



Preventing Suicide among Men in the Middle Years:

Recommendations for Suicide Prevention Programs



TABLE OF CONTENTS

ACKNOWLEDGEMENTS	3
INTRODUCTION	5
SECTION 1 Understanding Suicide among Men in the Middle Years: Key Points	7
SECTION 2 Recommendations for Suicide Prevention Programs	12
SECTION 3 A Review of the Research on Suicide among Men in the Middle Years » Scope and Patterns » Risk Factors » Protective Factors » Suggestions from the Research Literature » Conclusion » References	21
SECTION 4 Programs and Resources	54

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Although men in the middle years (MIMY)—that is, men 35–64 years of age—represent 19 percent of the population of the United States, they account for 40 percent of the suicides in this country. The number of men in this age group and their relative representation in the U.S. population are both increasing. If the suicide rate among men ages 35–64 is not reduced, both the number of men in the middle years who die by suicide and their contribution to the overall suicide rate in the United States will continue to increase.

Unfortunately, the conclusions reached by a 2003 consensus conference on “Preventing Suicide, Attempted Suicide, and their Antecedents among Men in the Middle Years of Life” still ring true.

[Men in the middle years of life] generally have received the least attention from many of those who are committed to developing methods of prevention and clinical intervention. Any prevention effort that seeks to develop a high level of effectiveness must give careful attention to those approaches that “capture” large segments of the general population, as well as those who carry especially high risk. Men in the middle years, in particular, will need to be a principal target. (Caine, 2003)

Preventing Suicide among Men in the Middle Years: Recommendations for Suicide Prevention Programs is the final report of a project that explored the causes of suicide among men ages 35–64 in the United States as well as what can be done to alleviate the toll that suicide takes on these men and their families, friends, and communities. The creation of this publication was informed by the following:

- » **A review of the research on suicide among men 35–64 years of age**, focusing on research conducted in the United States and other Western developed countries. It was often necessary to use data or research that defined “middle years” somewhat differently than our target group of 35–64 years.
- » **Extensive discussions by an advisory group** of experts on suicide among men.
- » **Reviews of drafts** by the advisory group, other experts, state suicide prevention coordinators, persons with lived experience, and others.
- » **Initial queries to participants** in the National Action Alliance for Suicide Prevention’s People in the Middle Years short-term assessment “tiger team” and a survey about existing programs and activities sent to state suicide prevention planners, selected tribal program planners, and members of the Methamphetamine and Suicide Prevention Initiative Behavioral Health LISTSERV.

This publication was created to help state and community suicide prevention programs design and implement projects to prevent suicide among men in the middle years. These could include programs operated by states, counties, municipalities, tribal entities, coalitions, and nongovernmental organizations (hereafter referred to as “state and community suicide prevention programs”). In most cases, such programs will work with other organizations, agencies, and professionals to achieve the goal of reducing suicide among MIMY. We hope that *Preventing Suicide among Men in the Middle Years: Recommendations for Suicide Prevention Programs* will also be of use to these partners, as well as anyone else interested in the health and well-being of men.

Preventing Suicide among Men in the Middle Years: Recommendations for Suicide Prevention Programs is divided into four sections:

Section 1: Understanding Suicide among Men in the Middle Years: Key Points is a distillation of the conclusions drawn from our review of the research and informed by input from the advisory group and other experts.

Section 2: Recommendations for Suicide Prevention Programs provides guidance for state and community suicide prevention programs. The recommendations were based on the research review and input from the advisory group and reviewers.

Section 3: A Review of the Research on Suicide among Men in the Middle Years is based on the current research and data.

Section 4: Programs and Resources is an annotated list of programs and resources that can be used to implement activities supporting the Recommendations. Some of these programs and resources were designed for use with MIMY. Others were intended for a broader population but have been used with MIMY. Few have been evaluated.



SECTION 1

Understanding Suicide among Men in the Middle Years: Key Points

SECTION 1: Understanding Suicide among Men in the Middle Years: Key Points

These 16 key points represent our conclusions about the scope, patterns, and broader implications of the problem of suicide among men in the middle years (MIMY). We hope these key points will accomplish the following:

- » Provide the rationale for the Recommendations for Suicide Prevention Programs
- » Highlight the role of the partners whose collaboration is essential to implementing the recommendations
- » Educate and inform staff, collaborators, and the public about suicide among MIMY

1 Much of the increase in suicide in the United States since 1999 can be attributed to an increase in suicides by men in the 35–64 age group (i.e., men in the middle years).

Men in this age group:

- » Die by suicide at a substantially higher rate than either women or younger men
- » Make up more than one half of the male population and approximately one quarter of the total population of the United States
- » Will continue to comprise a significant proportion of the U.S. population for at least the next 25 years
- » Are not likely to “age out” of risk, as the suicide rate among men ages 65 and older is higher than that of men ages 35–64

Reducing the overall suicide rate of the United States requires making a substantial reduction in the suicide rate among men 35–64 years of age.

2 Suicide attempts and ideation have a profound impact on men in the middle years.

Suicide attempts and ideation affect the emotional lives of millions of men and take a toll on their well-being and their families.

3 The major risk factors for suicide that affect the general population also affect men in the middle years.

These risk factors include mental disorders, alcohol and drug abuse, lack of access to effective behavioral health services, and access to lethal means.

4 Cultural expectations about masculine identity and behavior can contribute to suicide risk among men in the middle years.

These expectations can amplify risk factors as well as reduce the effectiveness of interventions that fail to consider how MIMY think about themselves and their relationships to families, peers, and caregivers. These cultural expectations include the following characteristics:

- » Being independent and competent (and thus not seeking help from others)
- » Concealing emotions (especially emotions that imply vulnerability or helplessness)
- » Being the family “breadwinner”—an identity that is challenged when a man is unable to provide for his family (e.g., because he has lost his job)

5 Men receive less behavioral health treatment than women even though mental and substance abuse disorders—especially depression—are major risk factors for suicide among men.

Explanations of why men receive less behavioral health treatment than women include (a) a reluctance among men to recognize or acknowledge that they could benefit from behavioral health services as well as to seek and accept these services, (b) the failure of clinicians to recognize depression in men and refer them to the appropriate care (which may result from the fact that depression screening tools are largely developed using female samples), (c) male perception that behavioral health services are not effective, and (d) the actual and perceived shame and prejudice that can be related to behavioral health diagnoses and treatment.

6 There are questions about whether clinical interventions targeting suicide risk and related mental health disorders are as effective for men as for women.

Many clinical interventions were developed and evaluated using research subject groups that were solely or primarily female. Thus, the evaluations could not determine if these interventions are effective for men. Some sex-specific analyses of evaluation data of programs designed to reduce suicidal behavior have revealed that their success is entirely based on their effect on women.

7 Alcohol plays a larger role in suicidal behaviors among men than women.

The role of alcohol in suicide includes both (a) a relationship between sustained alcohol abuse (i.e., alcohol use disorders) and suicide and (b) the immediate effects of alcohol (i.e., intoxication) on critical thinking and impulsivity.

8 Firearms play a large role in suicide among men in the middle years.

In 2014, 52 percent of suicides among men 35–64 years of age involved firearms (compared to 32 percent among women in this age group).

9 Men in the middle years who have employment, financial, and/or legal problems are at higher risk for suicide than women or younger men facing those issues.

Suicides associated with external circumstances, such as employment, financial, or legal problems are more common among MIMY than among women in the middle years. The risk of suicide among adult men—and especially among MIMY who are closer to retirement—increases during economic downturns. Suicides associated with external circumstances are less likely to be preceded by a history of suicide attempts and ideation than are suicides associated with personal circumstances (e.g., mental disorders) or interpersonal circumstances (e.g., divorce).

10 Intimate partner problems and domestic violence are associated with suicide risk among MIMY.

Men 35–64 years of age appear to be at greater risk of suicide associated with intimate partner problems than women. Divorce, loss of custody of children, and other relationship issues have the potential to trigger suicides of men in this age group. MIMY who perpetrate intimate partner violence are also at increased risk of suicide.

11 Men in lower income groups are at greater risk for suicide than men in higher income groups.

Although the data on the relationship of income and wealth to suicide is limited, research using educational attainment and occupational skill level suggests that suicide risk is higher among people with limited financial resources. MIMY in lower income groups are also disproportionately affected by other risk factors for suicide (e.g., chronic disease and disability and lack of access to effective health and behavioral health care).

12 Men in the middle years who are involved with the criminal justice system are at higher risk for suicidal behaviors than other men.

More than 40 percent of men in the 35–64 age group who reported attempting suicide also reported being arrested and booked for a criminal offense in the past 12 months. The relationship between suicide risk and involvement with the criminal justice system may be due to the fact that (a) men from lower income groups and men with mental disorders and/or alcohol or drug use disorders are disproportionately involved with the criminal justice system and (b) the stress and shame of being involved with the criminal justice system can in and of itself contribute to suicide risk.

13 Veterans in the middle years (a population that is largely male) have a higher suicide rate than their peers who have not served in the military.

This phenomenon may be related to (a) trauma associated with combat, (b) interpersonal issues associated with deployment and re-entry into civilian life, and (c) the demographics of the all-volunteer army.

14 Gay, bisexual, and transgender men in the middle years may be more at risk for suicide than other men of their age.

The research reveals that lesbian, gay, bisexual, and transgender youth, and young people who do not conform to standard gender roles, are much more at risk for suicide attempts than other youth. Because most death data do not include information about sexual orientation and transgender status, we cannot conclusively prove that these young people are more at risk of suicide than the general population. There is evidence that the still considerable social disapproval surrounding sexual orientation can contribute to an increased risk of suicidal behavior and associated mood disorders among adult GBT men.

15 The research on protective factors is not as robust as the research on risk factors and pathology.

There is limited research on interventions that leverage protective factors to prevent suicide among men in the middle years. Additional research is also needed on interventions that will help boys, male adolescents, and young men to develop the resilience that will offer protection against suicide risks they may face when they reach the middle years.

- 16 It is important to acknowledge the toll that suicide takes among other groups, including women and men of other ages, even if the absolute numbers of these deaths are much lower than the number of suicides among men in the middle years.**

This is especially true for groups whose behavioral health disparities (including suicide risk) are rooted in historical and/or contemporary patterns of trauma, discrimination, and exclusion and who are in need of effective and culturally appropriate suicide prevention efforts (e.g., American Indians and Alaska Natives).



SECTION 2

Recommendations for Suicide Prevention Programs

SECTION 2: Recommendations for Suicide Prevention Programs

These recommendations outline a framework for the implementation of a comprehensive state or community effort to prevent suicide among men in the middle years (MIMY). It is virtually impossible to reduce the suicide rate of the general population without reducing the rate of suicide among MIMY. As a first step, we suggest that state and community suicide prevention programs prioritize MIMY as a key target population.

Implementing the Recommendations

Suicide does not have a single cause. Nor does it have a single solution. Effectively preventing suicide requires a comprehensive set of interventions that address the major factors that put people at risk. Such a comprehensive system can only be created incrementally. The first step in building this system is creating a strategic plan informed by the specific scope and patterns of suicide among MIMY in your state or community. This includes identifying the following:

- » Populations most at risk
- » Factors that put these people at risk
- » Resources that are available for reducing this risk

It is essential that both community and clinical components are included given that both are essential to preventing suicide. This approach is as central to preventing suicide among MIMY as it is to addressing the overall problem of suicide in a community, a state, or the nation as a whole.

Building a comprehensive suicide prevention program for MIMY includes the following steps:

1. Describe the problem in your state or community, which may differ from that summarized in *Understanding Suicide among Men in the Middle Years: Key Points*. These differences can stem from factors such as the ethnic and income groups represented or the availability of mental health services and lethal means (e.g., firearms) among MIMY in your state or community.
2. Identify risk and protective factors. The risk and protective factors for suicide among MIMY are outlined in the *Key Points*. An understanding of the specific risk and protective factors in your state or community is essential to effective prevention.
3. Find appropriate partners. The risk factors affecting MIMY in your state and community, as well as the interventions that effectively address these risk factors, have implications for the partners you will need.
4. Select, implement, and evaluate interventions. The recommendations can help you select the interventions that are most appropriate to your needs. A list of tools and other materials that can help you implement the interventions can be found in the *Programs and Resources* section of this report. All the resources mentioned in the recommendations can be found in that section.

SECTION 2: Recommendations for Suicide Prevention Programs

This report presents 17 recommendations:

- » Recommendations 1–3 summarize the principles that should inform all activities to prevent suicide among MIMY.
- » Recommendations 4–15 describe how state and community suicide prevention programs can help agencies, organizations, and professionals that work with MIMY to integrate suicide prevention into their activities
- » Recommendation 16 addresses policies that can reduce suicides associated with firearms, which represent 52 percent of suicides among MIMY, as well as suicides associated with alcohol use.
- » Recommendation 17 addresses the need for research on suicide and suicide prevention among MIMY.

The Recommendations

To prevent suicide among MIMY, we recommend the following actions for state and community suicide prevention programs:

1 **Revise your state or community suicide prevention plan to ensure that it adequately addresses suicide among MIMY:**

- » Include data and other information about the problem of suicide among MIMY
- » Identify and revise objectives and activities that could be enhanced to prevent suicide among MIMY
- » Include new activities specially designed to prevent suicide among MIMY

2 **Develop, implement, and facilitate suicide prevention activities based on an understanding of risk and protective factors among men in the middle years.**

Major risk factors for suicide for MIMY include the following:

- » Depression and other mental disorders
- » A history of suicidal behavior, including suicidal ideation and attempts
- » Alcohol use disorder and intoxication
- » Access to firearms
- » Illness or disability, including chronic medical conditions, physical disability, and/or a new diagnosis of a serious illness
- » Financial stress, both ongoing (e.g., having a low income/low status occupation) and immediate (e.g., job loss, foreclosure)
- » Intimate partner problems, both ongoing (e.g., divorce, separation) and immediate (e.g., breakup, loss of child custody), and committing or being the victim of intimate partner violence

The term *facilitate* is used in several of the recommendations to refer to a range of activities, including providing information, resources, training, and technical assistance to agencies, organizations, and professionals.

SECTION 2: Recommendations for Suicide Prevention Programs

- » Criminal justice system involvement, both long-term (e.g., men who are awaiting adjudication or on probation) and immediate (e.g., arrest, impending court date, or impending incarceration)
- » Other stressors that can precipitate suicide, including family and civil court cases

Major protective factors against suicide for MIMY include the following:

- » Access to effective health and behavioral health care
- » Social connectedness to individuals, including friends and family, and to community and social institutions
- » Coping and problem-solving skills
- » Reasons for living, meaning in life, and purpose in life

3 Incorporate an understanding of cultural expectations about masculine identity and behavior and how these expectations affect suicide risk. These expectations impact how MIMY:

- » Cope with problems and stress.
- » Seek (or fail to seek) help.
- » Engage with others and accept help. For example, men can be more accepting of help when it is offered in the context of reciprocity (i.e., in a mutual exchange in which men accept help from others while also providing help to others).
- » Express or “mask” (conceal) depression and suicidal ideation as anger, agitation, nonspecific psychological distress, or physical ailments (e.g., back pain).

Masculine identity and behavior can differ based on personal characteristics, upbringing, and critical life experiences, including sexual orientation, race/ethnicity, income level, and military service. This identity and these expectations and experiences also influence the venues and channels through which MIMY can be reached with prevention messages (e.g., sporting events, talk radio, and online media).

4 Collaborate with and facilitate efforts by primary health care providers to:

- » Incorporate into their practice an understanding of (a) how suicide risk and associated mental disorders (e.g., depression) can be masked in MIMY; (b) the relationship between suicide risk and alcohol and drug use disorders, chronic disease, and disability; and (c) characteristic patterns of coping and help-seeking behavior among MIMY
- » Screen and assess MIMY for suicide risk, and, when indicated, refer patients to behavioral health services and follow-up to ensure that the patients are receiving behavioral health care
- » Intervene to keep patients safe using brief interventions (e.g., safety planning that includes teaching men how to leverage their peer and social support networks and counseling on reducing access to lethal means, especially firearms) and involving the patient's family
- » Enhance coping, problem-solving, and self-management skills among MIMY at risk for suicide using interventions such as motivational interviewing and problem-solving therapy

SECTION 2: Recommendations for Suicide Prevention Programs

- » Provide SBIRT (Screening, Brief Intervention, and Referral to Treatment) to MIMY with alcohol or drug use disorders

5 Collaborate with and facilitate efforts by emergency departments to:

- » Incorporate into their practice an understanding of (a) how suicide risk and associated mental disorders (e.g., depression) can be masked in MIMY; (b) the relationship between suicide risk and alcohol and drug use disorders, chronic disease, and disability; and (c) characteristic patterns of coping and help-seeking behavior among MIMY
- » Screen and assess MIMY for suicide risk if there is any indication that such risk is present
- » Screen and assess all intoxicated MIMY presenting in emergency departments for suicide risk
- » Provide SBIRT (Screening, Brief Intervention, and Referral to Treatment) to MIMY with alcohol or drug use disorders
- » Implement protocols for responding to suicide risk in patients, including using brief interventions (e.g., safety planning that includes teaching men how to leverage their peer and social support networks and counseling on reducing access to lethal means, especially firearms); involving the patient's family or friends; linking the patient to outpatient behavioral health treatment; and hospitalization
- » Facilitate care transitions, including rapid referral to behavioral health services
- » Provide follow-up to discharged patients with brief communications (e.g., postcards, e-mails, or texts) to facilitate adherence to discharge plan and demonstrate a continued interest in patient well-being (i.e., social connectedness)
- » Implement the guidance included in *Caring for Adult Patients with Suicide Risk: A Consensus Guide for Emergency Departments*

The Zero Suicide Toolkit includes resources that can help you implement many of the recommendations for primary care and behavioral health care systems and emergency departments. The toolkit includes sections on training options, suicide screening and risk formulation, evidence-based treatments (including therapies), and care transitions.

6 Collaborate with and facilitate efforts by behavioral health services to:

- » Incorporate into their practice an understanding of (a) how suicide risk and associated mental disorders (e.g., depression) can be masked in MIMY; (b) the relationship between suicide risk and alcohol and drug use disorders, chronic disease, and disability; and (c) characteristic patterns of coping and help-seeking behavior among MIMY
- » Screen MIMY for suicide risk during entry to care and during the course of care if there are indications of potential risk; provide more in-depth assessment for men who screen positive or when risk is suspected

SECTION 2: Recommendations for Suicide Prevention Programs

- » Use strategies to keep men safe, including brief interventions (e.g., safety planning that includes teaching men how to leverage their peer and social support networks and counseling on reducing access to lethal means, especially firearms) involving the patient's family, medication, or hospitalization
- » Use psychotherapies that directly address suicide risk and enhance coping, problem-solving, and self-management skills
- » Positively engage patients in their own care
- » Explore alternative settings and methods for bringing behavioral health services to men (e.g., workplaces, telepsychiatry)

7 Collaborate with crisis centers to educate staff about:

- » How suicide risk and associated mental disorders (e.g., depression) present or can be masked among MIMY
- » Screening and assessing MIMY who have been diagnosed with depression, other mental disorders, or an alcohol or drug use disorder for suicide risk
- » Keeping MIMY at risk safe by using strategies including brief interventions (e.g., safety planning that includes teaching men how to leverage their peer and social support networks and counseling on reducing access to lethal means, especially firearms) and involving the patient's family

8 Collaborate with and facilitate efforts by agencies and organizations that work to prevent and treat alcohol abuse to:

- » Incorporate into their practice an understanding of (a) the relationship between alcohol use disorder, intoxication, and suicide risk, (b) how suicide risk and associated mental disorders (e.g., depression) can be masked in MIMY, and (c) characteristic patterns of coping and help-seeking behavior among MIMY
- » Train staff to recognize, assess, and manage suicide risk and associated mental disorders (e.g., depression) among their clients
- » Incorporate suicide prevention-specific treatment and practices into their programs based on the recommendations of SAMHSA's *Addressing Suicidal Thoughts and Behaviors in Substance Abuse Treatment: A Treatment Improvement Protocol (TIP 50)*
- » Facilitate transitions to mental health care when appropriate
- » Include information on the relationship of alcohol and suicide among MIMY in resources designed to inform state and local policies to reduce alcohol use disorders and other forms of alcohol misuse (e.g., binge drinking). Such information can be found under A Review of the Research on Suicide among Men in the Middle Years (below).

SECTION 2: Recommendations for Suicide Prevention Programs

9 Collaborate with organizations and businesses that serve or represent firearm owners and users (including firearm retailers, firearm safety instructors, firing ranges, and gun and hunting clubs) to create a culture of safety by:

- » Providing them with information on the role of firearms in suicide and how suicide can be prevented
- » Providing gatekeeper training to firearm owners, staff of firearm-related businesses, and members of gun and hunting clubs and other firearms-related organizations
- » Training firearm retailers to identify and avoid or postpone sales to customers who may be at risk for suicide
- » Incorporating material on lethal means reduction into firearm safety training

10 Facilitate efforts by criminal justice, law enforcement, and correctional agencies to:

- » Establish procedures and provide training that will help criminal justice, law enforcement, and corrections officers safely and effectively respond to people at risk for suicide. This training should include information about the association between suicide risk and (1) involvement in the criminal justice system and (2) mental health and substance abuse disorders.
- » Utilize the Sequential Intercept Model (SIM) to prevent people with mental disorders and alcohol and drug use disorders from entering or moving deeper into the criminal justice system by diverting them to community-based services when appropriate, providing behavioral health services in correctional facilities, and providing effective reentry transitional programs for people being discharged from correctional facilities
- » Screen MIMY for suicide risk during intake in jails and prisons and implement best practices for addressing this risk (e.g., monitoring inmates and eliminating items and physical features from cells that could be used for self-harm, such as those that could be used for hanging)
- » Provide behavioral health services to MIMY in jails and prisons, including treatment for depression and other mental disorders and alcohol and drug use disorders

11 Help agencies, programs, and professionals that work with men having financial, legal, or relationship problems (including civil court issues) to identify and refer those who may be at risk of suicide.

These include agencies and programs serving MIMY who have:

- » Financial problems – These agencies, programs, and professionals would include but not be limited to affordable housing agencies, job training programs, unemployment services, employee assistance programs, human resource offices, public defenders, financial advisors, and bankruptcy attorneys.
- » Intimate partner problems – These agencies, programs, and professionals would include divorce attorneys, family law attorneys, marriage counselors, and programs that counsel men involved in domestic violence.
- » Legal problems – These agencies, programs, and professionals might include family, civil, and bankruptcy courts; attorneys; mediation services; and legal aid law clinics.

SECTION 2: Recommendations for Suicide Prevention Programs

12 Help workplaces that employ substantial numbers of men in the middle years implement programs to:

- » Teach employees how to identify and respond to coworkers who may be at risk for suicide or experiencing a mental health crisis
- » Establish postvention procedures for responding to a suicide by a worker (whether or not the death occurs in the workplace)
- » Provide specialized suicide prevention training for human resources staff and/or employee assistance providers for employees who are being terminated or laid off
- » Implement suicide prevention activities such as those described in the National Action Alliance for Suicide Prevention's *Comprehensive Blueprint for Workplace Suicide Prevention*
- » Foster a supportive workplace environment free from attitudes and discrimination that might deter people from seeking help for stress and mental health issues

13 Work with television and radio stations, newspapers and magazines, and online news sites to develop and implement outreach and social norms campaigns to:

- » Teach men how to recognize and seek help for suicide risk and associated mental disorders (e.g., depression) and alcohol and drug disorders for themselves and their peers
- » Teach family and friends to identify MIMY at risk of suicide and how to encourage them to seek care
- » Promote help seeking as a social norm for men
- » Emphasize reaching men who are socially isolated and/or may not interact with health care providers

14 Help organizations and agencies that address suicide risk among men in the middle years implement activities that strengthen protective factors.

These organizations and agencies (described in Recommendations 4–12 above) could, for example, create projects that teach coping skills to MIMY who are unemployed, separated, divorced, widowed, in recovery, disabled, or chronically ill.

15 Support the creation of community-based groups that create social connectedness and enhance self-worth, meaning in life, and a sense of purpose among men in the middle years.

For example, identify natural helpers or community leaders who could help organize programs that target and promote protective factors among MIMY with common backgrounds (e.g., veterans or American Indians) or risk factors (e.g., unemployment, alcohol or drug abuse).

16 Promote awareness of policies that have been shown to be associated with a reduction in suicide, including the following:

- » Requiring permits to purchase handguns, handgun registration, and licenses to own handguns
- » Requiring background checks and waiting periods prior to completing a handgun purchase

SECTION 2: Recommendations for Suicide Prevention Programs

- » Requiring privately owned handguns to be safely stored
- » Restricting the open carrying of handguns
- » Restricting the number of liquor licenses available in geographic areas such as neighborhoods, municipalities, or counties to limit the density of bars and retail liquor outlets

17 Researchers should improve the understanding of risk and protective factors and help develop effective interventions for suicide among men in the middle years by:

- » Reporting data by sex and age group and, if possible, race/ethnicity, socioeconomic status, and sexual orientation
- » Working with state and community suicide prevention programs to evaluate their efforts
- » Clarifying the following issues:
 1. What factors contribute to suicide risk among MIMY? How can these factors be reduced?
 2. What factors protect MIMY against suicide risk, and how can this protection be strengthened? What programs can effectively increase these protective factors among MIMY?
 3. How can suicide prevention programs more effectively prevent suicide among MIMY by responding to their cultural and behavioral expectations, their learning styles, and the ways in which they characteristically seek and accept help?
 4. How can screening, assessment, and treatment of suicide risk and associated mental disorders be made more effective for MIMY?
 5. How can help seeking and treatment engagement be enhanced for MIMY, and what roles can family, peers, and the media play in these efforts?
 6. What are the differences in the patterns of suicide and suicide attempts among MIMY based on (1) age—specifically between younger (35–49 years of age) and older (50–64 years of age) MIMY, (2) income level, and (3) sexual orientation and gender identity? What are the implications of these differences for designing effective interventions for men in these age groups?
 7. What specific risk and protective factors are at work among groups of MIMY that may be at particularly high risk (e.g., veterans, GBT men)?
 8. Does the current rate of suicide among MIMY represent a temporary cohort effect or a long-term pattern? What implications does this have for planning and implementing suicide prevention programs in the future?
 9. What can be done earlier in men's lives (including childhood and adolescence) that will promote resilience and protection against suicide when they enter the middle years?



SECTION 3

A Review of the Research on Suicide among Men in the Middle Years

SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

This review is based on the published research and surveillance data as well as on an analysis of data from SAMHSA's National Survey of Drug Use and Health (NSDUH). The review focused on research on men 35–64 years of age conducted in the United States and other Western developed countries. It was often necessary to use data or research that defined middle years somewhat differently than our target group of 35–64 years. We did not review (1) interventions targeting boys, adolescents, or younger men that might reduce risk or protect against the onset of suicidal behaviors as these men age or (2) interventions targeting men older than 64. However, we acknowledge the role of such interventions in comprehensive efforts to prevent suicide.

Scope and Patterns

Men in the middle years (MIMY) disproportionately die by suicide. In 2014, men 35–64 years of age represented 19 percent of the population of the United States (U.S. Census Bureau, 2014), but they accounted for 40 percent of suicides (CDC, 2014).

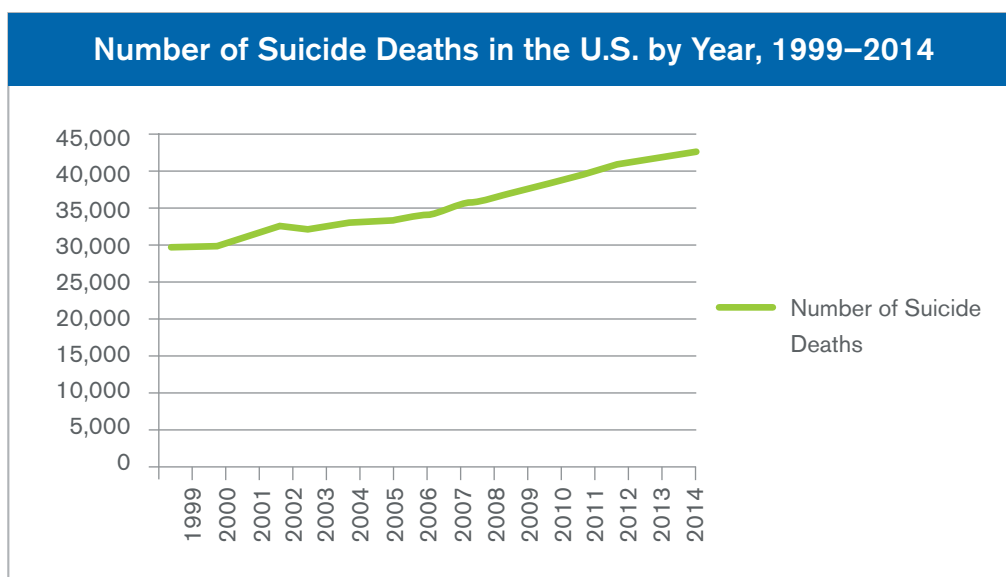
About half of the American population is male. As of 2014, 39.4 percent of the total U.S. population was 35 to 64 years of age (U.S. Census Bureau, 2014). The number of people in the middle years, as well as the proportion of the U.S. population that is in this age group, is increasing.

- » The number of people ages 45–64 years in the United States in the years 2000–2010 increased by 31.5 percent (U.S. Census Bureau, 2011).
- » The median age of the U.S. population increased from 29.5 years in 1960 to 37.2 years in 2010 (U.S. Census Bureau, 2011).

Suicidal Behavior among Men in the Middle Years

The suicide rate and the absolute number of suicides in the United States have continually increased since 1999. The number of suicides in the United States rose from 29,350 in 1999 to 42,773 in 2014 (Figure 1).

Figure 1. Suicide Deaths in the U.S. by Year

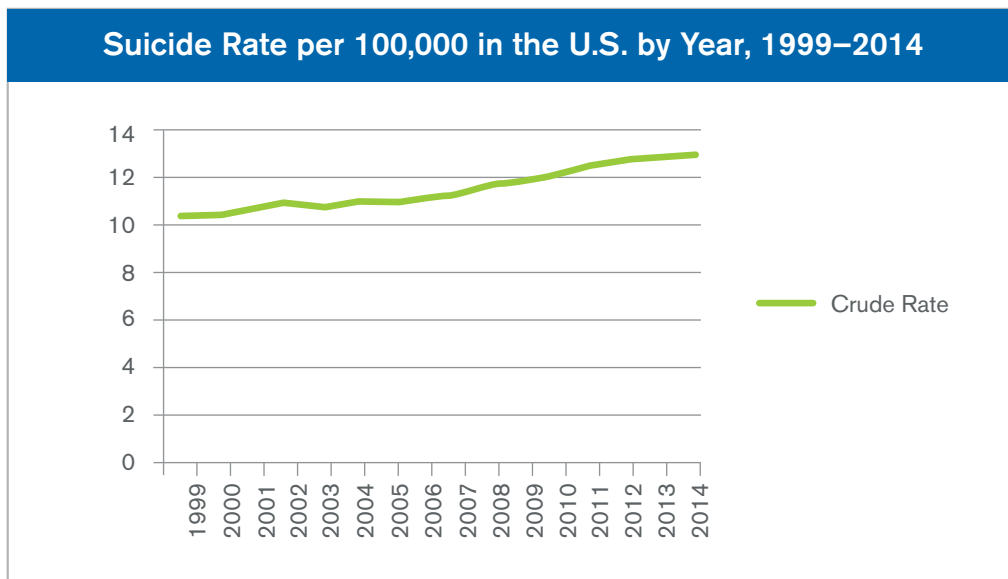


Source: Data from Centers for Disease Control and Prevention (2014).

SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

The suicide rate in the United States increased from 10.48/100,000 in 1999 to 13.41/100,000 in 2014 (Figure 2).

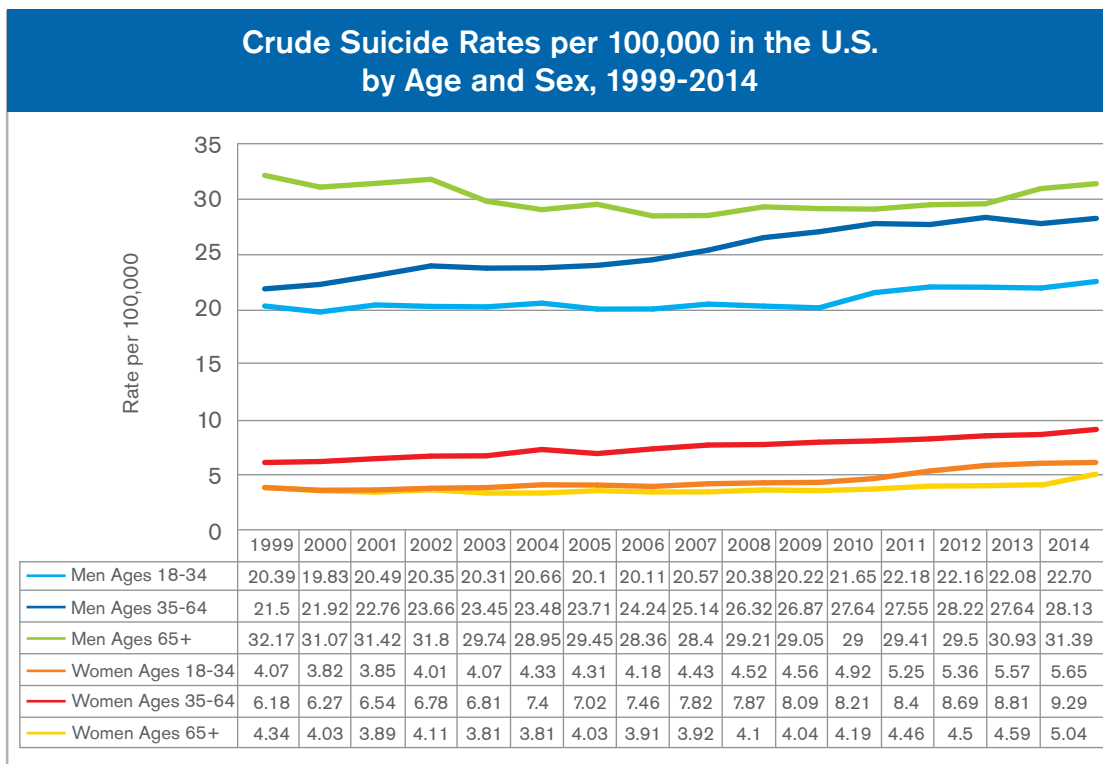
Figure 2. Suicide Rate in the U.S. by Year



Source: Data from Centers for Disease Control and Prevention (2014).

Much of the growth in the suicide rate and the number of suicides in the United States since 1999 can be attributed to an increase in suicides by men 35–64 years of age (Figure 3).

Figure 3. Crude Suicide Rates in the U.S. by Age and Sex

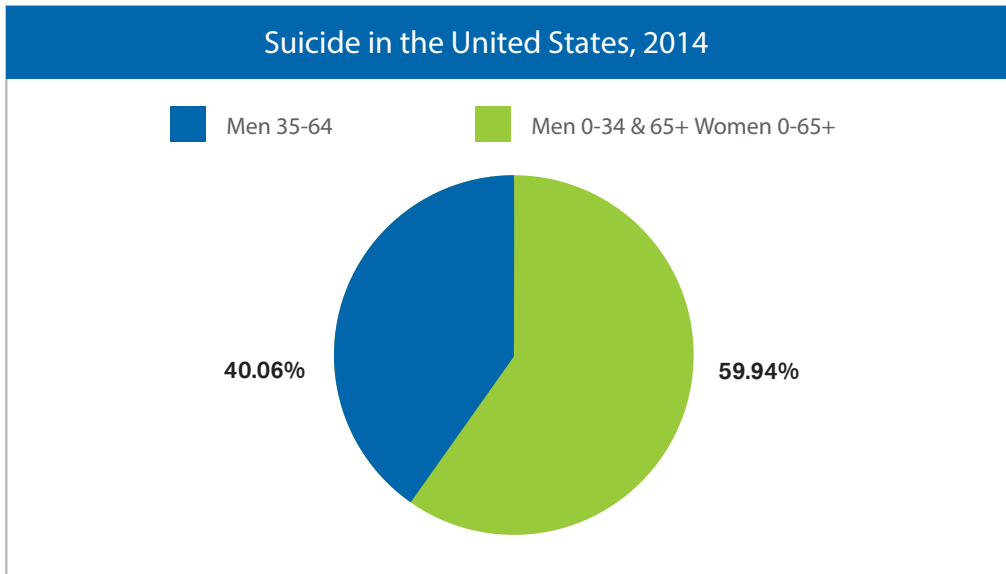


Source: Data from Centers for Disease Control and Prevention (2014).

SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

The largest increase in the suicide rate during the years 1999–2014 was among people 35–64 years of age. Although the increase in the suicide rate for women 35–64 was somewhat higher than that for men in that age group, the suicide rate for MIMY continues to be substantially higher than that for women in the middle years (Figure 3). Men ages 35–64 represent a disproportional percentage of suicides in this country (Figure 4).

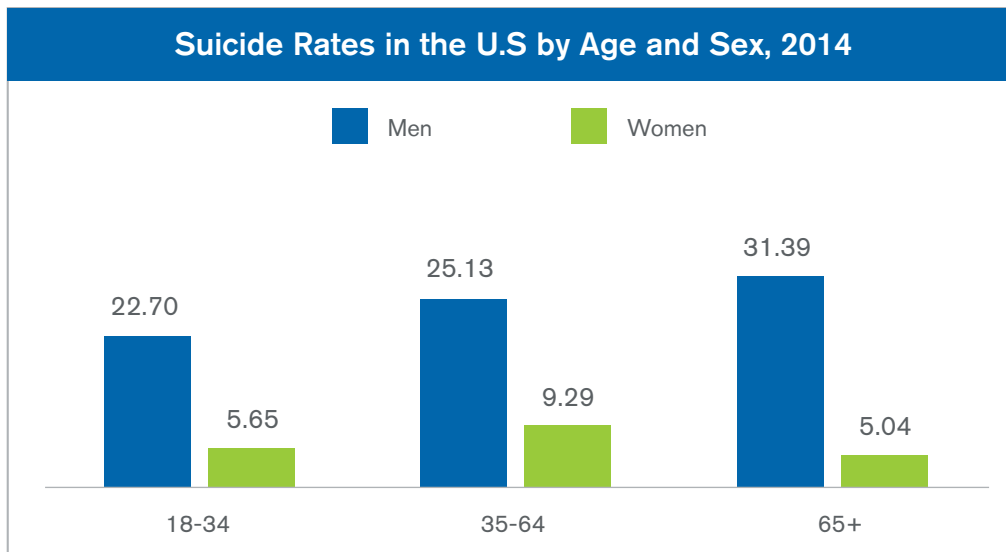
Figure 4. Suicide in the United States, 2014



Source: Data from Centers for Disease Control and Prevention (2014).

The suicide rate of men rises with age, and suicide rates among men are higher than those among women in every age group (Figure 5).

Figure 5. Suicide Rates in the U.S. by Age and Sex, 2014



Source: Data from Centers for Disease Control and Prevention (2014).

SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

According to the NSDUH, an average of 0.4 percent of men 35–64 years of age made a suicide attempt during the years 2008–2013. This was the same as the percentage of women 35–64 who made an attempt, but lower than the percentage of men 18–34 years of age (Table 1). Using U.S. Census data, we can estimate that in 2013:

- » 242,779 men 35–64 years of age attempted suicide
- » 2,306,402 men 35–64 years of age had serious thoughts of suicide

Table 1. Average Percentages of Attempts and Serious Thoughts of Suicide in the Past 12 Months by Sex and Age Group, 2008–2013

Sex/Age	Attempts	Serious Thoughts of Suicide
Men 18-34	0.7%	4.9%
Men 35-64	0.4%	3.4%
Women 35-64	0.4%	3.7%

Source: Data from the National Survey on Drug Use and Health, 2008–2013, Substance Abuse Mental Health Services Administration (2013).

The prevalence of suicide attempts is higher than the rate of individuals who make attempts because some individuals attempt suicide more than once over the course of a year.

Although men and women in the middle years attempt suicide at about the same rate (400/100,000 as indicated in the previous table), there is a difference in the relationship of attempts to suicides based on sex. Hempstead and Phillips (2015) found that 36.7 percent of women in the 40–64 age group who died by suicide had made at least one attempt prior to the attempt that resulted in their death. Only 18.9 percent of the men in that age group who died by suicide had made a prior attempt. Hempstead and Phillips suggest that this may be at least partially explained by the following facts:

- » Suicides associated with external circumstances (e.g., job or legal problems) are less likely to be preceded by a nonfatal suicide attempt than are suicides associated with internal circumstances (e.g., mental health conditions) or interpersonal problems (e.g., divorce).
- » Suicides by men in this age group are significantly more likely to be associated with external circumstances than suicides by men in other age groups or women.

The relationship between suicide attempts and suicide among MIMY may also be at least partially attributed to the fact that men in this age group tend to use more lethal means to harm themselves (primarily guns), and thus they are less likely to survive their initial suicide attempt than are women. The percentages of men and women in the middle years who received medical attention after a suicide attempt were similar (67 percent men; 72.7 percent women). Both of these percentages were substantially higher than that of people in the 18–34 age group (47 percent men; 46.3 percent women). Non-fatal attempts by men in the 35–64 age group result in more severe injuries than those by younger men (SAMHSA, 2013).

An analysis of pooled data from the NSDUH and the National Vital Statistics System (Han et al., 2016) found that 7.6 percent of men 45 years and older who attempt suicide in the United States during a 12-month period actually die by suicide. This includes both men who die on their first attempt and men who died on a subsequent attempt

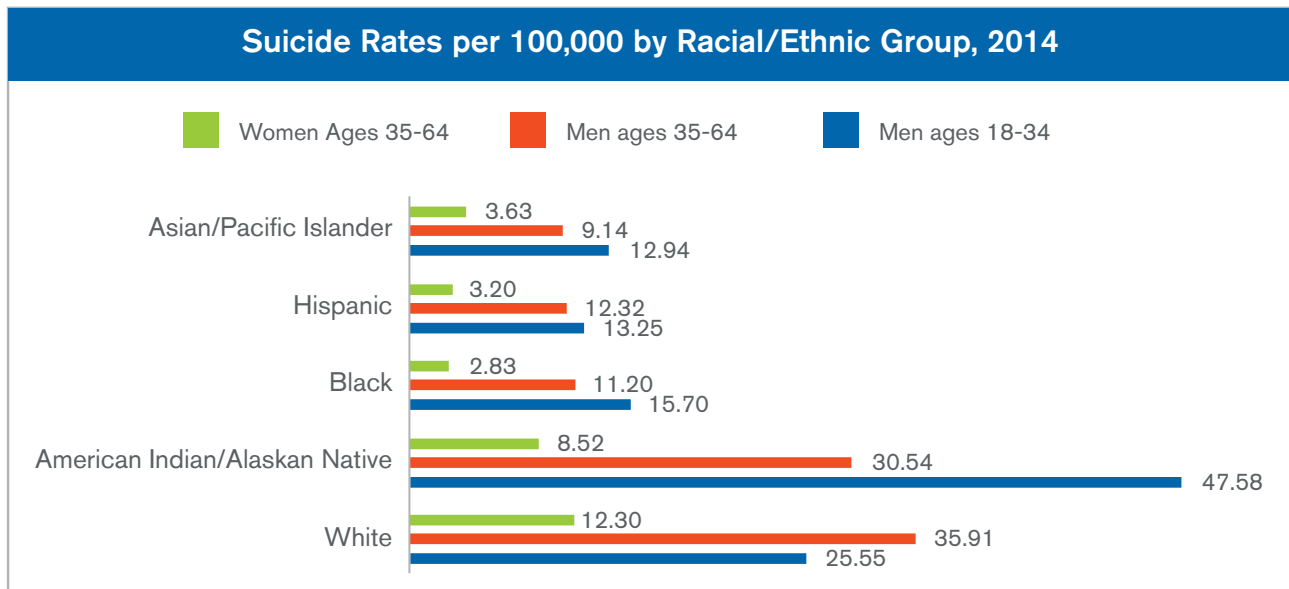
SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

in this 12-month period. This rate was significantly higher than the corresponding rates for women 45 years and older (2.6 percent), men ages 26–44 (5.1 percent), and men ages 18–25 years (1.9 percent). This study also revealed that suicide rates among people who attempt suicide tend to increase with age and decrease with educational attainment.

Race/Ethnicity

Men in the 35–64 age group have substantially higher suicide rates than women in that age group across the racial/ethnic spectrum. The suicide rate among white men 35–64 years of age is higher than that of younger white men 18–34, which is not the case in other racial/ethnic groups (Figure 6).

Figure 6. Suicide Rates by Racial/Ethnic Group, 2014



Source: Data from Centers for Disease Control and Prevention (2014).

White men account for the majority of suicide attempts by men in the United States. However, suicide attempts by black and Hispanic men 35–64 years of age are disproportionately higher than their representation among males in these ethnic groups (Table 2).

Table 2. Percentage of Men Who Attempted Suicide in the Past 12 Months by Racial/Ethnic Group and Percentage of the Male Population Ages 35–64 by Racial Ethnic Group, 2008–2013

Racial/Ethnic Group	Men 18–34	Men 35–64	Percentage of Male Population, Ages 35–64 Years
White (non-Hispanic)	58.3%	55.7%	69%
Black (non-Hispanic)	15.3%	19.9%	11%
Hispanic	19.2%	17.9%	12%

Sources: Attempt data from National Survey of Drug Use and Health, 2008–2013, Substance Abuse and Mental Health Services Administration (2013); percentage of male population data from Centers for Disease Control and Prevention (2014).

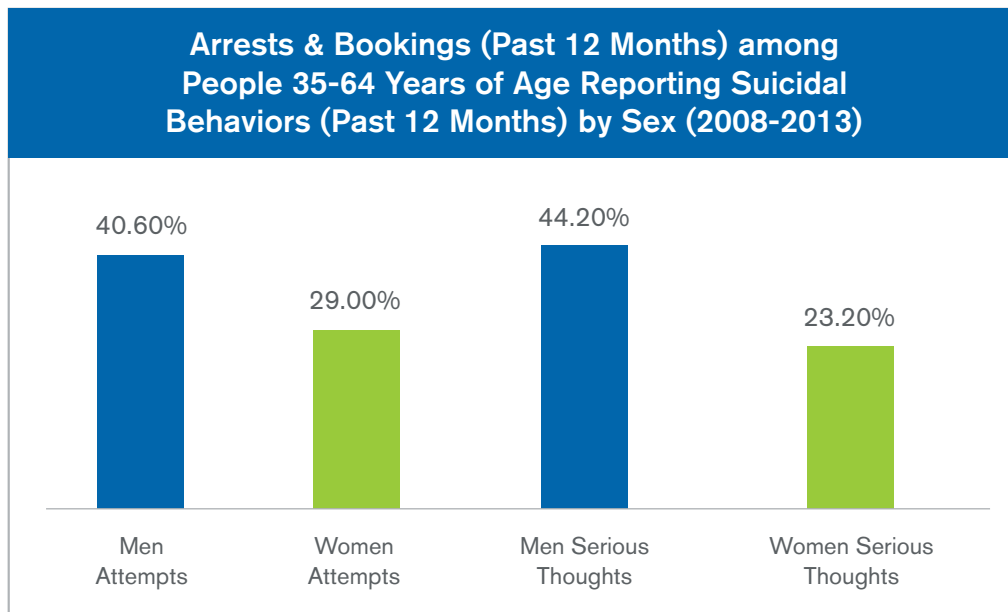
SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

An accurate picture of suicide attempts among American Indians/Alaska Natives and Asians and Pacific Islanders could not be calculated using NSDUH data because of the small number of members of these groups who participated in the survey.

Men in the Criminal Justice System

The data reveal that 40.6 percent of men in the 35–64 age group who had attempted suicide in the past 12 months (and 44.2 percent of those who had serious thoughts of suicide) had been arrested and booked for a criminal offense during that period (Figure 7).

Figure 7. Arrests and Bookings among People Ages 35–64 Reporting Suicidal Behaviors, by Sex



Source: Data from the National Survey on Drug Use and Health, 2008-2013, Substance Abuse Mental Health Services Administration (2013).

Hempstead and Phillips (2015) also found that a significantly higher percentage of suicides among men 40–64 years of age were associated with criminal problems than were suicides of women (11.5 percent versus 3.8 percent).

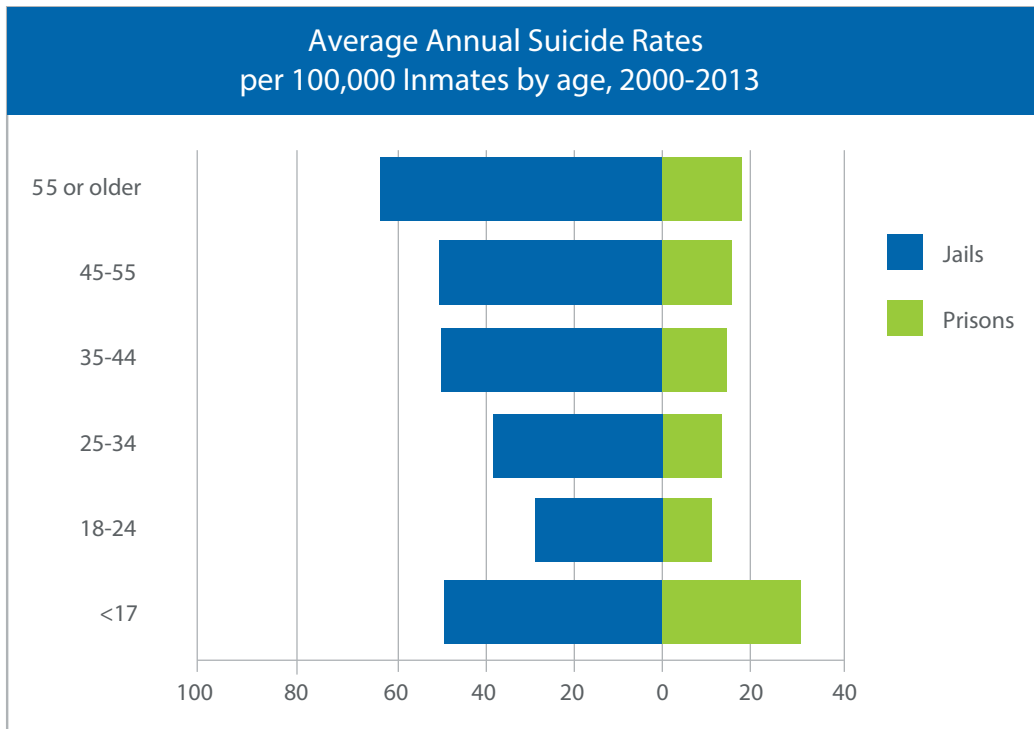
The bulk of arrests in the United States are related to crimes that involve drugs and alcohol (U.S. Dept. of Justice, Federal Bureau of Investigation, 2012), which are behaviors associated with suicide risk. The arrest rate for men and the male arrest rate for crimes related to drugs and alcohol are about three to four times those of women (Snyder, 2012).

Schiff et al. (2015) analyzed National Violent Death Reporting System (NVDRS) data for men ages 35–64 who died by suicide and had experienced a recent crisis (such as a divorce or arrest). The study excluded men with a known history of mental health or substance abuse problems so that the factors putting men at risk for suicide independent of these behavioral health issues could be identified. About half of the men in the sample had experienced criminal and/or legal problems. About 20 percent of the suicides of men with criminal/legal problems showed signs of premeditation. Men who did not have criminal/legal problems were significantly more likely to show signs of premeditation than men with criminal legal problems.

SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

Suicide is the leading cause of death in jails. The average annual suicide rate (2000–2013) among jail inmates (male and female) was 41/100,000. Men die by suicide in jails at a rate 1.5 times that of women. About half of suicides in jails are among inmates over the age of 35. The suicide rates of adults in jails and prisons generally increase with age (Figure 8). (Noonan, Rohloff, & Ginder, 2015)

Figure 8. Average Annual Suicide Rates, Inmates by Age



Source: Data from Bureau of Justice Statistics, as cited in Noonan, Rohloff, and Ginder (2015).

Suicide attempts by both men and women (including those that occurred prior to incarceration) were reported by 13 percent of inmates in state prisons, 6 percent of those in federal prisons, and 12.9 percent of those in local jails (James & Glaze, 2006).

The latest U.S. Department of Justice data on mental health problems among inmates (James & Glaze, 2006) reveal that as of 2005, “more than half of all prison and jail inmates had a mental health problem.” This includes:

- » 56 percent of inmates in state prisons
- » 45 percent of inmates in federal prisons
- » 43 percent of inmates in jails

Seventy-four percent of state prisoners and 76 percent of female inmates in state prisons “who had a mental health problem met criteria for substance dependence or abuse” (James & Glaze, 2006). Among state prisoners, 43 percent with mental health problems reported binge drinking. In contrast, 29 percent of state prisoners without mental health problems reported binge drinking.

Gay, Bisexual, and Transgender (GBT) Men

Relatively little information is available about suicide rates among people who are lesbian, gay, bisexual, and transgender (LGBT) because vital statistics data do not include information on sexual orientation or gender identity. Gay and bisexual men have significantly higher suicide attempt rates than their heterosexual peers (Haas et al., 2011). However most of the research has been done on younger men. Some research indicates that, at least among adolescents, gender nonconformity rather than sexual orientation per se is associated with this elevated risk.

Several recent studies suggest that LGB people are also at increased risk for suicide (Hatzenbuehler et al., 2014; Ploderl et al., 2013). There is evidence that older GBT men experience higher levels of depression and psychological stress than heterosexual people (Services and Advocacy for Gay, Lesbian, Bisexual, and Transgender Elders & LGBT Movement Advancement project, 2010). An analysis that correlated mortality information from the National Death Index with measures of prejudice from the General Social Survey found that LGB people living in communities characterized by a high level of prejudice against sexual minorities had an average life expectancy 12 years shorter than their peers who lived in communities with a low level of prejudice. The average age at which LGB people died by suicide in high-prejudice communities was 37.5 years compared to 55.7 years in low-prejudice communities (Hatzenbuehler et al., 2014). The data were not broken out by sex or gender.

Data from the National Transgender Discrimination survey revealed elevated suicide attempt rates among transgender people. Although these rates decline with age, the rate for transgender men in the middle years is higher than that of the general population and of gay and bisexual men (Haas, Rodgers, & Herman, 2014).

Veterans

Historically, veterans have had lower suicide rates than their non-veteran peers (Kang & Bullman, 2009). However, this pattern is changing. An analysis of 2003–2008 NVDRS data (Kaplan, McFarland, Huguet, & Valenstein, 2012) found that male veterans had significantly higher suicide rates than males who were not veterans (although this pattern did not hold for men 65 years of age and older). An analysis of data from the U.S. Department of Veterans Affairs (Hoffmire, Kemp, & Bossarte, 2015) found that “from 2000 to 2010, both the crude and age-adjusted veteran suicide rates for men and women combined increased by approximately 25 percent while the comparable nonveteran rates increased by approximately 12 percent.” The suicide rate for male veterans was 20 percent higher than for men who were not veterans.

Hoffmire, Kemp, & Bossarte (2015) suggest that the rate of suicide among veterans may be related to (a) trauma associated with combat, (b) interpersonal issues associated with deployment and re-entry into civilian life, and (c) the demographics of the all-volunteer army.

Men 30–64 years of age have the highest suicide rate among patients who seek health care services from the Veterans Health Administration (Blow et al., 2012). A majority of veterans who die by suicide are age 50 or older (Kemp & Bossarte, 2012).

In a study of veterans who died by suicide, veterans ages 35–64 “were more likely to be White, married, and to have died in a rural area than their younger counterparts” (Kaplan et al., 2012). This study also found that younger veterans were more likely to have intimate partner problems while older veterans were more likely to have health problems. Veterans 35–44 were more likely to have received a mental health diagnosis than those under the age of 35 or older than 44. Firearms were more likely to have played a role in suicides by older

veterans. Younger veterans who died by suicide were more likely to have a history of prior suicide attempts than older veterans.

Murder-Suicide

Although incidents in which a person kills others, and then dies by suicide, are rare, they receive a great deal of media attention. Little information on murder-suicides is available. A review of the literature (Eliason, 2009) revealed the following:

- » The murder-suicide rate in the United States is approximately 0.2–0.3/100,000 a year and is relatively stable.
- » Most murder-suicides involve “a man killing his wife, girlfriend, ex-wife, or ex-girlfriend.” Some involve a parent killing his or her children.
- » The mean age of the perpetrators of murder-suicide is 40–50 years. This is older than the mean age of people who perpetrate homicide.

Cohen, Llorente, and Eisdorfer (1998) found that while younger men tend to kill their wives and themselves after marital discord, older couples who die in murder-suicides often have medical problems.

Schiff et al. (2015) found that 41 percent of men between the ages of 35 and 64 who died by suicide and had criminal and/or legal problems (but did not have a history of mental health or substance abuse problems) had committed or attempted homicide prior to their death. The majority of the victims of these homicides and attempted homicides were intimate partners, former intimate partners, or family members.

Eliason (2009) concluded:

There are certain clinical presentations that should alert mental health professionals to be suspicious of the risk of possible murder-suicide: a middle-aged man who is recently separated or facing pending estrangement from his intimate partner and who is depressed and has access to firearms; or an older male who is the primary caregiver for a spouse who is ill or debilitated, where there is a recent onset of new illness in the male, depression, and access to firearms.

Risk Factors for Suicide among Men in the Middle Years

Risk factors associated with suicide can be divided into these three categories: individual or personal risk factors (e.g., mental disorders), relationship or interpersonal risk factors (e.g., intimate partner problems), and environmental or external risk factors (e.g., lack of access to behavioral health care).

Many of the major risk factors associated with suicidal behaviors among MIMY (Figure 9) are also major risk factors for women and for men in other age groups (U.S. Department of Health and Human Services, Office of the Surgeon General, & National Action Alliance for Suicide Prevention, 2012). These include:

- » Prior suicide attempts
- » Mental disorders
- » Substance abuse
- » Chronic disease and disability
- » Social isolation
- » Access to lethal means
- » Lack of access to behavioral health care

Figure 9. Risk Factors for Suicidal Behaviors among MIMY

Major Risk Factors Associated with Suicidal Behaviors among MIMY

SUICIDE

Of men ages 40–65 who died by suicide in the United States (2005–2010):

- 43.1 percent experienced depressed mood (Hempstead & Phillips, 2015)
- 36.8 percent had alcohol dependence or another substance problem (Hempstead & Phillips, 2015)
- 69.6 percent were currently *not* being treated for a mental health problem (Hempstead & Phillips, 2015)
- 37.1 percent had intimate partner problems, for example, divorce, argument, or violence (Hempstead & Phillips, 2015)
- 36.2 percent had job or financial problems (Hempstead & Phillips, 2015)
- 54 percent used firearms (Centers for Disease Control and Prevention, 2014)

SUICIDE ATTEMPTS

Of men ages 35–64 who attempted suicide in the past year in the United States (2008–2013):

- 40.6 percent had experienced a major depressive episode
- 41.7 percent had been binge drinking
- 32.4 percent had a substance abuse disorder
- 42.2 percent did *not* receive mental health treatment
- 30.4 percent were disabled and could not work
- 39.3 percent had an income of less than 100 percent of the Federal Poverty Line
- 40.6 percent had a criminal history (arrested and booked)

Source: Data from the National Survey on Drug Use and Health, Substance Abuse Mental Health Services Administration (2013).

Mental Disorders

Draper, Kolves, De Leo, & Snowdon (2013) found that 75.1 percent of people who died by suicide had a psychiatric disorder—although this percentage decreases with age. A meta-analysis of psychological autopsy studies of people (all ages and both sexes) who died by suicide found that “87.3 percent . . . had been diagnosed with a mental disorder prior to their death” (Arsenault-Lapierre, Kim, & Turkecki, 2004). Arsenault-Lapierre et al. (2004) also reported that men who died by suicide tended to be diagnosed with substance abuse, personality disorders, and/or childhood disorders.

An analysis of NVDRS data revealed that 43.1 percent of men 40–64 years of age who died by suicide had experienced depressed mood. This percentage was not significantly different from that of women who died by suicide (Hempstead & Phillips, 2015).

NSDUH data (SAMHSA, 2013) revealed that 40.6 percent of men in the 35–64 age group who attempted suicide in the past 12 months and 45.2 percent of those who had serious suicidal thoughts also experienced a major depressive episode during that period. The percentages for women were 62.9 percent and 55.1 percent, respectively. The percentage of younger adults of both sexes who had attempted or seriously thought about suicide and suffered a major depressive episode was also extremely high.

There is evidence that clinicians systematically fail to identify depression in men because of “the widespread use of generic diagnostic criteria that are not sensitive to depression in men” (Olfiffe & Phillips, 2008). Hempstead and Phillips (2015) found that 69.6 percent of men who died by suicide were not currently in treatment for any mental health issues.

Alcohol and Drugs

NVDRS data reveal that 36.8 percent of men (age 40–64) who died by suicide were dependent on alcohol or had another substance abuse problem. Men who died by suicide were significantly more likely to be dependent on alcohol than women who died by suicide (although no difference was found in other substance problems) (Hempstead & Phillips, 2015). Acute alcohol intoxication at the time of death is more common among men than women, men with low education status, men and women in the 35–44 age group, and American Indians and Alaska Natives (Kaplan et al., 2013).

Research has revealed a significant association between the density of bars and retail liquor stores in an area and the suicide rate in that area. The authors of some of these studies have suggested that policies that reduce the density of liquor stores in a geographic area (e.g., restricting the number of liquor licenses in a neighborhood, town, or county) may reduce the rate of suicide in that area (Khaleel et al., 2016; Giesbrecht et al., 2015; Johnson, Gruenwald, & Remer, 2009; Escobedo & Ortiz, 2002).

NSDUH data show that the patterns of alcohol and drug abuse among MIMY who have attempted or thought seriously about suicide are more similar to those of younger men than to women in the middle years. Substantial percentages of MIMY who reported suicide attempts also reported binge or heavy alcohol use or substance or alcohol use disorders (Table 3).

SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

Table 3. Percentage of Alcohol and Drug Abuse Indicators (Past 12 Months) among Those Reporting Suicidal Behaviors (Past 12 Months), by Sex and Age, 2008–2013

	Men Attempts (18–34 years)	Men Attempts (35–64 years)	Women Attempts (35–64 years)	Men Serious Thoughts (18–34 years)	Men Serious Thoughts (35–64 years)	Women Serious Thoughts (35–64 years)
Binge Alcohol Use	50.7%	41.7%	28.7%	50.6%	34.6%	19.5%
Heavy Alcohol Use	22.6%	18.7%	5.4%	21.7%	13.8%	5.3%
Substance Use Disorder	51.3%	32.4%	24.7%	44.3%	24.6%	16.3%
Alcohol Use Disorder	42.9%	26.3%	19.2%	34.2%	20.5%	12.3%
Illicit Drug Disorder/ Prescription Drug Use Disorder	30.8%	16.5%	8.9%	23.2%	9.9%	6.2%
Alcohol and/ or Drug Use Treatment	17.2%	21.2%	12.9%	9.5%	9.4%	6.5%

Source: Data from the National Survey on Drug Use and Health, 2008-2013, Substance Abuse Mental Health Services Administration (2013).

An analysis of NVDRS data revealed that, in every age group, blood alcohol content was higher in men than in women who died in suicides associated with firearms, hanging, or poisoning (Conner et al., 2014). This indicates that intoxication is a risk factor for suicide among people whose alcohol use does not rise to the level of a diagnosable disorder. The association between intoxication and suicide is usually attributed to alcohol's effects on inhibition, judgment, and impulsivity. It has also been suggested that depressed men may self-medicate with alcohol or drugs rather than seek mental health care. Alcohol and drug use can thus conceal depression as well as amplify the suicide risk in men suffering from depression (Brownhill & Wilhelm, 2002).

Means of Suicide

In 2014, 52 percent of suicides among men 35–64 years of age involved firearms (compared to 32 percent among women in this age group) (CDC, 2014). Firearms are more likely to result in a death than other methods of suicide. The fact that MIMY tend to choose firearms as a means of self-harm has a major impact on the suicide rate of this age group.

The rate of firearms-related suicide among men in the 35–64 age group is higher than among men ages 18–34 and much higher than among women ages 35–64 (Table 4).

Table 4. Suicide Death Rates per 100,000 by Means, 2014

Means	Males (ages 18–34)	Males (ages 35–64)	Females (ages 35–64)
Firearms	10.84	14.52	2.92
Hanging (Suffocation)	8.29	7.57	2.02
Poisoning	1.70	3.85	3.57
All Means	22.70	28.13	9.29

Source: Data from Centers for Disease Control and Prevention (2014).

A study of suicides in workplaces in the United States (2003–2010) found that 84 percent of suicides in protective service workplaces (e.g., first responders and animal control workers) involved firearms, compared to 50 percent of suicides in farming, fishing, and forestry, and 29 percent among building and grounds cleaning occupations (Tiesman et al., 2014).

Suffocation as a means of self-harm has been rising. Between 1999 and 2010, the percentage of suicides by suffocation increased by 75 percent for men (i.e., from 18 to 24 percent) and by 115 percent for women (i.e., from 12 percent to 18 percent) (CDC, 2013).

Chronic Medical Conditions and Disability

Medical conditions associated with suicide include arthritis, cancer, asthma, peptic ulcers, cardiovascular disease, epilepsy, HIV, Huntington’s disease, chronic migraines, and multiple sclerosis (Berman & Pompili, 2011; Webb et al., 2012). Although the research on the relationship between physical illness and disability and suicide risk among MIMY is limited, many of these conditions begin to emerge as men enter this age range. For example, the rates of heart disease, cancer, diabetes, and arthritis all start increasing when men (and women) are in their 40s and continue to increase through older adulthood (Blackwell, Lucas, & Clarke, 2014).

The association between chronic medical conditions and suicide is often attributed to the fact that these conditions can be associated with chronic pain (HHS, 2012; Tang & Crane, 2006; Webb et al., 2012). Schiff et al. (2015) found that physical health conditions were one of four risk factors associated with suicides by men between the ages of 35 and 64 who were not identified as having mental health or substance abuse problems, which provides some evidence that chronic medical conditions can contribute to suicide risk even in the absence of depression. This research also found that suicides associated with health problems were more likely to be triggered by a recent crisis after a period of long-term risk than by a crisis alone.

Disability has also been associated with suicide risk. NSDUH data from 2008 to 2013 (SAMHSA, 2013) revealed that 30.4 percent of men, and 44.3 percent of women, ages 35–64 who attempted suicide within the 12 months preceding the survey were disabled and could not work. In this age group, 25.4 percent of men and 24.2 percent of women who had serious thoughts of suicide were also disabled and could not work.

Economic Factors

There is evidence that economic factors play a role in overall suicide rates, and especially among MIMY. For example, NSDUH reveals that 39.3 percent of MIMY who attempted suicide had an income below the Federal Poverty Line (SAMHSA, 2013).

Efforts to understand the relationship between suicide and socioeconomic status have been hampered by the lack of income and income proxies in large databases such as the National Vital Statistics System and the National Violent Death Reporting System. Educational attainment and occupational skill level are often used as proxies for income and wealth in suicide research. Phillips (2010) found that suicide rates decreased with educational attainment (Table 5).

Table 5. Suicide Rates per 100,000 for Men by Educational Attainment, 2005

Education	Age: 40–49 years	50–59 years
12 or fewer years	34.89	31.03
13–15 years	17.65	18.55
16 or more years	13.46	16.61

Sources: Data from National Vital Statistics System and U.S. Census Bureau, as cited in Phillips (2010), Table 2.

The authors suggested that people with less education may be more at risk for suicide because of general financial strain and because they cannot afford care for chronic diseases that are associated with suicide risk. Although the relationship between educational attainment and suicide also held for women, it was not as pronounced as for men.

NSDUH data showed that although the risk of suicide attempts for MIMY is greater for high school graduates than those who do not complete high school, this risk decreases with subsequent levels of educational attainment (Table 6).

Table 6. Educational Indicators among Men and Women Who Reported Suicidal Behaviors in the Past 12 Months, 2008–2013

Education	Men Attempts (35–64 years)	Women Attempts (35–64 years)	Men Serious Thoughts (35–64 years)	Women Serious Thoughts (35–64 years)
Less than High School	29.5%	18.5%	17.6%	12.2%
High School Graduate	33.7%	29.5%	31.9%	29.1%
Some College	22.5%	33.8%	25.5%	31.9%
College Graduate	14.3%	18.2%	25.1%	26.8%

Source: Data from the National Survey on Drug Use and Health, 2008-2013, Substance Abuse and Mental Health Services Administration (2013).

The 18–34 age group was not included in this NSDUH analysis because a significant number of members of that age group will eventually complete high school or college (even if they had not done so at the time of the survey).

A meta-analysis (Milner, Spittal, Pirkis, & LaMontagne, 2013) found that people in low-skill-level occupations were at a higher risk for suicide than people in high-skill-level occupations and the general working age population. The greatest risk of suicide was among “elementary occupations,” including laborers and cleaners. The occupational category that includes factory workers, machine operators, and ship’s crews also had a suicide rate above that of the general population, as did police and skilled agricultural, forestry, and fishery workers. High-skill-level managers and clerical workers had the lowest rates of suicide. The authors suggested that “the greater risk of suicide in lower skilled occupational groups may be symptomatic of wide social and economic disadvantages, including lower education, income, and access to mental health services.”

Suicide and “The Great Recession”

The economic downturn of the early 21st century—sometimes called the *Great Recession*—raised interest in the relationship between economic crisis and suicide. Several large studies have revealed an association between an economic downturn and the suicide rate among men:

- » Reeves et al. (2015) used data from the WHO Human Mortality Database to demonstrate that “male suicide increases were significantly associated with each percentage point rise in male unemployment, by 0.94% . . . and indebtedness, by 0.54%” across 20 European Union member nations.
- » Corcoran, Griffin, Arensman, Fitzgerald, & Percy (2015) concluded that “by the end of 2012, the male suicide rate [in Ireland] was 57% higher . . . than if the pre-recession trend continued.” The rate of self-harm among men also increased significantly. Most of these increases could be attributed to men 25–64 years of age.
- » Nordt, Wanrke, Seifritz, & Kawohl (2015) conducted a 63-country analysis of suicide and unemployment data and concluded that “the relative risk of suicide associated with unemployment was elevated by about 20–30%” during the Great Recession.
- » Luo, Florence, Quispe-Agnoli, Ouyang, & Crosby (2011) found that in the United States “the overall suicide rate and the suicide rates of the groups aged 25 to 34 years, 35 to 44 years, 45 to 54 years, and 55 to 64 years rose during contractions and fell during expansions.” Suicide rates among age groups not characteristically employed (those 15–24, 65–74, and 75 years and older) were not associated with these economic indicators. The analysis did not explore differences in rates between men and women.

The rising rate of suicide (and male suicide) in the United States noted in the Introduction coincided with the economic problems that began with the bursting of the “dot com” bubble in 1999–2000 and continued through the Great Recession of 2007–2012. Kaplan et al. (2015) concluded that suicide rates in the United States increased by 7 percent during 2008–2011. This analysis also found that suicide rates for men ages 45–64 increased by 14 percent during that period (compared to 9 percent among women in that age group) and that the percentage of suicides associated with alcohol intoxication increased 7 percent among both sexes.

Phillips and Nugent (2014) calculated that “a five percentage point increase in the unemployment rate (which was approximately the average increase in unemployment rates during the Great Recession) is associated with an increase of about 10 percent in the total suicide rate.” They attributed this increase entirely to an increase in the rate of suicide by people in the 45–64 age group.

Hempstead and Phillips (2015) found that the proportion of suicides in the United States (2005–2010) associated with external circumstances (i.e., employment, financial, and criminal and civil legal problems) increased significantly more than did suicides associated with personal or interpersonal circumstances. Most of this increase occurred among both men and women ages 40–64 years and men of all ages. The percentage of suicides associated with employment, financial, and legal issues among people 40–64 years of age increased from 32.9 percent in 2005 to 37.5 percent in 2010. The authors suggested that the Great Recession “disproportionately affected the middle-aged in terms of house values, household finances, and hits to retirement accounts,” that more workers in the middle years experienced decreases in their salaries than younger and older workers, and that “the hardship and feelings of failure or hopelessness associated with these conditions are compounded by the fact that middle-aged adults are more likely than others to be family breadwinners and supporting dependents.”

Houle and Light (2014) found that a five percentage point increase in foreclosures in which the owners lost their homes was associated with a 25 percent increase in the suicide rate in the 46–64 age group in the United States. No significant association between suicide and foreclosure was found for the 18–29 or the 65 and over age groups. The authors pointed out that “losing key assets and wealth close to retirement age is likely to have a profound effect on the mental health and well-being of middle-aged individuals.”

An analysis using U.S. National Center for Health Statistics Detailed Mortality Files (Harper, Charters, Strumpf, Galea, & Nandi, 2015) found an increase of about 1 percent in the rate of suicide as a consequence of the Great Recession, which, as the authors pointed out, was much smaller than the increase identified by other work on this topic. They did find that the increase in suicides “was concentrated among men, middle-aged groups, and those with the lowest education.”

Milner, Hiven, and LaMontage (2015) found that an economic downturn increases disparities among suicide rates among occupational groups. During the financial crisis in Australia (2007–2009) “suicide rates in unskilled workers such as labourers increased from three to six-fold greater than the rates in the highest class group, while there was over a four-fold increase among technical and trade workers.” The authors theorized that this might be because unemployment and job insecurity increases the most among lower-skilled workers during an economic downturn.

Researchers and commentators (including Webb & Kapur, 2015) also noted that economic downturns create stress among those who do not lose their jobs but experience reductions in income, increased workloads, debt, and family conflict resulting from economic insecurity.

Intimate Partner Problems

Intimate partner problems (e.g., divorce, separation, relationship discord) as well as intimate partner violence have been shown to be risk factors for suicide.

A meta-analysis found that being a victim of intimate partner abuse (including physical violence and threatening behavior) is a significant risk factor for suicidal thoughts and behavior in both men and women (McLaughlin, O’Carroll, & O’Connor, 2012), although in the United States, women make up the bulk of the victims of such abuse.

Hempstead & Phillips (2015) found that men who died by suicide were significantly more likely to have intimate partner problems or to have perpetrated intimate partner violence than women in the same age range. A review of the research literature (Evans, Scourfield, & Moore, 2014) concluded that “the weight of the reviewed studies would seem to tentatively support the view that men are at greater risk of suicide than women following relationship problems, divorce, or separation.” Two of the authors suggested that the greater impact on men may be due to their feeling of lost masculine identity, restrictions in contact with their children, loss of control over their former wife/partner, and an overall lack of supportive social relationships that could buffer the effects of their situation (Scourfield & Evans, 2015).

Schiff et al. (2015) found that intimate partner problems were “the most frequent type of precipitating circumstance experienced” in association with suicides of men between the ages of 35 and 64 who did not have histories of mental health or substance abuse problems. Almost 60 percent of the men included in their study had intimate partner problems (e.g., a divorce or argument) prior to their suicide. About half of the men had both chronic (i.e., long-term) risk factors for suicide, as well as a crisis that precipitated their suicide. About half of those who died after a crisis involving intimate partner issues were not found to have had any chronic (i.e., long-term) risk for suicide. An indication of premeditation was found for almost 29 percent of the men with intimate partner problems who died by suicide. The authors reported that “a common theme that emerged regarding disclosure among this group was that men disclosed intent immediately prior to the suicide . . .”

Cultural Expectations about Masculine Identity and Behavior and Suicide

A review of the research by Samaritans UK (Wyllie et al., 2012) found that the following factors contribute to the disproportionate risk of suicide among MIMY (especially among low-income MIMY):

- » Certain personality traits and mindsets (e.g., the need to meet others’ expectations, self-criticism, pessimism, brooding, inadequate problem-solving abilities) and how these traits interact with triggering events (e.g., relationship breakdowns, job loss)
- » A concept of masculinity defined by power, control, and invincibility
- » The breakdown of relationships that deprive men of their primary source of emotional support and challenge their self-image vis-à-vis masculinity
- » Social disconnectedness resulting from a lack of ability to maintain peer relationships into the middle years
- » Lack of emotional skills, especially those that enable a person to recognize and get help for emotional distress

A qualitative study of Australian men who had attempted suicide and families of men who attempted suicide found that:

Almost all men reported that their masculine beliefs led to them isolating themselves when they were feeling down, for example, to avoid imposing on others. Failure to manage emotions, or live up to expectations of happiness or coping also often led to a sense of lost control or guilt, as well as anxiety about having these perceived weaknesses or failures revealed. It was very common for family and friends to state that this tendency of men to adopt typically masculine responses to distress meant that they were often unaware of warning signs for suicide, or misinterpreted suicidality as depression or anger. (Player et al., 2015)

Coleman, Kaplan, and Casey (2011) concluded that adherence to this traditional concept of masculinity, psychosocial stress, and easy access to lethal means is an especially dangerous combination.

Help-Seeking Behavior

Barriers to receiving effective behavioral health care is an established risk factor for suicide among people of both sexes and all ages (HHS, 2012). These barriers include external circumstances such as the cost of behavioral health care. The research also suggests that MIMY face sex-specific barriers to accessing behavioral health care that are associated with cultural expectations about masculine identity and behavior—most notably the belief that it is not “manly” to seek or accept help for emotional problems or, for that matter, to seek or accept help for problems such as substance abuse, physical ailments, and financial stress.

Men in the United States and other Western countries are significantly less likely than women to seek professional help for mental and physical problems (Galdas, Cheater, & Marshall, 2005). The CDC's National Health Interview Survey found that fewer than half of adult men who feel anxious or depressed on a daily basis take medication or seek help (Voelker, 2015).

NSDUH data also reveal that only 57.8 percent of men in the 35–64 age group who attempted suicide in the 12 months prior to being surveyed had received mental health treatment during that period. The percentage of women in the 35–64 age group who had attempted suicide and received mental health treatment was 72.7 percent. Using NVDRS data, Hempstead and Phillips (2015) found that women ages 40–64 who died by suicide were significantly more likely than men to have currently, or ever, been treated for a mental health problem. They attribute this difference to a reluctance by men to seek mental health treatment (rather than to a lower prevalence of mental health conditions among men).

Rice et al. (2015) found that men who had previously sought help for mental health concerns were not more likely to seek help for mental health issues in the future than men who had not sought help in the past. The authors speculated that men's role expectations created a barrier to help seeking even for men who had sought help in the past.

There are also differences in the perceptions of the need for mental health treatment between men and women in the 35–64 age group. NSDUH data (SAMHSA, 2013) reveals that men who attempted suicide were less likely to think of themselves as being in need of mental health treatment than women (or in need of additional mental health treatment, if they had received any). Also, 37.5 percent of the men who had attempted suicide in the 12 months prior to the survey had neither received nor felt that they needed mental health treatment (Table 7).

SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

Table 7. Mental Health Treatment and Perceived Mental Health Treatment Needs of People (Ages 35–64) Who Attempted Suicide in the Past 12 months, 2008-2013

Treatment and Perception of Unmet Need	Men (35–64 Years of Age)	Women (35–64 Years of Age)
Received Treatment and Did Not Perceive Unmet Need	34.7%	38.2%
Received Treatment But Perceived Unmet Need	23.1%	34.5%
Did Not Receive Treatment But Perceived Unmet Need	4.7%	6.1%
Did Not Receive Treatment and Did Not Perceive Unmet Need	37.5%	21.2%

Source: Data from the National Survey on Drug Use and Health, 2008-2013, Substance Abuse and Mental Health Services Administration (2013).

In another analysis of data from NSDUH, Alang (2015) found that “while women were more likely to forego mental health care because of cost, men were more likely to forego care because of stigma.” The association between mental health care and stigma decreased with age as did men’s perceptions that (1) they could manage mental health problems without professional help or (2) mental health services would not be helpful.

Brownhill and Wilhelm (2002) suggest that men often respond to depression by seeking help for physical symptoms (e.g., problems sleeping or chest pains) that could, in fact, be caused by their depression. This study also found that men who consult a physician for physical symptoms resulting from emotional issues are more likely to receive help for the mental health conditions than men who seek neither behavioral nor medical care.

Men can also be reluctant to seek help from friends, family, or other nonprofessionals (Berger, Addis, Green, Mackiowiak, & Goldberg, 2013). A review of the literature by the American Association for Suicidology (n.d.) suggested that men can perceive seeking help as conflicting with the traditional male qualities of strength, independence, and emotional control and that receiving help “requires a man to be vulnerable and to relinquish power to another.” The authors suggest that men perceive help seeking as having “social costs”—that is, people will think of them as incompetent (i.e., unable to solve their own problems), dependent (i.e., requiring another’s assistance), and inferior to other men (because of their incompetence and dependence). They also suggest that “men who feel connected to other men through traditional male gender roles may be more reluctant to seek help than men who do not have this connection or men who are well connected to women.” This suggestion is supported by Berger et al. (2013) who found that (1) men who were least concerned with adhering to masculine norms were most likely to seek help from friends and family, and (2) men who valued emotional control were less willing to seek help from friends and family than were men who did not place as high a value on emotional control.

The reactions of men who are reluctant to seek help for suicide risk or associated mental disorders can add to their emotional burden. For example, Brownhill, Wilhelm, Barclay, and Schmied (2005) found that many men attempt to cope with depression through self-medication (i.e., substance abuse) or distraction (e.g., risk-taking activities, sexual encounters, aggressive and violent behavior, work, or extended periods of time watching television).

The Effectiveness of Behavioral Health Care for Men

There is evidence that behavioral health care, as currently practiced, may not be as effective at preventing suicide among men as among women. For example, a study in the United Kingdom found that men in mental health

care had a higher rate of suicide than the general population, which suggests that the higher rate of suicide among men should not be entirely attributed to a lack of willingness to seek help (National Confidential Inquiry into Suicide and Homicide by People with Mental Illness, 2015).

Unfortunately, many evaluations of interventions to prevent suicide fail to report sex-specific results, which is critical in light of the evidence that shows that interventions that effectively prevent suicide among women may be less effective (or even ineffective) with men. One widely cited study of a Swedish program that trained general practitioners in depression care showed a 60 percent decrease in suicides (Rutz et al., 1989). Later analyses by sex revealed that this success was almost entirely due to a decline in suicides among women. The program had virtually no effect on men (Rutz, von Knorring, Pihlgren, Rihmer, & Wålinder, 1995; Rutz, Wålinder, von Knorring, Rihmer, & Pihlgren, 1997).

Similarly, a sex-specific analysis of randomized controlled trials of “caring contact” postcards sent to patients seen for emergency care following self-injury found that their success at preventing future non-lethal self-injury was entirely due to their effect on women. The postcards were not effective at reducing self-injury among men (Carter, Clover, Whyte, Dawson, & D’Este, 2013). In what the authors referred to as “the largest follow-up study of psychosocial therapy interventions after deliberate self-harm [i.e., suicide attempts],” a long-term research project in Denmark found that psychosocial interventions significantly reduced subsequent suicide attempts, as well as overall general mortality, among women, but not men. This research also reported that psychosocial interventions benefit people between 10 and 24 years of age more than older adults (Erlangsen et al., 2015).

The ability of psychotherapy to prevent suicidal behavior in MIMY remains largely unstudied. Although clinical trials demonstrate that dialectical behavior therapy (DBT) can prevent suicide attempts (Linehan et al., 2006), a meta-analysis (Kliem, Kröger, & Kosfelder, 2010) revealed that 95 percent of the participants in these trials were women. Little evidence exists for the effects of DBT on men. Furthermore, studies that showed that cognitive behavior therapy can prevent suicide attempts (Rudd et al., 2015) and that the Collaborative Assessment and Management of Suicidality can reduce suicidal ideation (Jobes, Wong, Conrad, Drozd, & Neal-Walden, 2005) among men use samples that were primarily composed of younger men.

New Patterns of Suicide Risk

An analysis of suicide rates among Americans born after 1915 by Phillips (2014) suggests that the increased rate of suicide seen among the contemporary generation of Americans in the middle years (i.e., “baby boomers”) may reflect:

1. The end of a period in the late 20th century when specific historical conditions (e.g., the relative youth of the population, economic prosperity, and the use of new types of antidepressants) led to lower suicide rates
2. The aging of the baby-boom cohort (and especially men) into a period of life when suicide rates are traditionally higher than for younger people

3. Social and economic changes that weaken social integration and regulation, including:
- » An increase in the percentage of the population that lives alone (a consequence of rising divorce rates and declining marriage rates)
 - » A decline in religious involvement
 - » Declining levels of civic participation (i.e., social connectedness)
 - » Rising obesity rates (which contribute to chronic health conditions that are risk factors for suicide)
 - » An unstable economy and changes in employment patterns that make it difficult for MIMY to find jobs after they are laid off
 - » Technologies (such as social media) that change the ways in which people communicate and interact, which may increase, rather than decrease, feelings of isolation
 - » Rising rates of mental disorders that may themselves reflect social changes

Phillips suggests that while these social and economic changes may contribute to an increase in the suicide rate for both sexes, they may be particularly problematic for men, as (1) changes in employment patterns are especially challenging for MIMY and (2) men may experience stress and psychological isolation in response to changes in gender roles that challenge the dominant role of men in social relations (including marriage) and the economy.

Overarching Issues

The National Strategy for Suicide Prevention states that “there is no single path that will lead to suicide. Rather, throughout life, a combination of factors, such as a serious mental illness, an alcohol use disorder, a painful loss, exposure to violence, or social isolation may increase the risk of suicidal thoughts and behaviors” (HHS, 2012). This conclusion is borne out by research such as that of Player et al. (2015) that identified four factors that “tended to interact with each other and worsen over time, leading to greater suicide risk, while also creating barriers that interfered with attempts to treat depression or interrupt suicidality:” (1) depressed or disrupted mood; (2) “unhelpful conceptions of masculinity consisting of stoic beliefs and values, which strongly influenced decision-making;” (3) “social isolation and use of other avoidant coping strategies,” and (4) “at least one, but often many, personally meaningful stressors.”

Thus, it is combinations of risk factors that are especially dangerous and can raise the risk of suicide more than any individual risk factor. All things being equal, a man who is socially isolated, suffers from major depressive disorder, and has access to a firearm is at greater risk for suicide than a man who has access to a firearm but is not depressed and has a social support system (e.g., family, colleagues, and friends). Risk factors can also work in the short term to precipitate or “trigger” a suicide. An unexpected job loss might trigger a suicide attempt in a man who suffers from major depression and is socially isolated but not in a man who was not depressed and has a social support system.

Protective Factors for Suicide among Men in the Middle Years

The research on protective factors is far less robust than the research on risk factors (Beautrais, Collings, Ehrhardt, & Henare, 2005). Major protective factors for suicidal behaviors for people of both sexes and all ages include the following:

- » Access to effective health care (including effective behavioral health treatment) (HHS, 2012; Suicide Prevention Resource Center [SPRC] & Rodgers, 2011)
- » Social connectedness to individuals, including friends and family, and to community and social institutions (CDC, n.d.; HHS, 2012; SPRC & Rodgers, 2011)
- » Coping and problem-solving skills (HHS, 2012; SPRC & Rodgers, 2011)
- » Reasons for living, meaning in life, and purpose in life (Kleiman and Beaver, 2013)

Although not much research has been done on the impact of reasons for living, meaning in life, and purpose in life on MIMY, a study of both sexes and several age cohorts (including 40–64 years of age) concluded that “presence of meaning in life predicted decreased suicidal ideation over time and lower lifetime odds of a suicide attempt” (Kleiman and Beaver, 2013). Reasons for living, meaning in life, and purpose in life have been found to confer some protection against suicidal behaviors in clinical samples (Garcia-Alandete, Marco, & Perez, 2014; Heisel & Flett, 2004), older adults (Heisel, Neufeld, & Flett, 2015), members of the armed forces (Bryan et al., 2013; Bryan, Graham, & Roberge, 2015), and college students (Wang, Lightse, Pietruszka, Uruk, & Wells, 2007).

Marriage (a social connection) was found particularly protective for MIMY. A long-term study (Tsai, Lucas, Sania, Kim, & Kawachi, 2014) of men ages 40–75 found that social integration (measured at baseline) was associated with a two-fold reduction in suicide risk over 24 years. Measures of social integration included marital status, social network size, frequency of social contact, religious participation, and participation in other social groups. Social network size, religious service attendance, and marital status were found to have the strongest effects. Both family and religious integration were shown to be protective in-and-of themselves. Marriage also seems to provide some protection against suicide for men. Phillips (2010) found that “in 2005, unmarried middle-aged men were 3.5 times as likely to die from suicide as married middle-aged men” She also found that the suicide rate among unmarried men in the 40–49 and 50–59 age groups (51.04 and 51.97/100,000) was markedly higher than the rate for unmarried women of the same ages (14.16 and 12.01).

Suggestions from the Research Literature on Preventing Suicide among Men in the Middle Years

This section summarizes the suggestions made by researchers and practitioners about preventing suicide among MIMY. Specific programs that are currently being implemented to address suicide among MIMY are described under Programs and Resources (below).

The material in this section was drawn from the research on suicide among men in the middle years with special emphasis on a few reports that included explicit recommendations about preventing suicide among men in the middle years or men general. We did not systematically review the evidence provided for these recommendations given that they appeared in articles and reports authored by reputable researchers and organizations.

Suggestions from the Research Literature (continued)

Many of the suggestions made by researchers and practitioners for preventing suicide among MIMY (and men in general) encompass expanding and better targeting interventions and strategies that are generally endorsed as effective by the field of suicide prevention such as the following:

- » Training primary care physicians to diagnose and treat depression (Wyllie et al., 2012)
- » Improving referrals to behavioral health specialists (Wyllie et al., 2012)
- » Integrating suicide prevention into substance abuse treatment (Wyllie et al., 2012)
- » Targeting men at highest risk for suicide for intervention (Spencer-Thomas, Hindman, & Conrad, 2012)

We will forego an extended review of what works in suicide prevention in general in favor of a discussion of what has been recommended specifically for adult men.

Apply Cultural Competence to Suicide Prevention for Men

Much of the literature on men and suicide contains an implicit theme that says, in the words of *Help-Seeking among Men: Implications for Suicide Prevention*, “It is tempting to argue that one way to increase help-seeking behavior among men would be to become less constrained by gender role expectations” (American Association of Suicidology, n.d.). At the same time, there is a reluctance to engage in the daunting task of creating a cultural shift of this magnitude. Thus, the authors of *Help-Seeking among Men: Implications for Suicide Prevention* (American Association of Suicidology, n.d.) concluded that the research “strongly recommends” that suicide prevention activities for men be framed in the context of traditional masculine values, such as competence, achievement, and self-reliance rather than attempt to change social role expectations, and that public health messaging should do the following:

1. “Emphasize the social benefits of help-seeking” and assert that help seeking demonstrates that a man is courageous, competent, independent, and in control—and thus, masculine
2. Promote self-care as part of a man’s responsibility as provider and caretaker for his family
3. Frame help seeking as a cognitive problem-solving task
4. Define men’s problems in terms of external causes rather than internal weakness
5. Provide men with information rather than confront them about their problems

Suggestions from the Research Literature (continued)

Oliffe and Han (2014) suggest using “strength-based approaches trading on masculine ideals of problem solving and provider and protector roles [that] engage men with their health on their own terms.” These approaches include (a) using “positive messaging to promote change without amplifying stigma, guilt, shame, and blame;” (b) “fostering connections between masculine ideals (e.g., strength, decisiveness, resilience, autonomy, rationality) and health;” and (c) incorporating testimonials of men. Spencer-Thomas et al. (2012) also take this approach and recommend using messages that emphasize self-reliance and self-help rather than help seeking as well as teaching intimate partners, coworkers, and others how to recognize and respond to suicide risk in men.

There is some tension between (1) the research that shows that traditional masculine values and identity contribute to suicide risk and (2) suggestions to leverage these values to prevent suicide. Fleming, Lee, and Dworkin (2014) point out that the traditional gender norms can “encourage violent or sexually domineering behavior” as well as contribute to negative physical and mental health outcomes for men. A study of Canadian men “found that, among male-middle-aged workers, masculinity ideology appeared to be most often a risk factor for health, rather than a protective factor . . .” (Houle et al., 2015).

Develop or Adapt Psychotherapies for Men

A number of experts have concluded that psychotherapeutic interventions used to treat suicidality or related issues (such as depressive symptoms) need to be adapted to be more acceptable to and effective with men, for example by:

- » Presenting concepts such as anxiety and depression in ways that reduce perceived stigma (Berger et al., 2013)
- » Developing modes of help seeking that men perceive as preserving their autonomy (Berger et al., 2013)
- » Presenting interventions as “training” rather than “therapy” (Spencer-Thomas et al., 2012; Wyllie et al., 2012)
- » Using “masculine scripts” in therapy that respond to a male patient’s personal characteristics and self-image (e.g., “strong and silent,” tough guy,” “winner”) (Mahalik, Good, & Englar-Carlson, 2003)

A qualitative study that interviewed men who had attempted suicide as well as the families of men who attempted suicide (Player et al., 2015) suggested that interventions that successfully interrupted men’s paths to suicide attempts should target four core features of male suicidality: “disrupted mood, unhelpful stoic beliefs and values, avoidant coping strategies, and stressors.” The analysis also suggested that interventions should respond to the level of risk of individuals. Acute/immediate risk can be interrupted with distraction, practical and emotional support, and professional health intervention. Less immediate but recurrent suicidal ideation was found to be interrupted by reminders of how a man’s suicide would affect family and friends, and especially his children, as well as by providing men with strategies to help them respond to the stressors that trigger suicidal thoughts and regulate their emotions when under stress. In addition, Player et al. (2015) stated:

Suggestions from the Research Literature (continued)

Men reported benefiting from regular contact with a person, with whom they could discuss problems, providing space to ventilate and address distress. They identified that respect for, or having trust in these support persons was crucial, and they could be more beneficial if they are outside the immediate family.

The authors also stated that efforts to prevent suicide among men should incorporate the unique roles that different groups of people (e.g., friends, family, and mental health professionals) could play in interrupting a man's path toward attempting suicide. These roles will vary depending on (1) a man's level of risk, (2) contributing risk factors (e.g., substance abuse or mental illness), and (3) cultural differences that affect the types of people from whom a man will accept help.

Use Venues and Modalities that Appeal to Men

Other suggestions for preventing suicide among men include these:

- » Implementing prevention activities in venues in which men are traditionally found (e.g., workplaces, job training programs, and sporting events) (American Association of Suicidology, n.d.; Prevention Institute, 2014; Spencer-Thomas et al., 2012; Wyllie et al., 2012). It has also been suggested that criminal justice settings and civil court settings may provide a strategic venue for intervening, given the elevated risk of these men, and the fact that men in these settings often feel vulnerable and want, and will accept, help (Catherine Cerulli, personal communication, 2015).
- » Conducting gatekeeper training for people who characteristically come into contact with men who may be at risk for suicide (e.g., bartenders, divorce or bankruptcy attorneys) (American Association of Suicidology, n.d.).
- » Promoting social connectedness through activities that involve “doing” (e.g., hobbies, sports) rather than “talking” (Wyllie et al., 2012).

Intervene Earlier in Men's Lives

Although this publication focuses on suicide prevention interventions that target men when they are in their middle years, interventions directed at boys, adolescents, and young men play an important role in reducing the risk that men face when they enter the middle years, as well as enhancing the resilience of men that will help them face the challenges of that period in their lives.

Regulate Access to Highly Lethal Means

The authors of two recent studies on handgun regulation and suicide (Anestis & Anestis, 2015; Anestis et al., 2015) found that each of seven types of state laws regulating handguns were individually associated with significant reductions in suicide. These laws included the following:

- » Permits to purchase handguns
- » Handgun registration
- » Licenses to own handguns

Suggestions from the Research Literature (continued)

- » A waiting period before a handgun sale can be completed and the buyer can take possession of the handgun
- » A background check before a handgun permit can be issued or before a handgun can be transferred from one person to another
- » Handguns to be locked under at least some circumstances
- » Regulating the open carrying of handguns

The results were not broken down by age or sex. The analysis did not include long guns because they are less frequently used in suicides than handguns.

A review of the research on firearm ownership rates, suicide rates, and policy-based strategies for preventing firearm suicides concluded that “firearms restrictions, including permit to purchase (PTP), waiting periods, safe storage, background checks, and registration guidelines, are associated with both lower firearm suicide rates and overall suicide rates.” (Mann & Michel, 2016)

Address Socioeconomic Risk Factors that Contribute to Suicide Risk

Li, Page, Martin, and Taylor (2011) conducted a systematic review and meta-analysis of suicide research (all ages, both sexes, several countries) that included socioeconomic data, and they concluded the following:

- » Mental illness places an individual at far higher risk of suicide than does lower socioeconomic status.
- » However, the number of suicides associated with lower socioeconomic status is about the same as the number of suicides associated with mental illness, because there are more people of lower socioeconomic status than there are people with mental illness.

They concluded that interventions that successfully address suicide risk associated with low socioeconomic status would be as effective at reducing the overall suicide rate as would interventions that successfully address suicide risk associated with mental disorders. This would be especially true for MIMY, as the association between socioeconomic status and suicide risk is stronger for men than for women and for MIMY than for younger men.

Reeves et al. (2015) suggested that the results of their multi-country study of suicide during the global economic crisis (summarized earlier) implied that “spending on active labor market programs and high levels of social capital moderated the unemployment-suicide association.” This spending helped limit the impact of the economic downturn on suicides in some European countries, compared to the United States in which there is less direct intervention in the labor market and less of a “safety net” for people affected by economic downturns.

Conclusion

This review was based upon the research on suicide among men in the middle years published between 2005 and 2015. It also includes several articles published before and after this period that came to our attention and seemed especially notable. Some of the information presented in the review of the research came from an analysis of data from SAMHSA's National Survey on Drug Use and Health (NSDUH). The material in *Suggestions from the Literature on Preventing Suicide among Men in the Middle Years* was also drawn from these sources.

The material in the review of the research was used as background information for the discussions among the project staff, advisory group, and representatives of the funding agency. These discussions and deliberations were the basis for developing the key points and recommendations that appear at the beginning of this publication. It should be noted that the key points and recommendations do not represent a structured weighing of the evidence found in the literature nor was a strict consensus reached among the participants in the discussions that informed this publication. However, we hope they will encourage and guide efforts to prevent suicide among men in the middle years, which is an important endeavor in and of itself as well as an essential step in reducing the overall rate of suicide in the United States.

References for A Review of the Research on Suicide Among Men in the Middle Years

- Alang, S. M. (2015, December). Sociodemographic disparities associated with perceived causes of unmet need for mental health care. *Psychiatric Rehabilitation Journal*, 38(4), 293–299. doi.org/10.1037/prj0000113
- American Association of Suicidology. (n.d.). *Help-seeking among men: Implications for suicide prevention*. Retrieved from <https://www.torontodistresscentre.com/sites/torontodistresscentre.com/files/Help-seeking%20among%20Men%20Implications%20for%20Suicide%20Prevention.pdf>
- Anestis, M. D., & Anestis, J. C. (2015). Suicide rates and state laws regulating access and exposure to handguns. *American Journal of Public Health*, 105(10), 2049–58. doi:10.2105/AJPH.2015.302753
- Anestis, M. D., Khazem, L. R., Law, K. C., Houtsma, C., LeTard, R., Moberg, F., & Martin, R. (2015, October). The association between state laws regulating handgun ownership and statewide suicide rates. *American Journal of Public Health*, 105(10), 2059–2067. doi:10.2105/AJPH.2014.302465
- Arsenault-Lapierre, G., Kim, C., & Turecki, G. (2004). Psychiatric diagnoses in 3,275 suicides: A meta-analysis. *BMC Psychiatry*, 4(37), 1–11.
- Beautrais, A. L., Collings, S. C. D., Ehrhardt, P., & Henare, K. (2005). *Suicide prevention: A review of evidence of risk and protective factors, and points of effective intervention*. Wellington, NZ: Ministry of Health.
- Berger, J. L., Addis, M. E., Green, J. D., Mackowiak, C., & Goldberg, V. (2013). Men's reactions to mental health labels, forms of help-seeking, and sources of help-seeking advice. *Psychology of Men and Masculinity*, 14(4), 433–443.
- Berman, A. L., & Pompili, M. (2011). *Medical conditions associated with suicide risk*. Washington, DC: American Association of Suicidology.
- Blackwell, D. L., Lucas, J. W., & Clarke, T. C. (2014, February). Summary health statistics for U.S. adults: National Health Interview Survey. *Vital Health Statistics*, 10(260).
- Blow, F. C., Bohnert, A. S. B., Ilgen, M. A., Ignacio, R., McCarthy, J. F., & Valenstein, M. M. (2012). Suicide mortality among patients treated by the Veterans Health Administration from 2000 to 2007. *American Journal of Public Health*, 102(S1), S98–S104.
- Brownhill, S., Wilhelm, K., Barclay L., & Parker G. (2002). Detecting depression in men: A matter of guesswork. *International Journal of Men's Health*, 1(3), 259–280.

SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

- Brownhill, S., Wilhelm, K., Barclay, L., & Schmied, V. (2005). "Big build": Hidden depression in men. *Australian and New Zealand Journal of Psychiatry*, 39(10), 921–931.
- Bryan, C., Elder, W., McNaughton-Cassilli, M., Osman, A., Hernandez, A., & Allison, S. (2013). Meaning in life, emotional distress, suicidal ideation, and life functioning in an active duty military sample. *Journal of Positive Psychology*, 8(5), 444–452.
- Bryan, C., Graham, E., & Roberge, E. (2015). Living a life worth living: Spirituality and suicide risk in military risk in military personnel. *Spirituality in Clinical Practice*, 2(1) 74–79.
- Caine, E. (2003). *Preventing suicide, attempted suicide, and their antecedents among men in the middle years of life (ages 25–54 years)*. Executive summary of Scientific Consensus Conference, June 11–12, 2003, Washington, D.C. Rochester, NY: University of Rochester Center for the Study and Prevention of Suicide. Retrieved from http://www.sprc.org/sites/sprc.org/files/library/middle_years.pdf
- Carter, G. L., Clover, K., Whyte, I. M., Dawson, A. H., & D'Este, C. (2013). Postcards from the EDge: 5-year outcomes of a randomized controlled trial for hospital-treated self-poisoning. *British Journal of Psychiatry*, 202(5), 372–380.
- Centers for Disease Control and Prevention. (n.d.). *Strategic direction for the prevention of suicidal behavior: Promoting individual, family, and community connectedness to prevent suicidal behavior*. Atlanta, GA: Author. Retrieved from http://www.cdc.gov/ViolencePrevention/pdf/Suicide_Strategic_Direction_Full_Version-a.pdf
- Centers for Disease Control and Prevention. (2013). Suicide among adults aged 35–64 years—United States, 1999–2010. *Mortality and Morbidity Weekly Report*, 62(17), 321–325.
- Centers for Disease Control and Prevention. (2014). Web-based Injury Statistics Query and Reporting System (WISQARS): Fatal injury data, National and regional, 1999–2014. Retrieved from http://webappa.cdc.gov/sasweb/ncipc/mortrate10_us.html
- Cohen, D., Llorente, M., & Eisdorfer, C. (1998). Homicide-suicide in older persons. *American Journal of Psychiatry*, 155(3), 390–396.
- Coleman, D., Kaplan, M. S., & Casey, J. T. (2011). The social nature of male suicide: A new analytic model. *International Journal of Men's Health*, 10(3), 240–252.
- Conner, K. R., Huguet, N., Caetano, R., Giesbrecht, N., McFarland, B. H., Nolte, K. B., & Kaplan, M. S. (2014). Acute use of alcohol and methods of suicide in a US national sample. *American Journal of Public Health*, 104(1), 171–178.
- Corcoran, P., Griffin, E., Arensman, E., Fitzgerald, A., & Perry, I. (2015). Impact of the economic recession and subsequent austerity on suicide and self-harm in Ireland: An interrupted time series analysis. *International Journal of Epidemiology*, 44(3), 969–977. doi:10.1093/ije/dyv058
- Draper, B., Kolves, K., De Leo, D., & Snowden, J. (2013). A controlled study of suicide in middle-aged and older people: Personality traits, age, and psychiatric disorders. *Suicide and Life-Threatening Behavior*, 44(2), 130–138.
- Eliason, S. (2009). Murder-suicide: A review of the recent literature. *Journal of the American Academy of Psychiatry and Law*, 37, 371–376.
- Erlangsen, A., Lind, B., Stuart, E., Qin, P., Stenager, E., Larsen, K., . . . Nordentoft, M. (2015). Short-term and long-term effects of psychosocial therapy for people after deliberate self-harm: A register-based, nationwide multicenter study using propensity score matching. *Lancet Psychiatry*, 2(1), 49–58.
- Escobedo, L. G., & Ortiz, M. (2002). The relationship between liquor outlet density and injury and violence in New Mexico. *Accident Analysis & Prevention*, 34(5), 689–694.
- Evans, E., Scourfield, J., & Moore, G. (2014). Gender, relationship breakdown, and suicide risk: A review of research in western countries. *Journal of Family Issues*. Advance online publication. doi:10.1177/0192513X14562608
- Fleming, P., Lee, J., & Dworkin, S. (2014). "Real men don't": Constructions of masculinity and inadvertent harm in public health interventions. *American Journal of Public Health*, 104(6), 1029–1035.
- Galdas, P. M., Cheater, F., & Marshall, P. (2005). Men and health help-seeking behavior: Literature review. *Journal of Advanced Nursing*, 49(6), 616–623.

SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

- Garcia-Alandete, J., Marco, J., & Perez, S. (2014). Predicting role of the meaning in life in depression, hopelessness, and suicide risk among borderline personality disorder patients. *Universitas Psychologica*, 13(4), 1545–1555.
- Giesbrecht, N., Hugué, N., Ogden, L., Kaplan, M. S., McFarland, B. H., Caetano, R., . . . & Nolte, K. B. (2015). Acute alcohol use among suicide decedents in 14 US states: Impacts of off-premise and on-premise alcohol outlet density. *Addiction*, 110(2), 300–307
- Haas, A. P., Eliason, M., Mays, V. M., Mathy, R. M., Cochran, S. D., D'Augelli, A. R., . . . Clayton, P. J. (2011). Suicide and suicide risk in lesbian, gay, bisexual, and transgender populations: Review and recommendations. *Journal of Homosexuality*, 58(1), 10–51.
- Haas, A. P., Rodgers, P. L., & Herman, J. L. (2014). *Suicide attempts among transgender and gender non-conforming adults: Findings of the National Transgender Discrimination Survey*. New York, NY, & Los Angeles, CA: American Foundation for Suicide Prevention & Williams Institute, UCLA School of Law. Retrieved from <http://williamsinstitute.law.ucla.edu/wp-content/uploads/AFSP-Williams-Suicide-Report-Final.pdf>
- Han, B., Kott, P., Hughes, A., McKeon, R., Blanco, C., & Compton, W. (2016, June). Estimating the rates of deaths by suicide among adults who attempt suicide in the United States. *Journal of Psychiatric Research*, 77, 125–133.
- Harper, S., Charters, T., Strumpf, E., Galea, S., & Nandi, A. (2015). Economic downturns and suicide mortality in the USA, 1980–2010: Observational study. *International Journal of Epidemiology*, 44(3), 956–966. doi:10.1093/ije/dyv009
- Hatzenbuehler, M. L., Bellatorre, A., Lee, Y., Finch, B., Muenig, P., & Fiscella, K. (2014). Structural stigma and all-cause mortality in sexual minority populations. *Social Science & Medicine*, 103, 33–41.
- Heisel, M., & Flett, G. (2004). Purpose in life, satisfaction with life and suicide ideation in a clinical sample. *Journal of Psychopathology and Behavioral Assessment*, 26(2), 127–135.
- Heisel, M., Neufeld, E., & Flett, G. (2015). Reasons for living, meaning in life, and suicide ideation: Investigating the roles of key positive psychological factors in reducing suicide risk in community-residing older adults. *Aging and Mental Health*, 20(2), 1–13.
- Hempstead, K. A., & Phillips, J. A. (2015). Rising suicide among adults aged 40–64 years: The role of job and financial circumstances. *American Journal of Preventive Medicine*, 48(5), 491–500.
- Hoffmire, C. A., Kemp, J. E., & Bossarte, R. M. (2015, September). Changes in suicide mortality in veterans and nonveterans by gender and history of VHA service use, 2000–2010. *Psychiatric Services in Advance*, 66(9), 959–965. doi:10.1176/appi.ps.201400031
- Houle, J., & Light, M. T. (2014, June). The home foreclosure crisis and rising suicide rates, 2005 to 2010. *American Journal of Public Health*, 104(6), 1073–1079.
- Houle, J., Meunier, S., Coulombe, S., Tremblay, G., Gaboury, De Montigny, F., . . . Lavoie, B. (2015). Masculinity ideology among male workers and its relationship to self-reported health behaviors. *International Journal of Men's Health*, 14(2), 163–182.
- James, D. J., & Glaze, L. E. (2006). Mental health problems of prison and jail inmates. *Bureau of Justice Statistics Special Report*. Washington, DC: U.S. Department of Justice, Office of Justice Programs. Retrieved from <http://www.bjs.gov/content/pub/pdf/mhppji.pdf>
- Jobes, D. A., Wong, S. A., Conrad, A. K., Drozd, J. F., & Neal-Walden, T. (2005). The collaborative assessment and management of suicidality versus treatment as usual: A retrospective study with suicidal outpatients. *Suicide and Life-Threatening Behavior*, 35(5), 483–497.
- Johnson, F. W., Gruenewald, P. J., & Remer, L. G. (2009). Suicide and alcohol: Do outlets play a role? *Alcoholism: Clinical and Experimental Research*, 33(12), 2124–2133.
- Kang, H. K., & Bullman, T. A. (2009). Is there an epidemic of suicides among current and former military personnel? *Annals of Epidemiology*, 19(10), 757–760.
- Kaplan, M. S., Hugué, N., Caetano, R., Giesbrecht, N., Kerr, W. C., & McFarland, B. H. (2015). Economic contraction, alcohol intoxication, and suicide: Analysis of the National Violent Death Reporting System. *Injury Prevention*, 21(1), 35–41. doi:10.1136/injuryprev-2014-041215
- Kaplan, M. S., McFarland, B. H., Hugué, N., & Valenstein, M. (2012). Suicide risk and precipitating circumstances among young, middle-aged, and older male veterans. *American Journal of Public Health*, 102(S1), S131–S137.
- Kaplan, M. S., McFarland, B. H., Hugué, N., Connor, K., Caetano, R., Giesbrecht, N., & Nolte, K. B. (2013). Acute alcohol intoxication and suicide: A gender-stratified analysis of the National Violent Death Reporting System. *Injury Prevention*, 19(1), 38–43.

SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

- Kemp, J., & Bossarte R. (2012). *Suicide data report 2012*. Washington, DC: U.S. Department of Veterans Affairs, Mental Health Services. Retrieved from <http://www.va.gov/opa/docs/Suicide-Data-Report-2012-final.pdf>
- Khaleel, H. A., Brown, S. V., Christian, W. J., & Fleming, S. (2016). Alcohol sale status and suicide in Kentucky, 2005–2012. *Journal of Alcoholism & Drug Dependence*, 4(240), 2.
- Kleiman, E., & Beaver, K. (2013). A meaningful life is worth living: Meaning in life as a suicide resiliency factor. *Psychiatry Research*, 210(3), 934–939.
- Kliem, S., Kröger, C., & Kosfelder, J. (2010). Dialectical behavior therapy for borderline personality disorder: A meta-analysis using mixed-effects modeling. *Journal of Consulting and Clinical Psychology*, 78(6), 936–951.
- Li, Z., Page, A., Martin, G., & Taylor, T. (2011). Attributable risk of psychiatric and socio-economic factors for suicide from individual-level, population-based studies: A systematic review. *Social Science & Medicine*, 72(4), 608–616.
- Linehan, M., Comtois, K., Murray, A., Brown, M., Gallop, R., Heard, H., . . . Lindenboim, N. (2006). Two-year randomized controlled trial and follow-up of dialectical behavior therapy vs therapy by experts for suicidal behaviors and borderline personality disorder. *Archives of General Psychiatry*, 63(7), 757–766.
- Luo, F., Florence, C. S., Quispe-Agnoli, M., Ouyang, L., & Crosby, A. E. (2011). Impact of business cycles on US suicide rates, 1928–2007. *American Journal of Public Health*, 101(6), 1139–1146.
- Mahalik, J. R., Good, G. E., & Englar-Carlson, M. (2003). Masculinity scripts, presenting concerns, and help seeking: Implications for practice and training. *Professional Psychology: Research and Practice*, 34(2), 123–131.
- Mann, J. J., & Michel, C. A. (2016) Prevention of firearm suicide in the United States: What works and what is possible. *American Journal of Psychiatry*. Advance online publication. doi:10.1176/appi.ajp.2016.16010069
- McLaughlin, J., O'Carroll, R. E., & O'Connor, R. C. (2012). Intimate partner abuse and suicidality: A systematic review. *Clinical Psychology Review*, 32(8), 677–689.
- Milner, A., Hiven, H., & LaMontagne, A. (2015) Occupational class differences in suicide: Evidence of changes over time and during the global financial crisis in Australia. *British Journal of Psychiatry*, 15(1), 223.
- Milner, A., Spittal, M. J., Pirkis, J., & LaMontagne, A. D. (2013) Suicide by occupation: Systematic review and meta-analysis. *British Journal of Psychiatry*, 203(6), 409–416.
- National Confidential Inquiry into Suicide and Homicide by People with Mental Illness. (2015). *Annual Report: England, Northern Ireland, Scotland, and Wales*. Manchester, UK: University of Manchester.
- Noonan, M. E., Rohloff, H., & Ginder, S. (2015). Mortality in local jails and state prisons, 2000–2013—statistical tables. Washington, DC: United States Department of Justice, Bureau of Justice Statistics. Retrieved from <http://www.bjs.gov/content/pub/pdf/mljsp0013st.pdf>
- Nordt, C., Wanke, I., Seifritz, E., & Kawohl, W. (2015). Modelling suicide and unemployment: A longitudinal analysis covering 63 countries, 2000–11. *Lancet Psychiatry*, 2(3), 239–245.
- Oliffe, J. L., & Han, C. S. E. (2014). Beyond workers' compensation: Men's mental health in and out of work. *American Journal of Men's Health*, 8(1), 45–53.
- Oliffe, J. L., Ogrudniczuk, J. S., Bottorff, J. L., Johnson, J. L., & Hoyak, K. (2012). "You feel like you can't live anymore": Suicide from the perspectives of Canadian men who experience depression. *Social Science & Medicine*, 74(4), 506–514.
- Oliffe, J. L., & Phillips, J. A. (2008). Men, depression, and masculinities: A review and recommendations. *Journal of Mental Health*, 5(3), 194–202.
- Phillips, J. A. (2010). Understanding recent changes in suicide rates among the middle-aged: Period or cohort effects? *Public Health Reports*, 125(5), 680–688.
- Phillips, J. A. (2014). A changing epidemiology of suicide? The influence of birth cohorts on suicide rates in the United States. *Social Science & Medicine*, 114, 151–160.
- Phillips, J. A., & Nugent, C. N. (2014). Suicide and the Great Recession of 2007–2009: The role of economic factors in the 50 U.S. states. *Social Science and Medicine*, 116, 22–31.

SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

- Player M., Proudfoot, J., Fogarty A., Whittle, E., Spurrier, M., Shand, F., . . . Wilhelm, K. (2015). What interrupts suicide attempts in men: A qualitative study. *PLoS ONE*, *10*(6), e0128180. doi:10.1371/journal.pone.0128180
- Plöderl, M., Wagenmakers, E.-J., Tremblay, P., Ramsay, R., Kralovex, K., Fartacek, C., & Fartacek, R. (2013). Suicide risk and sexual orientation: A critical review. *Archives of Sexual Behavior*, *42*(5), 715–727.
- Prevention Institute. (2014). *Making connections for mental health and wellbeing among men and boys in the U.S.* Culver City, CA: The Movember Foundation. Retrieved from <https://www.preventioninstitute.org/sites/default/files/publications/Making%20Connections%20for%20Mental%20Health%20Wellbeing%20among%20Men%20and%20Boys.pdf>
- Reeves, A., McKee, M., Gunnell, D., Chang, S.-S., Basu, S., Barr, B., & Stuckler, D. (2015, June). Economic shocks, resilience, and male suicides in the Great Recession: Cross-national analysis of 20 EU countries. *European Journal of Public Health*, *25*(3), 404–409. doi:10.1093/eurpub/cku168
- Rice, M., Aucote, H., Parker, A., Alvarez-Jimenez, M., Folia, K., & Amminger, G. (2015). Men's perceived barriers to help seeking for depression: Longitudinal findings relative to symptom onset and duration. *Journal of Health Psychology*. Advance online publication. doi:10.1177/1359105315605655
- Rudd, M. D., Bryan, C. J., Wertenberger, E. G., Peterson, A. L., Young-McCaughan, S., Mintz, J., . . . Bruce, T. O. (2015). Brief cognitive-behavioral therapy effects on post-treatment suicide attempts in a military sample: Results of a randomized controlled trial with 2-year follow-up. *American Journal of Psychiatry*, *172*(5), 441–449.
- Rutz, W., von Knorring, L., Pihlgren, H., Rihmer, Z., & Wålinder, J. (1995). Prevention of male suicides: Lessons from Gotland study. *Lancet*, *345*(8948), 524.
- Rutz, W., Wålinder, J., Eberhard, G., Holmberg, G., von Knorring, A. L., von Knorring, L., . . . Åberg-Wistedt, A. (1989). An educational program on depressive disorders for general practitioners on Gotland: Background and evaluation. *Acta Psychiatrica Scandinavica*, *79*(1), 19–26.
- Rutz, W., Wålinder, J., von Knorring, L., Rihmer, Z., & Pihlgren, H. (1997). Prevention of depression and suicide by education and medication: Impact on male suicidality. An update from the Gotland study. *International Journal of Psychiatry in Clinical Practice*, *1*(1), 39–46.
- Schiff, L., Holland, K., Stone, D., Logan, J., Marshall, K., Martell, B., & Bartholow, B. (2015). Acute and chronic risk preceding suicidal crises among middle-aged men without known mental health and/or substance abuse problems: An exploratory mixed-methods analysis. *Crisis*, *36*, 304–315. doi:10.1027/0227-5910/a000329
- Scourfield, J., & Evans, R. (2015, September). Why might men be more at risk of suicide after a relationship breakdown? Sociological insights. *American Journal of Men's Health*, *9*(5), 380–384. doi:10.1177/1557988314546395
- Services and Advocacy for Gay, Lesbian, Bisexual, and Transgender Elders (SAGE) and LGBT Movement Advancement project (MAP). (2010). *Improving the lives of LGBT older adults*. New York, NY, and Denver, CO: Authors. Retrieved from <http://www.lgbtmap.org/file/improving-the-lives-of-lgbt-older-adults.pdf>
- Snyder, H. (2012). *Arrest in the United States, 1990–2010*. Washington, DC: U.S. Department of Justice. Retrieved from <http://www.bjs.gov/content/pub/pdf/aus9010.pdf>
- Spencer-Thomas, S., Hindman, J., & Conrad, J. (2012). *Man Therapy: An innovative approach to suicide prevention for working aged men*. Retrieved from <http://carsonjspencer.org/files/6014/1013/1285/ManTherapyWhitePaper.02.12.2014.pdf>
- Substance Abuse and Mental Health Services Administration. (2013). [Internal analysis of data from the National Survey on Drug Use and Health]. Unpublished data.
- Suicide Prevention Resource Center, & Rodgers, P. (2011). *Understanding risk and protective factors for suicide: A primer for preventing suicide*. Newton, MA: Education Development Center, Inc. Retrieved from <http://www.sprc.org/sites/sprc.org/files/library/RiskProtectiveFactorsPrimer.pdf>
- Tang, N. K. Y., & Crane, C. (2006). Suicidality in chronic pain: A review of the prevalence, risk factors and psychological links. *Psychological Medicine*, *36*(5), 575–586.
- Tiesman, H. M., Konda, S., Hartley, D., Menendez, C. C., Ridenour, M., & Hendricks, S. (2014). Suicides in U.S. workplaces, 2003–2010: A comparison with non-workplace suicides. *American Journal of Preventive Medicine*, *48*(6), 674–682.

SECTION 3: A Review of the Research on Suicide among Men in the Middle Years

Tsai, A. C., Lucas, M., Sania, A., Kim, D., & Kawachi, I. (2014). Social integration and suicide mortality among men: 24-year cohort study of U.S. health professionals. *Annals of Internal Medicine*, 161(2), 85–95.

United States Census Bureau. (2011). Age and sex composition: 2010. *2010 Census Briefs*. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf>

United States Census Bureau. (2014). *American FactFinder: 2014 population estimates*. Retrieved from http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_13_5YR_DP05&src=pt

United States Department of Health and Human Services (HHS), Office of the Surgeon General, & National Action Alliance for Suicide Prevention. (2012). *2012 National strategy for suicide prevention: Goals and objectives for action*. Washington, DC: HHS. Retrieved from <http://actionallianceforsuicideprevention.org/national-strategy-suicide-prevention-0>

United States Department of Justice, Federal Bureau of Investigation. (2012). Table 30: Number and rate of arrests by region, 2012. *Crime in the United States 2012*. Retrieved from <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2012/crime-in-the-u.s.-2012/tables/30tabledataadecpdf>

Voelker, M. (2015) Men's mental health disparities. *Journal of the American Medical Association*, 314(10), 984.

Wang, M., Lightse, O., Pietruszka, T., Uruk, A., & Wells, A. (2007). Purpose in life and reasons for living as mediators of the relationship between stress, coping, and suicidal behavior. *Journal of Positive Psychology*, 2(3), 195–204.

Webb, R. T., & Kapur, N. (2015). Suicide, unemployment, and the effect of economic recession. *Lancet*, 2(3), 196–197.

Webb, R. T., Kontopantelis, E., Doran, T., Qin, P., Creed, F., & Kapur, N. (2012). Suicide risk in primary care patients with major physical diseases: A case-control study. *Archives of General Psychiatry*, 69(3), 256–264.

Wyllie, C., Platt, S., Brownlie, J., Chandler, A., Connolly, S., Evans, R., . . . Scourfield, J. (2012). *Men, society, and suicide: Why disadvantaged men in mid-life die by suicide*. Surrey, UK: Samaritans. Retrieved from <http://www.samaritans.org/sites/default/files/kcfinder/files/press/Men%20Suicide%20and%20Society%20Research%20Report%20151112.pdf>



SECTION 4

Programs and Resources

SECTION 4: Programs and Resources

This section contains information on available programs and resources that are relevant to suicide prevention among men in the middle years (MIMY). A summary table is provided, followed by written descriptions and links to online information. Both the table and the list of descriptions are in alphabetical order by the program or resource name.

Although this list is not exhaustive, it contains key programs and resources that were available at the publication of this report that may be useful in addressing both the suicide risk and protective factors among MIMY described in this report and the implementation of the recommendations. Note that the programs and resources included here have not been endorsed by SPRC.

Some of these programs and resources were designed specifically for MIMY or all adult males, and some were designed for a broader population but can be modified to focus on MIMY. Most will need to be adapted to serve a particular portion of the MIMY population within a particular setting. In addition, state and community programs are likely to have prevention efforts underway that they can adapt for MIMY in their area.

At this time, there is very little research evidence showing the effectiveness of these programs and resources with MIMY. Only about a third of the programs and resources listed here have been studied or evaluated in any way, and very few have been evaluated for their effectiveness in preventing or reducing suicide. However, some have been studied to determine outcomes such as increases in knowledge, changes in beliefs and attitudes, and self-efficacy in working with people who are suicidal. In addition, only a small number of the studies have been published in peer-reviewed journals. When an evaluation or other study is available online, the name and link have been included at the end of the description of the program or resource.

An effective population-based suicide prevention program should use multiple interventions to address the multiple factors that put people at risk. A comprehensive approach is as central to preventing suicide among MIMY as it is to addressing the overall suicide problem in a community, a state, or the nation as a whole.

Programs and Resources Table

This table crosswalks the programs and resources in this section with the recommendations outlined at the beginning of this report.

Program/Resource Name	Brief Program Description	Related Recommendation Number(s)
Breaking the Silence (USA)	Report, video, and guide to prevent suicides of police officers	12
Campaign Against Living Miserably (CALM) (UK)	Website, phone helpline, and Web chat to help men who are depressed or in crisis and to encourage help seeking	3, 6, 7, 13
Caring for Adult Patients with Suicide Risk: A Consensus Guide for Emergency Departments (USA)	Guide to assist ED health care professionals with treatment and discharge of patients at risk for suicide	5
Comprehensive Blueprint for Workplace Suicide Prevention (USA)	Overview of a comprehensive approach to workplace suicide prevention, and lists of resources	12

SECTION 4: Programs and Resources

A Construction Industry Blueprint: Suicide Prevention in the Workplace (USA)	Guide to help construction industry workplaces address suicide	12
Continuity of Care for Suicide Prevention: The Role of Emergency Departments (USA)	Recommendations and key steps for managing ED patients at risk for suicide	5
Counseling on Access to Lethal Means (CALM) (USA)	Online training for providers on counseling patients and families on reducing access to lethal means	4, 5, 6, 9
Dude's Club (Canada)	Program to reduce risk for depression and suicide and to promote wellness among First Nations men	3, 15
Gatekeepers of Middle Aged Men (USA)	In-person training to help clinicians prevent suicide among middle-aged men	6
HeadsUpGuys (Canada)	Website with information and resources to encourage help seeking among men at risk for depression and suicide	3
Make the Connection (USA)	Website with resources on mental health and substance abuse for veterans and their families, friends, and clinicians	3
Man Therapy (USA)	Website encouraging working-age men to seek help for mental health issues	3
MassMen.org (USA)	Website connecting men to Man Therapy and resources in Massachusetts	3
MATES in Construction (Australia)	Comprehensive workplace program for the construction industry to reduce suicide risk	12
Meaning-Centered Men's Groups (Canada)	Groups for retiring men over age 55 to reduce risk of depression and suicide	6, 15
Men at Risk (Canada)	Presentations for men in workplaces and communities to reduce suicide risk and encourage help seeking	3, 12
Men's SHARE (Suicide, Harm, Awareness, Recovery and Empathy) (Scotland)	Weekly support groups that help men ages 25–50 connect with other men, access help, develop resilience, and engage in meaningful activities	3, 15
Men's Sheds (Australia, New Zealand, Ireland, UK, Canada)	Program for men (often unemployed or retired) to connect with other men, learn skills, work on projects, and gain information	3, 15
MensLine (Australia)	Phone and online information and support for men, particularly on family and relationship issues	6, 11
Mind Our Men (Ireland)	Suicide prevention public awareness campaign encouraging women and men to help male friends and family members find services	3, 13
The Mission Continues (USA)	Program to help veterans reintegrate through community service work	15

SECTION 4: Programs and Resources

Mojo Programme (Ireland)	12-week training program for unemployed men to increase mental health and wellness	11, 15
National Suicide Prevention Lifeline (USA)	Suicide prevention hotline and Web chat	6, 7
Oz Help Foundation (Australia)	Comprehensive workplace program to reduce suicide risk; often used in male-dominated workplaces	12
Real Warriors Campaign (USA)	Public awareness campaign and website to support reintegration and help seeking among veterans and their families	13
The Role of Adult Correctional Officers in Preventing Suicide (USA)	Information sheet to help adult correctional officers prevent suicides among inmates	10
Safety Planning Guide: A Quick Guide for Clinicians (USA)	Brief guide to help clinicians develop safety plans with patients at risk of suicide	4, 5, 6
SBIRT: Screening, Brief Intervention, and Referral to Treatment (USA)	Website with resources for implementing SBIRT to address substance abuse problems	8
Sequential Intercept Model (SIM) (USA)	Conceptual framework for working with people with behavioral health disorders who are in the criminal justice system	10
Soften the Fck Up (Australia)	Mass media campaign encouraging young men to seek help for mental health issues	3, 13
Suicide Action Montreal (Canada)	Telephone and face-to-face crisis services, including for friends and family of men at risk for suicide	6, 7
Suicide Prevention: A Role for Firearm Dealers and Ranges (USA)	Educational program for gun shops and firing ranges	9
TIP 50: Addressing Suicidal Thoughts and Behaviors in Substance Abuse Treatment (USA)	Manual with guidelines and training video for substance abuse treatment counselors working with suicidal adults	8
TIP 56: Addressing the Specific Behavioral Health Needs of Men (USA)	Manual with guidelines for clinicians specific to working with adult men with substance use disorders	3, 8
Together for Life (Canada)	Comprehensive suicide prevention program for police departments to prevent officer suicides	12
Value Options: Strategy in Workplace Suicide Prevention (USA)	Website containing information and resources for a workplace suicide prevention program	12
Veterans Crisis Line (USA)	Phone crisis line, online chat, and text for veterans, service members, and their families and friends	6, 7
Working Minds (USA)	Comprehensive workplace suicide prevention program often used in workplaces employing substantial numbers of men	12

Your Voice Counts Resource Center (USA)	Suicide prevention mass media campaign with materials targeted at MIMY	13
Zero Suicide (USA)	Suicide prevention strategies and tools for health and behavioral health care organizations	4, 6

Programs and Resources List

Breaking the Silence (USA)

- » Report: Breaking the Silence on Law Enforcement Suicides
http://www.theiacp.org/portals/0/documents/pdfs/suicide_project/officer_suicide_report.pdf
- » Video: Breaking the Silence: Suicide Prevention in Law Enforcement
<https://www.youtube.com/watch?v=fBJbo7mnnBs&feature=youtu.be>
- » Video Facilitation Guide: Breaking the Silence: Suicide Prevention for Law Enforcement <http://actionallianceforsuicideprevention.org/sites/actionallianceforsuicideprevention.org/files/LEGuide.pdf>

These materials address suicide prevention among police officers. The report outlines strategies and provides resources for police departments to use in promoting mental wellness, preventing suicides, and responding to mental health crises and suicides among police officers. The video features officers talking about their experiences and encourages other officers to seek help when feeling emotionally distressed or suicidal. The video facilitation guide is designed to help facilitate discussions when showing the video to different law enforcement audiences, from line staff to supervisors to command staff.

Campaign Against Living Miserably (CALM) (UK)

<https://www.thecalmzone.net/>

CALM offers support to men who are depressed or in crisis through a telephone hotline and Web chat, a website, and an online magazine. The program works with health commissions to promote its message at local events and venues. In partnership with other groups, it pushes for changes in policies and practices to prevent suicide.

Caring for Adult Patients with Suicide Risk: A Consensus Guide for Emergency Departments (USA)

<http://www.sprc.org/ed-guide>

This guide is designed to assist Emergency Department (ED) staff with decisions about the care and discharge of patients at risk for suicide and to improve patient outcomes after discharge. The guide helps ED caregivers intervene appropriately, decide if the patient can be discharged or if further evaluation is needed, and ensure that the patient will be safe after leaving the ED.

Comprehensive Blueprint for Workplace Suicide Prevention (USA)

<http://actionallianceforsuicideprevention.org/task-force/workplace/cspp>

This Web-based resource provides an overview of a comprehensive approach to suicide prevention that can be used in a wide variety of workplaces and industries, and suggests a number of resources that can be used to implement this approach.

A Construction Industry Blueprint: Suicide Prevention in the Workplace (USA)

<http://actionallianceforsuicideprevention.org/sites/actionallianceforsuicideprevention.org/files/Suicide%20Prevention%20in%20the%20Workplace%20-%20Final.pdf>

This guide was designed to help leaders, managers, and supervisors in the construction industry implement suicide prevention activities in their workplaces. It includes information about suicide and suicide prevention tailored to the construction industry, a checklist to determine if a company's environment is contributing to suicide risk, suicide prevention presentations that managers can give to employees, guidance about how workplaces can be used to reduce suicide risk, and information on resources.

Continuity of Care for Suicide Prevention: The Role of Emergency Departments (USA)

http://www.sprc.org/sites/sprc.org/files/library/ContinuityCare_Suicide_Prevention_ED.pdf

This short publication highlights key steps that ED providers can take to establish continuity of care for patients at risk for suicide and to prevent suicides and attempts after discharge.

Counseling on Access to Lethal Means (CALM) (USA)

<http://training.sprc.org/>

This online training is designed for providers who counsel people at risk for suicide—primarily mental health and medical providers, but also clergy and social service providers. The first module explains why reducing access to lethal methods of self-harm saves lives; the second module teaches practical skills on when and how to ask clients about their access to lethal means and how to work with them and their families to reduce access to means of self-harm.

Dude's Club (Canada)

<http://www.dudesclub.ca/>

This British Columbia-based program provides events and activities that focus on spiritual, physical, mental, emotional, and social aspects of wellness for First Nations men, with the larger goal of reducing depression and suicide through culturally appropriate activities. It also helps First Nations men identify health and mental health services and reconnect with their traditional roles.

Gatekeepers of Middle Aged Men (USA)

<http://www.fsmv.org/Samaritans/GatekeeperTrainings.html>

This two-hour training helps clinicians reduce the incidence of suicide among men ages 35–64 in Massachusetts. Participants learn how to identify risk and protective factors and warning signs, ask questions about suicide risk, develop a safety plan, and provide MIMY with resources. CEUs are available for social workers, licensed mental health counselors, and licensed alcohol and drug counselors.

HeadsUpGuys (Canada)

<http://headsupguys.ca>

This website for men features information on identifying and reducing depression and preventing suicide. It includes a self-check tool, videos in which men share their stories and coping tips, resources for seeking help, and a form that men can use to create an action plan for recovery. It also includes information on how friends and family can provide support to men experiencing depression.

Make the Connection (USA)

<http://maketheconnection.net/>

This website features information on mental health, substance abuse, and life issues that are relevant to veterans and their families, friends, and clinicians. It also has videos in which veterans tell their stories and information on resources for further help both within and outside the Veterans' Administration.

Man Therapy (USA)

<http://www.mantherapy.org>

Man Therapy is an interactive website that encourages men to consider their own behavioral health needs and seek help for themselves, and to encourage other men to seek help when needed. Men can interact with a fictional therapist, do a self-assessment, and get mental health tips. If they need further help, they are referred to the National Suicide Prevention Lifeline or a list of professional mental health providers. Information about the development and use of Man Therapy can be found at the Carson J. Spencer Foundation website: <http://carsonjspencer.org/files/6014/1013/1285/ManTherapyWhitePaper.02.12.2014.pdf>

MassMen.org (USA)

<http://massmen.org/>

Through this website, Massachusetts working-age men and their loved ones can access Man Therapy (see above), online self-assessments, and information on mental health resources in Massachusetts.

MATES in Construction (Australia)

<http://www.matesinconstruction.org.au>

This program for the Australian construction industry provides training and support, with the overarching goal of preventing suicide and improving mental health and well-being. It includes a General Awareness Training for all employees and Connector and ASIST gatekeeper trainings. Support services are also provided by trained professionals through a 24/7 Help Line and case managers who help employees obtain behavioral health services. Post-vention is also available. More information about the impact of this program can be found in the following papers:

Footprints Market Research. (2012, December). *MATES in Construction program evaluation: Report of findings*. Retrieved from <http://matesinconstruction.org.au/wp-content/uploads/2016/03/2012-MIC-Program-Evaluation.pdf>

Doran, C. M., Ling, R., & Milner, A. (2015, August). *The economic cost of suicide and non-fatal suicidal behaviour in the Australian construction industry by state and territory*. Retrieved from <http://matesinconstruction.org.au/wp-content/uploads/2016/03/Cost-of-suicide-in-construction-industry-final-report.pdf>

Meaning-Centered Men's Groups (Canada)

<https://ca.movember.com/report-cards/view/id/3259>

"Enhancing Psychological Resiliency in Older Men Facing Retirement: Testing a Meaning-Centered Group Intervention" is designed to enhance men's sense of meaning in life, mental health, and well-being and to reduce the onset of depression and suicide risk in men facing retirement. Groups of 10–12 soon-to-be or newly retired men age 55 or older meet weekly with facilitators in a community location. The sessions produce a sense of community among men and address retirement-related challenges and opportunities.

Men at Risk (Canada)

<http://www.sp-rc.ca/programs/tough-enough-to-talk-about-it>

This one-hour gatekeeping program provided by the Suicide Prevention Resource Centre in Canada teaches people to recognize and respond to mental health problems in men working in the trades, industry, or agriculture. Update: The Men at Risk program has been replaced with the program Tough Enough to Talk About It.

Men's SHARE (Suicide, Harm, Awareness, Recovery and Empathy) (Scotland)

<http://www.health-in-mind.org.uk/services/orchard-centre-services/SHARE.html>

This project sponsors weekly drop-in support groups that provide men (ages 25–50) with opportunities to discuss emotional issues, develop resilience strategies, and engage in activities that promote a sense of purpose and belonging (e.g., joining a football team, taking a film course).

LeMaigre, C., Murphy, J., & Bird, M. (n.d.). *The Men's SHARE project – an evaluation*. Retrieved from <http://www.health-in-mind.org.uk/assets/files/2014%20Mens%20Share%20report.pdf>

Men's Sheds (Australia, New Zealand, Ireland, UK, Canada)

- » Australian Men's Shed Association (AMSA): www.mensshed.org
- » Mensheds Australia: <http://www.mensheds.org.au/>
- » MENZSHED New Zealand: <http://menzshed.org.nz/>
- » Irish Men's Sheds Association: <http://menssheds.ie/about-us/>
- » UK Men's Sheds Association: <http://www.menssheds.org.uk/>
- » Canadian Men's Sheds Association: <http://menssheds.ca>

Men's Sheds are community-based organizations that provide a safe and friendly environment for men to learn practical skills, develop new interests, work on meaningful projects (e.g., carpentry, restoring bicycles for a local school, gardening, art), connect with other men, and talk about their problems. Some Men's Sheds incorporate visits from health care professionals and access to men's health literature. There is wide variation in the focus of different sheds, but most aim to advance the well-being and health of members and decrease social isolation. Although the Sheds tend to draw older men who are unemployed or retired, they are open to men of all ages. Men's Sheds associations represent and promote the Shed movement. More information on Men's Sheds can be found here:

Wilson, N. J., & Cordier, R. (2013). A narrative review of Men's Sheds literature: Reducing social isolation and promoting men's health and well-being. *Health & Social Care in the Community*, 21(5), 451–463. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/hsc.12019/full>

Canadian Men's Sheds Association. (2016). *Men's Sheds Canada: A toolkit for starting & growing sheds*. Retrieved from <http://menssheds.ca/the-toolkit>

MensLine (Australia)

<http://www.mensline.org.au/>

The MensLine is a free professional telephone and online support and information service specializing in family and relationship issues, including relationship breakdown, separation and divorce, parenting, family violence, and emotional well-being. Counseling sessions are usually about 30 minutes. The MensLine also offers online forums for men, wives and partners, and rural men.

Mind Our Men (Ireland)

<http://www.mindourmen.ie/>

This public awareness campaign encourages both women and men to recognize signs of emotional distress in the men in their lives and to help emotionally distressed men obtain behavioral health services. Mind Our Men is operated by Pieta House, an organization that provides help for people in suicidal crisis or who are engaging

SECTION 4: Programs and Resources

in self-harming behaviors. Pieta House's related Mind Ur Buddy program has partnered with the Construction Industry Federation to launch Mind Our Workers, and with the Irish Farmers' Association to sponsor Mind Our Farm Families.

The Mission Continues (USA)

<https://www.missioncontinues.org/>

This program supports veterans who are reintegrating into the civilian environment by engaging them in community service, which provides them with a renewed sense of purpose in life, a stronger social network, professional development support, and the broader health benefits of serving others by volunteering. The following case study describes The Mission Continues and its impact on participants:

Gould, O., Scheinberg, A., & Mathieu, M. (2014, November). *The Mission Continues: A case study of the Well After Service model*. Washington, DC: Center for a New American Security. Retrieved from <http://www.cnas.org/the-mission-continues#.VnskL08erSg>

Mojo Programme (Ireland)

<http://www.mojo.ngo/>

Mojo is a 12-week training program for men ages 20 and over who are having difficulty coping with unemployment or financial difficulties. Its stated goal is to reduce the high levels of male suicide in Ireland. Mojo seeks to increase men's resilience and mental and physical fitness and develop their ability to engage with local services, set goals, and develop a life plan. Mojo has produced a toolkit to help others start Mojo programs and is working to implement more programs across Ireland. For more information on the impact of its activities, see the following:

Burtenshaw Kenny Associates. (2013, December). *Mojo final evaluation report: Men at risk to suicide: An inter-agency response*. Retrieved from <http://www.mojo.ngo/?project=mojo-final-evaluation-report-men-at-risk-to-suicide-an-interagency-response>

Mojo: A 12 week programme for unemployed men experiencing mental health distress, a social return on investment analysis 2014. Retrieved from <http://www.mojo.ngo/?project=extended-wide-project>

National Suicide Prevention Lifeline (USA)

<http://www.suicidepreventionlifeline.org/>

The National Suicide Prevention Lifeline is a 24-hour, toll-free, confidential suicide prevention hotline available to anyone in suicidal crisis or emotional distress. Calls to 1-800-273-TALK (8255) are routed to the nearest crisis center in a national network of more than 160 centers that provide crisis counseling and mental health referrals. The Lifeline is also available by online chat. For information on the impact of the Lifeline, see the following:

Gould, M. S., Munfakh, J. L., Kleinman, M., & Lake, A. M. (2012). National suicide prevention lifeline: Enhancing mental health care for suicidal individuals and other people in crisis. *Suicide and Life-Threatening Behavior*, 42(1), 22–35. Retrieved from <https://msrc.fsu.edu/system/files/Gould%20et%20al%202012%20National%20suicide%20prevention%20lifeline--%20enhancing%20mental%20health%20care%20for%20suicidal%20individuals%20and%20Other%20people%20in%20crisis.pdf>

Gould, M. S., Kalafat, J., Munfakh, J. L., & Kleinman, M. (2007). An evaluation of crisis hotline outcomes part 2: Suicidal callers. *Suicide and Life-Threatening Behavior*, 37(3), 338–352. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1521/suli.2007.37.3.338/abstract>

Kalafat, J., Gould, M. S., Munfakh, J. L., & Kleinman, M. (2007). An evaluation of crisis hotline outcomes part 1: Nonsuicidal crisis callers. *Suicide and Life-Threatening Behavior*, 37(3), 322–337. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1521/suli.2007.37.3.322/abstract>

Oz Help Foundation (Australia)

<https://ozhelp.org.au/>

Oz Help seeks to prevent suicide among men by providing services at workplaces, including counseling, health checks, suicide prevention and mental health awareness trainings, and information sessions on other mental health and health-related topics. Oz Help also provides support from professional counselors in response to critical incidents that affect the workplace.

Real Warriors Campaign (USA)

<http://www.realwarriors.net/>

This multimedia public awareness campaign is designed to combat stigma, encourage help seeking, promote resilience, facilitate recovery, and support reintegration among returning service members, veterans, and their families. It is part of the U.S. Department of Defense's effort to encourage warriors and families to seek appropriate care and support for mental health concerns. It uses a variety of strategies, including outreach and partnerships, print materials, media outreach, an interactive website, a mobile website, social media, and stories of service members who reached out for support or mental health care with successful outcomes. For more background on this effort, see the following report:

Acosta, J., Martin, L. T., Fisher, M. P., Harris, R., & Weinick, R. M. (2012). *Assessment of the content, design, and dissemination of the Real Warriors Campaign*. Santa Monica, CA: RAND Corporation. Retrieved from http://www.rand.org/pubs/technical_reports/TR1176.html

The Role of Adult Correctional Officers in Preventing Suicide (USA)

<http://www.sprc.org/sites/default/files/resource-program/CorrectionOfficers.pdf>

This short publication provides basic information to help correctional officers in facilities for adults recognize and respond to people who may be suicidal or at high risk. It includes a link to a list of resources on suicide prevention in adult correctional facilities.

Safety Planning Guide: A Quick Guide for Clinicians (USA)

<http://www.sprc.org/sites/sprc.org/files/SafetyPlanningGuide%20Quick%20Guide%20for%20Clinicians.pdf>

A safety plan is a personalized list of coping strategies and sources of support that can be used by people at high risk for suicide in health or behavioral health care settings. This two-page guide for clinicians describes the steps for helping patients create a safety plan. It can be used in conjunction with the Patient Safety Plan Template (http://www.sprc.org/library_resources/items/patient-safety-plan-template), a fill-in-the-blanks guide to developing a safety plan.

SBIRT: Screening, Brief Intervention, and Referral to Treatment (USA)

<http://www.integration.samhsa.gov/clinical-practice/SBIRT>

SBIRT is an evidence-based practice used to identify, reduce, and prevent problematic use, abuse, and dependence on alcohol and illicit drugs. More information can be found in the following article:

Agerwala, S. M., & McCance-Katz, E. F. (2012). Integrating screening, brief intervention and referral to treatment (SBIRT) into clinical practice settings: A brief review. *Journal of Psychoactive Drugs*, 44(4), 307–317. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/02791072.2012.720169?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dpubmed

Sequential Intercept Model (SIM) (USA)

<http://www.prainc.com/wp-content/uploads/2015/10/SIMBrochure.pdf>

SECTION 4: Programs and Resources

SIM provides a conceptual framework for communities to organize strategies for individuals with behavioral health disorders who are involved in the criminal justice system. It identifies “intercept points”—opportunities for linkage to services and prevention of further penetration into the criminal justice system. It can help states and communities assess available resources, determine gaps in services, and plan for change in the community.

Soften the Fck Up (Australia)

<http://softenthefckup.spurprojects.org/>

This media campaign for young Australian men encourages them to get help for their problems. The website features several videos, a “Boot Camp” for men looking for resources, and “The Cafe,” a place where men can help other men.

Suicide Action Montreal (Canada)

<http://suicideactionmontreal.org/index.php?page=home>

In addition to their 24/7 crisis phone line, Suicide Action Montreal provides services for the friends and families of at-risk men that are designed to increase the suicidal man’s social supports and connectedness and to minimize barriers to help seeking. The services include face-to-face information sessions, rapid referral, and telephone support. The following article provides more information about the impact of these services on the friends and family of men and on the men’s risk factors:

Mishara, B. L., House, J., & Lavoie, B. (2005). Comparison of the effects of four suicide prevention programs for family and friends of high-risk suicidal men who do not seek help themselves. *Suicide and Life-Threatening Behavior*, 35(3), 329–342. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/16156493>

Suicide Prevention: A Role for Firearm Dealers and Ranges (USA)

<http://theconnectprogram.org/firearms-safety-coalitions-role-nh-suicide-prevention>

This project from the New Hampshire Firearms Safety Coalition engages gun shop and firing range owners, their employees, and their customers in understanding and taking action to prevent suicides associated with firearms. The website offers materials to support this effort. Similar programs are being implemented in other states, including Colorado, Maryland, Tennessee, Nevada, and Vermont. More information can be found in this article:

Vriniotis, M., Barber, C., Frank, E., Demicco, R., & the N.H. Firearm Safety Coalition. A suicide prevention campaign for firearm dealers in New Hampshire. *Suicide and Life-Threatening Behavior*, 45(2), 157–163. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/sltb.12123/abstract>

TIP 50: Addressing Suicidal Thoughts and Behaviors in Substance Abuse Treatment (USA)

» Manual: <http://store.samhsa.gov/product/TIP-50-Addressing-Suicidal-Thoughts-and-Behaviors-in-Substance-Abuse-Treatment/SMA15-4381>

This manual provides guidelines to help substance abuse treatment counselors work with adults who have suicidal thoughts and behaviors. It covers risk factors and warning signs for suicide, core counselor competencies, clinical vignettes, and information for administrators and clinical supervisors. The accompanying Quick Guides for clinicians and for administrators summarize the information in TIP 50 in easily accessible, “how-to” formats.

» Training DVD (updated version): Available free of charge from Jane Wood at Jane.Wood2@va.gov.

SECTION 4: Programs and Resources

This updated version of the 75-minute Web-based training introduces and models the concepts in the TIP 50 manual, including how to assess for suicidal thoughts and behaviors and develop treatment plans for people who have a substance use disorder. It features demonstration conversations between therapists and clients, including an additional case example. This DVD was developed for treating veterans but can also be used with other populations. An evaluation of the original version of the training can be found here:

Conner, K. R., Wood, J., Pisani, A. R., & Kemp, J. (2013). Evaluation of a suicide prevention training curriculum for substance abuse treatment providers based on Treatment Improvement Protocol Number 50. *Journal of Substance Abuse Treatment*, 44(1), 13–16. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3640862>

TIP 56: Addressing the Specific Behavioral Health Needs of Men (USA)

<http://store.samhsa.gov/product/TIP-56-Addressing-the-Specific-Behavioral-Health-Needs-of-Men/SMA14-4736>

This manual addresses the treatment needs of adult men with substance use disorders. It reviews gender-specific research and practices, such as common patterns of substance use initiation among men, issues specific to counseling men, and different types of treatment. It also addresses the needs of specific populations of men in behavioral health settings. The accompanying Quick Guide summarizes the information in TIP 56 in an easily accessible, “how-to” format for clinicians.

Together for Life (Canada)

For information on this program, contact Normand Martin at Normand.Martin@spvm.qc.ca.

This suicide prevention program targets police officers and involves an awareness campaign; training for all officers, supervisors, and union reps; and a peer police support phone line. The goal is to increase the capacity of the police force to support one another in seeking help and preventing suicide. The program was developed in Montreal and is currently being implemented in New Brunswick. The program led to a significant decrease in suicide rates among police in Montreal. Information on a study of Together for Life is available here:

Mishara, B. L., & Martin, N. (2012). Effect of a comprehensive police suicide prevention program. *Crisis*, 33(3), 162–168. Retrieved from <http://econtent.hogrefe.com/doi/pdf/10.1027/0227-5910/a000125>

Value Options: Strategy in Workplace Suicide Prevention (USA)

http://valueoptions.com/clients/Initiatives/suicide_prev/html%20pages/Strategy.htm

This website includes information and resources that can be used to create a workplace suicide prevention program. The resources include materials for senior management, articles, tip sheets, self-scored quizzes, and a suggested timeline for covering different topics.

Veterans Crisis Line (USA)

<https://www.veteranscrisisline.net/>

This program connects veterans in crisis and their families and friends with responders at the U.S. Department of Veterans Affairs through a confidential toll-free hotline, online chat, and text. With the caller's permission, responders can view computerized patient records of each caller. Suicide prevention coordinators contact callers within 24 hours of the generation of a consult and, when appropriate, assess the caller's risk and needs to provide referrals to appropriate local services. The following article provides more information:

SECTION 4: Programs and Resources

Britton, P. C., Bossearte, R. M., Thompson, C., Kemp, J., & Conner, K. (2013). Influences on call outcomes among veteran callers to the National Veterans Crisis Line. *Suicide and Life-Threatening Behavior*, 43(5), 494–502. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/23611446>

Working Minds (USA)

<http://www.workingminds.org>

Working Minds provides tools, networks, training, social marketing campaigns, and consultation to assist workplaces in implementing a comprehensive approach to suicide prevention, intervention, and postvention. Although this program can be used in any workplace, Working Minds currently focuses on workplaces that primarily employ men, including first responders (law enforcement, firefighters, and EMS) and the construction, oil, and gas industries.

Your Voice Counts Resource Center (USA)

<http://resource-center.yourvoicecounts.org/>

California's "Know the Signs" suicide prevention social marketing campaign teaches people to recognize the warnings signs for suicide, offer help, and reach out to local resources. The following campaign materials, housed at the Your Voice Counts Resource Center, target MIMY in particular:

» Print ads:

<http://resource-center.yourvoicecounts.org/content/suicide-prevention-print-ad-bowling-behind-closed-doors>

<http://resource-center.yourvoicecounts.org/content/suicide-prevention-print-ad-bbq-surrounded-friends>

» Radio spot:

<http://resource-center.yourvoicecounts.org/content/english-radio>

For permission to use these materials outside of California, contact Theresa Ly at Theresa.Ly@calmhsa.org.

Zero Suicide (USA)

<http://zerosuicide.sprc.org/>

The Zero Suicide approach seeks to improve care and outcomes for individuals at risk of suicide in health and behavioral health care systems. It prescribes a specific set of strategies and tools for implementing training, screening, assessment, treatment, care transitions, and data collection.

2016

Suicide Prevention Resource Center

Web: www.sprc.org

E-mail: info@sprc.org

Phone: 877-GET-SPRC (438-7772)