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CENTERS FOR DISEASE CONTROL
AND PREVENTION

Youth Suicide Prevention Programs:
A RESOURCE GUIDE

SEPTEMBER 1992

Youth Suicide Prevention Programs:
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Suggested Citation: Centers for Disease Control. Youth Suicide Prevention Programs: A Resource Guide. Atlanta: Centers for Disease Control, 1992.

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Acknowledgments

We wish to express our thanks to the many people who, on their own or as representatives of organizations, provided assistance in the development of this Guide. We are particularly grateful for the guidance in the design and conduct of this study provided by Dr. Mark Rosenberg, Mr. Albert Brasile, and Mr. Mark Long in the National Center for Injury Prevention and Control, and Ms. Floy Cross and Ms. Diane Roberts in CDC's Office of Program Planning and Evaluation. We would like to especially recognize and thank Ms. Rachel Lysne in the Epidemiology Branch for her extraordinary dedication in providing administrative and clerical support for this project. Valuable help in initiating and conducting this study was provided by the following individuals:

- Barbara Blanton and the staff at the Crisis Center of Collin County, Texas;
- Dr. Ross Connor at the University of California-Davis;
- Dr. Martin Gold at the University of Michigan;
- Ms. Myra Herbert at Fairfax County Public Schools in Virginia;
- Dr. Joyce Hickson, formerly at Dade County Public Schools in Florida;
- Dr. Avram Machtiger, formerly at the Pennsylvania Teenage Suicide Prevention Project;
- Ms. Julie Perlman, Executive Officer at the American Association of Suicidology;
- Ms. Diane Ryerson at South Bergen Mental Health Center in New Jersey; and
- Ms. Judie Smith at Dallas Independent School District in Texas.

Most especially, we want to thank the many volunteers and staff of youth suicide prevention programs who spoke with us, sent us materials, and shared much of their joys, frustrations, and experiences in working to help our country's youth.

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Background and Approach

Given the continued high rates of suicide among adolescents and young adults (15-24 years of age), it is more urgent than ever that we apply our limited resources for prevention in the most effective manner possible. To that end, we developed this resource guide to describe the rationale and evidence for the effectiveness of various youth suicide prevention strategies and to identify model programs that incorporate these different strategies. The guide is for use by persons who are interested in developing or augmenting suicide prevention programs in their own communities. Because the diagnosis and treatment of mental disorders is so widely accepted as a cornerstone of suicide prevention, we excluded from this guide programs that provide mental health services in traditional health service delivery settings. We did include, however, programs that were designed to increase referral to existing mental health services.

We developed this resource guide through networking. Initially, 40 experts in youth suicide prevention around the country were asked to identify exemplary youth suicide prevention programs. Representatives from these programs were then contacted and asked to describe their activities and to identify other programs that they considered exemplary. The list was supplemented by contacting program representatives who participated in the 1990 national meeting of the American Association of Suicidology (AAS) and by soliciting program identification through *Newslink*, the newsletter of AAS. The resulting list of programs is not meant to represent all exemplary youth suicide prevention programs, but it does characterize the diversity of existing programs and can serve as a resource guide for those interested in learning about the types of prevention activities in the field.

For this guide, we delineated eight different suicide prevention strategies, most of which were incorporated in some combination into the programs we reviewed. These were:

- **School Gatekeeper Training**. This type of program is directed at school staff (teachers, counselors, coaches, etc.) to help them identify students at risk of suicide and refer such students for help. These programs also teach staff how to respond in cases of a tragic death or other crisis in the school.

- **Community Gatekeeper Training.** This type of gatekeeper program provides training to community members such as clergy, police, merchants, and recreation staff. This training is designed to help these people identify youths at risk of suicide and refer them for help.

- **General Suicide Education.** These school-based programs provide students with facts about suicide, alert them to suicide warning signs, and provide them with information about how to seek help for themselves or for others. These programs often incorporate a variety of self-esteem or social competency development activities.

- **Screening Programs.** Screening involves administration of an instrument to identify high-risk youth in order to provide more thorough assessment and treatment for a smaller, targeted population.

- **Peer Support Programs.** These programs, which can be conducted in either school or non-school settings, are designed to foster peer relationships, competency development, and social skills as a method to prevent suicide among high-risk youth.

- **Crisis Centers and Hotlines.** These programs primarily provide emergency counseling for suicidal people. Hotlines are usually staffed by trained volunteers. Some programs offer a "drop-in" crisis center and referral to traditional mental health services.

- **Means Restriction.** This prevention strategy consists of activities designed to restrict access to firearms, drugs, and other common means of committing suicide.

- **Intervention After a Suicide.** Strategies have been developed to cope with the crisis sometimes caused by one or more youth suicides in a community. They are designed in part to help prevent or contain suicide clusters and to help youth effectively cope with feelings of loss that come with the sudden death or suicide of a peer. Preventing further suicides is but one of several goals of interventions made with friends and relatives of a suicide victim—so-called "postvention" efforts.

Findings

Overall, we noted that:

- **Despite many differences, the various prevention strategies incorporated into current youth suicide prevention programs have two common themes.** As noted above, we delineated eight different strategies for youth suicide prevention that were generally incorporated in some combination into the programs we reviewed. Despite their obvious differences, these eight strategies may be considered to constitute just two conceptual categories: (1) strategies to enhance the recognition of suicidal youth and their referral to existing mental health resources, and (2) strategies designed to directly address known or suspected risk factors for youth suicide.

    — *Strategies to enhance recognition and referral.* This category includes active strategies to identify and refer suicidal youth (general screening programs, targeted screening in the context of an apparent suicide cluster) as well as passive strategies to increase referrals (training school and community gatekeepers, general education about youth suicide, establishing crisis centers and hotlines). Some of the passive strategies are designed to lower barriers to self-referral for those with suicidal feelings; others are designed to increase referrals by persons who recognize suicidal tendencies in someone they know.

    — *Strategies to address known or suspected risk factors.* This category includes interventions designed to promote self-esteem and build competency in stress management (general suicide education, peer support programs); to develop support networks for youths who have attempted suicide or who are otherwise thought to be at high risk (peer support programs); and to provide crisis counseling or otherwise address the proximal stress events that increase the risk of suicide among susceptible youths (crisis centers and hotlines, interventions to minimize contagion in the context of suicide clusters). Although means restriction may be critically important in reducing the risk of youth suicide, none of the programs we reviewed placed a major emphasis on this prevention strategy.

- **Most programs focus on teenagers, with little emphasis given to suicide prevention among young adults.** With a few important exceptions, most programs designed to reduce youth suicide were developed with high school-aged youth in mind. This may be due to the fact that adolescents in high school are easier to reach than young

adults 20-24 years of age. But it may also be due to a failure to appreciate that the suicide rate is generally twice as high among persons 20-24 years of age as among adolescents 15-19 years of age. More prevention efforts need to be targeted toward young adults at high risk of suicide.

● **Current programs are sometimes inadequately linked with existing community mental health resources.** Some programs, notably the Pennsylvania Student Assistance Program, have deliberately worked to develop very close ties with community mental health resources. In a substantial number of other programs, however, linkages with existing mental health resources have been somewhat tenuous. We believe that strengthening these ties would substantially enhance suicide prevention efforts.

● **Some strategies are applied very infrequently—despite great apparent potential for success—whereas others are very commonly applied.** In particular, despite evidence that restricting access to lethal means of suicide (e.g., firearms and lethal dosages of drugs) may prevent some youths from completing suicide, none of the youth suicide prevention programs we reviewed incorporated this strategy as a major focus of their efforts. Parents should be educated in suicide warning signs and encouraged to restrict their teens' access to lethal suicide means. Other promising strategies, such as peer support programs for previous suicide attempters or high-risk youth, might also be more widely incorporated into current suicide prevention programs, but great care should be taken to ensure that there are no adverse consequences from involving peers in such activities.

● **Certain potentially effective programs targeted at high-risk youth are not thought of as "youth suicide prevention" programs.** Alcohol and drug abuse treatment programs and programs that provide help and services to runaways, pregnant teens, or school dropouts are examples of programs that address risk factors for suicide and yet are rarely considered to be suicide prevention programs. Few of the programs we reviewed had any formal ties with such programs.

● **There is very little evaluation research in this area—indeed, there is very little data collected that would facilitate such research.** The tremendous dearth of evaluation research stands as the single greatest obstacle to improving current efforts to prevent youth suicide. In the final analysis, despite many years of experience and hard work, all we can say—and scientifically defend—is that every one of the eight strategies described herein, as currently implemented, may or may not prevent youth suicide. Clearly, this is an unsatisfactory state of affairs. We urgently need to evaluate existing suicide prevention programs wherever possible and to incorporate the potential for evaluation into all new prevention programs. Moreover, whenever possible, the outcome measure for such evaluations should be changes in suicidal behavior. After all, it is the level of suicidal behavior—not attitudes toward suicide or knowledge of warning signs—that we are ultimately working to change. When measuring a program's effect on the level of suicidal behavior is not feasible, the outcomes measured should be those that are closely associated with actual suicidal behavior.

In this regard, it is worth noting that *any* health intervention may have unforeseen negative consequences; suicide prevention efforts are no exception. This is another, even more important reason why evaluation must be built into every youth suicide prevention program. Regardless of the prevention strategy employed, we must be vigilant to ensure that efforts to prevent suicide do not result in untoward consequences.

Recommendations

Although we do not have sufficient information to recommend one suicide prevention strategy over another at this stage, the following recommendations seem prudent:

- **Ensure that new and existing suicide prevention programs are linked as closely as possible with professional mental health resources in the community. As** noted, many of the strategies are designed to increase referrals of at-risk youth—this approach can be successful only to the extent that there are appropriate, trained counselors to whom referrals can be made.

- **Avoid reliance on one prevention strategy.** Most of the programs we reviewed already incorporate several if not all of the eight strategies we described. However, certain strategies tend to predominate, despite limited evidence of their effectiveness.

- **Incorporate promising but underused strategies into current programs where possible.** The restriction of lethal means by which to commit suicide may be the most important candidate strategy here. Peer support groups for those who have felt suicidal or have attempted suicide also appear promising.

- **Expand suicide prevention efforts for young adults 20-24 years of age,** among whom the suicide rate is twice as high as for adolescents.

- **Incorporate evaluation efforts into all new and existing suicide prevention programs,** preferably based on outcome measures such as the incidence of suicidal behavior, or measures closely associated with such incidence. Be aware that suicide prevention efforts, like all health interventions, may have unforeseen negative consequences. Evaluation measures should be designed to identify such consequences, should they occur.

Like many prevention programs, the suicide prevention programs described in this resource guide are evolving. They are subject to changes in staff, funding, and program emphasis. Hence, readers should contact programs directly to obtain current information on their activities.

Chapter 1
INTRODUCTION AND SUMMARY

Background

For many years, we have known that persons suffering from mental disorders, particularly affective illnesses, are at markedly increased risk of committing suicide. In past decades, most people who died from suicide were older adult males who appeared to have been suffering from clinical depression or other treatable mental disorders at the time of their death. As a consequence, suicide prevention was viewed primarily as a problem of identifying and treating persons with mental disorders associated with increased risk of suicide. Mental illness is not, of course, a sufficient cause of suicide in itself; if it were, everyone who suffered from mental illness would die from suicide. There are, in fact, a variety of other factors that contribute to any given suicide and, consequently, a variety of potential points for preventive intervention (Figure 1). Nevertheless, identifying and treating persons with mental disorders remains an important mainstay of suicide prevention.

In recent years, however, there has been increasing evidence that we need to go beyond this paradigm for suicide prevention, particularly for young people (CDC, 1986). In 1950, the rate of suicide among adolescents (15-19) was 2.7 per 100,000; among young adults (20-24), the rate was 6.2 per 100,000. By 1980, the rate among both adolescents and young adults had tripled, to 8.5 and 16.1 per 100,000, respectively (Table 1). This alarming increase in the rate of youth suicide was accompanied by research indicating that only about one-third of adolescent suicide victims appeared to satisfy clinical criteria for depression or other treatable mental illness (Shaffer, et al., 1988).

FIGURE 1.
Conceptual Model of Factors Influencing Youth Suicide

<u>Causes of Suicide</u>

Individual Predisposition	Social Milieu	Proximal Risk Factors		

• Depressive illness
• Character disorder
  – aggressive-impulsive
  – perfectionistic-rigid
	• High or low rates in community
	• Taboos against suicide
	• Media display of suicide
	• Suicide in family
		Stress Event
		
		• Suicide of friend
			Altered State of Mind
			
			• Hopelessness
			• Intoxication
			• Rage
				Opportunity
				
				• Available method
				• Privacy

Inhibit or Facilitate

SUICIDE

• Case Finding and Treatment (School Gatekeeper Training) (Community Gatekeeper Training) (Screening Programs)　　• Media Guidance • Taboo Enhancement　　• Crisis Intervention　　• Hotlines • Peer Support　　• Means Restriction

<u>Prevention Strategies</u>

Adapted, with permission, from the *Journal of the American Academy of Child and Adolescent Psychiatry.* Shaffer, D., Garland, A., Gould, M., Fisher, P., and Trautman, P. Preventing Teenage Suicide: A Critical Review, 1988, 27:675–687.

TABLE 1.
Suicide Rates Among 15- to 24-Year-Olds in the United States,
by Race and Sex (Rates Per 100,000)

Group	1950	1960	1970	1980	1988
15–19					
White Male	3.7	5.9	9.4	15.0	19.6
Black Male	—	2.9	4.7	5.6	9.7
White Female	1.9	1.6	2.9	3.3	4.8
Black Female	—	1.1	2.9	1.6	2.2
All Youth	2.7	3.6	5.9	8.5	11.3
20–24					
White Male	9.4	11.9	19.3	27.8	27.0
Black Male	—	5.8	18.7	20.0	19.8
White Female	3.5	3.1	5.7	5.9	4.4
Black Female	—	1.5	4.9	3.1	2.9
All Youth	6.2	7.1	12.2	16.1	15.0
15–24					
White Male	6.6	8.6	13.9	21.4	23.4
Black Male	4.9	4.1	10.5	12.3	14.5
White Female	2.7	2.3	4.2	4.6	4.6
Black Female	1.8	1.3	3.8	2.3	2.6
All Youth	4.5	5.2	8.8	12.3	13.2

— Data not available from National Center for Health Statistics.
Source: National Center for Health Statistics, Centers for Disease Control. Published and unpublished data.

In response to these findings, concerned people began to implement a variety of innovative programs they believed might help to reduce the rate of youth suicide. Many such programs were designed to enhance the ability of people to recognize signs of suicidal tendencies, either in themselves or in others, and to increase referrals of adolescents and young adults with psychiatric disorders to existing mental health services. Other programs tried to interrupt the chain of suicide causation at another point, by focusing on the social milieu in which suicide occurs, or on so-called "trigger factors" for suicide, such as a stressful event or the loss of a loved one.

Despite these efforts, the rate of youth suicide remains high: in 1988, the rate among adolescents was 11.3 per 100,000; among young adults, the rate was 15.0. Faced with these continuing high suicide rates, it is more urgent than ever that we determine which of the current prevention strategies are effective and, in particular, which are most effective relative to their cost. Over the years, a great variety of suicide prevention programs have been implemented, incorporating many different strategies. Despite this experience, there is still (1) no ready way to identify model programs for others who are interested in developing suicide prevention programs in their own communities, and (2) no consensus as to the relative effectiveness of particular suicide prevention strategies. In the absence of this information, people interested in suicide prevention have had no choice but to employ whatever strategies seemed most appealing, often requiring them to "re-invent the wheel" in their community and, at least potentially, leading them to expend scarce prevention resources on ineffective or relatively less effective strategies.

Development of CDC Resource Guide for Youth Suicide Prevention

We developed this resource guide to address these two needs. It is intended as an aid to those who are interested in developing or augmenting youth suicide prevention programs in their own communities. To gather information for the guide, we contacted a wide variety of suicide prevention experts and asked them to identify and describe "exemplary" youth suicide prevention programs (i.e., programs that in their judgment were likely to be effective in the prevention of suicide).

When we cast our net for youth suicide prevention programs, we deliberately excluded programs designed to deliver mental health services in traditional health service delivery settings. As mentioned previously, the diagnosis and treatment of mental disorders has been and continues to be a cornerstone of suicide prevention. Even among teenagers, at least 1 in 5 suicide victims appears to have been suffering from clinical depression when he or she committed suicide; almost 4 in 10 appear to have had a diagnosable drug abuse disorder (Shaffer, et al., 1988). In addition, the evidence is clear that current treatment for clinical depression and certain other mental disorders is effective in reducing the duration of mental illness. Although there is surprisingly little objective evidence that treating persons with mental disorders actually reduces the overall rate of death from suicide, no one doubts that we must continue our efforts to diagnose and treat persons with mental disorders as part of any larger effort to prevent suicide. Because this approach to suicide prevention is so widely accepted, we excluded traditional mental health service delivery programs from our review. We did include, however, programs that were designed to increase referral to existing mental health services.

Study Approach

This study was designed to help clarify the issues involved in preventing suicide by describing the types of youth suicide prevention programs that are in operation or that have been proposed. We began by reviewing research studies on youth suicide prevention. We then attempted to identify and describe exemplary youth suicide prevention programs around the United States. Our general approach was, first, to identify a wide variety of suicide prevention programs that suicide prevention experts considered most likely to be effective and that might be evaluated and replicated. These judgments were made on the basis of a number of broad criteria, including the number of persons exposed to the intervention, the number of years of program operation, the nature and intensity of the intervention, and the availability of data to facilitate evaluation. After identifying these reportedly exemplary programs, we contacted the various program directors to gather further information that we believed would be valuable to others in the suicide prevention community and valuable to us in identifying programs that might be amenable to scientific evaluation. Finally, in compiling this information, we attempted to identify knowledge gaps and the kinds of evaluation questions that, if addressed, would increase our understanding of the effects of youth suicide prevention activities.

We identified the programs described in this report by contacting more than 40 experts in youth suicide prevention around the country and asking them to identify exemplary youth suicide prevention programs. Directors of these programs were then asked to describe their activities and send us any written material about their operations. We expanded our list of contacts by asking the director of each program to identify other programs that they considered exemplary. We supplemented our list by contacting participants in the 1990

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national meeting of the American Association of Suicidology (AAS) and by soliciting responses from program staff in *Newslink,* the newsletter of AAS.

Staff in suicide prevention programs rarely identified more than one or two other exemplary programs. Moreover, the programs nominated were typically in other areas of the country rather than in the same state. This leads us to speculate that the resource network that would allow programs to provide advice to one another and share information is not as well developed as it might be.

Programs in the resulting list are described in this report. This list is not meant to represent all exemplary youth suicide prevention programs, nor does the Centers for Disease Control endorse this list of programs as being the most effective or worthy of emulation. Rather, the programs we describe are intended to characterize the diversity of programs that exists and to serve as a resource guide for those interested in learning about the various types of suicide prevention activities in this field.

Youth Suicide Prevention Programs

There is a broad spectrum of youth suicide prevention programs ranging from general education about suicide to crisis center hotlines. The different prevention strategies are designed to prevent suicide in various ways (Figure 1). For example, gatekeeper training and screening programs are designed to identify people at risk of suicide and refer them to mental health services. Conversely, hotlines are intended to help people who are experiencing a crisis.

This report focuses on eight different kinds of program activities representing different strategies for suicide prevention. However, suicide prevention programs are typically quite comprehensive, incorporating several different strategies. For example, general suicide education programs in schools are almost always associated with gatekeeper training for school personnel. Similarly, in many communities, general suicide education programs are conducted by crisis center personnel. Many suicide prevention programs include several of these components in their activities, and many in the field believe that comprehensive programs offering multiple components facilitate the type of synergy and coordination that is more effective than any individual component.

Still, in planning, implementing, or evaluating suicide prevention efforts, we need to think about individual program components and prevention strategies. Although prevention programs are typically comprehensive, many program directors recommend implementing one component at a time, in order to get the activity fully operational before new program components are added. In addition, the types of evaluation questions that need to be asked will be quite different for various types of prevention strategies. Therefore, this report has been organized according to major program components and strategies.

School Gatekeeper Training. This type of program is directed at school staff (teachers, counselors, coaches, etc.) to help them identify students at risk of suicide and refer such students as appropriate. These programs also teach staff how to respond in cases of a tragic death or other crisis in the school.

Community Gatekeeper Training. This type of gatekeeper program provides training to community members, such as clergy, police, merchants, and recreation staff, as well as physicians, nurses, and other clinicians who see youthful patients. This training is designed to help these people identify youth at risk of suicide and refer them as appropriate.

General Suicide Education. These programs provide students with facts about suicide, alert them to suicide warning signs, and provide information about how to seek help for themselves or for others. These programs often incorporate a variety of self-esteem or social competency development activities.

Screening Programs. Screening involves the administration of an instrument to identify high-risk youth in order to provide more targeted assessment and treatment. Repeated administration of the screening instrument can also be used to measure changes in attitudes or behaviors over time, to test the effectiveness of an employed prevention strategy, and to obtain early warning signs of potential suicidal behavior.

Peer Support Programs. These programs, which can be conducted in either school or non-school settings, are designed to foster peer relationships, competency development, and social skills among youth at high risk of suicide or suicidal behavior.

Crisis Centers and Hotlines. Among other services, these programs primarily provide telephone counseling for suicidal people. Hotlines are usually staffed by trained volunteers. Such programs may also offer a "drop-in" crisis center and referral to mental health services.

Means Restriction. This prevention strategy consists of activities designed to restrict access to handguns, drugs, and other common means of suicide.

Intervention After a Suicide. Strategies have been developed to cope with the crisis sometimes caused by one or more youth suicides in a community. They are designed in part to help prevent or contain suicide clusters and to help youth effectively cope with feelings of loss that come with the sudden death or suicide of a peer. Preventing further suicides is but one of several goals of interventions made with friends and relatives of a suicide victim—so-called "postvention" efforts.

Report Organization

In the chapters that follow, we describe and present the rationale for various types of suicide prevention strategies, review the research on these strategies, provide a brief summary of our judgments concerning the potential and pitfalls of these approaches, and then present brief descriptions of programs that might serve as a resource or guide for others. When program descriptions were sent out for review, program staffers were asked what advice they would share with others who might want to implement that type of program. When supplied, these comments are reported as well.

Summary of Overall Findings

Several important conclusions may be drawn from an overall consideration of the information we gathered and collated in this resource guide:

- **Despite many differences, the various prevention strategies incorporated into current youth suicide prevention programs have two common themes.** As noted previously, we delineated eight different strategies for youth suicide prevention that were generally incorporated in some combination into the programs we reviewed. Despite their obvious differences, these eight strategies may be considered to constitute just two conceptual categories: (1) strategies to enhance the recognition of suicidal youth and their referral to existing mental health resources, and (2) strategies designed to directly address known or suspected risk factors for youth suicide.

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— *Strategies to enhance recognition and referral.* This category includes active strategies to identify and refer suicidal youth (general screening programs, targeted screening in the context of an apparent suicide cluster) as well as passive strategies to increase referrals (training school and community gatekeepers, general education about youth suicide, establishing crisis centers and hotlines). Some of the passive strategies are designed to lower barriers to self-referral for those with suicidal feelings; others are designed to increase referrals by persons who recognize suicidal tendencies in someone they know.

— *Strategies to address known or suspected risk factors.* This category includes interventions designed to promote self-esteem and build competency in stress management (general suicide education, peer support programs); to develop support networks for youths who have attempted suicide or who are otherwise thought to be at high risk (peer support programs); and to provide crisis counseling or otherwise address the proximal stress events that increase the risk of suicide among susceptible youths (crisis centers and hotlines, interventions to minimize contagion in the context of suicide clusters). Although means restriction may be critically important in reducing the risk of youth suicide, none of the programs we reviewed placed a major emphasis on this prevention strategy.

● **Most programs focus on teenagers, with little emphasis given to suicide prevention among young adults.** With a few important exceptions, most programs designed to reduce youth suicide were developed with high school-aged youth in mind. This may be due to the fact that adolescents in high school are easier to reach than young adults 20-24 years of age. But it may also be due to a failure to appreciate that the suicide rate is generally twice as great among persons 20-24 years of age as among adolescents 15-19 years of age (Table 1). More prevention efforts need to be targeted toward young adults at high risk of suicide.

● **Current programs are sometimes inadequately linked with existing community mental health resources.** Some programs, notably the Pennsylvania Student Assistance Program, have deliberately worked to develop very close ties with community mental health resources. In a substantial number of other programs, linkages with existing mental health resources have been somewhat tenuous. We believe that strengthening these ties would substantially enhance suicide prevention efforts.

● **Some strategies are applied very infrequently—despite great apparent potential for success—whereas others are very commonly applied.** In particular, despite evidence that restricting access to lethal means of suicide (e.g., firearms and lethal dosages of drugs) may prevent some youths from completing suicide, none of the youth suicide prevention programs we reviewed incorporated this strategy as a major focus of their efforts. Parents should be educated in suicide warning signs and encouraged to restrict their teens' access to lethal suicide means. Other promising strategies, such as peer support programs for previous suicide attempters or high-risk youth, might also be more widely incorporated into current suicide prevention programs, but great care should be taken to ensure that there are no adverse consequences from involving peers in such activities.

In contrast, school-based general suicide education is a commonly employed youth suicide prevention strategy (Appendix B). This is probably because it is a fairly easy and inexpensive way to reach a large audience. In addition, school-based educational efforts

may be an intuitively appealing approach to addressing any problem among adolescents. In this case, however, there is little evidence to support school-based education as a predominant approach to adolescent suicide prevention. In many instances (not necessarily in the programs described herein, but in many other programs of which the authors are aware), the educational intervention consists of a very brief, one-time lecture on the warning signs of suicide, a method which seems unlikely to have any substantial or lasting impact on a student's risk of suicide. Moreover, general school-based suicide curricula may not be effective for those adolescents whom one most wishes to reach: those who have attempted suicide or have considered suicide as a solution to their problems in the past. Students who have previously attempted suicide may react more negatively to such curricula than students without a history of attempted suicide. While the effects— positive or negative—of such general educational approaches are still unclear, many suicide researchers believe that broader curricula that address suicide prevention in the context of other adolescent health issues are preferable to curricula that only address suicide.

- **Certain potentially effective programs targeted at high-risk youth are not thought of as "youth suicide prevention" programs.** Alcohol and drug abuse treatment programs and programs that provide help and services to runaways, pregnant teens, or school dropouts are examples of programs that address risk factors for suicide and yet are rarely considered to be suicide prevention programs. Few of the programs we reviewed had any formal ties with such programs.

- **There is very little evaluation research in this area— indeed, there is very little data collected that would facilitate such research.** The tremendous dearth of evaluation research in this area stands as the single greatest obstacle to improving current efforts to prevent youth suicide. In the final analysis, despite many years of experience and hard work, all we can say—and scientifically defend—is that every one of the eight strategies described herein, as currently implemented, may or may not prevent youth suicide. Clearly, this is an unsatisfactory state of affairs. We urgently need to evaluate existing suicide prevention programs wherever possible and to incorporate the potential for evaluation into all new prevention programs. Moreover, whenever possible, the outcome measure for such evaluations should be changes in suicidal behavior. After all, it is the level of suicidal behavior—not attitudes toward suicide or knowledge of warning signs—that we are ultimately working to change. When measuring a program's effect on the level of suicidal behavior is not feasible, the outcomes measured should be those that are closely associated with actual suicidal behavior.

In this regard, it is worth noting that *any* health intervention may have unforeseen negative consequences; suicide prevention efforts are no exception. This is another, even more important reason why evaluation must be built into every youth suicide prevention program. Regardless of the prevention strategy employed, we must be vigilant to ensure that efforts to prevent suicide do not result in untoward consequences.

Recommendations

Although we do not have sufficient information to recommend one suicide prevention strategy over another at this stage, the following recommendations seem prudent:

- **Ensure that new and existing suicide prevention programs are linked as closely as possible with professional mental health resources in the community.** As noted, many of the strategies are designed to increase referrals of at-risk youth—this approach can be successful only to the extent that there are appropriate, trained counselors to whom referrals can be made.

- **Avoid reliance on one prevention strategy.** Most of the programs we reviewed already incorporate several if not all of the eight strategies we described. However, as noted, certain strategies tend to predominate, despite limited evidence of their effectiveness.

- **Incorporate promising but underused strategies into current programs where possible.** The restriction of lethal means by which to commit suicide may be the most important candidate strategy here. Peer support groups for those who have felt suicidal or have attempted suicide also appear promising, but great care should be taken to ensure that there are no adverse consequences from involving peers in such activities.

- **Expand suicide prevention efforts for young adults 20-24 years of age,** among whom the suicide rate is twice as high as for adolescents.

- **Incorporate evaluation efforts into all new and existing suicide prevention programs,** preferably based on outcome measures, such as the incidence of suicidal behavior, or measures closely associated with such behavior. Be aware that suicide prevention efforts, like all health interventions, may have unforeseen negative consequences. Evaluation measures should be designed to identify such consequences, should they occur.

When developing a youth suicide prevention program in a particular community, the needs and resources of the community must be identified to determine which strategy or combination of strategies is most appropriate. We hope that the information in this document will help communities make this determination. Finally, like many prevention programs, the suicide prevention programs described in this resource guide are evolving. They are subject to changes in staff, funding, and program emphasis. Hence, readers should contact programs directly to obtain current information on their activities.

References Used in the Introduction

Centers for Disease Control. *Youth Suicide in the United States, 1970-1980.* Atlanta: Centers for Disease Control, 1986.

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