THE COLORADO TRUST
A GRANTMAKING FOUNDATION

E V A L U A T I O N

COLORADO LINK:
TEEN SUICIDE PREVENTION INITIATIVE

Evaluation Report Summary

Colorado LINK Teen Suicide Prevention Project

The Colorado Trust

An Evaluation Report Summary

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Introduction

The Colorado Trust is a grantmaking foundation dedicated to improving the health and well-being of the people of Colorado. Trust initiatives address a wide range of issues, such as health promotion, early childhood development, after-school programs, preventing suicide, end-of-life care and more. Initiatives are developed by first identifying and understanding needs faced by Colorado citizens and communities. Based on research findings, The Trust then develops long-term strategies for creating positive change and evaluates each effort to determine the effectiveness of different interventions. This report summarizes the evaluation findings of The Trust's Colorado LINK: Teen Suicide Prevention Initiative.

Background

Suicide is the second leading cause of death among Colorado youth.[1] Moreover, *suicidal behavior*, including ideation or the contemplation of ending one's life and suicide attempts, affects a much larger proportion of youth.[2]

Having a history of suicidal thoughts or attempts increases both the likelihood that someone will continue to manifest suicidal behavior and may die as a result.[2] Psychiatric disorders, especially clinical depression and substance abuse also increase the likelihood of suicidal behavior.[2,3] Ninety percent of adolescents who die as a result of suicide have suffered from an associated psychiatric disorder.[2]

Therefore, the identification and treatment of youth with psychiatric disorders, substance abuse problems and limited access to mental health services represent important intervention strategies.

In 2000, The Colorado Trust invested $300,000 in the pilot demonstration and evaluation of a youth suicide prevention project in Denver that provided education, screening and treatment in two high schools and a homeless and runaway youth-serving setting. An additional $150,000 of project support was provided by Mile High United Way during the first two years of the projects operation.

The Colorado Trust funded the Mental Health Association of Colorado and its partners, the Yellow Ribbon Suicide Prevention Program and Urban Peak, to pilot a comprehensive suicide prevention strategy with diverse youth populations. This project became known as the Colorado LINK Teen Suicide Prevention Project. The goals of this project were to: 1) mobilize youth-serving settings around suicide prevention; 2) increase access to mental health services among youth traditionally underserved (i.e., youth of color, Spanish-speaking students and homeless and runaway youth); and 3) reduce suicidal behaviors and underlying risk factors among indicated youth.

COLORADO LINK

In the two high schools, three prevention strategies were implemented: education, screening and treatment. The educational component entailed both school-wide presentations and gatekeeper training. Gatekeeper training is training generally provided to adults to help them recognize the signs of depression and suicide ideation so that they can refer youth to appropriate mental health providers. The purpose was to increase awareness of the warning signs of suicidal behavior and to promote help-seeking among youth and referral by adults. Recruited youth were referred to a two-stage screening process, utilizing the Columbia Teen Screen followed by the Diagnostic Inventory Schedule for Children (DISC), two widely used screening instruments for children and adolescents. Youth that presented a history of suicidal behavior, psychiatric disorders and substance abuse were referred to treatment.

A case manager ensured that consent forms for screening, treatment and evaluation participation were obtained, and worked with families to remove barriers to youth participation. Therapy was provided in a private space secured for these purposes within the school. Throughout the project, there were bilingual, bicultural case managers and therapists available to youth. Despite these efforts, the project was not successfully implemented in one of the high schools and concluded its activities there after two years (see *Challenges* on pages 8 – 9).

At Urban Peak, the focus was on providing treatment. Since psychiatric disorders and substance abuse were more prevalent within this group, the project used screening to gather data about youth participants and to inform treatment, rather than as a way of identifying at-risk youth. Intuitively, Colorado LINK partners also felt that suicide prevention education was not appropriate for these youth, due to the personal trauma with which many youth were reportedly coping. The agency contracted with a small number of licensed therapists with experience working with similar at-risk populations.

The following aspects of the project distinguished it from other youth suicide prevention efforts in the field:

- Focus on students of color, Spanish-speaking students and homeless and runaway youth
- Implementation and coordination of three prevention strategies involving direct services
- Provision of therapeutic treatment within youth-serving settings.

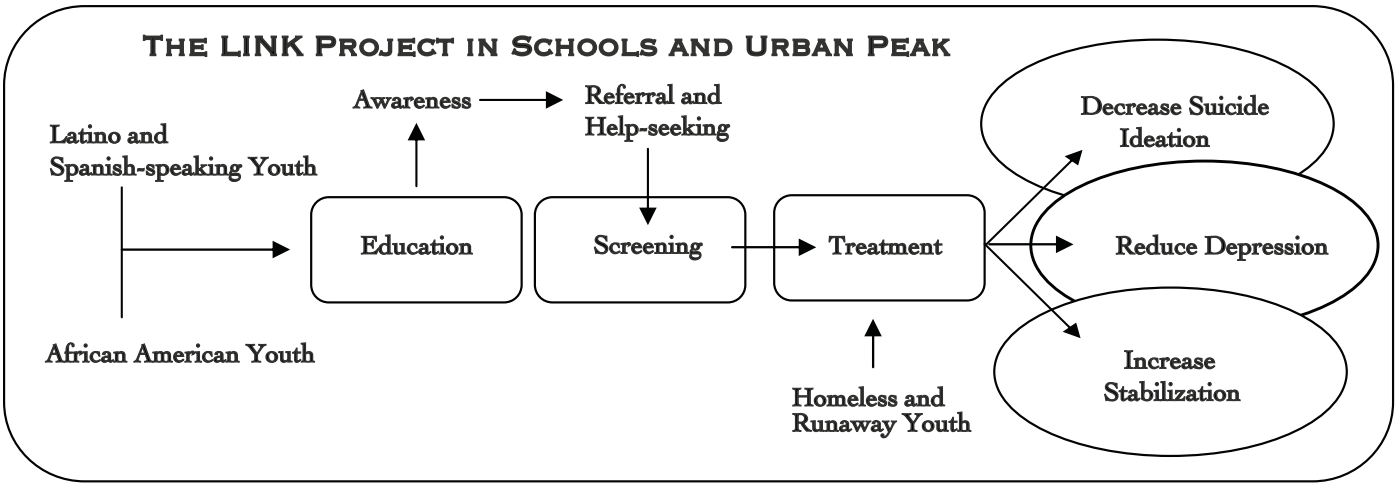


Figure 1: Logic Model of the Colorado LINK Teen Suicide Prevention Project

The intended outcomes of the project were to:

- Increase awareness about the warning signs of suicidal behavior and the resources available to help affected students
- Increase help-seeking behavior among youth and referral by adults
- Decrease passive and active manifestations of suicide ideation
- Decrease the severity of depression
- Increase the stabilization of youth as measured by school performance and other indicators. (This outcome was not measured by the evaluation.)

The Evaluation

The evaluation of Colorado LINK was conducted by OMNI Institute. It was structured around each of the components of the project (education, screening and treatment). Goals of the evaluation included:

- Providing ongoing feedback regarding service and outcome data
- Tailoring the implementation of the evaluation to the different environments of the youth-serving settings
- Piloting measurement methods and tools to assess the evidence of the project's education and treatment outcomes
- Examining the strengths and challenges of Colorado LINK implementation.

Specifically, the evaluation addressed the following questions:

1. To what extent did the educational component of the project reach youth in the targeted school settings?
2. To what extent did the screening and treatment components of the project reach youth in the targeted school settings?
3. To what extent did treatment reach homeless and runaway youth at Urban Peak?
4. What did the evidence suggest about the effects of the educational component for students?
5. What did the evidence suggest about the effects of treatment on indicated youth?
6. What were the strengths and challenges of the Colorado LINK Teen Suicide Prevention model?

The evaluation design employed a mixed method approach incorporating the following data collection methods:

- Collection of data from screening instruments and clinical files
- Collection of educational service data from presenters
- Self-report questionnaires
- Phone and face-to-face interviews
- Focus groups.

The evaluation collected data following education presentations. In addition, information about the demographic characteristics and presence of risk factors were collected during screening. For those youth who entered treatment, the evaluation collected baseline and follow-up data after the third, sixth and final treatment sessions using the Beck Depression Inventory-II (BDI-II) and a supplemental suicide ideation measure, developed for the project.

OMNI also interviewed Colorado LINK partners, screeners, therapists and school personnel. The evaluation conducted one focus group with teachers who were active in planning and supporting the educational presentations at one of the schools. In addition, the evaluation held one focus group with homeless and runaway youth participants.

Results

1. To what extent did the educational component of Colorado LINK reach youth within the targeted school settings?

Suicide prevention education reached most, but not all students through the assemblies held at the high schools. Attendance numbers indicated that between 500 and 1,525 students attended educational presentations each semester at each school between spring 2001 and fall 2002 semesters.

The project provided gatekeeper training to educators at both high schools each semester between spring 2001 and fall 2002. Colorado LINK only trained youth leaders and parents at one of the high schools, due to declining project support at the other high school. While the parent training was never widely implemented, youth leader training occurred over three semesters and, one semester, youth leaders presented suicide prevention messages and materials to peers in classroom-based presentations.

2. To what extent did the screening and treatment components of Colorado LINK reach youth within the targeted the school settings?

The screening component was not fully implemented in one of the schools. However, at the other school, 88% of students screened were Latino and 24% had limited English proficiency and spoke Spanish as their first language. Nearly 70% of the students screened were in the ninth or tenth grades, and 61% were female.

The Teen Screen indicated that over 50% of referred and screened youth were at risk of suicide as indicated by ideation, attempt history or problems with depression and substance use. Thirty-seven percent of youth screening participants had a history of suicide ideation; nearly 11% reported current ideation and almost 23% indicated a history of suicide attempts. Moreover, the majority of those at risk did not have access to mental health treatment.

Table 1. Percentage of Students at Risk of Suicide and Presenting Ideation and Attempt History as Measured by the Teen Screen*

Screen Result	Percentage†	Suicide Ideation	Percentage‡	Attempt History	Percentage
Risk present	50.4% (58)	Present	10.6% (13)	Yes	22.6% (26)
No identified risk	49.6% (57)	Past	34% (42)	No	77.4% (89)
		None	55.3% (68)		
TOTAL	100% (115)		100% (123)		100% (115)

*Results are presented for one of the two high schools only, where screening was fully implemented. Also, results only reflect data for students with consent to participate in the evaluation.

†The middle column does not total 115, since someone may have previously experienced ideation and may be experiencing it at the time of screening.

‡Percentages were rounded to the nearest tenth of a percent and, therefore, columns may not total 100%.

Nearly 45% of youth who took part in the DISC (this population included only those students who were determined to be at risk on the Teen Screen and were proficient in English) presented an underlying psychiatric disorder. Nearly one-third presented substance-related (non-nicotine) disorders and one-seventh major depressive disorders. Twenty-two percent had co-morbid psychiatric disorders, another factor that increases the risk of suicidal behavior.

A relatively small number of students took part in Colorado LINK treatment during the three years of the project. The majority of referred youth accepted LINK treatment. However, there were 11 students determined to be at risk during the screening process who either declined Colorado LINK services or whose parents refused project assistance.

Treatment dosage (the amount, frequency and duration of treatment) and method varied considerably. However, those who received treatment typically took part in five treatment sessions over a period of a little over three months. Sessions averaged 50 minutes in length and the majority of sessions were held individually with youth at school. A bilingual therapist also held a number of family and in-home therapy sessions in order to facilitate the treatment process for youth.

3. To what extent did the treatment component of Colorado LINK reach homeless and runaway youth at Urban Peak?

At Urban Peak, the average age of homeless and runaway youth receiving treatment was 19 years old. Forty-six percent were youth of color. Like the general population at Urban Peak, a greater proportion of White (54%) and male (63%) youth was represented among the youth who received treatment.

The DISC indicated that just over 71% of screened youth presented one or more psychiatric disorders, with over half (55%) experiencing co-morbid psychiatric disorders. Seventeen percent presented a depressive disorder. Nearly 45% of all disorders identified were related to alcohol, marijuana and other, non-nicotine, drug abuse and dependency disorders. Marijuana dependency was the most commonly indicated. Seventeen percent presented a major depressive disorder.

A small majority of those youth screened entered treatment. Treatment dosage varied considerably; however, on average, Urban Peak youth took part in the therapeutic intervention for eight sessions over a 13-week period.

> "One of the things [I am proudest of] is that I'm on the [suicide prevention] team. … I think we're the only school in Denver that does this. And, I'm very proud of us that we're doing this at [my school]."
>
> *[quote of a student as viewed on a youth television program and relayed by an adult]*

Table 2. Number of Student and Urban Peak Youth with DISC-Assessed Psychiatric Disorders

Psychiatric Disorder*	Number of Students Indicated (n = 16)	Number of Urban Peak Indicated (n = 75)
Alcohol Abuse/Dependency+	6	31
Other Drug Abuse/ Dependency	5	64
Attention Deficit/ Hyperactivity Disorder	1	7
Generalized Anxiety	2	13
Major Depressive Disorder/ Episode	5	15
Hypomanic/Manic Episode	4	9
Obsessive-Compulsive Disorder	6	18
Panic Disorder	4	17
Post-Traumatic Disorder	2	11

* The DISC may assess more than one psychiatric disorder and more than one "other drug abuse and dependency" disorder per youth. Therefore, students may be counted in more than one category of psychiatric disorders.

+ Shaded diagnoses are those that research has conclusively established is predictive of suicidal behavior. The research is divided regarding the role of panic disorder, post-traumatic disorder and others in causing suicidal behavior. Psychiatric disorders identified by the DISC, but with weak relationships to suicidal behavior, are not shown in the table.

4. What did the evidence suggest about the effects of the educational component for students?

Positive results were consistently indicated for the educational component. Students reported a statistically significant and positive change in the knowledge and awareness they felt they had after the presentation as compared to before the presentation, on items such as the following:

- If a friend or fellow student came to me because s/he was depressed or having suicidal thoughts, I would know who to go to for help.

In addition, across administrations, 92% or more students reported that they would recommend the presentation to other students. Eighty-nine percent or more consistently indicated that the presentation "makes it easier for youth to ask for help if they are depressed or having suicidal thoughts."

5. What did the evidence suggest about the effects of treatment on indicated youth?

A number of statistically significant outcomes were observed for youth at the conclusion of treatment, despite a small sample size with matched data, relatively low-scaled responses on items measuring depressive symptoms and suicidal ideation, and large variations in treatment dosage.

BDI-II pre-post measures of the student treatment population indicated statistically significant decreases in important predictors of suicidal behavior, including items measuring pessimism, suicidal thoughts or wishes and overall depression severity. When compared to published normative data[4], Colorado LINK students were found to be statistically different from the non-patient control group in the published study at baseline, but comparable to it by the post-test. In addition, among the Colorado LINK treatment population, decreases between pre-test and post-test measures of the supplemental ideation questionnaire reached statistical significance on almost all measures of passive and active suicide ideation. Students attributed self-reported improvements to treatment.

Table 3. Statistically Significant Shifts Between BDI-II Baseline and Post-test Measures of Depressive Symptoms and Depression Severity Among Students and Urban Peak Youth Respondents

BDI-II Item	Number of Students (n = 29)	Number of Urban Peak (n = 25)
Sadness	p <.005‡	- +
Pessimism*	p <.05	-
Past Failure	-	p <.001
Loss of Pleasure	p <.01	p <.05
Guilty Feelings	-	p <.01
Punishment Feelings	-	-
Self-Dislike	p <.05	p <.001
Self-Criticalness	-	p <.005
Suicidal Thoughts or Wishes	p <.005	-
Crying	p <.005	p <.01
Agitation	-	p <.005
Loss of Interest	p <.001	-
Indecisiveness	p <.05	p <.005
Worthlessness	p <.005	p <.005
Loss of Energy	p <.05	-
Changes in Sleep Pattern	-	-
Irritability	p <.01	p <.05
Changes in Appetite	p <.05	-
Concentration Difficulty	p <.001	p <.001
Tiredness or Fatigue	-	p <.05
Loss of Interest in Sex	-	-
Depression Severity	p <.001 (magnitude of 9.03 point decrease at post-test on a 63 point scale)	p <.001 (magnitude of 11.52 point decrease at post-test on a 63 point scale)

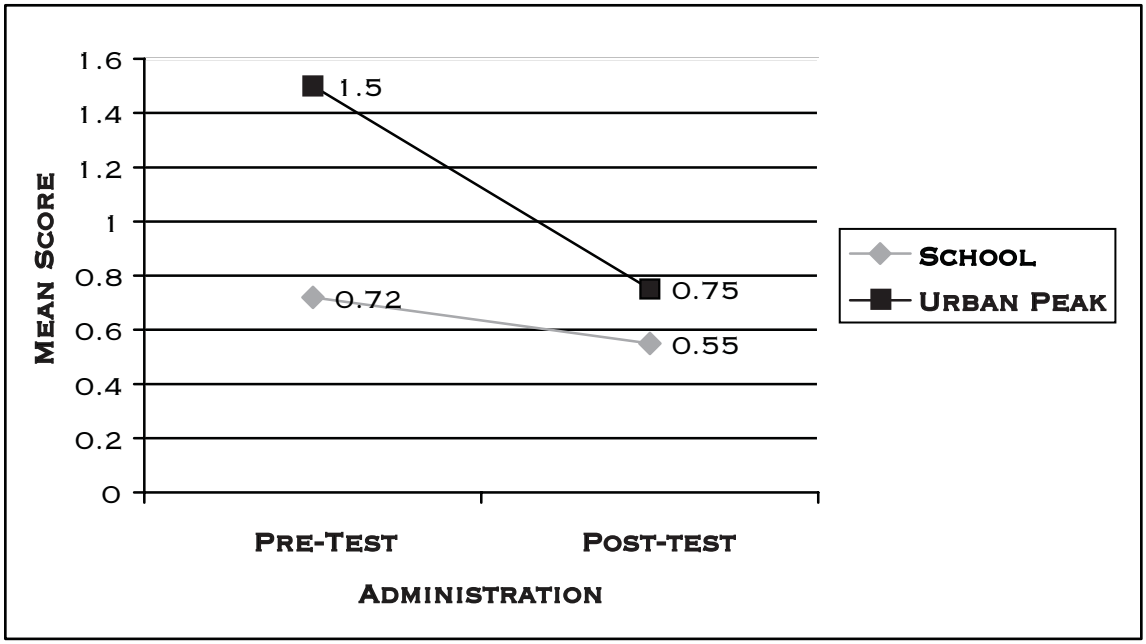
* Shaded items are important predictors of suicidal behavior.

+ A " - " indicates that no statistically significant shift occurred between baseline and post-test.

‡ "p" values represent a level of statistical significance, based on a two-tailed, paired t-test. The level of statistical significance represents the probability that an indicated change did not occur among respondents.

The result of the evaluation showed statistically significant improvements on measures of depressive symptoms and overall depression severity among the Urban Peak treatment population — although not on other predictors of suicidal behavior, such as pessimism and suicidal thoughts or wishes. This may be attributable to the small sample size and the relatively low scores on these items at baseline, or it may be that treatment did not have a positive effect on these measures. The supplemental measure of suicide ideation was not successfully implemented in this setting; thus, no data are available. However, Urban Peak youth attributed self-reported improvements to participation in treatment.

Figure 2. Pre- and Post-test Mean Scores* of Perceptions of Past Failures: Urban Peak and Students



*** Mean values reflect a three point scale, where low scores represent the desired direction of change. As shown in Table 3, the shift in Urban Peak youth responses to questions about past failures was statistically significant at the p<.001 level.**

The student and Urban Peak treatment populations were statistically significantly different on a number of BDI items at pre-test. One of the items with the greatest magnitude of difference was a measure of the perception of one's self and one's life as a failure. By the conclusion of treatment, data indicated that homeless youth scores on this item decreased on average to a level approaching that of the student treatment population (See Figure 2).

6. What were the strengths and challenges of the Colorado LINK Teen Suicide Prevention model?

School participants indicated the following *strengths*:

Engaging youth

- The project created a positive framework for youth to talk about suicide, an issue confronting youth.
- The training of youth leaders was an important way to strengthen the peer support available to students.
- Many of the youth involved in the project were not the same students who were typically involved in school activities. The project appeared to promote the pro-social involvement of youth.

Provided Resources to Teachers

- More teachers became aware of Colorado LINK and other school and community resources to help depressed and suicidal youth.
- Teachers appreciated tools, such as Yellow Ribbon cards, to use to support students.

Positively Changed School Climate

- Students not only knew where to go for help, but more students also viewed seeking help as a positive and healthy action.
- Despite high rates of student mobility, the project promoted a greater sense of connection between students and teachers.
- Youth took pride in the fact that their school "cared enough" to address the issue of youth suicide.

Homeless youth-serving staff and youth indicated the following *strengths:*

- Therapy became part of an overall strategy for sustaining the transition of youth off the street. Staff and some youth indicated therapy was needed to help youth manage the emotions that surfaced once youth were no longer focused on the bare necessities, such as food and shelter. Other services complemented treatment, making it possible for youth to stay in treatment for a longer period of time.
- On-site therapy made non-clinical staff more aware of signs of suicidal behavior and provided them with an important resource for addressing these concerns.
- On-site therapy normalized some help-seeking behavior. Participating youth indicated that they turned to one another for support and looked out for one another's well-being.
- Staff and some youth indicated that treatment was life-saving.

LINK staff and school participants indicated the following *challenges:*

- Partnership between the schools and Colorado LINK agencies was difficult at times. Factors included not involving the schools early enough and turnover in school administrators and advocates for the program.
- The coordination of educational assemblies and training was time-consuming. It required flexibility and responsiveness to school schedules and calendars. Even after considerable planning, scheduling changes often took place. This had implications for what could be delivered consistently over time in terms of education.
- On-site screening and treatment required dedicated, private and separate space in order to protect the confidentiality of youth and give the project some permanence within the school. It was necessary to work closely with school personnel to navigate school systems and to secure these resources.
- It was challenging to fit therapy sessions within a school schedule. Program staff felt pressure to limit the number and length of sessions so that students would miss as little instructional time as possible. This might have implications for sustaining the effects of treatment.

Homeless youth-serving staff indicated the following *challenges:*

- Most youth at Urban Peak did not have access to Colorado LINK services. Yet, the population as a whole was in need of mental health services and had limited options for alternative services.
- Staff indicated that youth were highly transient and maintaining treatment for the needed period of time to realize benefits could be challenging.
- Due to the scarcity of the mental health resources and the retention issue, staff was required to target treatment dollars to those youth whom they thought would be most successful in transitioning off the street.

Colorado LINK partners indicated the following *strengths* of the collaborative project:

- The collaboration brought together agencies with different areas of expertise and different networks. This created a unique opportunity to provide comprehensive suicide prevention services and to target diverse groups of youth — which may have been beyond the scope of any single agency.
- Collaboration created the opportunity for agencies to learn from one another and resolve common implementation issues.

Colorado LINK partners indicated the following *challenges* of the collaborative project:

- The project was complex and required ongoing collaboration and relationship building at multiple levels in order to ensure effective implementation and delivery of services. These levels included project administration, site implementation and project components. At the level of project administration, representatives of partnering agencies formed a steering committee to provide vision and ensure communication. Teams, called nurturing teams, were formed at the schools to facilitate partnership and coordination with school personnel. In addition, project staff had to work well with one another in the field in order to coordinate and mutually support different activities, such as education and screening activities. It was challenging to maintain relationships and collaborate effectively at these different levels consistently over time.
- An important barrier to collaboration was the difference between agency missions and priorities. This influenced how agencies interpreted the purpose and protocol of activities. Collaboration required partners to build not only a common understanding of the purpose of activities and protocol but, more importantly, a common vision for the project and rationale for agency involvement.
- Another important barrier to collaboration and project start-up was lack of school involvement at the start of the project. Schools are an important partner to involve early in the process. Even when schools are involved, turnover in school principals and other key administrators, as well as teachers and mental health providers will occur. Implementation of Colorado LINK required not only logistical support from site liaisons, but also support in terms of learning the inside culture of the school and gaining credibility as a valuable resource.

DISCUSSION OF THE RESULTS

The evaluation of Colorado LINK was a pilot effort to assess the effects of a comprehensive model of suicide prevention and its implementation with diverse youth populations. Its purpose was to track process measures (e.g., youth at risk of suicide reached) and to gather outcome data on the education and treatment components at the three implementation sites.

How effectively did the project reach targeted populations within the schools?

- The educational component reached a broad base of students. It provided information about Colorado LINK screening and treatment and how to access these services. In addition, the educational component appeared to garner the support of youth and teachers for screening and on-site treatment activities. The number, length and content of educational sessions, however, varied from semester to semester. The evaluation was limited in its ability to track what individual students received.

- Most screening took place in one of the high schools in less than a two-year timeframe. While nearly 200 students were screened, this was a small proportion of the overall student population attending the school over the three-year period. Without knowing the distribution of suicidal behavior and risk within the larger student population, the effectiveness of the program in identifying at-risk youth cannot be determined. Nevertheless, screening activities reached a substantial number of youth who presented suicidal behaviors and risk factors.
- Screening and treatment served primarily Latino youth as was intended, and a substantial proportion was Spanish-speaking. This suggests that the program implemented culturally responsive prevention strategies. At the same time, the program was more successful in recruiting ninth and tenth graders and females. The evaluation did not determine whether these students were at greatest risk or whether recruitment and referral strategies were biased in the selection of students.
- A relatively small number of students received treatment and most treatment was provided during the course of three semesters only. Project start-up, collaboration and protocol for obtaining screening referrals and parental consent each impacted the size of the population that benefited from treatment. Again, because the evaluation did not assess the distribution of suicidal behaviors and risk within the larger student population, the number of students who were in need of such services is unknown.
- Treatment dosage varied widely; it is unknown to what extent this was due to individual needs, retention issues or pressure to minimize treatment time. At the same time, the treatment provided within the one high school was responsive to families, culture and language issues. Therapy was provided at times in the home or involved parents, and was provided in Spanish when appropriate. Project staff felt this was an important reason for the project's success in working with Latino and Spanish-speaking youth.

How effectively did the project reach targeted populations at Urban Peak?

- DISC data indicated that the youth identified for treatment commonly had substantial substance abuse and dependency issues, as well as co-morbid psychiatric disorders.
- Overall, a small population of youth receiving Urban Peak services participated in treatment — although this was a larger number reached than within the school setting. The availability of treatment dollars constrained the number of youth reached at Urban Peak. However, the population participating in treatment reflected the larger Urban Peak population in terms of demographic characteristics, suggesting no undue bias in the selection of youth.
- The staff targeted those youth who were in the process of moving into permanent housing in order to maximize treatment benefits. This was one way to reduce the substantial barriers to retention with this population. It also was timed with a critical transitional stage for youth and was integrated into a broader case management plan. Almost two-thirds of those identified for treatment participated in two or more treatment sessions.

What project outcomes were indicated?

- The evaluation was limited in its ability to compare the knowledge and help-seeking attitudes of youth based on exposure to educational sessions. However, students attending these sessions consistently reported statistically significant changes in both areas. In addition, the vast majority felt that the educational component made it easier to ask for help. Qualitative data suggested that important school climate changes also may have resulted from ongoing educational efforts.

- Statistically significant changes in depression severity and, for students, suicide ideation were observed among treatment populations. Since the evaluation design did not utilize comparison groups, these effects could not be attributed to the treatment intervention. Further, the small sample size of students and Urban Peak youth with matched pre-post data did not permit examination of the relationship between suicide risk, treatment dosage and treatment outcomes. This further limited what the evaluation could study with regard to the effects of Colorado LINK treatment. However, given that the sample sizes were small and there was such wide variation in treatment dosage, it is surprising that statistically significant effects were observable. This suggests that *something* had a positive effect on both students and homeless and runaway youth.

Implications

There were three main premises of the Colorado LINK project design:

1. **A comprehensive approach would be most effective in preventing suicide among youth.**

2. **Implementation in youth-serving settings would enhance access to mental health services for young people.**

3. **The engagement of multiple partnering agencies would facilitate the delivery of comprehensive suicide prevention services in diverse youth-serving settings.**

One of the major questions that remains is whether a more comprehensive approach to suicide prevention will deliver better outcomes than the education- or screening-only strategies that are more typically implemented.

Despite limitations, the evaluation found a number of indications that Colorado LINK made a difference in the youth-serving settings where the project was implemented.

- Youth with limited access to mental health services were screened and treated through Colorado LINK.
- The project demonstrated some successes in working with Latino and Spanish-speaking populations that are not only underserved in terms of mental health services, but also with whom many programs fail to develop appropriate practices. Even though the risk of youth death by suicide has been greatest among White and Native American males, suicidal behaviors affect all groups of youth. Research has shown that between 1980 and 1995 suicide rates increased most dramatically for young African American males. In addition, some studies have suggested that young Latinas may be at particular risk of depression, suicide planning and attempts.
- Moreover, evaluation results and reflections on implementation suggest that settings that serve youth at high risk, such as homeless youth, may utilize suicide prevention strategies to accomplish a number of positive outcomes (e.g., transition off the streets; treatment of suicidal behavior, substance abuse and depression; etc.).

It appears that the collaboration broadened the scope of suicide prevention activities that any one agency might have addressed alone. Agency representatives also indicated that they learned about different facets of suicide prevention from working with one another. At the same time, collaboration increased the complexity of the project and, likely, delayed project start-up. This may have decreased the time period during which youth received services and the overall number served. Consideration of these issues is important when groups work with one another to implement suicide prevention projects.

Two issues unexamined by this evaluation are the effects of treatment dosage and any untoward effects of suicide prevention.

- Given that treatment dosage and method were so variable, one might conclude that it was not the treatment but rather the temporal nature of suicidal ideation that contributed to positive outcomes. Or, one might conclude that treatment makes a difference, regardless of method or dosage. This evaluation, however, suggests that there is a need to be methodical in both the delivery and assessment of treatment. Clinicians should consider the therapeutic methods most likely to result in positive outcomes, as well as the minimum number of sessions needed in order to have a reasonable, intended effect. More evaluation is needed to learn about what treatment approaches and dosages are most effective.
- Increasingly, the National Institutes of Health and Mental Health and well known scholars within the field have cautioned practitioners and policy makers in crafting suicide prevention messages. Caution is recommended due to: 1) growing evidence that there may be negative, unintended consequences of suicide prevention education and media messages; and 2) the fact that negative consequences in the field of suicide and prevention are potentially devastating, resulting in the loss of life. It is now strongly recommended that untoward effects be measured by evaluations of suicide prevention programs.

> "If I can get a young person in a job and being self-sufficient … because they're getting some additional support in terms of their mental health, [that's a] very cost-effective way to help young people permanently exit the street."
>
> *[Staff member]*

ENDNOTES

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The Colorado Trust is a grantmaking foundation dedicated to advancing the health and well-being of the people of Colorado. To learn more about The Colorado Trust and its grantmaking initiatives, go to www.coloradotrust.org.

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