide. Once again, evidence was not found that the program altered suicidal ideation or help-seeking behaviors. However, this study offered the SOS program to a unique subgroup of high school students who may in some respects be at higher risk than the general public school population. Confirmation of the SOS program's efficacy in this subgroup of students adds to its appeal as a very robust universal prevention program.

This study also extended previous research by utilizing a randomized pre-test/post-test design, which was more rigorous than previous post-test only designs used to evaluate SOS. This study demonstrated that the treatment and control groups were statistically indistinguishable at pre-test, increasing confidence in the results. In addition, because analyses of the effects of the SOS program controlled for pre-test levels of the outcome, the results are less likely to be affected by differential attrition between treatment and control groups. Thus, by replicating and extending previous research, results from the current study increase confidence in the efficacy of the SOS program.

Overall the primary lessons learned through the CYSPI fall under two categories: 1. Relationships, and 2. Risk Assessment and Management.

1. *Relationships*-
    - *Systems Approach*- Although suicide is a personal behavior it cannot be impacted solely by targeting individuals. Prevention strategies must be broad, multifaceted and orchestrated to address both individuals and populations using a public-health approach. The CYSPI accomplished its suicide prevention goals and objectives through the provision of local programs and services provided. The Awareness Campaign was successful at the local level for those parties funded with mini grants, but the Campaign lacked a broader approach at the state level. In the future, it will be important to include an approach that is more visible statewide (e.g. Media and Social Marketing Campaign).

    - *Coordination & Collaboration*- It is of the utmost importance to cultivate relationships at various levels (local, state, and national), and to break through barriers in order to successfully coordinate, carry-out and sustain suicide prevention efforts. There are many suicide prevention efforts occurring at local and state levels by multiple caring individuals and groups, but there is not enough coordination of prevention efforts. Often groups are unfamiliar with one another; are hidden within groups with broad encompassing purposes; are not named something to do with suicide; have minimal resources; and do not know exactly what to do or where to start in order to be effective (e.g. are unaware of the national Suicide Prevention Resource Center and its Best Practice Registry). We have greatly appreciated the cooperative nature of those involved and more than anything our findings indicate the need for a coordinated statewide suicide prevention effort linking local and state initiatives, as one does not currently exist.

2. *Risk Assessment & Management*-
    - *Screening*- As seen in the Middle School Program and College Program, consistent and timely screening, brief intervention, referral and treatment (SBIRT) is absolutely necessary to identify youth and young adults in mental distress and at risk of suicide. It must be performed at least a few times a year as individuals' moods and circumstances change throughout the year resulting in fluctuations in risk as well.

        - *Physicians*- Any physician, not just Primary Care (PC), but especially PC, who serves youth and young adults on a regular basis is in a unique position to provide SBIRT services and must take it upon themselves to become educated in these techniques, as well as familiarize themselves and collaborate with local resources for referral. Unfortunately, due to lack of funds, the SBHC could not

continue supporting the mental health providers who performed the SBRIT services under the Middle School Program, and this is common among the SBHCs. When budget cuts are made, mental health services are often the first to go. The CYSPI middle school study proved that the SBHC was better positioned to provide SBIRT services than a hospital-based clinic, given that they are located in a school and have ready access to youth. If the SBHC physicians were trained to provide the SBIRT services then this proven highly necessary and effective service could continue to be offered.

- *Mental Health Providers*- Most mental health clinicians have not been trained to assess and manage suicide risk; and even if they have been trained at some point it is imperative that they acquire continuing education of this skill in order to be as prepared as possible to identify warning signs and assess suicidality when the time comes. Even the providers who had vast experience prior to taking the *AMSR* training learned a considerable amount and stated that they are more prepared as a result and endorse the training for other clinicians.

- *Gatekeeper Training*- The more people trained to recognize and respond to suicide risk (i.e. identify warning signs, engage individuals of concern, and assist them in getting to help) the smaller the holes in the safety net become, and the less likely individuals will fall through. Graduates of all trainings reported that they will use a lot of what was learned from the training, and graduates of ASIST and QPR reported feeling quite well prepared to competently interact with a suicidal young person following their training. Increases in referrals to the CSU Counseling Centers coincided with the use of QPR on the campuses, and the SOS Program, which incorporates components of gatekeeper training, was directly related to increases in referrals to high school clinicians and coincided with an increase in referrals to the CSU Counseling Centers.

B. Goal, Objectives, and Results

Goal 1: Develop and implement youth suicide prevention/early intervention strategies targeting schools, higher educational institutions, juvenile justice, foster care, and behavioral health systems.

Objective 1: Through the CT Youth Suicide Advisory Board (YSAB), engage additional key stakeholders, including state agency representatives, school/university personnel, youth, parents, community providers, in the development of a youth suicide prevention/early intervention strategy targeting school, university, juvenile justice, and foster care youth.

The YSAB developed the CYSPI Advisory Committee at the onset of the grant charged with the oversight of the CYSPI. This twelve-member committee provided ongoing strategic and operational advice on all aspects of the CYSPI grant's goals and objectives. Member agencies included: CT Behavioral Health Partnership, National Alliance on Mental Illness-CT, Wheeler Clinic CT Clearinghouse, DCF, State Department of Education (SDE), Office of the Child Advocate, United Way of CT, Town of Enfield Youth Services, and the University of CT Health Center. The CYSPI Advisory Committee met monthly until August 2007 and then bi-monthly through fall 2009. The Committee met less regularly spring 2010 due to conflicting conferences and the Close-Out Event in March which will be discussed under Goal 4, Objective 4. All CYSPI Advisory meetings were held at the United Way of CT in Rocky Hill, which is located in the center of the state. An average of 6 people attended meetings regularly; competing schedules and budget restrictions made it difficult for all members to participate consistently. A bridge-line was made available for people to call in to meetings, but it was only utilized once as most people preferred to attend in person. Meeting minutes and group e-mails allowed members to remain active in project activities and discussion of youth suicide prevention efforts and needs.

At the final meeting in June 2010 it was decided that the group would reconvene if and when SAMHSA releases a new GLS request for proposals in 2011. In the meantime, all original members of the YSAB maintain attendance at larger meetings, and the Project Director maintains contact with all Advisory Committee members via e-mail and phone. The CYSPI Project Director and Evaluator will provide a final presentation of results to the YSAB on November 18, 2010. Further information is available on the CYSPI home page: http://www.ct.gov/dmhas/cyspi (CT DMHAS, 2010).

Objective 2: Address unmet needs, gaps, and other social, cultural, and developmental barriers in the delivery of youth suicide prevention strategies across the State of CT with the support and guidance of the CT Youth Suicide Advisory Board and the CT Comprehensive Suicide Plan (Interagency Suicide Prevention Network, 2005).

It was determined that the best mechanism to accomplish this objective was to develop the CYSPI Youth Suicide Prevention Education and Awareness Campaign. DMHAS contracted with Wheeler Clinic's CT Clearinghouse, Plainville, CT, the statewide resource center for information about mental health, substance use disorders, health promotion, recovery and wellness, to administer, fund and facilitate the Campaign through a mini-grant program targeted at preexisting youth and young adult groups in a variety of school and community-based settings. DCF contributed an additional $12,500 each of the two years to the Campaign, which increased the funding and number of mini-grants to $42,000 over the two years.

It was initiated on September 6, 2007 and worked to build the capacity of CT communities to educate people about suicide and suicide prevention while promoting the mental health and wellness of youth through the use of a youth driven, positive community youth development approach that embraced youths' desire to create change in their surrounding environments by developing partnerships between youth-related organizations/ schools and community development agencies to create new opportunities for youth to serve their communities while developing their personal abilities. Two cohorts of grantees, seven in each, were awarded to specifically develop or support the Yellow Ribbon International Suicide Prevention Program, Active Minds on Campus, and/or an evidence-based Design Your Own approach. A total of over 3,000 people of all ages participated in CYSPI funded activities through this initiative. Populations involved included youth, parents, schools, colleges, universities, community members, community-based and youth organizations, hospitals, fraternal organizations/lodges, town departments, politicians, and mental health clinicians.

The first cohort of grantees included: Amity High School in Woodbridge, Community Prevention and Addiction Services in Willimantic, Connecticut College in New London, Frank Ward Strong Middle School in Durham, Community Health Resources/Greater Enfield Alliance for Kids and Families in Enfield, Integrated Wellness Group Inc. in New Haven, and Nu Epsilon Omega Sorority of Sacred Heart University in Bridgeport. Contracts of $2,000 each were funded July 1, 2007 to May, 31, 2008 with their reports due July 31, 2008. Two grantees implemented Yellow Ribbon, two grantees implemented an Active Minds on Campus Chapter, and four grantees implemented a "Design Your Own" approach.

The second cohort of seven grantees was funded with awards of $4,000 each. Awards were announced on May 28, 2008 and contract periods were July 1, 2008 to May 31, 2009. Grantees were: the City of Bristol Youth Services, Families United for Children's Mental Health, Greater Enfield Alliance for Kids and Families, Norwich Free Academy, United Services, Inc., Connecticut College-Student Counseling Services, and University of New Haven. Connecticut College was the only repeat applicant/grantee. Four grantees implemented the Yellow Ribbon, two grantees implemented and/or expanded Active Minds on Campus Chapters, and two grantees implemented a "Design Your Own" approach. The CT Clearinghouse held a grantee orientation meeting on September 9, 2008 as part of National Suicide Prevention Week. Allison Case, CYSPI Project Coordinator provided a CYSPI Overview, and CT Clearinghouse staff reviewed reporting and data collection requirements.

Activities included: SOS Middle School and High School Program, forums and breakfasts with local and state politicians, walks, vigils, health fairs, basketball tournaments, rock concerts, ice cream socials, speaker presentations from the American Foundation for Suicide Prevention and Active Minds, screening days, fundraisers, a Youth Summit, and parent education programs. Topics addressed were suicide, warning signs, stress management and reduction, mental health promotion, coping strategies, teen suicide and sexual orientation, eating disorders, and alcohol use. Use of media included press releases, video and DVD development and dissemination to youth and schools, Facebook page development and utilization, and National Public Radio coverage. A sample of press coverage regarding a luncheon with a State Legislator is located at this link: http://www.norwichbulletin.com/homepage/x1362388529/Teens-turn-grief-into-mission-launching-suicide-awareness-campaign?view=print (Groves, February 27, 2009). Materials developed and disseminated included various paper flyers, brochures, handbooks, help cards, a logo, the CT Youth Suicide Advisory Board Information and Education Packet, and a DVD. Samples of the materials developed may be found in the Appendix.

In addition, one grantee utilized the Yellow Ribbon Curriculum pre-/post-surveys with the 13-15 year-old Peer Leaders and Peer Mentors involved in their mini-grant. Findings were as follows:

- 78% increased their understanding of factors that put youth at risk of suicide, while 22% stayed the same.
- 78% strongly agree, and 22% agreed with the statement, "If a friend or fellow student came to me because she/he was depressed or having suicidal thoughts, I would know who to go to for help.
- 89% strongly agreed and 11% agreed with the statement, "I know what resources are available to me if I am feeling depressed or having suicidal thoughts.
- 67% strongly agreed, and 33% agreed with the statement, "I think that the Yellow Ribbon program makes it easier for youth to ask for help if they are depressed or having suicidal thoughts.
- 100% would recommend the Yellow Ribbon program presentation to others.

In the end, some grantees required more technical assistance than others due to various circumstances and one requested a no-cost extension in order to complete some of their goals. The no-cost extension was granted by the CT Clearinghouse and the contract was extended through September 2009. Most grantees were successful at sustaining their efforts though local support.

Finally, the Project Director developed and continues to update the CYSPI web pages housed on the DMHAS web-site: www.ct.gov/dmhas/cyspi. The CYSPI pages include: Project Background; Goals; Advisory Boards and meeting minutes; Program Description; Evaluation; Technical Assistance; CYSPI Project Overview; CYSPI Frequently Asked Questions; Suicide Prevention Resources; Statistics; Risk and Protective Factors; Suicide Fact Sheet; Best Practices Registry for Suicide Prevention; National Strategy for Suicide Prevention; American

Association of Suicidology Information & Media Kit; CYSPI CMHS Reports; and Power-Point Presentations (DMHAS, 2010).

Goal 2: To implement selected youth suicide prevention/early intervention strategies.

Objective 1: By the end of the project period, statewide Screening for Mental Health, Inc. SOS (Signs of Suicide) education, consultation, and technical assistance will be conducted for the CT Technical High School System (CTHSS) of 16 high schools high schools and Trumbull High School/Regional Agriscience and Biotechnology Program (THS). An estimated 2,100 9th-grade high school students will be served.

During academic years 2007-2008 and 2008-2009 DMHAS worked with CTHSS via SDE to implement the SOS curriculum in 9th-grade classrooms in each of the CTHSS schools (Grasso Southeastern, Platt, Bullard-Havens, Henry Abbott, H.H. Ellis, Eli Whitney, A.I. Prince, Howell Cheney, H.C. Wilcox, Vinal, E.C. Goodwin, Norwich, J.M. Wright, Oliver Wolcott, W.F. Kaynor, Windham, and Emmett O'Brien Technical High School); as well as with the Town of Trumbull/Trumbull Public Schools to implement the SOS in the THS. In addition, parents/guardians, family members, caregivers, schools, communities at large and the agencies, organizations and institutions within these communities across the state were informed of the project via school and DMHAS communications.

Initially, it was estimated that 2,100 9th-grade students would be served, but the Garrett Lee Smith Memorial Act restrictions requiring active parental consent for services and evaluation made it extremely difficult to serve this number of youth. Ultimately, 1,638 9th-grade students and their parents consented to the program and evaluation, and all but one of the high schools performed the SOS Program. The school that did not participate experienced the suicide of an upper classman and decided to remove themselves from the study under the circumstances. Of the 1,638 consented 9th-graders, 1,274 took the pretest, 1,256 took the posttest, and 1,052 students participated in both the pre & posttest.

The study results were a 70% reduction in reported suicide attempts 3-months post SOS exposure, and the program resulted in students' greater knowledge of depression and suicide and more adaptive attitudes toward these problems. All but one of the 16 schools reported that at least one student came to the attention of the school mental health staff as a result of the SOS Program through either self or peer referral; average 3 students per school, range 0-18 referrals per school. The two that did not have a student come forward presented the program later in the school year, which may account for the lack of student response although other schools that delivered the SOS Program in May and June did have at least one student come to the attention of staff as a result of the SOS Program.

Results from the current study generally corroborate findings from previous SOS intervention evaluations, that participation in the SOS program is associated with lower rates of suicide attempts at 3 months following the program (Aseltine, 2003; Aseltine & DeMartino, 2004; Aseltine, James, Schilling, & Glanovsky, 2007). As in previous studies, the SOS program had an important short-term impact on the attitudes and behaviors of high school aged youth, and increased students' knowledge of, and adaptive attitudes toward, depression and suicide. Once again, evidence was not found that the program altered suicidal ideation or help-seeking behaviors. However, this study offered the SOS program to a unique subgroup of high school students who may in some respects be at higher risk than the general public school population. Confirmation of the SOS program's efficacy in this subgroup of students adds to its appeal as a very robust universal prevention program.

This study also extended previous research by utilizing a randomized pre-test/post-test design, which was more rigorous than previous post-test only designs used to evaluate SOS. This study demonstrated that the treatment and control groups were statistically indistinguishable at pre-test, increasing confidence in the results. In addition, because analyses of the effects of the SOS program controlled for pre-test levels of the outcome, the results are less likely to be affected by differential attrition between treatment and control groups. Thus, by replicating and extending previous research, results from the current study increase confidence in the efficacy of the SOS program. Details of the local evaluation may be found in Appendix B. University of Connecticut Health Center Institute for Public Health Research: CT Youth Suicide Prevention Initiative Local Evaluation Final Report.

Response to the SOS Program was very positive at the CTHSS schools and THS, and as of spring 2009 there was no discussion of removing the program as an option from their suicide prevention strategies, but the CTHSS Administration left it up to the individual schools to determine whether they wished to continue utilization of the SOS Program or not. Due to the State offering an early retirement package at the end of the 2008-2009 state fiscal year, the Superintendent herself, as well as many other CTHSS staff retired causing disruption and uncertainty across the system. As a result, six schools (5 CTHSS and THS) as of spring 2009 stated for certain that they would continue with the SOS Program beyond the grant period into the 2009-2010 academic year.

In addition to the SOS classroom-based curriculum, the CYSPI worked with the DCF-managed, statewide Emergency Mobile Psychiatric Service (EMPS) System to strengthen the relationship between the EMPS System and the SDE at the systems level to increase collaboration among EMPS providers and the High Schools in the CYSPI, thereby improving the delivery of in-school mental health education programs and mental health services, and increasing the likelihood that suicidal and at-risk youth would receive timely and effective crisis intervention, screening, and appropriate medical treatment and/or referral to therapeutic counseling. The EMPS System is comprised of community-based mental health agencies that provide emergency services including mobile response, psychiatric assessment, medication consultation, assessment, and short-term medication management, behavioral management services, substance abuse screening and referral to traditional and non-traditional services for any family with a child in crisis. EMPS responds to schools when students have been identified as needing more advanced mental health services than may be provided in the school environment.

The EMPS Director, Tim Marshall, was committed to working with the CYSPI and utilized this opportunity as a pilot for relationships with public schools outside of the CYSPI. It was suggested that the CTHSS and Trumbull High School CYPSI Liaisons inform their local EMPS when pre and post-tests and SOS implementation were occurring in case referrals increased in the days following delivery. EMPS staff were encouraged to be available to the schools via consultation and in person for additional support during these periods. Since 2007, due to CYSPI influence, DCF EMPS began endorsing the use of the SOS High School Program by their sub-contracted providers for universal education to local schools they serve, and some providers purchased and utilize the curriculum as they are often approached by youth service agencies and schools to provide suicide prevention education.

Objective 2: By the end of the project period, campus-wide depression screening via Screening for Mental Health, Inc. *National Depression Screening Day* and year-round on-line screening will be conducted for the CT State University System of four universities across four of the five behavioral health regions of the state, screening a minimum 360 college students;

Objective 3: By the end of the project period, statewide Screening for Mental Health, Inc. *SOS (Signs of Suicide) College Program*, consultation, and technical assistance will be conducted for the CT State University System of four universities across four of the five behavioral health regions of the state, serving 600 new college students; and

Objective 4: By the end of the project period, campus-wide *QPR (Question, Persuade, and Refer) Gatekeeper Training* will be conducted for the CT State University System of four universities across four of the five behavioral health regions of the state, training a minimum 200 college staff.

The CT State University System (CSU) consists of four universities Central CSU (CCSU), Eastern CSU (SCSU), Southern CSU (SCSU), and Western CSU (West Conn) located across the state. All of which are four-year schools. The CSUs worked with DMHAS to develop a quality, sustainable infrastructure and expertise in the implementation of an innovative program and practice utilizing the SMH College*Response* Model which is a combination of the college level SOS Program, National Depression Screening Day (NDSD); web-based depression screening; and the QPR (Question, Persuade, Refer) Institute's QPR Gatekeeper Model.

All four schools participated in NDSD in October in academic years 2007-2008 and 2008-2009, and utilized the web-based screening services linked to their own Counseling Center web pages. The web-based screening tool package that is part of the College*Response* Kit allows 24 hour, seven day a week, 365 days a year access and includes four separate screenings for Depression, Post-Traumatic Stress Disorder (PTSD), Generalized Anxiety Disorder (GAD) and Bipolar Disorder (BPD). Students could take any or all of the screenings as many times as

they wish. On NDSD three schools had screening locations on campus and one advertised and encouraged the use of the web-based depression screening method exclusively for the event. Overall 1,622 students total in-person & online screened. One-third of in-person students scored high enough to warrant a recommendation of further evaluation for depression, generalized anxiety disorder, or PTSD; an additional third screened positive for depression, and almost 12% screened positive for bipolar disorder. Approximately ¾ of online students screened positive for depression with 2/3 of those deemed "likely" depressed and the other 1/3 as "very likely." Thus, a much higher proportion of online screening participants screened positive for depression compared to in-person screening participants, suggesting that the two types of screening reached different populations of students. Details of the local evaluation may be found in Appendix B. University of Connecticut Health Center Institute for Public Health Research: CT Youth Suicide Prevention Initiative Local Evaluation Final Report.

Academic years 2007-2008 and 2008-2009, the CSU Counseling Centers performed 2,152 suicide assessments. In addition, depression was identified 1,423 times and suicide was identified 286 times as students' presenting concern. From the 2007-2008 academic year to the 2008-2009 academic year, all referral types increased in number. Of referral types, friend referrals increased the most, by almost 25%. Forty-seven percent (47%) of students self-referred and of those clients who disclosed their reason for seeking assistance the most frequently endorsed reasons were depression, anxiety, and relationships. See Appendix B. University of Connecticut Health Center Institute for Public Health Research: CT Youth Suicide Prevention Initiative Local Evaluation Final Report for further details.

Although the DMHAS contracts with the CSUs stipulated that they "recognize and rely on the UCHC as the "Institution Providing IRB Review" via the Institutional Review Board (*IRB) Authorization Agreement,"* we experienced some challenges with West Conn as they decided it was necessary to acquire their own IRB approval for evaluation activities that had already been approved of by the UCHC IRB and that actually did not require IRB approval as they involved de-identified aggregate data. Consequently, although the client, visit, and presenting problem data is complete for West Conn, the suicide assessment counts are lower than their actual numbers as consent from the student was necessary to report the count data. It is estimated that there are probably a minimum of 200 suicide assessments not counted during the 2008-2009 academic year at West Conn.

All four Universities provided QPR training to college faculty and staff, with the dominant population being Residence Assistants. All four of the University Counseling Centers had at least two staff become certified QPR Instructors. All met their training goals, and 3 surpassed them training a total of 335 people in QPR over the two academic years. As the Training Exit Survey (TES) and Suicide Prevention Data Center were used to collect data on the QPR trainings, data is combined with other trainings performed throughout the CYSPI (i.e. ASIST and AMSR). The aggregate findings indicate that participants reported overall satisfaction with their training experiences, trainers' knowledge, and the sites. Eighty-one percent (81%) reported they attended to increase their general awareness and knowledge of suicide for themselves and others and 69% reported they attended to identify youth who might be at risk for suicide. The highest area of impact was scored 3.4 of 4 and was "I will use a lot of what I learned from this training." Other areas of high impact were: increased knowledge, helped people feel more prepared to offer help, and is pertinent to their work. All four of the Universities stated that they intend to continue utilizing QPR beyond the grant period.

The SOS College Program was provided to new incoming students across all four schools. A total of 758 first year students participated in the SOS program, while 455 submitted evaluations. Over 80% of the 455 students reported being satisfied or very satisfied with the quality of the College SOS program and indicated that they expected to use the information gained. Further details on the local evaluation may be found in Appendix B. University of Connecticut Health Center Institute for Public Health Research: CT Youth Suicide Prevention Initiative Local Evaluation Final Report.

Additional CSU activities and accomplishments leveraged by the CYPSI include:

- CSU clinicians participated in AMSR Training;
- West Conn Clinician participated in the AMSR Training of Trainers as well as the College Addendum Training;
- Increased collaboration with local hospitals and mental health providers;

- Student behavior review teams to proactively respond to critical student issues;
- Participation in university threat assessment teams;
- Use of MentalHealthEdu online training for faculty and staff addressing identification and response to students in psychological distress;
- Group counseling for men, women, GLBT, and African-American students;
- Establishment of the Titanium Schedule software system at ECSU (now at 3 of 4 schools), which streamlines counseling center management and assists with data collection;
- Revival of campus-wide multidisciplinary healthy student initiatives;
- Establishment of Active Minds on Campus at SCSU and development of NAMI on Campus student organizations at CCSU and ECSU; and
- Development of guides for faculty and staff to assist with identifying students in distress based on the University of Maryland's guide "Helping Students in Distress." The guides provide important referral information and resources unique to each University. Two Universities are still developing theirs and two are completed. SCSU's is available to view at: http://www.southernct.edu/studentlife/uploads/textWidget/wysiwyg/documents/StudentsDistressWebR1.pdf

CCSU, ECSU, SCSU Counseling Center Directors and the West Conn Counseling Center Liaison all attended quarterly meetings with the CYSPI Project Director and/or Coordinator and UCHC Evaluator in order to discuss progress and challenges and exchange ideas and resources.

Objective 5: By the end of the three-year project period, approximately 500 foster care and adoptive parents, schools nurses, parent-teacher organizations (PTOs), youth service bureaus, and child welfare/juvenile justice personnel will be engaged in a training program to recognize the signs and symptoms of suicidality and depression in youth. In addition, CTHSS school counselors and statewide DCF-Emergency Mobile Psychiatric Service (EMPS) staff will be trained on assessing and managing suicide risk.

The DMHAS contracted with the United Way of CT (UW) to provide eight two-day LivingWorks' *Applied Suicide Intervention Skills Training* (*ASIST) Gatekeeper* trainings and one advanced, five-day *ASIST Training For Trainers (T4T)* in coordination with LivingWorks to foster and adoptive parents, school nurses, juvenile justice personnel, and other community stakeholders.

The UW held eight *ASIST* trainings targeting DCF staff, juvenile justice personnel, foster parents and school nurses. UW publicized *ASIST Gatekeeper* training dates and recruit appropriate workshop participants through the DCF Training Academy, CT School Nurses Association, and the Court Support Services Division, but it was considerably difficult for people to commit to the two day training held at the United Way and it was common for people to register and then not attend. A total of 144 persons were trained in ASIST. TES forms were used to assess each training. As mentioned during the discussion of QPR, ASIST training data is combined with other trainings performed throughout the CYSPI (i.e. QPR and AMSR). The aggregate findings indicate that participants reported overall satisfaction with their training experiences, trainers' knowledge, and the sites. Eighty-one percent (81%) reported they attended to increase their general awareness and knowledge of suicide for themselves and others and 69% reported they attended to identify youth who might be at risk for suicide. The highest area of impact was scored 3.4 of 4 and was "I will use a lot of what I learned from this training." Other areas of high impact were: increased knowledge, helped people feel more prepared to offer help, and is pertinent to their work.

UW also made arrangements with LivingWorks and hosted the five-day *ASIST Training for Trainers (T4T)* April 13-17, 2009 in Rocky Hill, CT. Fifteen people attended the training; eight key professionals from CT and seven Chaplains from the US Army. The key professionals from CT were:

- Two consultants who specialize in suicide prevention education and work with the CT Problem Gambling Program;
- Two staff from Wheeler Clinic, one who is the Associate Director of Prevention, Wellness and Recovery and the other who is a Program Coordinator;

- Two staff from the Department of Children and Families, one from the DCF Training Academy and the other from High Meadows, a residential treatment facility for male adolescents age 12-20 with significant emotional and behavioral problems; and
- Two from the CT Juvenile Training School, the state's only secure treatment facility for boys ages 12-17 who are committed delinquent.

With the support of the CT Clearinghouse providing reminders and workbooks during the no-cost extension, all eight graduates of the *T4T* successfully completed their practice trainings within the 12 months following the *T4T* and are now certified. Over 140 people have been trained by the eight ASIST TOT graduates thus far. The *ASIST T4T* will dramatically increase the amount of suicide prevention gatekeeper training opportunities available statewide and bring the training to sites in need of such training making it more convenient for people to participate. In addition, two new ASIST trainers are currently becoming certified safeTALK trainers as well after attending the training at the 2010 AAS Conference.

Wheeler Clinic was contracted to manage and facilitate the *Assessing and Managing Suicidal Risk (AMSR): Core Competencies for Mental Health Professionals* trainings, which targeted the CTHSS, Trumbull, CSU, St. Francis Hospital and Medical Center Adolescent Clinic, Quirk Middle School School-Based Health Center, and EMPS clinical staff. Wheeler held four trainings during the grant period. Trainings were planned based on the SOS High School implementation Cohort schedule. A total of 154 completed AMSR overall. This training prepared them to better assist and assess students, appropriately refer them, and provided a common language enabling communication across sites. TES forms were used at the trainings, and as previously mentioned; training data is combined with the QPR and ASIST results. The aggregate findings indicate that participants reported overall satisfaction with their training experiences, trainers' knowledge, and the sites. Eighty-one percent (81%) reported they attended to increase their general awareness and knowledge of suicide for themselves and others and 69% reported they attended to identify youth who might be at risk for suicide. The highest area of impact was scored 3.4 of 4 and was "I will use a lot of what I learned from this training." Other areas of high impact were: increased knowledge, helped people feel more prepared to offer help, and is pertinent to their work.

When it came time to plan for the CYSPI-funded Core and College AMSR Training of Trainers (TOT), which was held April 20-22, 2009, the Wheeler staff and the CYSPI Project Director worked very closely with the SPRC Training Institute staff, Xan Young and Megan Mathis, in order to plan the training, prepare the application form, cover letter and scoring sheet, review and score applications, and respond to applicants. Wheeler had experienced prior challenges with the CT Mental Health Transformation (MHT) Strategic Incentive Grant funded AMSR TOT process in fall 2008 when 19 clinicians applied for the TOT, but only nine (47%) ultimately were eligible. It concerned the staff at Wheeler that so many clinicians who applied for the TOT believed that they met the eligibility criteria and were then denied access. Wheeler had used the standard SPRC application template, cover letter and scoring sheet, and allowed the SPRC solely to review the applications. Later it was discovered that they could have tailored the materials to some extent to better suit the local need and perform a preliminary review and scoring process which would allow time to request additional information or clarification from applicants as needed in order to strengthen their applications and increase the likelihood that they would be accepted by SPRC. The CYPSI benefited from these lessons learned and applied them to the CYSPI AMSR TOT process.

The CYSPI Project Director strategically advertised the training and invited certain clinicians to apply who would most likely be interested and eligible. A total of thirty-two applications were received. Applications were first reviewed and scored in CT by certified AMSR Trainer Kim Nelson, Wheeler Clinic, Director of Child and Adolescent Services, Andrea Duarte, DMHAS, CYSPI Project Director, and Amy James, UCHC, CYSPI Evaluation Coordinator. Twenty-seven applicants passed the preliminary CT review and were sent on to SPRC to be reviewed and scored by David Litts, SPRC, Associate Director of Prevention Practice. Only two applicants were denied by SPRC that had passed the CT review and both only by 1 or 2 points. This new process proved to be more effective than utilizing the standard SPRC materials and single site review.

The training was provided by one of the curriculum developers, Dr. Cheryl King, Licensed Clinical Psychologist and Chief Psychologist in the Department of Psychiatry at the University of Michigan Medical School. Twenty-five clinicians of the 32 applicants (78%) were accepted into the training and 23 attended the TOT, 19 from CT,

two from CA, one from MA, and one from WY. All 23 graduated from the Core AMSR and two from the College Addendum, both in CT. CT graduates included psychiatrists, social workers, and psychologists who work in a variety of settings with various populations: private practice, state mental hospital, community-based mental health agencies, youth service bureaus, veterans administration hospital, college counseling center, substance abuse treatment facility, young adult programs for those with mental illness and substance abuse problems, EMDR-HAP, forensic psychiatric services, and emergency mobile psychiatric services.

Participants of the AMSR TOT completed the TES forms and Training Utilization and Penetration (TUP) Consent forms at the close of the training. As mentioned previously, training data is combined with other trainings performed throughout the CYSPI (i.e. QPR and ASIST). The aggregate findings indicate that participants reported overall satisfaction with their training experiences, trainers' knowledge, and the sites. Eighty-one percent (81%) reported they attended to increase their general awareness and knowledge of suicide for themselves and others and 69% reported they attended to identify youth who might be at risk for suicide. The highest area of impact was scored 3.4 of 4 and was "I will use a lot of what I learned from this training." Other areas of high impact were: increased knowledge, helped people feel more prepared to offer help, and is pertinent to their work.

In addition, these participants also had to complete an on-line SPRC evaluation in order to acquire their certificate of attendance. Twenty-one of the twenty-three completed the on-line evaluation. On average the clinicians had 20 years of experience (range 8-32), and the majority were very satisfied with: the training, the trainer and the training manuals; felt the content was "just right" for their level; increased their confidence in assessing suicidal risk; increased their confidence in managing clients at risk for suicide; increased their familiarity with the core competencies for mental health professionals; increased their familiarity with the fundamentals of Suicidology; and increased my knowledge in the nine core competencies featured in the workshop. In addition, all stated they would recommend the workshop to their peers.

Throughout the no-cost extension, Wheeler Clinic provided the trainees with reminders and workbooks for their practice sessions. With this support, 10 of the 19 trainees completed their one practice TOT within the year following the training in order to become certified. Over 120 people have been trained by these new trainers thus far.

Often during the grant period we in CT spoke with the SPRC and other states about comparisons between gatekeeper curriculums and whether one or another may better prepare a person to recognize and respond to someone at risk of suicide. This is of interest as gatekeeper curriculums vary in content, length and cost. We were pleased that the no-cost extension allowed us the opportunity to perform a Gatekeeper Training comparative study between QPR and ASIST. With the assistance of the United Way of CT, responsible for the ASIST training, and the CSUs, responsible for the QPR training, seventy-six (50%) of 144 ASIST and 166 (53%) of 335 QPR trainees participated in the study. Both types of trainees rated their average knowledge about a variety of skills for assessing, interacting, and referring a suicidal young person very similarly, between "a lot" and "some," closer to "some." Both groups answered correctly between 9 and 10 out of 12 items which assessed knowledge about suicide. Gatekeeper trainees were asked about behaviors related to suicide intervention with a young person in the last 6 months; all behaviors were more likely to have been performed by ASIST trainees, but this could be due to the nature of their employment as ASIST trainees had greater access to at-risk youth than the QPR trainees. Results show QPR and ASIST being comparable despite their differences in content, cost and time. Further details on the results may be found in Appendix B. University of Connecticut Health Center Institute for Public Health Research: CT Youth Suicide Prevention Initiative Local Evaluation Final Report.

Objective 6: Design and pilot implementation of a model program to increase the availability and accessibility of mental health treatment by embedding services in school-based health clinics, which may be replicated in other CT communities. By the end of the three-year project period, a minimum of 875 7^{th} -9^{th}-grade students at St. Francis Hospital (St. Francis) and Medical Center's Adolescent Clinic and Quirk Middle School (Quirk) and Hartford High School (Hartford High) School-Based Health Centers in Hartford, CT will be assessed for depression and suicidal risk and 235 will be referred to crisis counseling services. These students will then be connected to appropriate existing therapeutic counseling.

DMHAS contracted with St. Francis, Quirk and Hartford High to implement a comprehensive prevention program titled, "*Assessing Depression and Preventing Suicide in Adolescents (ADAPSA*)" designed to use: 1) programs

and services that have been developed and evaluated using scientific research methods that demonstrate their effectiveness; and 2) programs and services that use established prevention principles to increase the availability and accessibility of mental health treatment by embedding services in these locations. Care was coordinated among the sites in order to meet the needs of youth who may access services at either site at one time or another.

St. Francis, Quirk, and Hartford High staff met monthly with their advisory committee, which included representatives from the State Departments of Public Health and Office of the Child Advocate, as well as the Hartford School System. In addition, DMHAS held quarterly meetings with administrative staff, and UCHC held monthly data and evaluation meetings with direct service staff.

Each site provided mental health assessments using the Reynolds Adolescent Depression Scale, version 2, (RADS 2), the Behavior Rating Profile (BRP) (Pro-Ed 2007) that assesses family, peer and school support, and a coping sub-scale of from the Oregon Youth Authority (OYA) Questionnaire, which monitors student functioning on an ongoing basis. Participating youth were evaluated by a clinical interview following the screening. When appropriate, youth who met screening criteria or assessment by clinician were offered brief psychological services (6 to 8 sessions) by mental health clinicians employed at each site or referred on to other community mental health agencies. Youth who received treatment were reassessed at three, six, and 12, 18, and 24-months. All services and evaluations were performed only with youth who had active parental consent, as was required by the GLS Act.

In cooperation with clinical staff from St. Francis and Quirk, UCHC staff developed a web-based program that enabled the mental health clinicians at each site to administer all three screening tools on computers in the clinic. Clinicians at all three sites also track the youth by major clinical concerns, screening outcome and follow up using the database housed at UCHC. Clinicians reported data entry as a challenge as they were used to paper assessments, felt computer usage during an assessment interfered with communication with the youth, and found it difficult to make time for data entry otherwise. However, as data entry was a necessary component of the evaluation, and with encouragement from the Project Director and Evaluation Team, it became more consistent in the second year of collection. Improvements were also made in tracking the appointments and referrals.

Student consent, screening, assessment and brief treatment services were provided throughout the grant period at St. Francis. Quirk had summer breaks, but resumed services during the academic year, and efforts were expanded to Hartford High in the 2008-2009 academic year primarily in order to track youth who graduated from Quirk. The bilingual (Spanish-English) mental health clinician working at Hartford High followed-up with youth who had been recruited while in 8th-grade at Quirk and graduated on to Hartford High. In addition, other 9th-grade students previously unknown to the Pilot were also recruited. Targeting the 9th-grade (14 and 15 year-olds) is supported by the Connecticut specific data which indicates them at-risk for suicidality. There were 20 8th-graders who were planning to attend Hartford HS at the end of the 2007-2008 school year; however, only six enrolled at Hartford HS as of September 2008. Some of the youth left the district; others went to magnet schools or other high schools and were lost to follow up.

The initial intent of the ADAPSA Program was to serve middle school youth, but at times high school youth were also served. Therefore, a total of 1,016 youth grades 6th-12th were screened for depression as part of well child visits at the three ADAPSA sites, and from this group 166 screened positive for depression. The total number of middle school youth 7th-9th grades screened was 806, of which 117 screened positive for depression. All positive youth were provided with brief treatment.

Only youth with consent were allowed into the local evaluation. Therefore, of the 806 middle school youth 388 received consent to participate, 69 of which screened positive for depression on the RADS-2 with a score of 77 or above and/or endorsed self-injury. These youth had a mean RADS-2 score of 82. Students with 12-month follow-up data had an average screening score at that time of 60.3, significantly lower than their baseline average score of 76.3, showing that the services they received significantly helped to reduce their risk associated with suicide.

Treatment adherence was significantly greater for youth at the school-based sites versus the hospital/community-based site, primarily due to youth access and staff outreach, leading to conclude that SBHCs are in a unique position to provide mental health screening, referral and treatment to youth. Further details on the middle school

ADAPSA study may be found in Appendix B. University of Connecticut Health Center Institute for Public Health Research: CT Youth Suicide Prevention Initiative Local Evaluation Final Report.

Goal 3: To identify a permanent funding source to sustain the CT Suicide Prevention Initiative and support statewide replication/implementation.

Objective 1: By the end of the project period, a practical strategy will be in place to sustain the initiative and fund additional suicide prevention/early intervention services statewide.

Please see Section VI. Sustainability.

Objective 2: By the end of the project period, the CYSPI strategy will be embedded in state policy, in the Youth Suicide Advisory Board, and CT's Mental Health Transformation State Incentive Grant.

In CT, suicide prevention is embedded in state policy in many ways. There are in fact eight pieces of legislation specifically related to suicide prevention (see Appendix C). These include the establishment of the YSAB, youth secondary education/prescribed courses of study, teacher continuing education, and school crisis policies. The State Department of Education prepared a policy manual in 2004 that includes this legislation and provides implementation requirements and guidance: http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Student/PsychSocial/SP_Guidelines.pdf . However, most suicide prevention legislation is not required, merely recommended or encouraged. Additional concepts for suicide prevention and mental health legislation are being considered and researched using Suicide Prevention Action Network (SPAN) as a resource. Suggestions may be provided to the DMHAS Legislative Liaison in advance of legislative sessions.

CT also has legislation related to mental health that supports the early screening of youth without initial parental consent (up to six sessions): Outpatient Treatment to Minors. There is not one state agency or office designated as the primary for suicide prevention, which often creates turf issues among those state agencies (DMHAS, DPH, and DCF) that work on this problem. It is unclear whether the development of an Office of Suicide Prevention is necessary, but evidence exists that it has worked well for some states that have them. However, given the current economic climate and state budget deficit, it certainly is not an appropriate time to suggest such legislation.

August 2007, with the support of Governor Rell's Office, the DMHAS CYSPI sent letters to each of the CT Congressional Delegates in support of the Garrett Lee Smith Memorial Act ReAuthorization of 2007. The Senators were thanked for their sponsorship of S.1514, and the Representatives were encouraged to support H.R.2511. The letters are available for viewing on the CYSPI website: www.ct.gov/dmhas/cyspi .

DMHAS, in collaboration with its state and community partners, continue to research partnership opportunities and implement sustainment activities through statewide interagency coordination and resource development efforts. The CYSPI Project Director, sub-contracted agencies, schools, and mini-grantees have worked to share the CYSPI goals, objectives and ideals statewide with various groups and individuals during outreach efforts in attempts to increase awareness and collaborate. Parties include the: YSAB, Interagency Suicide Prevention Network (ISPN), Mental Health Transformation Initiative, Strategic Prevention Framework Initiative, state departments, regional mental health groups, CT Youth Service Association, CT Prevention Network, CT Southwest Chapter of the American Foundation for Suicide Prevention, CT Military Support Program, CT National Guard, Mental Health Association of CT, Veterans Administration Hospital Suicide Prevention Initiative, DCF and DMHAS Emergency Mobile Psychiatric Services, DMHAS Education and Training Division, clinical professional organizations, state universities and community colleges, parent groups, middle and secondary schools, fraternal organizations, community-based agencies, clinicians and Legislators.

In addition, collaborative discussions and outreach have also taken place with out of state entities such as the SPRC Training Institute, American Foundation for Suicide Prevention, Outside the Classroom, Kognito Interactive, and the National Office of Suicide Prevention in Ireland. As a result, parties have been educated about youth suicide as a public health problem, youth suicide in CT, and have been informed of the youth suicide

prevention efforts and opportunities for collaboration in the state funded through various means. In this process we have been pleased to learn that there are many active suicide prevention efforts across the state at local and regional levels by multiple caring individuals and groups. We have discovered that they often are unfamiliar with one another; are hidden within groups with broad encompassing purposes; are not blatantly named something to do with suicide; have minimal resources; and do not know exactly what to do or where to start in order to be effective. We have greatly appreciated the cooperative nature of those involved and more than anything our findings indicate the need for a non-state operated statewide suicide prevention coalition that can help drive suicide prevention efforts, advocacy, fundraising, and legislation as one does not currently exist. In addition, these results suggest the need for the application of SAMHSA's Strategic Prevention Framework directed at youth suicide prevention. It is our hope that we may initiate such concepts in the near future in cooperation with current efforts.

DMHAS, as administrator of the federal SAMHSA Block Grants and co-chair of the Mental Health Planning Council, is in a key position to encourage, and if funds are available, support continued implementation, evaluation, improvement and replication of CYSPI activities throughout the state. During the grant period, the CYSPI Project Director and MHT Project Manager held discussions of how the two grants might intersect and complement one another and attempted to coordinate the implementation of a school survey for mental health, which would have included questions developed by the MHT and CYSPI, in coordination with the CT DPH-funded School-Based Health Centers and CT SDE. Unfortunately, this concept never came to fruition due to various staff changes within the MHT, DPH, and SDE. However, just recently the CYSPI Project Director was assigned by the DMHAS Commissioner to the School-Based Health Centers Ad Hoc Advisory Committee which may provide an opportunity to revisit this concept.

Other discussions of how the CYSPI and MHT could overlap and support each other included the potential utilization of the Network of Care for Behavioral Health web-site: http://connecticut.networkofcare.org/mh/home/index.cfm . This web-site is a resource for individuals, families and agencies concerned with mental health. It provides information about mental health services, laws, and related news, as well as communication tools and other features (CT Network of Care, 2010). The CYSPI Project Director investigated the web-site's capabilities and compared it to other options available to support the CYSPI, as well as discussed the options with the CYSPI Advisory Committee. No final decision was made primarily due to the close of the grant. The DMHAS Prevention and Health Promotion Director was invited to participate in the MHT close-out meeting with the CMHS Project Officers during a site visit spring 2010, at which time she shared CYSPI outcomes with them as they aligned with MHT goals.

Goal 4: To conduct a high quality program evaluation through an academic partnership.

Objective 1: Engage the University of CT Health Center (UCHC) to conduct a process and outcome evaluation of the infrastructure and evidence-based prevention intervention activities.

UCHC and DMHAS met monthly and had regular e-mail and phone communication. The UCHC Evaluation Team was been actively involved with the CYSPI at many levels. UCHC prepared, submitted, and received Institutional Review Board (IRB) approvals as required. In addition, they actively participated in CYPSI Advisory Sub-Committee meetings, Mini-Grant Reviews, AMSR Applicant Review, Macro International and SPRC Webinars, and multiple planning and oversight meetings with CYSPI sub-contracted agencies and schools in order to plan evaluation activities. Fortunately, they were able to participate in most CMHS Grantee meetings and the AAS Conferences and co-presented with the Project Director on the findings of the Middle School Pilot and High School SOS Program, as well as in the poster session at AAS 2010. The UCHC staff was professional, solution-focused, informative and resourceful. They worked effectively with the CYSPI Project Director and Coordinator, CYSPI sub-contractors, CMHS, SPRC and Macro International.

Please see Appendix B. University of Connecticut Health Center Institute for Public Health Research: CT Youth Suicide Prevention Initiative Local Evaluation Final Report for local evaluation details.

Objective 2: Evaluate progress and outcome performance measures to assess program effectiveness, ensure quality services, identify successes, inform quality improvement, and promote systemic sustainability of effective practices.

A. *ADAPSA* -Research Question: Will embedding services in school clinics improve treatment outcomes? Yes.

Our results suggest that the provision of mental health services in school-based health clinics could lead to increased rates of identification of depressed students and better access to students for the provision of counseling services. Efforts to reach young at-risk urban students, securing consent for evaluation, and providing mental health services were far more successful in school-based health centers than in an outpatient, hospital based pediatric clinic. Youths seen at the school-based health clinic also were seen more frequently for mental health appointments and received more follow-up screenings, even though the school-based clinics were only available for the 10 months of the school year while the community clinic was open year round. The proportion of kept appointments was quite high for a community outpatient clinic, particularly one serving younger clients from a largely Latino Population (Kruse, Rholand, & Wu, 2002; Donaldson, Spirito & Esposito-Smythers, 2005). Our findings support conclusions made by other researchers who have examined the accessibility and efficacy of school-based mental health services (Kataoka et al 2003; Flaherty et al 1996; Flaherty & Weist, 1999). However, follow-up rescreening rates were low in both the school and hospital contexts, suggesting that targeted efforts to improve tracking and follow-up procedures are warranted in order to document and hopefully improve student outcomes.

The adoption of screening as part of the standard of care at all three sites may potentially serve as a model for the 41 of 59 school-based health clinics in Connecticut which serve middle and/or high school students. This effort would be consistent with the 2005 Connecticut Comprehensive Suicide Prevention Plan (DPH, CT State Judicial Branch). The stated goal to "conduct rapid assessment and planning of care for children and youth; promote system changes to expand the scope of services in schools and assess utilization of school-based mental health services," may be well served by the adoption of a standard of care in which all youth utilizing school-based health clinics are screened for depression. As of this report however, there are no plans to adopt mental health screening at the other school-based clinics.

B. *Youth Suicide Prevention Training*-Research Question: Will suicide prevention training improve knowledge concerning depression and suicide among foster and adoptive parents, juvenile justice personnel? Yes.

Two gatekeeper training programs were offered: Question Persuade Refer (QPR) (Quinnett, 2007) suicide prevention gatekeeper training program was offered at each of the four Connecticut State University (CSU) campuses, and Applied Suicide Intervention Skills Training (ASIST), was provided to professionals who work with high-risk populations. An online survey of the QPR and ASIST trainees revealed that both QPR and ASIST were well-received by trainees and both types of trainees reported that the training introduced them to new concepts about suicide prevention. QPR and ASIST trainees assessed their preparedness similarly as quite well prepared to competently interact with a suicidal young person. In addition, both types of trainees rated their average knowledge about a variety of skills for assessing, interacting, and referring a suicidal young person very similarly, and both groups revealed similar levels of knowledge about suicide.

C. *College Suicide Prevention Programs*- Research Question: Can suicide prevention programs focusing on gatekeeper training and peer education increase help-seeking among college students? Yes.

One of the goals of the college suicide prevention effort was to increase the number of referrals from self, friends, faculty and staff. Counseling center utilization rates increased at each CSU campus. In addition, from the 2007-2008 academic year to the 2008-2009 academic year, all types of referrals (self, faculty, friend, Residential Life or other) increased in number.

Although the reason for the increase in counseling center utilization and referral rates from 2007-2008 to 2008-2009, and from fall to spring, is impossible to determine, it is consistent with an effect from the QPR Gatekeeper training on faculty and Residential Life/other staff referrals and from the college SOS program on friend referrals. However, at least some of the increase is likely due to changes in policies at several of the sites limiting the number of individual sessions per student. In addition, the pattern of increases in depression and suicide as presenting concerns from fall to spring is consistent with prior research (Kposowa, & D'Auria, 2009; Milane, Suchard, Wong, & Licinio, 2006). It is somewhat surprising that the numbers of suicide assessments do not follow this seasonal pattern on all campuses. It should be noted that suicide assessments were counted, not

individual clients, however, so it is possible that chronically suicidal clients could bias the number of assessments upward compared to the number of clients served; this further complicates interpretation of these data.

D. *SOS High School Program*- Research Question: Does the SOS program reduce suicidal behavior among high school students? Yes.

Results from the current study generally corroborate findings from previous SOS intervention evaluations that participation in the SOS program is associated with lower rates of suicide attempts at 3 months following the program (Aseltine, 2003; Aseltine & DeMartino, 2004; Aseltine, James, Schilling, & Glanovsky, 2007). As in previous studies, the SOS program had an important short-term impact on the attitudes and behaviors of high school aged youth, and increased students' knowledge of, and adaptive attitudes toward, depression and suicide. Once again, evidence was not found that the program altered suicidal ideation or help-seeking behaviors. However, this study offered the SOS program to a unique subgroup of high school students who may in some respects be at higher risk than the general public school population. Confirmation of the SOS program's efficacy in this subgroup of students adds to its appeal as a very robust universal prevention program.

This study also extended previous research by utilizing a randomized pre-test/post-test design, which was more rigorous than previous post-test only designs used to evaluate SOS. This study demonstrated that the treatment and control groups were statistically indistinguishable at pre-test, increasing confidence in the results. In addition, because analyses of the effects of the SOS program controlled for pre-test levels of the outcome, the results are less likely to be affected by differential attrition between treatment and control groups. Thus, by replicating and extending previous research, results from the current study increase confidence in the efficacy of the SOS program.

Please see Appendix B. University of Connecticut Health Center Institute for Public Health Research: CT Youth Suicide Prevention Initiative Local Evaluation Final Report for local evaluation details.

Objective 3: Translate the process/outcome evaluation into lessons learned for communities attempting to implement evidence-based suicide prevention interventions.

In addition to the outcomes and lessons learned that are discussed above under Goal 4, Objective 2, overall the primary lessons learned through the CYSPI fall under two categories: 1. Relationships, and 2. Risk Assessment and Management.

1. *Relationships*-
   - *Systems Approach*- Although suicide is a personal behavior it cannot be impacted solely by targeting individuals. Prevention strategies must be broad, multifaceted and orchestrated to address both individuals and populations using a systems public-health approach.

   - *Coordination & Collaboration*- It is of the utmost importance to cultivate relationships at various levels (local, state, and national), and to break through barriers in order to successfully coordinate, carry-out and sustain suicide prevention efforts. There are many suicide prevention efforts occurring at local and state levels by multiple caring individuals and groups, but there is not enough coordination of prevention efforts. Often groups are unfamiliar with one another; are hidden within groups with broad encompassing purposes; are not blatantly named something to do with suicide; have minimal resources; and do not know exactly what to do or where to start in order to be effective. We have greatly appreciated the cooperative nature of those involved and more than anything our findings indicate the need for a statewide suicide prevention coordinate effort as one does not currently exist.

2. *Risk Assessment & Management*-
   - *Screening*- Consistent and timely screening, brief intervention, referral and treatment (SBIRT) is absolutely necessary to identify youth and young adults in mental distress and at risk of suicide. It must be performed at least a few times a year as individuals' moods and circumstances change throughout the year resulting in fluctuations in risk as well.

- *Physicians*- Any physician, not just Primary Care (PC), but especially PC, who serves youth and young adults on a regular basis is in a unique position to provide SBIRT services and must take it upon themselves to become educated in these techniques, as well as familiarize themselves and collaborate with local resources for referral.

- *Mental Health Providers*- Most mental health clinicians have not been trained to assess and manage suicide risk; and even if they have been trained at some point it is imperative that they acquire continuing education of this skill in order to be as prepared as possible to identify warning signs and assess suicidality when the time comes.

- *Gatekeeper Training*- People who are suicidal are ambivalent about dying and are looking for someone to confide in; anyone who cares about preventing suicide must become a trained gatekeeper. The more people there are to identify warning signs, question an individual of concern, inform them that they are cared for, and are willing to assist them get help the smaller the holes in the safety net become, and the less likely our youth will fall through.

Objective 4: Disseminate findings by producing a written report for statewide use, national replication, and to inform the Youth Suicide Advisory Board.

A Close-Out Meeting and Recognition Award Ceremony was held March 31, 2010 at the Crown Plaza Hotel in Cromwell, CT, at which the CYSPI Project Director and Evaluator, as well as ICF Macro, reported on outcomes of the state and federal GLS Initiatives. Successes, challenges and sustainability were also discussed. In addition, one of the mini grants supported by the Awareness Campaign presented their "story" and a DVD that the youth created to support their education efforts related to the Yellow Ribbon Campaign. All CYSPI Advisory Committee members, YSAB members, CYSPI sub-contractors, and other dignitaries and stakeholders were invited, and 66 people attended. In addition, awards/certificates were issued to sub-contractors, partners and Advisory Committee members involved in the Project for outstanding efforts in suicide prevention. The Power Point Presentations utilized at the event are posted on the CYSPI website: www.ct.gov/dmhas/cyspi.

The Project Director and Evaluation Team co-presented workshops at the CMHS GLS Grantee meeting in March 2010 and the AAS Conference in April 2010 on the findings of the Middle School Pilot and High School SOS Program Study. In addition, they participated in the poster session at the AAS Conference, which included posters on these two components (see Appendix D).

This report will be posted on the CYSPI website in September 2010, and a notice will be released to all stakeholders highlighting some of the findings and noting the web-link for more information. Lastly, on November 18, 2010 the Project Director and an Evaluation Team member will present the final outcomes to the YSAB.

II. Budgetary and Personnel Adjustments

In 2009, DMHAS applied and was approved for a no-cost extension until May 31, 2010 in order to complete deliverables and spend down the remaining grant dollars which resulted from unexpended funds predominantly related to the delay in implementation of the ADAPSA Project. Consequently, the following entities were granted cost extensions 2009-2010: UCHC, Wheeler, and the four CSUs which allowed us to complete our originally proposed goals and objectives and add the Gatekeeper Comparison Study, support the AMSR TOT and ASIST T4T trainees through their practice period, hold a Close-Out Event, and purchase copies of the Institute of Medicine book *Preventing Mental, Emotional, and Behavioral Disorders Among Young People* for our sub-contractors, YSAB members and CYSPI Advisory Board members.

March 2010, the Project Coordinator acquired a position in a different state agency and left the grant knowing that it was to end May 2010. Therefore, the Coordinator salary was assigned to an otherwise state-funded staff person, Janet Storey, M.S.W., C.P.P.-R. who stepped in to assist the Project Director upon Ms. Case's departure.

III. Technical Assistance

Throughout the grant period the CYSPI Project Director, Coordinator and UCHC Evaluation Team participated in regular technical assistance activities coordinated by SPRC. These included group and individual calls, Webinars, and e-mail communications. The joint calls with SPRC, ICF Macro and the CMHS Government Performance Officer (GPO) were very useful for reviewing our efforts, asking specific programmatic questions, clarifying requirements, and learning about potential resources specific to our initiative. Communications such as phone, e-mail list serves, and Webinars were beneficial in expanding our understanding of national program goals, advances in the field of Suicidology and suicide prevention. All have in some way supported implementation and expansion of not only CMHS-funded CYSPI efforts, but CT suicide prevention efforts across the board statewide.

Specifically, the topic-based conference calls and Webinars facilitated by CMHS, ICF Macro and SPRC have increased our awareness and capacity to address a variety of relevant issues, including but not limited to, social marketing, school-based interventions, screening and brief treatment, working with primary care, community-based strategies, sustainability, social media, etc. These calls introduced us to Preventionists from across the country engaged in similar efforts, further expanded our resource network, allowed us to learn from their successes and challenges, and facilitated the exchange of technical support among the grantee population.

We greatly appreciated the special technical assistance provide by the SPRC Training Division during the planning and implementation of the AMSR TOT; as well as the assistance provided by ICF Macro in the preparation and presentation of our final results on March 31, 2010 at the Close-Out Event, discussed previously.

The GLS Initiative has exponentially increased suicide prevention knowledge and activity nationwide since its inception in 2005. The quality of information, knowledge and resources shared and exchanged at the annual grantee meetings, especially in 2010, is a testament to its success. In addition, it is important to mention the positive impact the GLS Initiative has had in enriching the annual AAS Conference. We have been honored to be a part of this tremendous contribution to the field of Prevention and Suicidology, and have enjoyed and benefited greatly from the technical assistance services throughout the grant.

IV. Collaborations

DMHAS worked collaboratively with multiple national, state and community-based agencies, systems, schools, and individuals in order to carry out the CYSPI. Voluntary members of the CYSPI Advisory Committee, a sub-committee of the CT Youth Suicide Advisory Board managed by the Department of Children and Families (DCF), included the DCF representative and those from the Office of Child Advocate (OCA), State Department of Education (SDE), National Alliance on Mental Illness-CT, CT Behavioral Health Network, Town of Enfield Youth Services, Wheeler Clinic/CT Clearinghouse, University of Connecticut Health Center (UCHC), United Way of CT (National Suicide Prevention Lifeline provider), and private citizens/parents who are survivors of suicide.

Sub-contracted partners were especially interested in collaboration and committed to the CYSPI goals and objectives. These included the sub-contracted state agency partners: SDE-CT Technical High School System (CTHSS), Connecticut State University System (CSU), and the UCHC-Institute for Public Health Research. Other state and national sub-contracted partners included: the Saint Francis Hospital and Medical Center (Saint Francis), Quirk Middle School of Hartford Public Schools (QMS), Trumbull Public High School of Hartford Public Schools (THS), Screening for Mental Health (SMH), LivingWorks, QPR Institute, Wheeler Clinic/CT Clearinghouse (Clearinghouse), and the United Way of CT (United Way). Without their involvement the Initiative would certainly not have been as successful.

In addition, non-contracted partners included the Department of Public Health (DPH), DCF Emergency Mobile Psychiatric Services (EMPS), Office of Chief Medical Examiner (OCME), and the Interagency Suicide Prevention Network (ISPN) managed by DPH, which developed the CT Comprehensive Suicide Prevention Plan (2005). These partners supported CYSPI efforts by collaborating to provide: constructive input, data, access to providers, and forums to share information and training opportunities. The Project Director continues to build partnerships with the local American Foundation for Suicide Prevention (AFSP) Chapter, Veterans Administration, CT National Guard and Reserve, DMHAS Military Support Program, Mental Health Association

of CT, and the CT Employee Assistance Professional Association, and continues to support and research opportunities for collaboration.

V. Products and Publications

Please see Appendix D. for copies of the following products and publications:

- UCHC CYSPI Local Evaluation documents-guidance workbook, evaluation tools, consent forms
- Website Homepage and highlighted web-based documents
- Statewide Awareness Campaign Materials
- Governor's Proclamation
- GLS and AAS presentations/posters

VI. Sustainability

As mentioned on under Goal 3**,** Objective 1, sustainability was one of the overarching goals of the CYSPI. It was always the intention to identify a permanent funding source to sustain the CT Suicide Prevention Initiative and support statewide replication/implementation, so that by the end of the project period a practical strategy will be in place to sustain the initiative and fund additional suicide prevention/early intervention services statewide.

However, rather than identifying a funding source to continue to support the CYSPI as it was funded under CMHS, because we considered sustainability throughout the grant it occurred at the local provider level rather than at the state level. This is a positive result for the most part, but without a statewide connection each component will continue to work independently, contributing to the challenges of coordinating efforts. Sustained activities are listed below.

- Screening, brief treatment, and referral at Saint Francis Hospital Adolescent Clinic.
- SOS High School Program at some of schools in study.
- Clinical services, Titanium software, QPR and NDSD at CSUs, awareness activities and expansion efforts involving student organizations and campus task forces.
- ASIST, safe-Talk and AMSR training per request, and researching integration in Prevention Training services.
- Expansion of statewide and regional substance abuse priority setting process to include suicide and self-injury data.
- Awareness campaign mini grantees continue local efforts.
- Continued enhancement and development of relationships with suicide prevention partners.
- Planning for re-application to SAMHSA/CMHS GLS Program in 2011.

In support of SAMHSA's mission to reduce the impact of substance abuse and mental illness on America's communities and prior to SAMHSA's announcement of its 10 Strategic Initiatives, we are considering developing and implementing co-occurring initiatives to institutionalize and integrate suicide prevention and mental health promotion efforts with our substance abuse prevention initiatives currently supported by SAMHSA block grant dollars. Consistent with SAMHSA's first strategic initiative, Prevention of Substance Abuse and Mental Illness, DMHAS is investigating the expansion of our utilization of SAMHSA's Strategic Prevention Framework (SPF) beyond substance abuse prevention and researching opportunities to apply it to mental health promotion and suicide prevention as well in an effort to better coordinate linkages among local, regional, and state prevention efforts.

VII. General Comments

A. Adjustments to the Original Proposal

The following adjustments were made to the original proposal. Outcomes were discussed in detail under their related Goals and Objectives, but here. Most adjustments were the result of joint decision-making with grant sub-recipients.

1. Addition of the CYSPI Kick Off Event and CYSPI Web Pages (Goal 1, Objective 2):

To inform the public of the new CYSPI and to support National Youth Suicide Prevention Week in September 2006, DMHAS and the YSAB hosted the CYSPI Kick-Off Event on September 6, 2006 at the CT Clearinghouse. Project staff from DMHAS, DCF, Saint Francis Hospital and Medical Center, the CSU, and the UCHC provided an introduction to the Initiative. The presentation was followed by an opportunity to view the "Friends for Life," Screening for Mental Health, Inc. video, tour the Clearinghouse, and attain Suicide Prevention materials. The Event was attended by over 60 people, publicized using a press release, and was covered by the New London Day newspaper and CT Television Network (state public access).

The CYSPI web pages located on the DMHAS web site: www.ct.gov/dmhas/cyspi, were created to allow access to information on youth and young adult suicide and suicide prevention, state and national resources, data, details on the Initiative, related activities, meeting minutes, presentations, resources, etc.

2. Coordination with CTHSS & Trumbull HS for SOS High School Program, and the DCF EMPS staff (Goal 2, Objective 1):

As one of the primary risk factors for youth suicide is exposure to other teenagers who have died by suicide, DMHAS, with the direction of the YSAB, originally planned to recruit towns that had experienced recent youth suicide for the SOS High School Program. The CYSPI identified the Connecticut towns that experienced one or more youth suicide(s) of 11-17 year-olds 2001-2006 based on CT Office of Child Advocate data. Recruitment proved early on to be extremely challenging, time consuming, and unsuccessful with the first two towns. Fortunately, just as frustrations were increasing, DMHAS was approached by the State Department of Education (SDE) as they were interested in the SOS High School Program for the Connecticut Technical High School System (CTHSS). A representative of SDE attended the CYSPI Kick-Off event and as a result subsequently planned, with the Screening for Mental Health, Inc., an "Orientation to SOS" for the clinical staff (counselors, social workers and psychologists) of the CTHSS schools on October 6, 2006 using SDE funds. Following the orientation, many schools expressed interest in utilizing the SOS curriculum provided they were given money to purchase the curriculum. The CTHSS and the CYSPI became a natural match. The CYSPI was looking to recruit 15-19 high schools, serving 2,100 ninth-graders, while taking at-risk towns into consideration, and the CTHSS covers all towns, as it is a statewide system of 17 high schools with approximately 2,500 ninth-graders. Consequently, DMHAS developed a Memorandum of Agreement with CTHSS via SDE to implement the SOS curriculum in ninth-grade classrooms in each of the CTHSS schools.

Then in March 2006, Trumbull Public Schools approached the CYSPI about having the Trumbull High School/Regional Agriscience and Biotechnology Program join the Project. The Regional Agriscience and Biotechnology Program serves students from the towns of Bridgeport, Easton, Fairfield, Milford, Monroe, Orange, Shelton, Stratford, and Trumbull, four of which experienced a youth suicide between October 2001 and November 2006. The Town of Trumbull was also the sub-recipient of a SAMHSA/CSAP Strategic Prevention Framework-State Incentive Grant via DMHAS addressing underage problem alcohol use at the community level. It was through this relationship that they became familiar with the CYSPI. Due to the considerable interest and support in Trumbull, the fact that their public high school resembled the Technical High Schools as it houses the Regional Agriscience and Biotechnology Program, their students' exposure to youth suicide, and that it was large enough to count for our last two available slots with over 600 9th-graders we were pleased to contract with the town.

With consideration to cultural competence and sustainability, it was decided that rather than hiring one full-time health educator and mental health clinician to provide ongoing training and technical support for the SOS High School Program, it would be better to have the clinical staff at each of the participating high schools perform the SOS Program and received technical support directly from the curriculum developer, Screening for Mental Health, Inc. This process built the capacity of each school to meet its own unique needs and facilitated the continuation of the SOS Program provided there was administrative support to do so.

In addition, in an effort to ensure that suicidal and at-risk youth received timely and effective crisis intervention, screening, and appropriate medical treatment and/or referral to therapeutic counseling, the school systems identified that the relationship between the DCF-managed, statewide Emergency Mobile Psychiatric Service (EMPS) System and the SDE at the systems level could be enhanced to increase collaboration among EMPS providers and the High

Schools in the delivery of in-school mental health education programs and mental health services. Therefore, the CYSPI worked with the EMPS Director, Tim Marshall, towards this goal.

3. Utilization of the QPR Gatekeeper curriculum at the CSUs, and addition of Active Minds on Campus & NAMI Student Organizations (Goal 2, Objectives 2-4):

Although training of faculty and staff at the colleges was written into the original proposal, no one curriculum had been identified. July 2007, the Counseling Center Director at SCSU informed DMHAS that they had been using the *QPR (Question, Persuade, Refer) Institute's QPR Gatekeeper Model* for the past two years, liked it very much, and had found it to be well received on campus. In 2005, SCSU counseling staff encouraged West Conn to implement the QPR on their campus as well. As a result, staff was trained and implemented QPR on campus fall of 2006. With further research and multiple conversations and e-mails with Dr. Paul Quinnett, Founder and CEO of the QPR Institute in Spokane, WA, it was determined that the counseling center staff at each of the four universities would become trained trainers of QPR targeting the same population mentioned above. By the end of the CYSPI, each of the four CSU Counseling Centers had at least two QPR trained trainers on staff resulting in 335 faculty and staff trained.

At the onset of the CYSPI, none of the four CSUs had active student organizations that addressed mental health promotion and stigma reduction. Therefore, the CSU Counseling Centers were encouraged to support the implementation of such efforts. Consequently, one Active Minds on Campus Chapter and two NAMI on Campus Chapters were established with the support of CYSPI funds and guidance.

4. Workforce development and training administration and curriculums chosen to be utilized, support to new trainers, and addition of the Gatekeeper Training Comparison Study (Goal 2, Objective 5):

Originally, the DMHAS had planned to contract with the DCF in order to implement the training and workforce development component, and expand their current suicide prevention training. However, due to conflicting responsibilities DCF asked that DMHAS instead contract directly with the United Way of CT (UW) and Wheeler Clinic to accomplish this task. The CYSPI Advisory Committee also decided that rather than expand the DCF trainings that were developed locally, it was preferred to use evidence-based models approved of by the national Suicide Prevention Resource Center. Therefore, the UW provided eight two-day LivingWorks' *Applied Suicide Intervention Skills Training* (*ASIST) Gatekeeper* trainings and one advanced, five-day *ASIST Training For Trainers (T4T)* in coordination with LivingWorks to foster and adoptive parents, school nurses, juvenile justice personnel, and other community stakeholders. Wheeler Clinic managed and facilitated the *Assessing and Managing Suicidal Risk (AMSR): Core Competencies for Mental Health Professionals* trainings, which targeted the CTHSS, Trumbull, CSU, St. Francis Hospital and Medical Center Adolescent Clinic, Quirk Middle School School-Based Health Center, and EMPS clinical staff, and the *AMSR Training of Trainers (TOT)* for clinical mental health professionals who passed a rigorous application process. Final results are that 396 people, with some overlap, were trained using theses curriculums; and eight ASIST and 10 AMSR trainers were trained and may continue these trainings provided funding is available.

The no-cost extension allowed us the opportunity to perform a Gatekeeper Training comparative study that was not originally planned, between QPR and ASIST to determine which training may better prepare an individual to respond to a person at risk of suicide. The United Way of CT responsible for the ASIST trainings and the CSUs responsible for the QPR trainings assisted the UCHC in the successful recruitment of seventy-six (50%) of 144 ASIST and 166 (53%) of 335 QPR trainees into the study. Both types of trainees rated their average knowledge about a variety of skills for assessing, interacting, and referring a suicidal young person very similarly, between "a lot" and "some," closer to "some." Both groups answered correctly between 9 and 10 out of 12 items which assessed knowledge about suicide. Gatekeeper trainees were asked about behaviors related to suicide intervention with a young person in the last 6 months; all behaviors were more likely to have been performed by ASIST trainees.

5. Screening tools chosen to be utilized for ADAPSA (Goal 2, Objective 6):

Prior to the ADAPSA Program, St. Francis has been using the Beck Depression Inventory (BDI – II) for 13+ year-olds at their adolescent clinic to assess depression of their patients. When the ADAPSA Program was initially planned it was determined that a second assessment tool would be needed for those youth age 11 and 12 due to the target

population being 11-14+ year-olds. Therefore, the Reynolds Adolescent Depression Scale (RADS-2) for 11-20 year-olds was added. However, in the six-months prior to implementation of the ADAPSA Program, the providers thought it would be too confusing to use two assessment tools and instead decided to forgo the use of the BDI-II altogether and only use the RADS-2, which was suitable for the entire target population.

6. Addition of the Close-Out Event and other outcome dissemination tactics (Goal 4, Objective 4):

In order to disseminate findings a Close-Out Meeting and Recognition Award Ceremony was held March 31, 2010 at the Crown Plaza Hotel in Cromwell, CT, at which the CYSPI Project Director and Evaluator, as well as ICF Macro, reported on outcomes of the state and federal GLS Initiatives. Successes, challenges and sustainability were also discussed. In addition, one of the mini grants supported by the Awareness Campaign presented their "story" and a DVD that the youth created to support their education efforts related to the Yellow Ribbon Campaign. All CYSPI Advisory Committee members, YSAB members, CYSPI sub-contractors, and other dignitaries and stakeholders were invited, and 66 people attended. In addition, awards/certificates were issued to sub-contractors, partners and Advisory Committee members involved in the Project for outstanding efforts in suicide prevention. The Power Point Presentations utilized at the event are posted on the CYSPI website: www.ct.gov/dmhas/cyspi.

The Project Director and Evaluation Team presented on the CYSPI on panels and in workshops during CMHS GLS Grantee Meetings each year of the CYSPI; except for 2009 due to the Project Director being unable to travel after having a baby and the UCHC staff having limited funds prior to the approval of the no-cost extension. In addition, they co-presented at the AAS Conference in April 2010 on the findings of the Middle School Pilot and High School SOS Program Study, and participated in the poster session at the AAS Conference, which included posters on these two components (see Appendix D).

This report will be posted on the CYSPI website in September 2010, and a notice will be released to all stakeholders highlighting some of the findings and noting the web-link for more information. Lastly, on November 18, 2010 the Project Director and an Evaluation Team member will present the final outcomes to the YSAB.

B. Recommendations for SAMHSA

Mandate the use of SAMHSA's Strategic Prevention Framework (SPF) planning model to address suicide prevention and coordinate the SAMHSA-CSAP SPF-Partnerships for Success Initiative with the CMHS GLS Initiative. The Center for Substance Abuse Prevention (CSAP) has been requiring the use of the SPF to address priority problem substances and related consequences (including suicide) nationwide since 2005, resulting in tremendously positive outcomes. We believe that suicide prevention outcomes could greatly improve utilizing the SPF and evidence-based strategies directed at reducing risk factors associated with suicide. Not only that, but as some of the targeted risk factors for substance abuse and suicide overlap, the combined efforts have the potential for greater impact on both problems than working on them separately.

Under the direction of the Department of Health and Human Services (DHHS), SAMHSA and the CDC, work together to investigate the potential development of federal legislation that would require states, via their Governor's Office, to develop and/or update their suicide prevention plans as five-year strategic suicide prevention plans. Through the GLS Program it has come to our attention that there is no consistency among the states as to how they prepare their suicide prevention plans, if they do at all, and how they track progress. Many plans consist of national and state-specific suicide and intentional self-injury data and a list of recommendations, but do not address how the state will respond to suicide as a public health problem. The plans do not include an implementation workplan or evaluation plan. State plans should include short (3-year) and long (5-year) term measurable benchmarks and outcomes. The states should be required to report progress on their plans annually back to CMHS and the National Center for Injury Prevention and Control, and update their plans every five years.

C. Anecdotes

Statewide Awareness Campaign

For the most part, the mini-grantee recipients of the Statewide Awareness Campaign collected process data related to their activities, but in one case the grantee decided to perform their own pre-posttests with their 13-15 year old Peer Leaders and Peer Mentors as part of their Yellow Ribbon Curriculum. Here are the outcomes:

- 78% increased their understanding of factors that put youth at risk of suicide, while 22% stayed the same.
- 78% strongly agree, and 22% agreed with the statement, "If a friend or fellow student came to me because she/he was depressed or having suicidal thoughts, I would know who to go to for help.
- 89% strongly agreed and 11% agreed with the statement, "I know what resources are available to me if I am feeling depressed or having suicidal thoughts.
- 67% strongly agreed, and 33% agreed with the statement, "I think that the Yellow Ribbon program makes it easier for youth to ask for help if they are depressed or having suicidal thoughts.
- 100% would recommend the Yellow Ribbon program presentation to others.

One grantee reported that a student, who participated in the Middle School SOS Program funded via a mini-grant, used what she learned in SOS to help her friend who ran away from home. She was able to get her friend to a trusted adult and get the help she needed.

ADAPSA

The following vignettes were shared by the ADAPSA Program as examples of youth they serve. They are evidence of the need for on-going efforts to reduce risk factors and provide services:

- Student recently moved from Puerto Rico and is having difficulty adjusting to Connecticut. Misses home and misses culture in PR. Feels worried and unsafe in Hartford. Fighting with other kids at school and had a physical altercation with teacher which may have lead to expulsion and criminal charges. Teacher fortunately chose not to press charges. Cannot control anger and temper. Having feelings of self-harm and suicide, including suicidal gestures such as cutting. Began counseling at school and improved tremendously. Disclosed that father was abusing mother physically which was appropriately reported and follow-up by DCF. Although student was upset by DCF involvement, understood importance of keeping mother and kids safe if father had anger issues. Family receiving more services at home. Student began to improve in school both academically and socially. Making more friends and using anger management skills learned in treatment. The student is in a much better mood toward end of year and is passing 8th grade and moving onto high school. He is looking forward to trip to PR with family to visit family members there.

- Mental health staff worked with a student and her family for the academic school year. Helped mother prioritize time and spend more one-on-one positive time with student which she reported she wanted and missed. The mom began balancing work and free time more appropriately, not spending as much time with her new boyfriend and prioritizing her children. Mother ended a very abusive relationship and is making progress financially and emotionally. She has a good full-time job and moved from Hartford to Manchester. Staff member helped mother enroll two daughters' in local Manchester schools for fall 2009 and renew health insurance. This student felt supported and used therapy as a tool to cope with very upsetting family problems throughout year. (Examples include: Mother's rape from abusive ex in parking lot after work, and, temporary health scare following rape when student was unsure of how mother was doing when she received the news via text DURING SCHOOL HOURS! and Fear for herself and her little sister's safety because of mother's unpredictable ex-boyfriend/family.) This student finished 8th grade with very good grades and is excited and looking forward to moving to Manchester.

- This student began treatment after indicated that he has a lot of trouble sleeping and was reporting some psychotic symptoms including visual and auditory hallucinations. He was down and sad in school and could not focus. Staff contacted parent and mother followed through with referrals and student began attending regular outside therapy appointments as well as being assessed by a psychiatrist. He obtained appropriate medication to help relieve

symptoms and finish 8th grade smoothly, he had made good friends and was content with his life at re-screen.

- This student lost a parent last year and joined Grief Counseling Group at school. He went through activities including creating a memory box to represent relationship with loved one lost. Talked to other students to feel supported and express empathy for one another. He was able to process his feelings of grief and sadness over missing loved one. He did very well in treatment at school and will continue with outside support over summer months and forward.

- Student was having multiple symptoms of PTSD. She was the victim of a violent home invasion. At the time of the screen, she was often anxious, had trouble sleeping, and was sad. After several therapy sessions, she was happier, less anxious, and sleeping well. Both the patient and her mother reported that she was able to sleep alone again and was not having nightmares. She was also functioning better at school.

- A 13 year old male who was having difficulties learning at school had unresolved grief issues and was struggling socially. He initially scored in the mildly depressed range and was being followed by one of the practitioners. A classmate of his was stabbed at school and this resulted in a significant decline in his mental health. His mother was worried about how he was reacting to the stabbing and called our provider for assistance. He was seen on an emergency basis and was admitted to the hospital. He was seen after discharge and now, a year later he is doing much better and is not longer in need of services.

- One patient reported some concerns at the initial screen but refused services. The teen was not suicidal, had no history of suicide and mother was not concerned about the child. Because of what the teen was reporting the provider was concerned and felt the patient needed treatment. At a follow up screen she endorsed more symptoms and did agree to treatment.

- In addition to more common teenage problems (breakups, problems with parents, stress with friends) several of the patients had experienced significant trauma. A few patients had a close family member or friend die, two patients witnessed someone being shot in the head, one patient had been the victim of a violent home invasion, one patient was involved in a sex trafficking operation (the patient is safe and doing well now and the adults involved have been prosecuted), and one patient got out of a gang while in treatment.

Training Component

- Two staff at Wheeler Clinic who became trained trainers of ASIST via the grant were able to attend the 2010 AAS Conference and became trainers in safeTalk as well. These experiences sparked their interest to also become Mental Health First Aid trainers, and they intend to conduct three practice trainings in the coming year.

College Component

All of the CSU Counseling Centers reported being able to send their staff for continuing education with grant funds which they greatly appreciated. Examples follow,

- Under the grant, two staff members who have been trained in the evidence-based therapeutic model- EMDR (Eye Movement Desensitization and Reprocessing), have completed steps one and two to become certified EMDRIA therapists through ongoing comprehensive supervision with a certified therapist. These therapists will continue to use the model with appropriate students in the counseling center.

- The Counseling Center has one clinician who is a Grief Recovery Specialist. She has gone through an intensive training, via grant funding, which certifies her to provide specialized grief counseling to those who have experienced loss. Grief is a leading contributor to depression so efforts to diminish the long and short term impact of grief on our students can have a positive impact on their overall functioning.

- I was trained as a trainer in AMSR, the primary curriculum and college addendum. This allowed me to perform a practice session at WCSU. The session trained one staff and three interns working at the counseling center, as well as seven other mental health practitioners from the local public school system. This was not a part of the original grant, but stemmed from my work with the grant.

One university specifically described two very influential programs that took shape, with support of the grant, and via the counseling center and Dean of Students efforts that will have impact for years to come:

- The formation of a committee on suicide education and prevention. Led by the Assistant Vice-President and Dean of Student Affairs, the committee has met regularly for the past year. A number of initiatives which included forming relationships with the Suicide Prevention and Resource Center and the JED foundation. The committee consists of students, faculty, and student affairs/counseling staff and currently meets weekly. This committee has begun to make education and prevention a community effort with faculty, staff, and student participation.

- A research project undertaken by Dr. Sandra Bulmer will be completed for use by the fall, 2010 semester. Grant dollars supported *The Healthy Minds Study (HMS)* - an annual, national survey that examines mental health issues among college students. It is the product of a partnership between the University of Michigan School Of Public Health, the multidisciplinary University of Michigan Comprehensive Depression Center, and the Center for Student Studies in Ann Arbor, MI.

Other comments from the CSU Counseling Centers included:

- One of the most difficult aspects in training faculty is the focus on, "I'm here to teach." Although this was recognized by those performing the QPR training, the attitude affected sessions – people ascribing to the "I'll just refer them anyway" attitude. In future work, it may be worthwhile to include the Vice Presidents in a more active role, providing updates on what the university administration is doing to encourage faculty to come to the trainings. While we were trying to perform QPR trainings, faculty complained that they needed training on classroom management. We attempted to clarify that the QPR training was applicable for all classroom emergencies, except active violence.

- The depression screenings may not have generated as many assessments as we would have liked, but they did generate discussion. The cafeteria was buzzing with talk about depression and at times suicide. A portion of the students joked about being depressed, but this happens within a larger crowd. Shortly after each of the depression screenings, several students made appointments with the counseling center to explore the results of the screening. These students came in for suggested follow-up and others were at least aware of the counseling center on campus.

- I've had a number of students who have needed to be assessed for suicide. The training I have received is evident in the way I handle assessments, including the information I document about the assessments. I am able to sit with a person discussing suicide and feel more relaxed as the focus isn't on stopping the suicidal ideation at the moment as much as stopping the suicidal thoughts through providing alternate ways of coping. Of course the client's safety is always considered.

Collaboration

The CYSPI has led to various collaborations with organizations and agencies. The Project Director has worked to develop relationships with parties committed to suicide prevention regardless of whether they were directly involved in the grant itself. Examples include community colleges, military service providers, mental health organizations, and advocacy groups. One result of these efforts was that the Project Director was invited to participate on the Board of the Suicide Prevention Resource Center in 2008, and presented on Suicide Prevention in the Workplace to the CT Employee Assistance Professionals Association at their Annual Conference in June 2010. Much of the knowledge gained through the grant was useful in preparing the presentation. In addition, the Project Director provided consultation to the CT Army and Air National Guards for their suicide prevention efforts, and has been invited by military service providers to attend trainings on suicide prevention of this population.

There is tremendous interest within CT among advocacy groups and providers to collaborate on addressing suicide in the state, and genuine potential for the development of regional and/or statewide coalition(s)/collaborative(s). The challenge is that there is no one party willing to take on this task. The state-operated groups such as the YSAB and ISPN are limited due to either statutory regulation and/or funds and staff time, and at the same time are concerned about potential turf issues and disrupted boundaries. However, many communities have the readiness to address the problem, and are willing

to put their pride aside and collaborate to accomplish better outcomes. It is our hope to address this challenge in the near future to address suicide; however, the mechanism is not clear at this time based on funding limitations.

VIII. Appendices

A. Bibliography

B. University of Connecticut Health Center Institute for Public Health Research: CT Youth Suicide Prevention Initiative Local Evaluation Final Report

C. Suicide Prevention and Related CT Legislation

D. Products & Publications

A. Bibliography

American College Health Association. (Fall 2009). National College Health Assessment: http://www.acha-ncha.org/docs/ACHA-NCHA_Reference_Group_Report_Fall2009.pdf .

Aseltine, R. H., Jr. (2003). An Evaluation of a School-based Suicide Prevention Program. *Adolescent & Family Health, 3*(2), 81-88.

Aseltine, R. H., Jr., & DeMartino, R. (2004). An Outcome Evaluation of the SOS Suicide Prevention Program. *Am J Public Health, 94*(3), 446-451.

Aseltine, R. H., Jr., James, A., Schilling, E. A., & Glanovsky, J. (2007). Evaluating the SOS suicide prevention program: a replication and extension. *BMC Public Health, 7*, 161.

Eastern Connecticut State University. (2010). School Data: http://www.easternct.edu/visitors/fastfacts.htm .

Central Connecticut State University. (2010). School Data: http://www.ccsu.edu/page.cfm?p=3704 .

Centers for Disease Control and Prevention. (2007).WISQARS: http://webappa.cdc.gov/sasweb/ncipc/leadcaus10.html

Centers for Disease Control and Prevention. (2010).Youth Risk Behavior Surveillance System: http://apps.nccd.cdc.gov/youthonline/App/Results.aspx?TT=G&OUT=0&SID=HS&QID=QQ&LID=CT&YID=2009&LID2=XX&YID2=2009&COL=&ROW1=&ROW2=&HT=QQ&LCT=&FS=1&FR=1&FG=1&FSL=&FRL=&FGL=&PV=&C1=GA2009&C2=XX2009&QP=G&DP=1&VA=CI&CS=N&SYID=&EYID=&SC=DEFAULT&SO=ASC&pf=1 .

Connecticut State University System. (2010): http://www.ct.edu/about/profile#facts .

Connecticut's Network of Care for Behavioral Health. (2010): http://connecticut.networkofcare.org/mh/home/index.cfm

Donaldson, D., Spirito, A. & Esposito-Smythers, C. (2005)Treatment for Adolescents Following a Suicide Attempt: Results of a Pilot Trial. *Journal of the American Academy of Child & Adolescent Psychiatry*, 44, 2, 13-120.

Flaherty, L.T., Weist, M.D. & Warner, B.S. (1996). School-based mental health services in the United States: History, current models and needs. *Community Mental Health Journal, 32*, 4, 341-252.

Flaherty, L.T. & Weist, M.D.(1999). School-based mental health services: The Baltimore models. *Psychology in the Schools, 36*, 5, 379-389.

Groves, E. (February 27, 2009). Teens turn grief into mission, launching suicide awareness campaign. Norwich Bulletin: http://www.norwichbulletin.com/homepage/x1362388529/Teens-turn-grief-into-mission-launching-suicide-awareness-campaign?view=print .

Hartford Public Schools. E-mail to Author, Bill Muden, Application Developer, School Based Health Centers, August 5, 2009.

Interagency Suicide Prevention Network. (2005). Connecticut Comprehensive Suicide Plan. Hartford, CT: State Department of Public Health. http://www.ct.gov/dph/lib/dph/Suicide_Prevention_Plan.pdf .

Kposowa, A.J. & D'Auria, S. (2009). Association of temporal factors and suicides in the United States 2000-2004. *Social Psychiatry and Epidemiology*, published on line.

Kruse, G, Rholand, B.M., Wu, X. (2002). Factors associated with missed first appointment at a psychiatric clinic. *Psychiatric Services, 53*, 1173-1176.

Milane, M.S., Suchard, M.A., Wong, M.-L. & Licinio, J. (2006). Modeling of the temporal patterns of fluoxetine prescriptions and suicide rates in the United States. PLos Med, 3, 6, www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.0030190

Mohamed, M.H. (2008). Injury-related Emergency Department Visits in Connecticut, Connecticut Residents 2000 - 2004. Hartford, CT: State Department of Public Health. http://www.ct.gov/dph/lib/dph/hems/injury/ed_databook/final_ed_databook_051508.pdf

Quinnet, P. (2007) QPR gatekeeper training for suicide prevention: The model rational and theory. Retrieved May 10, 2010 from http://www.qprinstitute.com

Saint Francis Hospital and Medical Center. E-mail to Author, Mary Stuart, Grant Writer and Dr. Bruce Bernstein, August 24, 2009.

State of Connecticut Department of Education. (2010). Strategic School Profiles 2007-2008: http://www.csde.state.ct.us/public/cedar/profiles/index.htm#go .

State of Connecticut Department of Mental Health and Addiction Services (2010). Prevention and Health Promotion Division, CT Youth Suicide Prevention Initiative, 2010: http://www.ct.gov/dmhas/cyspi

State of Connecticut Department of Public Health. E-mail to Author, Judith Bailey, License and Applications Analyst, Office of Practitioner Licensing and Investigations Section, August 14, 2009.

State of Connecticut Department of Public Health. E-mail to Author, Ann Kloter, Epidemiologist II, School Based Health Centers, August 5 and 7, 2009.

State of Connecticut Office of Chief Medical Examiner. (2010). Suicide Statistics: http://www.ct.gov/ocme/cwp/view.asp?a=2165&q=295126 .

State of Connecticut Office of Child Advocate. E-mail to Author, Faith Vos Winkel, Assistant Child Advocate, July 13, August 5, 2009.

State of Connecticut Office of Health Care Access. E-mail to Author, Gloria Sancho, Associate Health Care Analyst, August 24, 2009.

Southern Connecticut State University. (2010). School Data: http://www.wcsu.edu/president/facts-figures.asp .

Southern Connecticut State University. (2009). *Helping Students in Distress*. Counseling Services: http://www.southernct.edu/studentlife/uploads/textWidget/wysiwyg/documents/StudentsDistressWebR1.pdf

United States Census Bureau. (2006): http://quickfacts.census.gov/qfd/states/09/0937000.html .

United States Census Bureau. (2000): http://censtats.census.gov/data/CT/0600900337140.pdf .

U.S. Department of Health and Human Services. *Mental Health: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999.

United Way of Connecticut. E-mail to Author, Sue Moores and Jeanette Baker, July 24 and August 7, 2009

Western Connecticut State University. (2010) School Data: http://www.wcsu.edu/president/facts-figures.asp .

B. University of Connecticut Health Center Institute for Public Health Research: CT Youth Suicide Prevention Initiative Local Evaluation Final Report

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