ADOPTING A PUBLIC HEALTH APPROACH TO STUDY SUICIDE & SUICIDE PREVENTION IN THE UNITED STATES

BY

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LIST OF ABBREVIATIONS

APHA – American Public Health Association

ASPT – Apache Suicide Prevention Team

CCBHC – Certified Community Behavioral Health Clinics

CDC – Centers for Disease Control and Prevention

FCC – Federal Communication Commission

FDA – Food & Drug Administration

IMPACT – Improving Mood-Promoting Access to Collaborative Treatment

NAASP – National Action Alliance for Suicide Prevention

NIMH – National Institute of Mental Health

PHEP – Public Health Emergency Preparedness

PTSD – posttraumatic stress disorder

SAMHSA – Substance Abuse and Mental Health Services Administration

WHO – World Health Organization

ABSTRACT

The goal of public health is to promote the health and wellbeing of a population. Public health professionals have an ethical duty to promote overall community health in a way that still respects the rights and liberties of individuals without directly placing them at risk for negative health outcomes. There are many health issues that present as threats to different populations around the world, and the ways through which they are dealt with are often specific to the communities in which they occur. In the United States, suicide poses a significant threat to public health, though it fails to be considered as a public health problem. The goal of this thesis is to recognize that public health professionals have an ethical duty to consider suicide as a public health problem and advocate for the development and implementation of suicide prevention policies and programs that take into account the range of ethical considerations and obligations that are relevant and necessary to achieve overall population health. Additionally, once suicide prevention programs have been implemented, public health officials have a duty to continue to assess such programs for safety and efficacy across the population and make changes where they and the rest of the community see fit. Suicide prevention has typically taken on a very individualistic approach, but given that it is a public health issue, it follows that suicide prevention should take on a collaborative and communal model to promote better health outcomes.

INTRODUCTION

There are many factors that influence the health of a given population – political controversies, natural disasters, economic collapses, disease outbreaks, environmental destruction, and more. Some of these events are catastrophic and out of our control, while others are borne through consequences of our own actions. To balance the choices and circumstances that influence our health, we develop public health systems – crafted arrangements of practices and policies that serve to protect and promote the general health of a society (Childress et al., 2002). From an ethical standpoint, the goal of public health is threefold: to produce benefits, to minimize and prevent harms, and to maximize utility by creating a favorable ratio of benefits to risks and harms (Childress et al., 2002). Public health as a field is in a unique situation of needing to balance the duty to protect and promote the health of the public with the duty to respect individuals' rights and liberties, so meeting all of its goals while balancing these responsibilities requires careful consideration. In most cases, public health systems cannot satisfy the needs and desires for every individual, but it is in a community's best interest to maximize collective health and wellbeing benefits and help as many people as it is able to.

The first step in developing targeted public health programs is identifying and defining an issue as a public health problem. In this thesis, I argue that suicide should be viewed as a public health problem. In Chapter One, I apply principles of public health and public health ethics to identify, define, and understand suicide as a public health problem and introduce the need to develop a public

health response plan to suicide prevention. In Chapter Two, I provide a closer look at evidence-based social and political determinants of health that influence individuals' risks for death by suicide. In Chapter Three, I discuss current suicide prevention measures from a public health standpoint and address the ethical obligation to evaluate prevention measures for efficacy. In Chapter Four, I combine traditional individualistic approaches to suicide prevention with community-based risk prevention tactics to propose a set of public health interventions that target suicide specifically as a public health problem. In my final chapter, Chapter Five, I return to the public health ethics framework to address why public health professionals have an ethical obligation to recognize and address suicide as a public health problem in a way that maximizes the health and wellbeing of the population.

Suicide is the tenth leading cause of death in the United States; it is responsible for the death of over 48,000 Americans and approximately 800,000 people worldwide each year (Centers for Disease Control and Prevention, 2020; Saxena & Krug, 2014). Despite the evidence available on death rates and risk factors for suicide, it is not considered a public health problem, leading to preventative measures that do not fully address the causes and mitigating factors of suicide as well as poorer overall health outcomes. The suicide death rate is increasing each year, yet the trajectory of prevention measures and targeted public health approaches has been relatively stagnant compared to other public health problems such as cardiovascular disease and substance abuse – this needs to change in order to promote the overall health of a given population.

CHAPTER ONE: SURVEILLANCE

UNDERSTANDING SUICIDE AS A PUBLIC HEALTH ISSUE

Public Health

The field of public health has served an important role in the advancement of science and technology throughout human history. Public health is, as defined by renowned bacteriologist C.E.A. Winslow, "the science and art of preventing disease, prolonging life, and promoting health through the organized efforts and informed choices of society, organizations, public and private communities, and individuals" (Centers for Disease Control and Prevention, 2021). A public health system, which is tasked with dealing with public health issues, may include "laws, policies, practices, and activities, that have the primary purpose of protecting and improving the health of the public" (Childress et al., 2002). Overall, the goal of public health – as both a discipline and an institution – is to work continuously to protect and promote the health and welfare of the population it serves.

A good way to understand public health systems is to see how they operate in a crisis. Humans have dealt with crises involving war, famine, civil unrest, and disease from the beginning of their existence. Public health problems generally present a "threat to the well-being of the public (or some segment of it), the environment, or the affected health agency" (Noji, 1996). (For the purpose of this thesis, I will be using the phrases *public health problem* and *public health issue* interchangeably.) Public health emergencies present an immediate threat to "the health and safety of families, communities, and the nation" (Centers for Disease Control and Prevention, 2019b). Both public health emergencies and ongoing

public health problems can and do affect a vast array of communities around the world in a variety of ways. Health problems may have varying degrees of impact on societal health infrastructures, causing resource shortages, affecting psychosocial behaviors of community members, or causing population shifts or displacements (Noji, 1996).

We can further categorize problems that affect public health as either general or specific. Specific public health problems are linked to a particular event such as natural disasters, infectious disease outbreaks, war, famine, and terrorist attacks (Centers for Disease Control and Prevention, 2019b). Specific health problems warrant a quick response from the public because there is a clear and present cause, and the damage is typically large-scale and immediate. General public health issues are ongoing health threats such as substance abuse, heart disease and stroke, food safety, and motor vehicle collisions (Centers for Disease Control and Prevention, 2019a). Compared to specific health problems, general health issues involve a health threat to a particular population and are typically not linked to a specific event (Gérvas & Meneu, 2010). An important consideration when dealing with public health problems is understanding how a society prepares for and responds to that problem, considering that the consequences – of both the disaster itself and the community response to it – may have a lasting impact on the welfare of a society and its members.

Public Health Problem Response

Determinations of what issues classify as public health issues may differ from culture to culture. Public health experts generally state that, in order for an

issue to be classified as a public health problem, there needs to be three criteria met: the problem needs to affect a large number of people, threaten the health of a population long-term, and require the use of large-scale solutions (Galea, 2017). In the United States, the Centers for Disease Control and Prevention (CDC) emphasizes ten health issues that are of public health concern: alcohol and related harms; heart disease and stroke; tobacco use; food safety; HIV; nutrition, physical activity, and obesity; prescription drug overdose; teen pregnancy; motor vehicle accidents and injuries, and health care associated injuries and infections (Centers for Disease Control and Prevention, 2019a). These determinations are based on public health status reports that identify health problems within different states. The data are then compiled into a composite list that highlights the most pressing public health problems on a national scale. Prevention status reports look at immediate and long-term consequences of the problem, estimated deaths, potential life years lost, total costs, and self-reports to classify whether or not something is a public health problem (Centers for Disease Control and Prevention, 2019a).

Take, for example, alcohol and related harms, which the CDC classifies as a public health problem. According to its published prevention status report, excessive drinking is the cause of approximately 88,000 deaths and 2.5 million years of potential life lost (Centers for Disease Control and Prevention, 2019a). It can also result in immediate harms such as motor vehicle accidents and long-term harms such as cancer and heart disease (Centers for Disease Control and Prevention, 2019a). Additionally, excessive alcohol use costs approximately $249 billion each year in the United States as a result of total work loss costs, law enforcement and criminal

justice expenses, and the cost of treating people for problems caused by heavy alcohol use (Centers for Disease Control and Prevention, 2019a). To target the effects of excessive alcohol use, states across the country have introduced alcohol taxes, created public campaigns to address drinking behaviors, and enacted policies and programs that attempt to control such behaviors (Centers for Disease Control and Prevention, 2019a). Excessive alcohol use meets the criteria to be classified as a public health problem; it affects a large number of people, threatens the health of a population long-term, and requires large scale solutions to target it (Galea, 2017).

To identify these concerns and develop specific plans that minimize their respective risks, the CDC recommends the use of a targeted approach to dealing with public health problems. The steps to this approach are surveillance, risk factor identification, intervention evaluation, and implementation (Centers for Disease Control and Prevention, 2021). By using this specific framework to target public health threats, both emergent and non-emergent, health agencies can understand how to effectively target health problems affecting their communities. The first step in addressing an ongoing public health issue is surveillance, which involves trying to identify what the problem actually is. An adequate response at this stage means studying statistics and trends to then understand potential risk factors. The more information disseminated to the community about a particular health issue at this foundational stage, the greater the perception of risk, and the more likely a society is to recognize and respond to the threat. Conversely, the less transparent leaders are about the nature of a health problem and what is being done about it, the less likely community members are to take the threat seriously and work together and respond

to the ongoing problem.

Understanding Suicide

Mental health disorders and suicide occupy a unique category in public health and health care. Mental health disorders, specifically anxiety, mood, and personality disorders, and suicide are often thought of as taboo topics of discussion, even though they affect a large portion of the population. Suicide refers to "a death caused by self-directed injurious behavior with intent to die as a result of the behavior," while a suicide attempt is "a non-fatal, self-directed, potentially injurious behavior with intent to die as a result of the behavior" (National Institute of Mental Health, 2021). According to the CDC, suicide is the tenth leading cause of death in the United States; in 2018 alone, it was responsible for the death of more than 48,000 Americans, or one death every 11 minutes (2020). In the United States, the rate of death by suicide is two and a half times greater than the rate of death by homicide (National Institute of Mental Health, 2021). According to the World Health Organization (WHO), suicide is responsible for the death of approximately 800,000 people around the world each year (Saxena & Krug, 2014). Risk of death by suicide tends to be higher for people who have experienced some form of violence, "including child abuse, bullying, or sexual violence" (Centers for Disease Control and Prevention, 2020).

Suicide and related attempts have a significant impact on the health and wellbeing of an individual and those around them. People who attempt suicide may experience significant physical injuries, including fractured or broken bones,

excess bleeding, and brain injuries, along with serious mental health problems such as depression and anxiety (Centers for Disease Control and Prevention, 2020). Friends and family members of people who either attempt or die by suicide are more likely to report increased feelings of grief, guilt, depression, and anger (Centers for Disease Control and Prevention, 2020). These individuals are also nearly twice as likely to report suicidal ideations compared to individuals who have not been previously exposed to suicide in any way (Cerel et al., 2019). A study published in *Suicide and Life-Threatening Behavior* found that each suicide has the potential to impact up to 135 people – friends, families, and other members of the community – emphasizing the concern that it is a widespread health issue (Cerel et al., 2019).

Suicide is a Public Health Problem

Now that we have recognized the impact suicide has on a community and its members, it is important to recognize that it is a public health problem. Rates of death by suicide have increased by 30% within the last decade, often attributed to a lack of evidence to support implementing community-wide preventative measures (Ahmedani & Vannoy, 2014). A contributing factor to the low risk perception of suicide as a public health issue relates to how suicide is handled, especially in the United States. Discussions surrounding mental health and wellbeing and suicide are often perceived as off-limit topics of conversation. When contextualized with the great deal of societal stigma surrounding not just the discussion of suicide and mental health but also around those who attempt to seek help, perceptions of social support systems decrease, making prevention and designing adequate response plans

difficult.

Despite evidence that suicide poses a threat to individuals and communities alike, it often fails to be accounted for as an actual public health problem. If we refer back to our definition of a public health issue as a "threat to the well-being of the public (or some segment of it), the environment, or the affected health agency" (Noji, 1996), we can argue that suicide – including its risk factors and consequences – is a public health problem and should be classified as such. Suicide meets our three previous criteria for public health problem classification. It affects a large number of people – approximately 48,000 deaths in the United States annually, but that figure is arguably much larger if we consider the friends and family members impacted by a single suicide (Centers for Disease Control and Prevention, 2020; Cerel et al., 2019). Suicide has long-term health consequences, not just considering an increase in overall deaths within a population but also the mental health consequences that may result from an unsuccessful suicide attempt or proximity to someone who has committed suicide (Centers for Disease Control and Prevention, 2020). Finally, suicide requires large-scale solutions. This stage is ongoing; there are a number of suicide prevention measures currently in place, but as a whole, they focus on modifying individual behaviors, often not recognizing that there are numerous different risk factors, cultural situations, and systemic policies and practices in place that make enacting specific behavioral changes and choices difficult. If we move to recognize suicide as a public health problem, then it stands that there is a need to adopt preventative measures that adequately address suicide as a public health problem.

Public Health Ethics

Understanding *why* public health as a field should care about suicide and suicide prevention is an essential step to developing proper prevention plans. By framing this initial question in the scope of ethical duties and obligations, we can better understand why public health professionals should address suicide as a public health problem and apply the tools of public health to develop safe and effective preventative measures. As previously mentioned, the current state of suicide prevention revolves around developing prevention measures that focus more on modifying individual behaviors and encouraging individuals to make more positive and proactive choices. If we continue to use an individualistic approach to suicide prevention measures, then we may decide that Beauchamp and Childress' principlist approach is the best ethical justification. Beauchamp and Childress detail four main ethical principles that function as a framework for understanding and identifying moral problems in biomedicine: respect for autonomy, beneficence, nonmaleficence, and justice. Respect for autonomy is the moral principle that sets a duty to respect and support an individual's autonomous decisions (Beauchamp & Childress, 2001). Beneficence is the moral principle that encompasses a duty to increase benefits and minimize harm while maximizing the ratio of benefits against risks, while nonmaleficence specifically deals with avoiding harms and their respective causes (Beauchamp & Childress, 2001). The principle of justice deals with a duty to fairly distribute benefits and risks (Beauchamp & Childress, 2001). Justice encompasses both distributive justice, or the "equitable distribution of resources for health," and procedural justice, or

having “fair procedures in place to resolve disagreements or set priorities among competing demands” (Pasha et al., 2019).

While Beauchamp and Childress’ principlist approach serves as a foundation for much of modern bioethics, it is used primarily to provide moral guidance in health care delivery settings to protect and promote the health of individual patients. However, if we move forward with classifying suicide as a public health problem, it stands that a relevant code of public health ethics may be better suited to addressing suicide and suicide prevention through a public health lens. Public health is in a distinctive situation because its goal is to maximize the health and wellbeing of an entire population, not just specific individuals (Pasha et al., 2019). To address the disparities in promoting the health of an entire population rather than focusing specifically on an individual or small group, the American Public Health Association (APHA) developed a code of ethics specifically for the practice of public health (Thomas et al., 2002). The APHA “Principles of the Ethical Practice of Public Health” are as follows:

1. “Public health should address principally the fundamental causes of disease and requirements for health, aiming to prevent adverse health outcomes.
2. Public health should achieve community health in a way that respects the rights of individuals in the community.
3. Public health policies, programs, and priorities should be developed and evaluated through processes that ensure an opportunity for input from community members.
4. Public health should advocate for, or work for the empowerment of, disenfranchised community members, ensuring that the basic resources and conditions necessary for health are accessible to all people in the community.
5. Public health should seek the information needed to implement effective policies and programs that protect and promote health.

6. Public health institutions should provide communities with the information they have that is needed for decisions on policies or programs and should obtain the community's consent for their implementation.
7. Public health institutions should act in a timely manner on the information they have within the resources and the mandate given to them by the public.
8. Public health programs and policies should incorporate a variety of approaches that anticipate and respect diverse values, beliefs, and cultures in the community.
9. Public health programs and policies should be implemented in a manner that most enhances the physical and social environment.
10. Public health institutions should protect the confidentiality of information that can bring harm to an individual or community if made public. Exceptions must be justified on the basis of the high likelihood of significant harm to the individual or others.
11. Public health institutions should ensure the professional competence of their employees.
12. Public health institutions and their employees should engage in collaborations and affiliations in ways that build the public's trust and the institution's effectiveness" (Thomas et al., 2002).

The APHA code of ethics can be used as the foundational approach for understanding and responding to suicide as a public health issue. The first principle itself provides a source of obligation for public health agents to recognize suicide as a public health issue and develop a plan of action for treating it as one in order to "prevent adverse health outcomes" (Thomas et al., 2002). Classifying suicide as a public health problem also involves identifying social and political determinants of health and wellbeing that may increase an individual's risk for death by suicide. Further, discussions of how to respond to suicide as a public health problem can become more challenging because of the public health duty to improve and promote the health of the population without significantly infringing upon the rights and liberties of individuals and groups within that

population. While the goal of public health is to protect and foster community health, it still needs to respect the variety of values and beliefs that may exist within that community. Once public health leaders have recognized suicide as a public health problem, they can move forward with assessing existing suicide prevention measures and policies to determine how well they promote health and safety while minimizing risk factors for the greatest number of people in a way that still respects their individual freedoms.

Public health as a field continuously deals with having to balance promoting population-wide health with respecting individual liberties, leading to the development of public health ethics as a subset of bioethics. The CDC states that public health ethics is a specific field that is used "to clarify, prioritize and justify possible courses of public health action based on ethical principles, values and beliefs of stakeholders, and scientific and other information" (2019c). According to Childress et al., there are several ethical and moral considerations important to identifying and understanding issues in public health: producing benefits, preventing and removing harms, maximizing utility, maintaining and promoting both distributive and procedural justice, respecting autonomy, protecting privacy, keeping promises, disclosing information transparently, and building trust (2002). Consider these moral determinations within the scope of public health and its role in "preventing disease, prolonging life, and promoting health through the organized efforts and informed choices" (Centers for Disease Control and Prevention, 2021). Given that we have identified suicide as a public health problem, it follows that we should use principles of public health ethics to

outline the obligation of public health professionals to move forward with addressing it as one as well as how they should go about doing so in order to meet their goals to promote the health and wellbeing of the public.

CHAPTER TWO: RISK FACTOR IDENTIFICATION

IDENTIFYING, DEFINING, AND UNDERSTANDING SUICIDE RISK FACTORS

Once something has been defined as a public health problem, the next step is to identify risk factors that increase the prevalence of the problem within the community. Adequate and appropriate response in this stage depends on a number of factors, including the use of statistics and research and clear and transparent communication on the part of public health and government officials to understand how and why a particular problem is presenting as a threat to public health (AbouZahr et al., 2007). Recall the fifth principle of the APHA Code of Ethics: "Public health should seek the information needed to implement effective policies and programs that protect and promote health" (Thomas et al., 2002). This principle suggest that public health officials have a duty to gather evidence and data through observation and research to identify specific risk factors and then move forward with developing and implementing safe and effective programs and policies that promote public health.

Identifying Suicide Risk Factors

Suicide affects people of all backgrounds, though rates vary among groups. Age, gender, sexual orientation, race, and previous history of mental health disorders all account for variability in suicide rates. Once we identify factors that place people at a greater risk for death by suicide, we can tailor response plans to better handle it as a public health issue.

Age. Globally, suicide is the second leading cause of death for people

ranging in ages 15-24 and the fourth leading cause of death for people aged 18-65 (Suicide Awareness Voices of Education, n.d.). Among people aged 18-29, suicidal thoughts, ideations, and attempts are higher compared to the rate among people over the age of 30 (Suicide Awareness Voices of Education, n.d.).

Gender. In the United States, males represent 79% of suicide deaths. Males also die by suicide at four times the rate of females, even though females are not only more likely to experience and report having suicidal thoughts and ideations, but also more likely to actually attempt suicide over males (Suicide Awareness Voices of Education, n.d.).

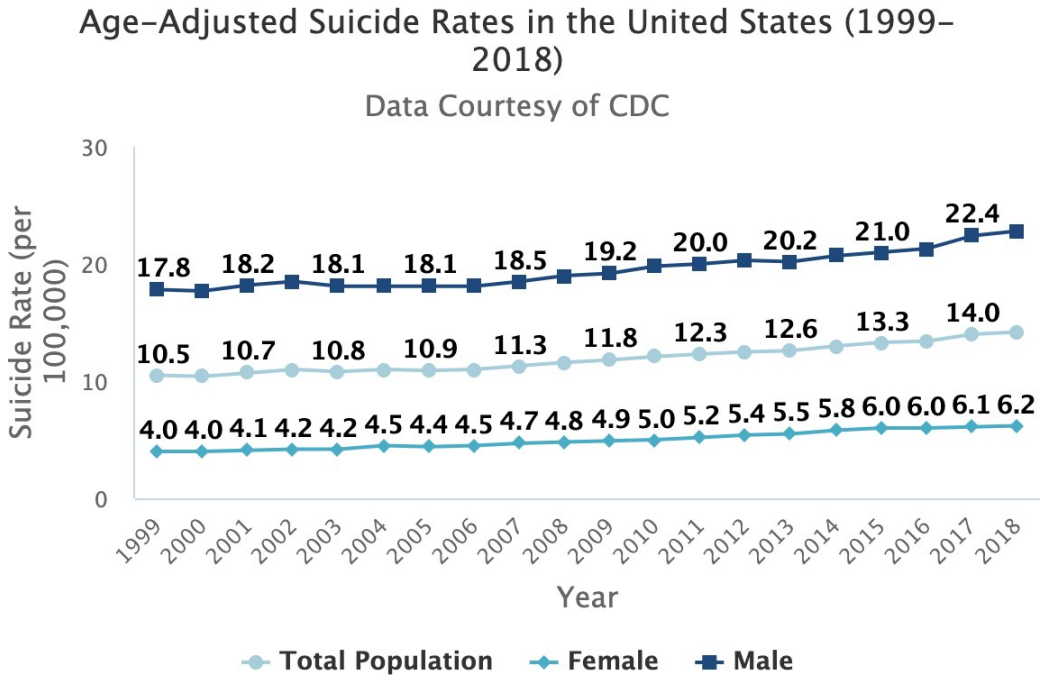

Figure 1. *Age-Adjusted Suicide Rates in the United States, 1999-2018* (National Institute of Mental Health, 2021).

Ethnicity. Suicide rates are higher among American Indian, Alaskan Native, and non-Hispanic White populations and are often influenced by military status and occupation. (Centers for Disease Control and Prevention, 2020). In 2009, the suicide rate among American Indian and Alaskan Natives was 15.4 deaths per 100,000 people; in 2018, the rate was 22.1 deaths per 100,000 people (Suicide Prevention Resource Center, n.d.). Additionally, American Indian and Alaskan Native adults have higher rates of reporting suicidal thoughts within the past year (Suicide Prevention Resource Center, n.d.). American Indian and Alaskan Native groups, along with Native Hawaiian, Pacific Islander, and Asian youths, also report higher rates of suicidal thoughts and plans within the past year, while Black adolescents and young adults have a higher prevalence of suicide attempts within the past year and attempts that required specific medical treatment (Suicide Prevention Resource Center, n.d.).

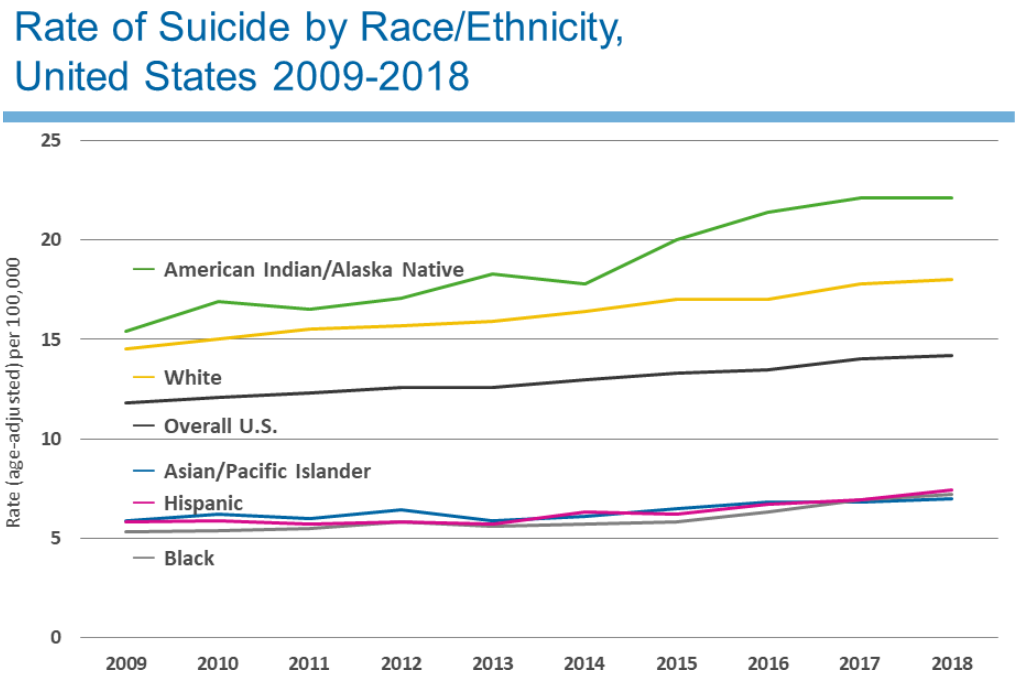

Figure 2. *Rate of Suicide by Race/Ethnicity in the United States, 2009-2018* (Suicide Prevention Resource Center, n.d.).

Sexual Orientation & Gender Identity. According to the CDC, sexual minority youth "experience increased suicidal ideation and behavior compared to their non-sexual minority peers" (Centers for Disease Control and Prevention, 2020). Latinx, Native American, Asian American, and Black youths who identify as LGBTQ+ are even more likely to attempt suicide at some point (Centers for Disease Control and Prevention, 2020). This disparity is correlated with feelings of lack of social support systems. LGBTQ+ youths who are rejected by their families and members of their communities are eight times more likely to attempt suicide compared to adolescents and young adults who feel accepted (Centers for Disease Control and Prevention, 2020). LGBTQ+ people who experience some form of harassment or abuse are also more likely to engage in self-harm behaviors (Centers for Disease Control and Prevention, 2020). Trans adults in particular report higher rates of suicide attempts, especially after experiencing physical assault (Centers for Disease Control and Prevention, 2020).

Mental Health Disorders. People who experience either psychosis or some form of a chronic mood disorder are ten to twenty times more likely to attempt and commit suicide compared to someone without a mental health disorder. Even though people with mental health disorders comprise only 5% of the population, they account for 47-74% of the at-risk population for death by suicide (Swanson et al., 2015).

Access to Lethal Means. Open access to lethal means of self-harm such as firearms and medications lethal at very high doses significantly increases an individual's risk for death by suicide. In 2013, firearms accounted for 51% of

completed suicides (Swanson et al., 2015). A significant number of suicide attempts occur during acute emotional crises, so it is important to consider both availability and ease of access to lethal means in the moment and how that can influence suicide risk (Suicide Prevention Resource Center, n.d.).

Feelings of ostracization, bullying, and a lack of a perceived support system can also increase risk of suicidal ideations and attempts. Increased risk of suicidal ideations and behaviors are also linked to: instances of mental health disorders (especially mood and personality disorders), feelings of hopelessness, aggressive tendencies, previous suicide attempts, history of trauma or abuse, recent personal or economic loss, instances of chronic illness, lack of health care, certain cultural or religious beliefs that view suicide as honorable, and proximity – not just physical proximity but also personal – to someone who has committed suicide (Suicide Awareness Voices of Education, n.d.). Any combination of these factors can increase an individual's risk for suicide, so targeting them would be an ideal place to start when thinking about prevention.

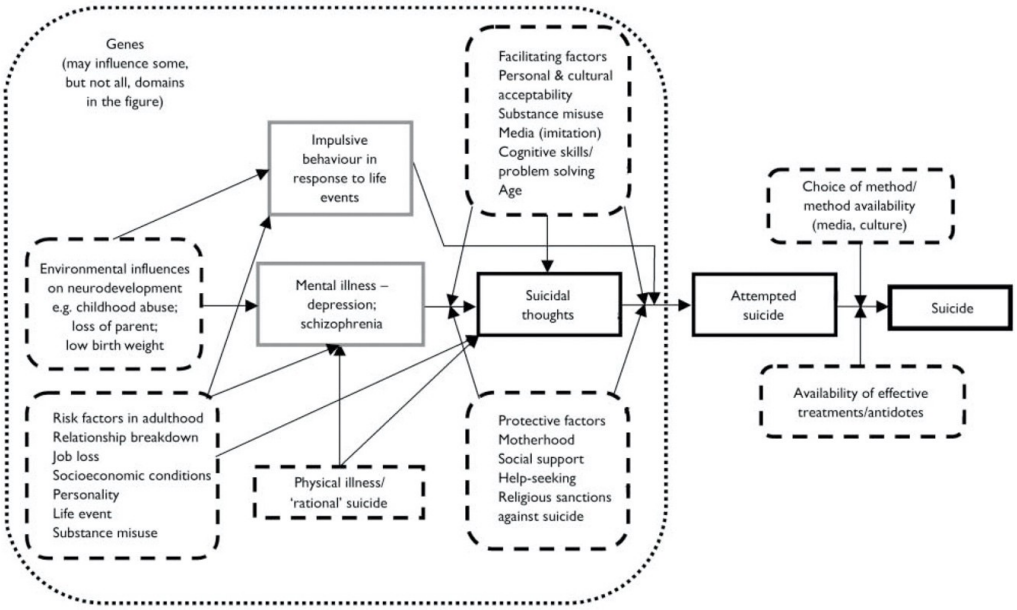

Figure 3. Influences and risk-factors for suicide (Gunnell & Lewis, 2005).

Perceptions of Suicide

Only recently has the world begun recognizing mental health as a significant component of health and wellbeing, though open discussions about mental health are still not seen as the norm. Suicide – and by extension, suicide prevention – is not discussed openly for a variety of reasons, including – but not limited to – the stigma and ignorance surrounding suicide, the lack of research surrounding suicidal patients due to them being deemed high risk, and the criminal connotations surrounding the act of committing suicide (Olson, 2013; National Institute of Mental Health, 2020). According to Robert Olson of the Centre for Suicide Prevention, even using the phrase "to commit suicide" places suicide on the same level as a form of homicide, preserving and perpetuating "the implied criminality of the act" (2013). As of 2016, suicide was still considered illegal in 25 countries, and in an additional 20 countries following Islamic or Sharia law, a suicide attempt was punishable by a jail sentence (Mishara & Weisstub, 2016). Even in countries where suicide is decriminalized, individuals may face discrimination for having attempted suicide or if they are related to someone who has attempted or died by suicide (Mishara & Weisstub, 2016).

Suicide is heavily stigmatized in the United States, though stigmatization is not uncommon in many countries across the world. This stigmatization can affect whether or not people choose to seek help in a time of emotional crisis. People who attempt suicide may be deemed "attention-seeking," and their pleas for help may not be taken seriously (Olson, 2013). If individuals feel as though they cannot reach out for help, either due to a lack of available resources or to feelings of

shame and discomfort associated with help-seeking behaviors, there may be increased instances of suicide and related attempts. Stigma also surrounds those who actually die by suicide. On one hand, people who die by suicide may be referred to as cowardly or selfish (Olson, 2013). On the other hand, people who die by suicide may be the subjects of public displays of grief and sorrow. These displays of grief may manifest as memorial posts on social media, usually containing phrases such as "I wish I could have done something" or "I wish I would have noticed the signs." Conflicting expressions of support and stigmatization around those who do complete a suicide attempt make it challenging for people presently experiencing suicidal thoughts or ideations to know not only to whom or where they should turn for help, but also whether or not they should seek help in the first place.

Suicide does not receive the same public health resources that many other health issues do, given that it is not often recognized as a public health problem. Across the country, death rates for cardiovascular disease, stroke, and certain types of cancers have been decreasing each year, while the suicide rate has been steadily increasing (Swanson et al., 2015). Swanson et al. argue that a contributing factor to the decline in death rate is due to research and technology evolving to help researchers gain a better understanding of the nature and effective treatments of such diseases, but it is also largely in part due to the "use of potent public health approaches to modify the behaviors and environments that increase risk of these diseases" (2015). By disseminating clear public health information and improving access to health care resources for ailments such as

cardiovascular disease and substance abuse, health care professionals and researchers have been able to lower death rates in respect to those particular public health problems.

An additional obstacle in developing safe and effective prevention measures that deal with suicide from a public health standpoint is a lack of funding. According to the National Institute of Mental Health (NIMH), only 1.4% of its research budget is spent on suicide prevention studies, while 31% of its budget is allocated for neuroscience and behavioral science studies (Swanson et al., 2015). It is possible that these behavioral science studies look at behaviors that influence suicide risk, but research on suicide prevention needs to look at suicide itself to understand its complexities in order to develop more effective prevention measures (National Institute of Mental Health, 2020). If death rates for other public health issues decrease with the implementation of various public health measures and increased access to health care resources, it follows that, with proper research into the development and implementation of public health measures for suicide prevention, the rate of deaths by suicide and suicide attempts are also likely to decrease. Many suicides and suicide attempts are, in fact, preventable. In order to prevent them, we need to work to develop public health systems and services that provide help to people in a safe, timely, and effective manner.

Research on Suicide & Suicide Prevention

From a research standpoint, it is difficult to determine what suicide prevention measures are effective and which ones are not because of a lack of specific research. There is no one suicide prevention method that has been studied

and proven effective, so even approaching discussions of how to help those who have expressed suicidal ideations is difficult. Measures of effectiveness differ depending on the context, whether effective means stopping a suicide attempt in the moment or minimizing the impact of social or political determinants of health that may put someone at a greater risk for death by suicide. Patients experiencing suicidal ideations or presenting with other suicide risk factors are often deemed too high risk to participate in any sort of study, both for pharmacological and non-pharmacological interventions, because the risks of including them seemingly outweigh the potential benefits of having them participate (Pasha et al., 2019).

There is little to no research involving suicidal patients, including research not just limited to suicide prevention but other treatments for depression, anxiety, or other comorbidities often seen in patients who identify as suicidal or express suicidal ideations at any point in time. Suicidal patients have long been excluded from clinical research trials due to them being viewed as high risk, conflicting with research goals to protect human subjects and reduce burdens for investigators (National Institute of Mental Health, 2020). The NIMH, along with the National Action Alliance for Suicide Prevention (NAASP), have identified gaps in suicide and suicide prevention research, including limitations in understanding "the etiology and course of suicidal ideation and behavior, the need for new interventions specifically targeting suicide, better matching of existing treatments to individual needs, and implementation of effective suicide prevention practices" (National Institute of Mental Health, 2020). The NIMH and the NAASP state that research on suicidal patients can be done successfully with the proper precautions,

including creating a thorough experimental design for investigators to follow, outlining inclusion criteria in the informed consent process, and developing monitoring and reporting protocols to respond to suicidal crises and adverse events during the trial (National Institute of Mental Health, 2020). Without evidence to support different suicide prevention measures, however, it is difficult to determine exactly which prevention measures are effective or not.

Besides the lack of research on developing new methods of suicide prevention, the preventative methods that do exist are not regularly reevaluated or retested. Public health duty and accountability – as set by the APHA Code of Ethics – recognizes the ethical obligation to assess existing public health interventions to determine whether or not they are meeting their goals to promote the health and wellbeing of the public (Thomas et al., 2002), emphasizing the need to evaluate existing suicide prevention interventions. Further research must consider barriers to subject enrollment and research as well as what studies should be conducted and how they should be carried out in a way that protects the interests of both researchers and participants deemed to be high risk.

CHAPTER THREE: INTERVENTION EVALUATION

STUDYING SUICIDE PREVENTION IN THE UNITED STATES

Now that we have defined suicide as a public health problem and identified risk factors that contribute to increased suicide and suicide attempt rates, we move to assessing existing interventions. Intervention evaluation is a detailed process that involves looking at existing prevention measures to understand what works – and conversely, what does not work – to make adjustments and improvements accordingly. Understanding what prevention measures need reworking allows public health professionals and health care providers to make necessary changes to make sure that ineffective prevention measures do not waste resources or contribute to adverse health outcomes.

Existing Suicide Prevention Measures

There are several policies and programs in place to provide aid for anyone experiencing suicidal thoughts and ideations. Most preventative measures are targeted towards individuals, usually in the form of crisis hotlines or counseling, to encourage them to change their behaviors or make specific choices that are meant to promote better health outcomes.

Open discussions. One of the most widely spoken about prevention methods is simply encouraging an open discussion with friends and family members. People are encouraged to check in on their friends or family members who may be displaying suicidal behaviors, including extreme mood swings, irregular sleep patterns, depression, feelings of being burdensome, or speaking

about causing harm to oneself (Suicide Awareness Voices of Education, n.d.). The hope in encouraging open discussions about feelings and experiences with mental health crises is that such conversations will encourage the destigmatization of the subject and allow for further discussions about suicidal behaviors but also about mental health and wellbeing in general. Open discussions, however, require a cultural shift in attitudes that do not view such topics as taboo or inappropriate, so while they have the potential to make a significant impact, they are not as timely as other approaches.

Open discussions are also meant to help raise public awareness. September is National Suicide Prevention Month, during which mental health advocates, community members and organizations, and survivors and allies promote awareness for suicide prevention (*Promote National Suicide Prevention Month*, n.d.). September 10th is World Suicide Prevention Day, which is meant to highlight the struggles that people impacted by suicide may face and encourage communities to direct awareness and treatment resources to the people who need it the most (*Promote National Suicide Prevention Month*, n.d.). National Suicide Prevention Month and World Suicide Prevention Day are meant to encourage open conversation and sharing of resources in hopes that those patterns of behavior will extend beyond the designated time frame. In reality, however, these days end up serving as the exclusive days during which suicide and suicide prevention are discussed, leading to a downturn of resource sharing and general awareness beyond the month of September.

Counseling clinics. Counseling offers a chance for individuals to seek

professional help if they experience any of the following: threatening or attempting to hurt or kill oneself, talking or writing about their death, withdrawal from significant relationships and social situations, or expressions of giving up or of a lack of purpose (*Therapy for Suicide*, 2019). The development of widespread counseling services and clinics through the efforts of organizations such as the Substance Abuse and Mental Health Services Administration (SAMHSA) have allowed counseling to become more accessible to those who need it to promote health and wellbeing. Certified Community Behavioral Health Clinics (CCBHC), established by the Division of Medical Assistance and the Division of Mental Health, Developmental Disabilities and Substance Abuse Services, allow Medicaid beneficiaries to seek professional help with behavioral health (North Carolina Department of Health and Human Services, n.d.), further increasing accessibility to such services.

While crisis hotlines serve as direct help during an emotional crisis, counseling services offer individuals the chance to seek help from an earlier stage, most often if they suffer from pre-existing psychological disorders. These conditions may include schizophrenia, posttraumatic stress disorder (PTSD), depression, anxiety, mood and panic disorders, eating disorders, and bipolar disorder (*Therapy for Suicide*, 2019). Professional counseling is appropriate for individuals with existing psychological conditions and is meant to treat the conditions that may contribute to an increased risk of death by suicide (*Therapy for Suicide*, 2019). Counseling and therapy not only aim to treat such conditions, but also equip individuals with tactics and tools they may find useful in the time

of emotional crisis. The development of CCBHC programs have allowed public health professionals to develop programs that promote quality and access to mental health care for a larger population (North Carolina Department of Health and Human Services, n.d.).

Crisis Text Line. The Crisis Text Line – known as HOME to 741741 – offers individuals a chance to connect with trained crisis counselors via text message for a variety of emotional issues in addition to suicidal ideations, including anxiety, depression, abuse, as well as issues relevant to the current time period such as election stress and anxiety and the coronavirus (*Crisis Text Line*, n.d.). Unlike the National Suicide Prevention Lifeline, the Crisis Text Line – launched in 2013 – is available in the United States, Canada, United Kingdom, and Ireland (*Crisis Text Line*, n.d.). This text line is available to individuals 24 hours a day, 7 days a week and is meant to provide support to individuals at any time, especially in the middle of an emotional crisis. Texting hotlines do offer a benefit that call hotlines do not; they allow for individual discretion. Given the stigmatization of suicide and stereotypes surrounding those who attempt to seek help, people may not feel inclined to reach out and practice help-seeking behaviors if they are afraid of being heard or judged by others.

National Suicide Prevention Lifeline. The National Suicide Prevention Lifeline, 1-800-273-TALK (8255), is a toll-free "national network of local crisis centers" that offers emotional support during crisis (*National Suicide Prevention Lifeline*, n.d.). This well-known resource, launched in 2005 through the U.S. SAMHSA and Vibrant Emotional Health organizations, provides free and

confidential support to individuals 24 hours a day, 7 days a week (*National Suicide Prevention Lifeline*, n.d.). The hotline offers support for individuals facing a variety of emotional issues, and it reaches every corner of the United States. In 2018, the Lifeline answered over 22 million calls, with approximately one in every four individuals being in suicidal distress (*Impact Sheet: The National Suicide Prevention Lifeline, 2019*). A central crisis hotline is beneficial in times of need; in particular, the Lifeline reduced burdens on hospitals, law enforcement, and emergency services, all of which may be called upon in times of an emotional health crisis (*Impact Sheet: The National Suicide Prevention Lifeline, 2019*). Having a national hotline has the potential to standardize care and intervention practices that individuals receive, no matter where in the country they may be located, since all crisis hotline counselors must go through the same training (*Impact Sheet: The National Suicide Prevention Lifeline, 2019*).

For the benefits that a crisis or suicide hotline offers, there are still a number of shortcomings which impact accessibility and effectiveness of the resource. First, individuals choosing to call the National Suicide Prevention Lifeline find that the number itself is like any other toll-free number. In a time of deep emotional crisis, it is not likely something people would remember readily or may think to look up. Fortunately, the Federal Communications Commission (FCC), recognizing this obstacle in accessibility, has designated the new three-digit number 988 to be established in July 2022 as the new national mental health crisis hotline (*National Suicide Prevention Lifeline*, n.d.). By changing the number to something shorter, akin to how people easily remember 911, people are more

likely to remember and call the hotline when they need help. Currently, the hotline offers counseling over the phone or live chat online, though no text option exists, which is why people may turn to the Crisis Text Line if texting is a more appropriate option in a given circumstance.

Even once people are able to access the hotline, experiences with the National Suicide Prevention Lifeline vary greatly. Some individuals express praise and gratitude for their experience with the hotline and its life-saving crisis assistance, while other individuals express feelings of frustration or disappointment, stating that they were on hold for quite some time or that the hotline operators were not properly trained to handle acute crises (Laderer, 2019). A common frustration many individuals expressed was that of "parroting" or reflective listening – the act of repeating whatever was just stated – that many operators use (Laderer, 2019). While reflective listening is meant to help the individual caller feel seen and heard, many individuals have expressed discontent with the practice of parroting, often resulting in feeling a general lack of actual support and guidance (Laderer, 2019). Other callers expressed concern regarding the responses they received while calling the hotline. One caller mentioned hanging up after being told that going to go get her hair and nails done would cure her problem, while another caller received a link to a support group for individuals dealing with the same crisis, only to find that the link was broken after he had already hung up (Laderer, 2019). While crisis counselors are meant to provide a standard level of crisis assistance that they receive in training, hotlines and crisis text lines do not classify as medical treatment. Additionally, crisis counselors are

volunteers; they are not paid licensed or certified medical professionals (*National Suicide Prevention Lifeline*, n.d.), so establishing a proper standard of care is difficult. A lack of standardization means that experiences with the hotlines and quality of assistance vary greatly from caller to caller.

Another major contributor to the variability of experiences when calling the hotline is that, unfortunately, hotlines are typically overwhelmed and understaffed, often resulting in increased wait times and shorter time spent in active crisis assistance (*Impact Sheet: The National Suicide Prevention Lifeline, 2019*). Crisis counselors are not required to have the same credentials as licensed mental health care professionals (Noji, 1996). While this does not discount the work that crisis counselors do, there may be certain situations in which both education and experience in crisis assistance are more beneficial for both parties. Licensed or certified mental health professionals may better be able to integrate alternative explanations or professional advice outside of the realm of their crisis assistance training (Noji, 1996). On the other side of the phone, individual callers may experience more comfort if they know that the person helping them through their time of need is a trained and licensed mental health professional. However, requiring a license to practice as a crisis counselor for the hotline may introduce potentially unnecessary obstacles. Licensing practices are determined by individual states, which creates difficulty when trying to standardize a network of crisis assistance centers like the National Suicide Prevention Lifeline. Since licensure can be a lengthy and expensive process, requiring it for crisis assistance could incidentally decrease the number of available counselors, which does not

help to reduce burdens on an already understaffed crisis hotline.

If licensing crisis counselors is not a feasible option, professional certification – in the way that people become First Aid or CPR certified – may be a more appropriate option. Mental Health First Aid, which trains people to identify and respond to behaviors associated with mental health crises and disorders in both adult and youth populations, offers professional certification in conjunction with crisis assistance training to improve accessibility of certification and training programs (*Become an Instructor*, 2013; *Certification Process*, 2013). Like licensing programs, certification programs require crisis assistance counselors to go through retraining after a certain period of time (*Certification Process*, 2013). Retraining and recertification programs allow for counselors to not only brush up on their crisis assistance training, but also learn about new programs and methods that may have been developed and implemented since they were initially certified. Recertification processes could be incredibly beneficial from both a crisis assistance and a public health perspective. The APHA Code of Ethics states: "public health institutions should ensure the professional competence of their employees" (Thomas et al., 2002). The ethical obligation that public health systems have to ensure professional competence supports the need to improve the skills of crisis counselors. A certification program for people who want to become crisis counselors, along with periodic re-certification requirements, would support the public health obligation to deliver safe and effective evidence-based practices to individuals who need it.

To fulfill the duty to provide competent professionals, public health

systems will also need to address issues of cost and accessibility surrounding training programs. To become certified through Mental Health First Aid, individuals must first complete an application; only once their application has been accepted may they proceed with training registration (*Certification Process*, 2013). Registration to complete the course includes a tuition payment, which ranges from $1,800 to $3,000 for a three or five-day course that takes place during the week, depending on if an individual is already certified or not and whether or not they are National Council members (*Certification Process*, 2013). Requiring certification for crisis counselors would need to take into consideration that not everyone can afford the training module or that people may not be able to take time off work for a week to become certified. Recall that crisis counseling is a volunteer position (*National Suicide Prevention Lifeline*, n.d.), so counselors may be more inclined to complete retraining courses if they are compensated in some way.

Developing Public Health Response Plans

One final step in intervention evaluation is understanding how well prepared a society is to deal with a health problem. Many institutions maintain a specific public health emergency preparedness (PHEP) status, or the ability for public health care systems, surrounding communities, and their individuals to respond to and recover from health emergencies (Nelson et al., 2007). While suicide is not an immediate public health emergency, we can use the same reasoning for developing PHEP plans to determine an appropriate course of action moving forward to actually target suicide as a public health problem, the

way we would with other public health issues such as heart disease or substance abuse.

One crucial step in addressing suicide as a public health problem and developing proportionate public health response plans is advocating for community engagement. Effective public health response plans are not simply the responsibility of government agencies and public health leaders; they require active participation from the community, including its residents, businesses, research and health care, and other organizations (Nelson et al., 2007). The third principle of the APHA Code of Ethics denotes a duty to develop public health policies and programs that "ensure an opportunity for input from community members" (Thomas et al., 2002). Not just requiring but encouraging engagement from members of the community is necessary to allow public health systems to do their duties to promote the health of populations. It is difficult to protect and improve population health if public health response plans do not consider whether or not they actually help the communities for which they are created. Advocating for community engagement not only allows people to better understand the problems that face their community but also works to preserve the values and beliefs that people within that community may hold. Finally, encouraging community engagement with public health response plans allows public health professionals to check that their interventions do not significantly infringe upon the individual liberties of community members or promote community health and wellbeing at the expense of a specific group of people.

CHAPTER FOUR: IMPLEMENTATION OF PUBLIC HEALTH MEASURES

RECOMMENDATIONS FOR IMPROVING SUICIDE PREVENTION MEASURES

The fourth step to dealing with health problems through a public health approach is the actual implementation of recommendations. This stage requires us to take what we have learned through the previous stages – surveillance, risk factor identification, and intervention evaluation – to come up with a targeted approach to dealing with suicide as a public health issue. While this is officially the final stage in the step-by-step approach to address many public health problems, it should be an ongoing process that allows room for change as research, practical experience, and community engagement call for updates to existing programs and policies.

Guide to Adapting Existing Interventions

While individual approaches to suicide prevention can prove to be very helpful, they tend overlook structural situations that may place people at a greater risk for suicidal thoughts or actions. Discrimination based on race, ethnicity, sexual orientation, and age, as well as poverty and feeling a general lack of social support may greater increase someone's risk for suicide (Centers for Disease Control and Prevention, 2020). Institutional approaches to suicide prevention – as opposed to individual-specific preventative measures – fall in line with goals of public health in promoting the health and welfare of a larger community; supporting the health of the community requires working together as one. Large-

scale interventions include targeting and strengthening economic support, community connectedness, and coping abilities and problem-solving skills, as well as creating environments that identify and support people at risk (Centers for Disease Control and Prevention, 2020). The goal in community-based interventions is to prevent suicide in the first place by increasing protective factors, such as promoting restrictive access to lethal means as a method of suicide and decreasing suicide risk factors including destigmatizing suicide and promoting emotional crisis coping tactics (Centers for Disease Control and Prevention, 2020). Ultimately promoting a public health approach that combines individualistic prevention measures with institutional interventions to understand suicide and suicide prevention would allow public health professionals to be mindful of individual rights and liberties while recognizing systemic disparities that promote unequal access to freedom of choice.

While a combination of individualized crisis assistance and community-based interventions is likely the best chance at reducing suicide rates within a population, public health professionals must navigate tensions that may arise from this approach. The APHA Code of Ethics states that public health institutions "should achieve community health in a way that respects the rights of individuals in the community" (Thomas et al., 2002). Public health policies have to consider how community interventions can impact individuals, despite primary goals to promote *population* health. Individuals are and should be afforded the right to have a role in the development and implementation of policies that will affect them, though ultimately, public health systems have to recognize that

interdependence is necessary to protect the health and wellbeing of the entire community (Thomas et al., 2002). Cooperation and interdependence are necessary moving forward to develop safe and effective public health response plans, but not to the degree at which they promote positive health outcomes for the community at the expense of the health and wellbeing of specific individuals or groups.

Recommendations for Suicide Prevention

The current state of suicide prevention falls within two major categories: addressing specific factors that may put specific individuals at a greater risk for death by suicide and implementing preventative measures to be used during or right after an emotional crisis. Specific risk factors that are of interest include pre-existing psychiatric conditions (diagnosed or undiagnosed), a penchant for engaging in impulsive behaviors, cultural attitudes and behaviors towards suicide and those who attempt suicide, both access and willingness to accept resources and treatments before and after a self-harm attempt, and ease of access to lethal methods of suicide (Gunnell & Lewis, 2005). Many of the current preventative measures for suicide represent individual-specific approaches. While individualized crisis assistance has proven very useful in most cases, they fail to address societal, political, and environmental factors that may increase someone's risk for death by suicide. Clear and effective preventative measures will need to take the form of updated policies and education that work to eliminate disparities and increase access to care to provide better crisis assistance to those who need it.

Increase protective factors. Protective factors are "conditions or attributes

in individuals, families, communities, or the larger society that mitigate or eliminate risk" and are typically put in place to promote the health and wellbeing of a society and those who live in it (*Protective Factors to Promote Well-Being*, n.d.). One significant way to increase a protective factor is by decreasing access to lethal means, such as firearms and medications that are lethal in higher doses. Firearms are responsible for over half of deaths by suicide, so it follows that a lack of access to lethal means such as firearms can significantly reduce the risk of suicide and related attempts (Swanson et al., 2015; American Foundation for Suicide Prevention, 2020). Developing specific policies that decrease accessibility of lethal weapons would be an effective protective factor; however, Congress has opposed the CDC's prevention research when it comes to gun violence since 1996 (Swanson et al., 2015). Arguments against gun control interventions cite that such policies infringe upon individual rights and liberties. From a public health perspective, however, the ethical obligation to achieve community health can surpass the right to individual freedoms in certain scenarios, as stated by the APHA Code of Ethics (Thomas et al., 2002), so restricting firearm access would be feasible in this context.

In the past, policy development has proven difficult, so many community organizations, public health officials, and health care providers encourage behaviors that individuals can do to reduce the risk of self-harm, especially during emotional crises. Individuals may choose to store firearms in a locked safe-deposit box and store the key or access code with a friend or neighbor, or they may choose to get rid of the firearm (Suicide Prevention Resource Center, n.d.). Restricting

prescription access is a bit more difficult, since that affects delivery and access to health care in a way that could potentially put individuals at greater risk. Requiring pharmacies to restrict doses distributed or requiring individuals to be in the presence of a health care provider to take their prescriptions decreases health care accessibility and could promote more dangerous health-related behaviors. Instead of instituting policies that dictate how prescriptions should be managed, public health professionals could develop programs that encourage community interdependence to promote health and safety. People may invest in timer-controlled pillboxes or ask family members or close friends to store and dispense medications in appropriate doses if necessary (Suicide Prevention Resource Center, n.d.), allowing for the increase of a protective factor without harming individuals who may already face health care disadvantages.

Another protective factor that may help decrease risk for death by suicide is developing more proactive mental health screening and tracking systems for suicide attempts and related self-harm behaviors. Regular screening for mental health conditions would allow health care providers to identify, understand, and react to risk levels and behavioral patterns in someone before they escalate and become more difficult to manage and treat. According to the WHO, "improved surveillance and monitoring of suicide attempts and self-harm is a core element of the public health model of suicide prevention" (2016). These surveillance systems are not meant to be an act of vigilant policing by the community; rather, such systems are strictly meant to be used by hospitals, often in emergencies, for health care professionals to provide information in a patient's medical record detailing

whether or not an injury was related to suicide or self-harm (World Health Organization, 2016). Though no large-scale surveillance systems exist in the United States, several communities have created pilot systems that provide promising data. Surveillance policies should never be implemented unless public health officials have received explicit consent from the community (Thomas et al., 2002). Going against the wishes of the community or deceiving its members can promote distrust in public health systems and decrease the efficacy of the institution (Thomas et al., 2002).

By monitoring patterns and incidences of suicide and suicide attempts, as well as methods involved, communities can develop preventative measures targeted towards the specific concerns or troubles of their members (World Health Organization, 2016). The White Mountain Apache Tribe, in partnership with the Johns Hopkins Center for American Indian Health, created a surveillance system for its members that tracks any suicidal incident, including any suicidal ideations, attempts, self-injuries, and completed suicides (Center for American Indian Health, n.d.). Once the incident has been reported and documented, a trained member of the Apache Suicide Prevention Team (ASPT) conducts an interview with the individual to clarify the situation and refer the individual to applicable mental health services (Center for American Indian Health, n.d.). The ASPT states that the number of reports, as well as the proportion of individuals seeking subsequent mental health treatment, has increased since the program began (Center for American Indian Health, n.d.). Apache suicide rates have decreased by 38% following the implementation of this prevention program, despite the national

suicide rate increasing each year (Center for American Indian Health, n.d.).

Though data obtained in these screening programs are not meant to be publicly accessible in the first place, the APHA justifies that public health institutions still have an ethical duty to "protect the confidentiality of information that can bring harm to an individual or community if made public" (Thomas et al., 2002). Public health professionals should work along with health care providers to ensure that any surveillance systems are private and confidential and cannot be used for any reason other than health monitoring, unless an individual poses a high risk of significant harm to themselves or to others (Thomas et al., 2002).

Encourage policy and educational support. To promote a more proactive approach to suicide prevention, policies should support the development and implementation of effective public health interventions. This could mean developing policies that reduce access to lethal means or that work to mitigate the effects of risk factors, especially those that are based on discrimination. A potentially effective policy approach to dealing with mental health is through the establishment of mental health parity laws, which require that insurance coverage for mental health be equal to what it is for general health care services (Ahmedani & Vannoy, 2014). Mental health parity laws were enacted by the federal level Mental Health Parity and Addiction Equity Act in 2008 (American Psychiatric Association, n.d.) A study by Matthew Lang found that states with mental health parity laws had a 5% decrease in suicide rates (Lang, 2011). However, many states and specific insurance plans have struggled to properly enact mental health parity laws because of how insurance policies and program designs are set up

(American Psychiatric Association, n.d.). Insurance providers and health care institutions must work together in making mental health parity laws more widely enacted. The goal in expanding insurance to cover mental health services is that people will be more likely to seek out those services in times of need.

Educational services also have the potential to promote better suicide prevention measures. Educational programs can be used to target risk factors and behaviors at the source before they become a greater threat. Current programs, especially within the education system, do not adequately address mental health, let alone suicide and suicide prevention. Educational approaches to suicide prevention include promoting social connectedness with peers, teaching effective problem-solving and coping strategies, and integrating conflict management programs (Miller & Coffey, 2021). Additional programs can also be used to reduce instances of bullying and violence, discourage and prevent substance use and abuse, and protect vulnerable populations from discrimination and harassment (Miller & Coffey, 2021), all of which influence suicide risk. Teaching such skills not only promotes mental health and wellbeing but also equips individuals with strategies necessary for dealing with emotional crises.

Strengthen economic support. Perhaps the biggest economic support necessary for suicide prevention is creating a fair allocation of funding for suicide and suicide prevention studies. Suicide rates are increasing each year while the death rates for cardiovascular disease and certain cancers are decreasing each year (National Institute of Mental Health, 2021; Centers for Disease Control and Prevention, 2014). Recall that only 1.4% of the NIMH budget goes towards

suicide and suicide prevention studies, while behavioral research receives over 30% of NIMH funds (Swanson et al., 2015). This disproportionate allocation of funds is likely a result of the lack of research done to understand suicide and suicide prevention. Not only are participants who have expressed suicidal thoughts at any point in time excluded from any research trials, but there are few trials that actually study suicide due to the high risk perception of such research (National Institute of Mental Health, 2020). Greater funding for public health projects and research can lead to the development of evidence-based prevention initiatives, ultimately contributing to better population health outcomes. Suicide, which is not often considered a public health problem, does not typically receive the same or a proportionate level of funding and research focus that other public health problems may receive, contributing to the implementation of prevention measures that are not studied and developed to the depth that other preventions and treatments are. Deciding how to allocate funds for research appropriately within the confines of an existing system is an issue of justice, an important principle of public health ethics (Pasha et al., 2019). Through the justice lens, we can argue that suicide and suicide prevention studies should get a fairer distribution of health care and research resources that are proportionate to its standing as a public health problem.

Another economic support comes in the form of institutional programs. In the case of businesses, employers have the potential to do a great deal for their employees to promote mental health and wellbeing. One option could be to choose insurance coverage that allows for mental health parity, regardless of county or state requirements. This does have the potential to create financial hardships for both

employers and employees alike since they will likely have to pay higher insurance costs. However, suicide and related attempts can be costly; according to the CDC, suicide and related attempts cost approximately $70 billion each year in "lifetime medical and work-loss costs" (2020). Mental health parity coverage could prove beneficial for employers and their employees if a slightly higher insurance charge means potentially preventing significantly higher work-loss costs in the future. It might be worthwhile to enroll in mental health parity coverage if the potential benefits of coverage outweigh the risks or consequences of increased insurance costs. Of course, making the assumption that people would accept higher premiums for mental health coverage is idealistic. In reality, people may choose not to enroll in insurance plans that offer mental health parity, either due to increases in costs or because they may not believe they are worthwhile.

Another option for employers to support their employees is through offering mental health days without penalizing employees through pay deductions. Employees may oppose taking a mental health day if it means going without pay, but employers could support and promote policies that allow employees to still be paid if they choose to take a mental health day. Some schools in the United States have developed similar programs for this very reason. As of 2019, schools in Oregon and Utah have developed and implemented programs that allow students to take mental health days, stating that the "measures 'empower' children to take care of their mental health" (Taylor, 2019). Allowing students to take mental health days offers a safer and more effective option for students to opt-out for their own health and wellbeing rather than waiting for the problem to become worse

and needing to have it dealt with in extremes including expulsion or incarceration (Taylor, 2019). Of course, such programs may not translate directly from schools to places of work. People may fear that they will be discriminated against for disclosing mental health history, whether that means that they are passed over for promotions or not hired to begin with. In such cases, public health institutions have a duty to work with employers to develop equal access programs, following the ethical obligation to ensure that "basic resources and conditions necessary for health are accessible to all people in the community" (Thomas et al., 2002). Public health institutions also have an obligation to promote policies that enhance social environments (Thomas et al., 2002), such as places of work. Employers should not discriminate against or penalize employees for needing access to resources or conditions that promote their mental health and wellbeing, especially if they consider the consequences if they were to institute such penalties.

Improve access and delivery of care. Improved access and delivery of care in terms of suicide prevention is twofold. First, having a duty to improve access to care means working to eliminate disparities that decrease access to affordable and effective health care (Thomas et al., 2002). Second, improved delivery of care means committing to creating a diverse pool of health care providers who are well-trained in issues of mental health in order to recognize suicide risk factors for early intervention (Warner et al., 2020). A study on the Improving Mood-Promoting Access to Collaborative Treatment (IMPACT) care management found a decrease in the overall rate of suicidal ideations, accounting for both frequency and intensity, in collaborative and cooperative care models

(Unützer et al., 2002). Accessibility to safe health care also matters a great deal for decreasing suicide rates. Alternative methods to treatment such as phone calls or video-chat programs allow for expanded access to and continuity of mental health care to promote better outcomes (Ahmedani & Vannoy, 2014). The hope is that if people are able to access health care with minimal to no obstacles, they will be more likely to actually use it in a time of crisis.

Suicide prevention training for health care providers also has the potential to be successful in lowering the suicide rate by improving how they deliver health care. In the training module Zero Suicide, suicide is identified and treated separately from other health factors that may be contributing to the problem (Miller & Coffey, 2021). Once trained, health care professionals will not only be able to recognize early signs of suicidal behaviors but also be able to recommend interventions that are evidence-based and correlated with a decrease in patient suicide risk, regardless of their individual diagnosis (Miller & Coffey, 2021). A diverse health care provider force is also necessary to mitigate suicide risk factors, particularly regarding disparities in access to care. Having providers representative of a more diverse society means they are better equipped to understand and respond to systemic inequalities in the delivery of and access to health care and help their patients feel validated when discussing health concerns (Warner et al., 2020).

Improved access to and delivery of health care also relies on the inclusion of participants at risk for suicide in research. Research on people who are at increased risk for suicide and self-harm is often overlooked or discouraged due to

the high risk nature of such studies. The exclusion of such participants in research is traditionally based on the idea that suicide is a literal life or death situation, and there is a great deal of uncertainty surrounding individuals' conditions and mental health status (Pasha et al., 2019). From a research ethics perspective, including participants at an increased risk for suicide, even if they may not be suicidal, does not seem favorable for researchers because of the increased burden on human subjects and researchers alike (National Institute of Mental Health, 2020). Advocates for the inclusion of participants at a higher risk for suicide or who have experienced suicidal ideations in the past in clinical trials argue that if end-stage cancer patients, who are at a significantly increased risk for death due to illness, can be part of clinical trials, suicide risk should not prevent trial participation, especially for mental health interventions that could provide direct benefits to participating individuals in need of help (Pasha et al., 2019).

In order to develop safe and effective suicide prevention strategies and create criteria for training crisis counselors and assessing public health interventions in the future, participants with increased suicide risks should not be so quicky excluded from clinical trials. Having participants who may be suicidal involved in research studies could also better inform researcher and clinicians about the complex nature of suicide and how to promote effective risk reduction (Lakeman & Fitzgerald, 2009). Even including suicide-risk participants in clinical trials can promote public knowledge and understanding on the issue, which can lead to improvements in screening and recognition programs, treatments of mental health disorders, and ultimately improve the nature of suicide prevention

(Lakeman & Fitzgerald, 2009).

Promote connectedness. Understanding how to better provide aid for suicidal patients begins with deconstructing the stigma surrounding suicide. This goes beyond encouraging open discussion with others regarding suicide, starting with how we approach suicide from an educational standpoint early on and looking at the portrayal of suicide in the media. Particularly in the media, which is incredibly influential, creating accurate portrayals of mental illness and suicide is important in promoting feelings of connectedness and support without reinforcing harmful myths and stereotypes and discouraging hope (National Action Alliance for Suicide Prevention, n.d.). Along with accurate portrayals of people who may be experiencing suicidal ideations, promoting resources and showing that help is available can open the door for further conversations surrounding suicide and mental health issues (National Action Alliance for Suicide Prevention, n.d.). The risk of experiencing suicidal ideations can actually decrease with feelings of social connectedness or perceptions of family social support and access to proper health and wellness resources and support systems (Centers for Disease Control and Prevention, 2020). Spreading awareness and treatment resources for people dealing with suicidal thoughts and ideations can go a long way to show people they are not alone while supporting and strengthening feelings of connectedness and emotional visibility.

People are less likely to display suicidal behavior when they have access to effective mental health care and resources, restricted access to means of suicide, perceived systems of support, access to informational resources, skills in

conflict resolution and conflict de-escalation, and certain cultural and religious beliefs that encourage and promote self-preservation (Suicide Awareness Voices of Education, n.d.). According to the American Foundation for Suicide Prevention, a person is less likely to die by suicide if they are able to get through and cope with an "intense, and short, moment of active suicidal crisis" (American Foundation for Suicide Prevention, 2020). Promoting connectedness also comes in the form of the public health duty to advocate for community engagement when developing public health initiatives, as previously mentioned. Community engagement allows public health professionals to understand and respect the beliefs and values of individuals with the community while developing interventions, which can ultimately improve the efficacy of a public health institution's policies and programs (Thomas et al., 2002).

CHAPTER FIVE: PUBLIC HEALTH ETHICS OF SUICIDE PREVENTION

SOLIDIFYING OUR STANCE IN ADDRESSING SUICIDE AND SUICIDE PREVENTION AS PUBLIC HEALTH ISSUES

Public health interventions seek to maximize the health and wellbeing of a population. In a public health model, success is measured by using health as the end goal and the primary outcome to determine success (Childress et al., 2002). Like any field, public health faces a number of tensions that impact delivery of care and policy and program development. Using principles of public health ethics – as determined by Childress et al. (2002) and the APHA Code of Ethics (2002) – can promote better health and wellbeing outcomes within a given community.

The current state of suicide prevention is focused on intervention at the individual level, which tends to ignore the structural and environmental factors that contribute to an increased risk of suicide. However, using an entirely community-based approach to study suicide prevention fails to account for the individual risk factors that may increase one's suicide risk. In recognizing suicide as a public health issue, we must realize the importance of using collaborative, community-wide interventions in conjunction with individualized interventions to develop comprehensive suicide prevention. Part of this process requires public health officials and other community leaders to work together and identify the underlying risk factors that impact suicide rates in order to develop practices and policies that target those determinants of health. Employment insecurity, abuse, trauma, poverty, discrimination, and social isolation all contribute to increased

suicide rates (Fitzpatrick, 2018). Community engagement that allows individuals to have equitable opportunities for providing diverse input can better recognize how determinants of health influence each other and contribute to suicide risks (Thomas et al., 2002). Understanding individual risk factors that may push someone to the point of suicide can also help us understand how to create or adapt existing prevention measures that suit individual needs and actively promote suicide prevention (National Institute of Mental Health, 2020). In using a collaborative approach to suicide prevention, we can incorporate the different experiences in developing and implementing public health programs that ultimately promote the health and wellbeing of the population.

The need for a collaborative approach to developing public health interventions can best be summarized using the Institute of Medicine's definition of public health as "what we, as a society, do collectively to assure the conditions in which people can be healthy" (Thomas et al., 2002). This definition provides the distinction between the field of medicine and the field of public health. While medicine is typically focused on health care delivered to an individual, public health is focused on health care delivered to an entire population (Thomas et al., 2002). This situation, however, can create tensions in public health. Involving public health professionals in the development and implementation of suicide prevention measures requires balancing individuals' health and personal liberties with the ultimate goal to promote the welfare of the larger community (Childress et al., 2002). To address the conflicts or tensions between the need to achieve overall community health and the need to respect the rights and values of

individuals within that community, Childress et al. propose a set of justificatory conditions that are "intended to help determine whether promoting public health warrants overriding such values as individual liberty or justice" (2002). The justificatory conditions used to resolve conflicts between the public health goal to promote community health and the commitment to respecting the rights of individuals are as follows:

- "Effectiveness: It is essential to show that infringing one of more general moral considerations will probably protect public health. For instance, a policy that infringes one or more general moral considerations in the name of public health but has little chance of realizing its goal is ethically unjustified.
- Proportionality: It is essential to show that the probable public health benefits outweigh the infringed general moral considerations – this condition is sometimes called proportionality. For instance, the policy may breach autonomy or privacy and have undesirable consequences. All of the positive features and benefits must be balanced against the negative features and effects.
- Necessity: Proponents of the forcible strategy have the burden of moral proof. This means that the proponents must have a good faith belief, for which they can give supportable reasons, that a coercive approach is necessary. In many contexts, this condition does not require that proponents provide empirical evidence by actually trying the alternative measures and demonstrating their failure.
- Least infringement: Public health agents should seek to minimize the infringement of general moral considerations. For instance, when a policy infringes autonomy, public health agents should seek the least restrictive alternative; when it infringes privacy, they should seek the least intrusive alternative; and when it infringes confidentiality, they should disclose only the amount and kind of information needed, and only to those necessary, to realize the goal. The justificatory condition of least infringement could plausibly be interpreted as a corollary of necessity -- for instance, a proposed coercive measure must be necessary in degree as well as in kind.
- Public justification: When public health agents believe that one of their actions, practices, or policies infringes one or more general moral considerations, they also have a responsibility, in our judgment, to explain and justify that infringement, whenever

> possible, to the relevant parties, including those affected by the infringement" (Childress et al., 2002).

Using this framework in addressing public health issues not only allows professionals to develop prevention measures that promote public health and respect individual liberties but also allows them to make determinations about whether or not certain public health measures that prioritize public health over individual liberties are even justifiable. Public health programs may restrict individuals and their respective liberties from time to time if it is in the best interest of the population to do so, but they should never completely disregard or violate the importance of respecting individual rights (Childress et al., 2002). Consider using a surveillance system to track an individual's suicidal behaviors. Some may consider this a restriction on personal liberties, particularly if they do not wish to share that information with others, even their health care providers. However, if we consider this scenario from the effectiveness justificatory condition, the potential benefits of using a surveillance system, such as tracking mental health behaviors to provide individualized mental health care and assistance, can justify the infringement upon personal liberties because doing so may actually promote population health. Using the condition of least infringement, which seeks the path of least restriction, would require that the surveillance system only be available to health care providers rather than being a public database available to everyone within the community. Note that, like the APHA Code of Ethics and Beauchamp and Childress's principlist approach, there is no one condition or principle that is meant to outrank the others. Discussions over prioritization must consider situational context before coming to a decision

about what is best to do in a given situation.

Public health professionals and their encompassing communities have a duty to recognize suicide as a public health problem and use a combination of individual interventions and community-based approaches to treat it as such. Solely targeting individual behaviors, which has been the suicide prevention model for most of history, is not as effective as it could be because many causes and risk factors for suicide "extend beyond individual behavior to the population level (for example, injustice, discrimination, mental illness) and relate to membership of various social groups and communities" (Fitzpatrick, 2018). In other words, there are many societal factors and disparities that restrict the impact of individual behaviors and decisions. However, looking at suicide prevention purely from a community-wide approach is also not entirely effective because it largely ignores the individual situations that may place someone in great enough distress to attempt suicide. To move forward with developing effective and widespread suicide prevention measures, we must adopt a public health approach that combines both individual preventions with community-wide interventions. Public health professionals have an ethical obligation not only to implement these preventative measures that work to reduce suicide risk within a community but also to continuously evaluate and address suicide prevention resources and strategies to determine whether or not they are effective in preventing suicides or at least minimizing the risk of death by suicide. By adopting this approach to address suicide and suicide prevention, public health professionals can work to fulfill their duty to protect and promote health and wellbeing more effectively.

CONCLUSION

Using a public health approach to understand suicide and suicide prevention means developing a collaborative model of individual health interventions and community-based prevention strategies to help minimize suicides and suicide risk within a population. This approach allows for public health professionals to recognize and address the social and political determinants of health that may increase an individual's risk for death by suicide without ignoring their responsibility to promote the health of their community. Suicide is a significant health concern that affects every nation across the world, yet it is often not considered to be a public health problem. As demonstrated in this thesis, suicide does meet the criteria for classification as a public health problem and therefore should be understood as one. In accordance with principles of public health ethics, the field of public health and the individuals who work in it have a moral obligation to address suicide as a threat to public health as part of their duty to protect and promote overall population health. The goal of public health is based in three major principles: producing benefits, avoiding and preventing harms, and maximizing overall health within the population it serves. To produce benefits, interventions should promote opportunities to the access and delivery of health care and related resources designed to help individuals affected by suicide or suicide attempts. To prevent and minimize harms, public health should address determinants of health and wellbeing and risk factors that increase instances of attempted and completed suicides. Instituting public health interventions requires a delicate balance; communities and public health officials should be able to work

together to design and implement suicide prevention measures that help the greatest number of people without completely sacrificing individual liberties. Suicide and other public health problems have and will continue to affect humanity, so it is our duty to address them head on to promote and protect public health.

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