



A Proposed National Strategy for Suicide Prevention in South Africa

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Suicide is a significant social and public health problem (World Health Organization [WHO], 2021a). It is defined as self-directed injurious behaviour with an intent to die because of the behaviour (Centers for Disease Control and Prevention, 2022; Crosby *et al.*, 2011). Suicidal behaviour ranges from suicidal ideation which refers to thoughts and cognitions about suicide, to the intent or planning of suicide, to non-fatal suicide attempts, and to a fatal suicide attempt and actual suicide (Van Orden *et al.*, 2011). The proportion and the rank of suicide as a cause of death varies greatly by age and has been identified as the leading cause of death among young people in South Africa (Kootbodein *et al.*, 2020). Suicide and suicide attempts cause serious emotional, physical, and economic impacts (Centers for Disease Control and Prevention, 2022b). South Africa urgently requires a strategy to set suicide prevention targets and reduce suicide rates. This paper identifies strategies to reduce suicidal behaviour in South Africa and proposes a framework for a national prevention program.

Epidemiology

Worldwide, between 700,000 and 800,000 people (10.6 per 100,000 people) die by suicide annually (WHO, 2020),¹ with one person dying every

¹ Estimates were calculated using mortality data reported by countries to the WHO Mortality Database as key input data, <https://www.who.int/data/data-collection-tools/who-mortality-database>. For countries without comprehensive death registration data or other nationally representative sources of information

forty seconds (WHO, 2019a). For every death by suicide, there are more than twenty non-fatal suicide attempts (WHO, 2021b). Globally, suicide is the fourth leading cause of deaths among 15-44-year-olds (WHO, 2021b) and the second leading cause of death in the 15-19 years age group (Centers for Disease Control and Prevention, 2022a; Hilda *et al.*, 2015). Whilst some countries have reported a decrease in suicide (Kootbodein *et al.*, 2020) others have reported an overall increase (Australian Bureau of Statistics, 2020). Amongst low-to-middle-income countries (LMICs) suicide is considerably higher and approximately 77 percent of global suicides occur therein (WHO, 2021b). The severe lack of resources in LMICs mean that there are very few or sustained efforts that specifically focus on prevention on a scale necessary to reduce the number of lives lost (WHO, 2012). Within the African continent, suicidal behaviour remains particularly alarming as governments are often ill-equipped to meet the general and mental health needs of their populations (Kirigia *et al.*, 2020). This contributes to higher rates of premature deaths, morbidity, lost productivity, and health care costs (US Department of Health and Human Services, 2013).

South Africa has the third-highest suicide rate in Africa, with a recorded 13,774 suicides occurring in 2019 alone. Of these, 10,861 were men and 2,913 were women (WHO, 2021c), a rate per 100,000 of 37.6 for men and 9.8 for women; that is, men are nearly four times more likely than women to die by suicide. The difference has long been recorded, despite more women being diagnosed with depression (Kootbodein *et al.*, 2020), one of the leading causes of suicide in the country (TimesLive, 2022). Further reports indicate that there are 23 known cases of suicide in South Africa every day (South African Depression and Anxiety Group, 2017), and for every person that dies by suicide, twenty have attempted it (Heywood, 2021). Whilst South Africa has always had a problem with suicide, the recent spate of high profile and celebrity deaths has put this issue under the spotlight (News24, 2022; Independent OnLine News, 2022). Gender stereotypes, stigmas and the lack of support and facilities to deal with mental health issues have played a major role in these suicides.

South African high school teenagers (16-18 years-of-age) are among the most at-risk group; twenty percent have attempted it (de Freitas, 2022) and nine percent of all deaths within this age group are suicide-related (Western Cape Government, 2022). Young adults aged between 19-24 years-

on suicide, WHO has drawn on the Global Burden of Disease 2019 study model by the Institute of Health Metrics and Evaluation.

of-age are considered the most at-risk group for depression, suicidal thinking, and self-harming behaviour (Schlebusch 2012). In an analysis of mortality rates by sex and age it was found that suicide was highest in men, aged 15 to 44 years, and women older than 75 years (Matzopoulos *et al.*, 2015; Kootbodein *et al.*, 2020). These rates are likely to be underestimated and under-reported due to the sensitive and complex nature of suicide and because it is a relatively infrequent event (Pittman *et al.*, 2014). The evidence-base suggests an increasing trend towards suicidal behaviour in the past fifteen years (Alabi *et al.*, 2021), consistent with global findings of a shift from the elderly to younger people. The prevalence of suicidality in the South African community points to a mental health crisis of devastating proportions and consequences.

Despite these alarming statistics, trends, and a mandate from the WHO (WHO, 2014), South Africa has yet to implement a national strategy for suicide prevention. The government has developed policies such as the National Mental Health Policy Framework and Strategic Plan (2013-2020), now lapsed, and other strategy documents on violence and injury prevention that attempt to address suicide. These frameworks, however, “lack sufficient detail on suicide prevention to be effective substitutes for a dedicated comprehensive evidence-based national suicide prevention strategy” (“NSPS”) (South African Depression and Anxiety Group, 2017). In addition, there are some non-governmental organizations (NGOs) that provide key suicide prevention initiatives, such as awareness campaigns and national suicide hotlines that are currently offered by the South African Depression and Anxiety Group (SADAG) and Lifeline. However, these initiatives have not significantly reduced the rates of suicide, nor have they meaningfully contributed to the overall well-being of at-risk groups and populations. Much more is required.

The development of a locally appropriate NSPS is of great importance in reducing suicide rates (WHO, 2012). Such an initiative would be a clear indicator of government’s commitment to addressing suicidal behaviour as a major public health problem. A NSPS will identify crucial gaps in existing legislation, allow for data collection, make provision for the human and financial resources required for interventions, provide accountability for those in charge of interventions, identify key stakeholders working towards suicide reduction, and provide a context for a research agenda on suicidal behaviours (WHO, 2018). In addition, a NSPS will be instrumental in shaping advocacy, awareness-raising and media

communications whilst providing guidelines on monitoring and the evaluation of interventions.

Methodology

This paper draws on meta-analyses of accredited articles, books, legal policies, and national strategies/action plans as well as programs and interventions related to suicide prevention. The evidence base around suicide and suicide prevention strategies varies a great deal in terms of design (both qualitative and quantitative) and academic strength. For this study multiple databases were reviewed to identify relevant academic sources (whether published or not), books, journal articles, program evaluations, survey data, and other influential sources, including grey literature, the last drawing on publications such as program documents, reports, and evaluations by WHO, and reports from the Centre for Disease Control (CDC). Whilst grey literature has not usually received the same quality checking as peer reviewed published material it can still make important contributions to a systematic review (Farace 1997). The value of including grey literature in this paper is that it reduces publication bias, increases the comprehensiveness and timeliness of a review, and fosters a balanced picture of available evidence (Paez, 2017).

Knowledge Gap

Whilst there is a plethora of articles on suicide prevention strategies in countries like the USA and UK, there are only a few in a LMIC like South Africa. The reviewed literature does not provide a comprehensive or even an appropriate suicide-prevention development strategy relevant to South Africa. This study thus fills a gap with the aim of advocating for a reduction in suicide rates within the South African context as it contributes to the development of an appropriate NSPS.

The unique nature of suicide generates several challenges for research that seeks to address the understanding, prevention, and treatment of the problem. Successful initiatives to address suicide as a public health problem require the systematic collection, analysis, and dissemination of accurate information on the prevalence and characteristics of suicide and suicide attempts (WHO, 2014). The sources of data that are currently available remain fragmented and ‘unlinked’ (Steenkamp *et al.*, 2006). This can be attributed to the inconsistent and inadequate reporting of suicidal behaviour (van Niekerk *et al.*, 2008). In South Africa, the underreporting of

suicide and the doubtful quality of statistics obtained from sources like death certificates and deaths registration also limits analysis and can result in an underestimation of the true mortality burden attributable to suicide (Matzopoulos *et al.*, 2015). Still, the available data indicate that suicidal behaviour is a significant health concern in South Africa, calling for an appropriate strategy to curb such behaviour. What may be applicable to one context may not necessarily be applicable to another, however, due to social, cultural, and other differences (Mars *et al.*, 2014). This paper therefore focuses on situations and draws from examples that are applicable to the South African context.

The foundation of any effective response in suicide prevention is the identification of suicide risk factors that are relevant to the context (WHO, 2014). Suicide is complex and does not have a single determining cause (Leenaars, 1996). It occurs in response to several factors including societal, psychological, biological, environmental, and interpersonal influences (US Department of Health and Human Services, 2013). Suicide rates vary with sex and age-groups but are also affected by choice of and access to means of suicide (Yip *et al.*, 2012), mental illness such as anxiety and depression (Van Zyl *et al.*, 2021), barriers to health care, for example, the lack of access to providers or medications and stigma (Patel *et al.*, 2016), and by stress, loneliness, substance abuse (including alcohol), unemployment, economic recession and the loss of sources of livelihood (Chang *et al.*, 2013).

The main choice of methods of completed suicide include death by hanging, one of the most common forms of suicide in South Africa (Govender, 2019), poisoning by drugs, pesticides and other poisons (Kootbodein *et al.*, 2020), gassing, drowning, asphyxia, falling, shooting, jumping off high areas, and burning (Schlebusch, 2012). Poisoning and hanging were the leading methods of suicide in women, whilst hanging followed by poisoning and the use of firearms were the leading method of suicide in men. The most common non-fatal suicide attempts include overdosing (Stark *et al.*, 2010); approximately 90 percent of victims use this method with 10 percent resorting to self-injury.

Some of the most significant precipitators of suicidal behaviour in South Africa include education related problems such as poor academic performance and parental expectations around performance and career choices (Van Zyl *et al.*, 2021), interpersonal problems, including romantic relationship difficulties and unwanted pregnancies (Keugoung *et al.*, 2013), psychological trauma such as bullying (de Freitas, 2022) and social isolation or the loss of social support systems either within the familial (for example,

parental bereavement) or peer contexts (Quin *et al.*, 2003). Certain individuals, for example the homeless (Perry & Craig, 2015) and individuals with differing sexual orientations (Russell & Joyner, 2001), may be isolated from ‘mainstream’ society, thereby increasing their vulnerability to suicidal behaviour. Past or present physical or sexual trauma and abuse, intimate partner violence (Devries *et al.*, 2011), adverse childhood events (Orri *et al.*, 2022), family problems including disrupted family environments, broken family relationships and adverse parent-child interactions (Orri *et al.*, 2022; Gvion & Apter, 2012), mental health problems, especially depression or a severe mood disorder, including bipolar disorder, and the lack of access to adequate health care – all have a significant association with suicidal ideation (Baiden *et al.*, 2019).

Research also indicates that between 20 and 50 percent of youths who die by suicide have a history of previous non-fatal suicide attempt (South African Depression and Anxiety Group, 2017). Thus, youths who have previously attempted suicide are particularly vulnerable to further attempts or completed suicide (Orri *et al.*, 2022; Khuzwayo *et al.*, 2018). There have also been reports of seasonal suicide attempts especially around year-end, often related to academic stresses, or to finding a job or a place at university (Schlebusch, 2012). Individuals who abuse or are dependent on alcohol or drugs are at a greater risk of suicidal behaviour (Goldstone *et al.*, 2018). Some small-scale studies in South Africa found that approximately one in three adolescents who die by suicide had been under the influence (Khuzwayo *et al.*, 2018) and 40 percent of individuals who died by suicide tested positive for alcohol (Mars *et al.*, 2014).

In addition, South Africa’s socio-economic context has significant bearing on the prevalence of suicide (Kinyanda *et al.*, 2012). High unemployment rates and levels of poverty mean that South African youths and adults are confronted with significant educational and socio-economic demands resulting in feelings of anxiety and depression for the future (Hassan, 2021). These precipitators are in line with global trends indicating that health care, exposure to violence, mental illnesses, and socio-economic and personal circumstances are consistent risk factors in suicide (Bantjes *et al.*, 2016).

The Health and Economic Consequences of Suicide

Suicide and suicide attempts have far reaching consequences for individuals, families, and communities (National Action Alliance for Suicide Prevention, 2015). It has long been understood that the suicide of a family

member, friend, or other emotionally close person can have a powerful and sometimes devastating impact on those left behind (Cain, 1972). The impact of knowing someone who died by suicide, or having lived experience of persons who attempted suicide or had suicidal thoughts, increases the likelihood of long-term health and mental health consequences ((Bantjes & Mapaling, 2021; Chapman & Dixon-Gordon, 2007). Such individuals may experience ongoing pain and suffering including complicated grief (Mitchell *et al.*, 2004), stigma, depression, anxiety, post-traumatic stress disorder, and are themselves at an increased risk of suicidal ideation and suicide (Cerel *et al.*, 2014).

The financial and occupational effects on those left behind, whilst less discussed, is no less important. Little research has estimated the monetary value of human lives lost to suicide in the African continent and specifically in South Africa. The author found only one peer reviewed article that estimated the monetary value of human lives lost to suicide in the African continent; it suggested a monetary value of International Dollars (Int\$) 6,989,963,325 and an average present value of Int\$ 92,576 per suicide death (Kirigia *et al.*, 2020). About 31.1 percent of the total monetary value of suicide deaths were borne by high-income and upper-middle-income countries (Group 1), 54.4 percent by LMICs (Group 2), and 14.5 percent by low-income countries (Group 3) (World Data Bank, 2019). The average monetary value per human life lost from suicide deaths was Int\$ 234,244 for Group 1, Int\$ 109,545 for Group 2 and Int\$ 32,223 for Group 3 (Kirigia *et al.*, 2020). The true economic costs are likely higher, as the study did not include monetary figures related to other societal costs such as those associated with the pain and suffering of family members.

The situation is currently bleak in South Africa. According to the latest 2022 World Mental Health report the country has again ranked low on mental health (WHO, 2022), though it does have some suicide prevention activities. The annual Teen Suicide Prevention Week, for example, takes place at the start of the academic year and provides support to parents, teachers, and learners. Campaigns are also run by SADAG, Africa's largest mental health support and advocacy group. It is involved in counselling, outreach, and capacity building work throughout South Africa, and it runs the country's only suicide helpline. These efforts help and provide evidence on the gaps that need to be filled (WHO, 2014), but are inadequate in effectively addressing suicide.

Continuous community engagement and sustained activities are important in the promotion of public and individual health, to which end

some countries have successfully established health promotion foundations (Vathesatogkit *et al.*, 2011). Foundations have been proven to achieve both health and development outcomes across population groups (Mail & Guardian, 2011) but despite researchers advocating similarly (Perez *et al.*, 2013, Coe & de Beyer, 2014), South Africa has yet to establish one. It could play a vital role in strategic thinking and advocacy on health promotion and social development issues, support much needed research, and create partnerships with government departments, NGOs, academics, user groups and others to investigate risk factors in developing an effective action plan.

South Africa's healthcare system, in both its parallel public and private sectors, is riddled with deficiencies (South African Medical Research Council, 2015, WHO, 2022). Public health care is provided in a tiered system (Department of Health, 2012) but mental health services remain inadequate in both sectors. Approximately 80 percent of the South African population is serviced by the public healthcare sector (Benatar, 2013), which is inundated and faces the multiple challenges of a high burden of disease, a lack of skilled staff, and inadequate resources and infrastructure (Coovadia *et al.*, 2009, Chopra *et al.*, 2009). South Africans in poorer areas especially struggle to access healthcare. Reportedly, of the increasing numbers of people succumbing to mental health illness, only an estimated 27 percent are receiving treatment (Mail & Guardian, 2023). This hampers the vision of improving mental health among South Africans as espoused in the National Mental Health Policy and Strategic Framework 2013 – 2020 (Department of Health, 2013). It was meant to indicate a shift towards the provision of person-centred mental health care that is integrated into primary health care, but the inadequacies of the health system have obstructed such integration (Marais & Petersen, 2015).

In South Africa, as in many LMICs, only a small proportion of the health budget goes to mental health (WHO, 2022), with most of the available mental health funding allocated to psychiatric hospitals. This leaves little for community-based services (Mail & Guardian, 2023). Community-based care, considered a frontline defence of any healthcare system, is missing in South Africa. It has been reported that by the time mental health disorders require psychiatric hospitalisation, South Africa's mental health system has already failed in its duty of care to the patient at primary health care level as well as in community-based interventions (Mail & Guardian, 2023). Indeed, the South African Society of Psychiatrists (SASOP) has urged health care providers to better manage follow-up care for those at risk of suicide, rather

than focusing primarily on one-off interventions at crisis point (SASOP, 2020).

Since it is not compulsory, neither private nor public healthcare sectors have been providing follow-ups and ongoing treatment for high-risk or vulnerable persons (SASOP, 2020). Such treatment is considered critical in most healthcare systems. Ongoing therapeutic contact with high-risk patients is a very important strategy in suicide prevention (Nordentoft & Erlangsen, 2019). Of concern is that the ongoing outpatient treatment is not supported by most medical aids and the proposed National Health Insurance (NHI). The NHI is meant to provide access to quality health care for all South Africans, but it does not make provision for outpatient psychiatric care (Daily Maverick, 2022).

Public sector psychiatric services currently only have the capacity to treat those patients with chronic serious mental disorders, such as psychotic disorders, or to provide treatment after acute suicide attempts (SASOP, 2020). Psychiatric services, where provided, are only for in-patient care for chronic and severe mental disorders like mania or psychotic disorders. In addition, depression and suicidality are not included on the chronic disease list in private healthcare, and only acute treatment at the point of crisis, in averting a suicide, is covered by medical aids. In the public sector, once the suicidal crisis is averted, there is nowhere to refer a patient for follow-up care. There is also a general shortage of mental health specialists, such as psychologists and psychiatrists in South Africa. Most of the available specialists are concentrated in the private health sector, accessible only to those who can afford medical aids or medical insurance. There are very few specialists available to the broader population who are wholly dependent on the public health system (WHO, 2022).

What the Literature Tells Us

It is clear, firstly, that suicide places a heavy burden on the emotional suffering that families and communities experience, as well as on the economy. A close connection between exposure to death by suicide and the subsequent risk to people exposed to that suicide has been identified (Pittman *et al.*, 2014). The calculated economic costs associated with medical care and lost productivity is substantial. There are therefore real financial advantages for an LMIC like South Africa to reduce suicide. An effective NSPS must include the aftereffects of suicide in its planning, funding, and implementation of responses to a death by suicide (National Action Alliance for Suicide Prevention, 2015).

Secondly, the evidence reinforces the case for increased investment in addressing systemic problems in the provision of mental health care and identifying contextual problems that make suicide prevention challenging in the healthcare sector (Goldstone *et al.*, 2018), and ensuring comprehensive coverage of promotive, preventive, and rehabilitative mental health services. Together with funding, widespread competencies in mental health are a vital component of a well-functioning mental health system. In tiered systems of care like the South African, diverse providers including specialists, general health care providers, community providers and individuals, must adopt different but complementary roles that use resources efficiently and make care more widely available. Timely and effective access to health care is essential to reduce the risk of suicide (Cho *et al.*, 2013). Competencies in mental health need to be maintained by care providers at each tier, ranging from individuals and community providers to general and specialist health care workers (WHO, 2022). It is vital for mental health staff working in psychiatric hospitals to develop skills to efficiently work in community-based settings and for primary care staff to be trained in detecting mental health conditions and providing care. Research into a comprehensive care system has highlighted how task-sharing is not only cost-effective (Patel *et al.*, 2018) but can improve health and social outcomes for people living with mental health conditions, especially in LMICs (van Ginneken *et al.*, 2021). One study in KwaZulu-Natal, South Africa, found that task-sharing with competent non-specialists substantially reduces the number of health care providers needed to reduce mental health care gaps at primary level and at minimal additional cost (Petersen *et al.*, 2011).

Thirdly, it is widely accepted that there is no single cause or stressor that sufficiently explains a suicidal act and that several risk factors act cumulatively to increase an individual's vulnerability to suicidal behaviour, but also that not everyone with a mental disorder necessarily dies from suicide and the mere presence of risk factors does not necessarily lead to suicidal behaviour. Effective interventions are therefore crucial to mitigating identified risk factors, including, at the individual level, a history of depression and other mental illnesses, hopelessness, substance abuse, certain health conditions, previous suicide attempt, violence, victimisation and perpetration, and genetic and biological determinants (WHO, 2014). At the relationship level, risk factors include violent relationships, feelings of isolation and lack of social support, a family or loved one's history of suicide, and financial and academic stress. The community level risk factors include inadequate community connectedness, barriers to health care (for example,

lack of access to providers and medications) and, at the societal level, the availability of lethal means of suicide, and stigma associated with seeking help and mental illness. The literature also highlights that many individuals who are depressed, attempt suicide, or have other risk factors, do not necessarily die by suicide but may require ongoing support (Owens, 2002; Olfson *et al.*, 2015). The relevance of each risk factor can vary by age, race (Flisher *et al.*, 2004), gender, sexual orientation, residential geography, and socio-cultural and economic status (Dahlberg *et al.*, 2002). Protective factors can limit suicidal behaviour and ideation and enhancing such factors is an important aim of any comprehensive suicide prevention response. They include effective coping and problem-solving skills, and strong and supportive relationships with partners, friends, and family; connectedness to school, community, and other social institutions; availability of quality and ongoing physical and mental health care; and restricted access to lethal means including pesticides, firearms, and certain medications (Stone *et al.*, 2017).

Fourthly, reductions in suicide cannot be prevented by any single strategy or approach (Silverman & Maris, 1995). To tackle suicide prevention in a way that is meaningful to the South African context, a NSPS must encompass multiple levels of focus across the individual, relationship, family, community, and societal-levels and across both private and public sectors (WHO, 2018; US Department of Health and Human Services, 2013). Thus, many interventions to promote and protect mental health need to be delivered in non-health settings and the health sector must support colleagues across sectors as they deploy effective interventions. This involves working to empower people and to build competencies and resilience in, for example, schools, prisons, businesses, and communities. A broad range of providers who are not mental health specialists, like lay volunteers, community workers, policy officers and prison staff, are required to develop competencies to deliver basic mental health interventions (Kohrt *et al.*, 2018). Interventions must be geared towards effectively supporting the social inclusion of people living with mental health conditions. Such an approach will ensure a rights-based, person-centred, recovery-oriented care and support (WHO, 2022). This will help provide a holistic framework for viewing and understanding context-specific suicide risk and protective factors (Stone *et al.*, 2017). Finally, the literature suggests that suicide is preventable if timely, comprehensive, evidence-based interventions are developed and implemented (WHO, 2014).

Multiple Strategies for a NSPS

Three primary kinds of evidence-based intervention can be identified - universal, selective, and indicated interventions (Mrazek & Haggerty, 1994, Gordon, 1983). Universal prevention strategies are highly diverse and aimed at establishing supportive environments for mental health. Examples include the removal of barriers to health care and increasing access to help, strengthening protective processes such as social support, and reshaping the determinants of mental health across individual, social, and structural spheres of influence. Universal strategies are consequently designed to reach and shift the risk profile of an entire population to boost overall well-being. Such interventions may be delivered at the community level, by local leaders or health care providers, or at higher levels, through for example national poverty reduction policies and labour laws.

Universal interventions often combine different strategies. For example, at the individual level interventions may be aimed at developing physical, emotional, and cognitive skills by adopting parenting or learning programs. Additionally, building competence through essential life skills for communication, critical thinking, decision making, problem-solving, self-awareness, empathy and care for others is essential. Building individual competence also includes interventions aimed at supporting behavioural changes that undermine both physical and mental health. For example, low levels or the absence of physical activity (Forsman *et al.*, 2011), tobacco smoking, hazardous alcohol use, drug use (Murray *et al.*, 2020), poor sleep and unhealthy dietary patterns are all associated with an increased risk of both physical and mental health conditions (Firth *et al.*, 2020). Raising health literacy about these toxic behaviours are identified acceptable public health strategies (WHO, 2019b).

Interventions must also be aimed at addressing behaviours that shield against stress whilst building individual resilience. Developing resilience does not mean never experiencing difficulty or distress, it rather means building capacity to deal with stress and adversity to effectively adapt to life stressors. Some empowerment initiatives at individual level include developing the ability to have the confidence, choice, and control over one's own life. This includes having a sense of respect, purpose, and identity together with building feelings of mastery and justice over one's life and life choices including in all aspects of one's mental health care (WHO, 2022).

At the social level building social resources for mental health involves creating opportunities throughout life to foster positive relationships and social support across communities (including pre-school, school, and the labour market), within families (Devries *et al.*, 2011) and among peers

(Putnam *et al.*, 1993). At structural levels, changes for mental health involve reshaping the underlying conditions of daily life to enhance community capacity for well-being. Such interventions may combine life skills training (individual capital) with local events for older adults (social capital) and mass anti-stigma campaigns (structural changes) (WHO, 2022). Included could be measures to reduce financial insecurity, poverty, and income inequality (McGuire, 2022). Structural changes go far beyond mental health promotion and protection, but all can have an important effect on mental health (WHO, 2004) and any model of health promotion and universal prevention that fails to tackle the structural determinants of mental health will be limited in its reach.

Selective and indicated prevention strategies are designed to reduce risk in one or more groups of individuals who are at a high risk of experiencing mental health conditions. This could be because of the demographics, local contexts, and circumstances in which they find themselves (selective prevention) or because they are already experiencing symptoms of what may be an emerging mental disorder (indicated prevention). At-risk people may include people living in poverty or with chronic health conditions, people with disabilities, youth exposed to violence or neglect, minority groups, indigenous peoples, refugees, older adults and LGBTIQ+ people. Selective prevention is often helpful to specific age groups. For example, interventions during developmentally sensitive periods in the life of young children and youth may be very beneficial whilst interventions to expand social contacts and activities are crucial to protecting the mental well-being of older adults (McDaid, 2015).

Indicated prevention strategies target specific vulnerable individuals within the population, including persons displaying early signs of suicide tendencies, and those who have made a suicide attempt or present signs of a mental health condition but do not meet the criteria for a formal diagnosis of mental disorder. This would include people with elevated levels of depressive symptoms. Indicated interventions can include psychotherapies such as cognitive behaviour therapy and interpersonal therapy, both of which have been found to delay or prevent the onset of depression (Cuijpers *et al.*, 2021). It would also aid persons displaying symptoms of anxiety (Moreno-Peral, 2017). Helpful interventions could include self-help materials (WHO, 2022), whether through books or digital programs, or early interventions by trained lay counsellors (Correll *et al.*, 2018).

In sum, the evidence indicates that effective integration, promotion, and prevention of mental health is a multisectoral endeavour involving

various stakeholders. The reshaping of various individual, social, and structural factors influencing mental health require solutions that lie beyond the health sector.

Developing an Appropriate NSPS

An effective NSPS must be approached in a systematic and strategic way (WHO, 2012). It requires clearly identified objectives that are understandable, measurable, achievable, and contextual (Government of Guyana, 2014). In addition, the strategy must be complementary and have a synergistic impact at different levels (WHO, 2014). Efforts must be aimed at impacting community and societal levels, as well as individual and relationship levels (Stone *et al.*, 2017). This study has highlighted that suicide often remains under-reported, that there is a clear need for systems to improve the availability and quality of data, and that the epidemiological data on suicide and suicide behaviour remains limited and somewhat fragmented. A systematic approach for gathering data in a sustained manner is consequently key to effectively addressing suicide and suicide attempts (WHO, 2014, 2016). An immediate step in the strategic planning process is for government to conduct a comprehensive situation analysis, starting with the available data, and to invest in a national SWOT (strengths, weaknesses, opportunities, and threats) analysis to enable it to effectively describe the problem and its context (Government of Namibia, 2011). The analysis must identify the extent of the problem in a particular geographical area, whether that is the entire country or a specific subregion and must allow answers to questions about who is dying by suicide, attempting suicide, and having thoughts of suicide. Since suicide ideation, thoughts, attempts, and deaths vary by gender, race/ethnicity, age, occupation, and other important population characteristics (Centers for Disease Control and Prevention, 2021), analysis would need to consider these specific factors.

As this study has highlighted, dynamic factors can change suicide risk. A person's normal coping mechanisms, for example, may become limited during a crisis or when faced with increased stresses thereby restricting their ability to resolve problems and cope effectively. Suicide risks change according to the number and intensity of key risk and protective factors experienced (Turecki, 2014). Ideally, the availability of multiple strategies and approaches tailored to the social, economic, cultural, and environmental context of individuals and communities is desirable. When achieved, this may increase the likelihood of removing barriers to supportive

and effective health care and provide opportunities to develop individual and community resilience (Hawton *et al.*, 2016; US Department of Health and Human Services, 2013).

The SWOT analysis must accordingly determine the risk and protective factors associated with suicide, the methods people are most often using, the circumstances under which suicide deaths and attempts occur, what if any community resources are used to identify and assist people at risk of suicide, and appropriate methods to address mental health and well-being. Answers to the questions on a large scale will translate to a solid understanding of suicide in each community and will allow for the determination of targeted and evidence-based responses. This information will also serve as a foundation to engage with stakeholders around issues of prevention and to determine what efforts are needed. Research will also play an important role in understanding the risk and protective factors as well as in identifying vulnerable persons in each context (WHO, 2018). Since access to human and financial resources is central to the success of any public health intervention (Frieden, 2014), an assessment of resources should likewise be included in the situation analysis and the allocation of resources included in the NSPS. An inadequate estimation of funding can hinder the full implementation of interventions (Government of the United Kingdom, 2012).

An important aspect to the situation analysis and key to an effective NSPS is the identification of barriers. A poor understanding of suicide in the national or local context will make it difficult to develop clear goals and actions relevant to the needs of communities. A good NSPS will list all the barriers with the concomitant proposed solutions to systematically remove them (WHO, 2018b). Without the identification of barriers, national strategies will face challenges during implementation (WHO, 2018). For example, a vital barrier to suicide prevention is a lack of understanding on stigmas or taboos linked to suicide and its prevention within a community (Government of the United Kingdom, 2012). Those who have lived experiences often face considerable stigma within their communities, which may prevent them from seeking help. Stigma can consequently become a barrier to accessing suicide prevention services by reducing a willingness to utilise health-care resources (WHO, 2018). It will also affect the quality of care provided by health-care workers. If not identified and addressed barriers will have an impact on the effectiveness of national strategies (Government of Ireland, 2015) as well as negatively impacting the recording and reporting of suicidal behaviour.

The suggested guidelines are in no way exhaustive or listed in any preferential order. The guidelines provided may need to occur before or simultaneously with others, and during the analysis stage other elements identified may well need to be included or excluded. The situation analysis can then serve as a guide for a preferential order within a South African context. Decisions regarding inclusions and exclusions for a national strategy must be contextually informed as this is fundamental to developing an appropriate and effective NSPS.

Countries like South Africa that currently do not have a NSPS must be guided by the WHO Mental Health Action Plan initially adopted in May 2013 (WHO, 2013b) and in 2019 updated and extended until 2030 (WHO, 2021a). The updated Plan builds upon its predecessor and sets out clear actions for member states and for international, regional, and national partners to promote mental health and well-being for all. While it includes new and updated indicators and implementation options, the original four major objectives remain unchanged: more effective leadership and governance for mental health; the provision of comprehensive, integrated mental health and social care services in community-based settings; the implementation of strategies for promotion and prevention; and strengthened information systems, evidence, and research. South Africa is therefore mandated to protect those at-risk and to achieve universal coverage for mental health services.

Knowledge and understanding around suicidal behaviour have increased considerably in recent years. Researchers have identified the importance of the interplay between biological, psychological, social, and environmental factors in determining suicidal behaviours (WHO, 2014; Chai *et al.*, 2022). Cultural factors in suicide risk have also become apparent, with culture having roles both in increasing risk and in protection from suicidal behaviour (Kirmayer, 2022). Epidemiology has helped identify many risk and protective factors for suicide both in the general population and in vulnerable groups (WHO, 2014). The alignment and co-ordination of prevention efforts must include partners across a wide range of disciplines, sectors, and institutions. Identifying stakeholders is a key element to the development of a NSPS. The different actions and contributions from each can contribute to effective prevention. Multisectoral collaboration is more likely to succeed when there is transformative leadership that will drive prevention efforts. In developing an appropriate NSPS, South Africa must involve different actors and disciplines working on suicide prevention, such as different ministries, health administrations, non-governmental and non-

profit organizations, universities, schools (WHO, 2014), law, businesses, the media, politics, employers, researchers, and civil society at national, provincial and community levels (WHO, 2018b).

South African politicians and parliamentarians are key stakeholders who ultimately influence public policy. In addition, ministers of health play an important role in bringing together various stakeholders from different sectors. Implementing policies addressing suicide prevention in South Africa will be a solid indicator of strong will and commitment. A lack of commitment and leadership in developing a NSPS will translate to strategies being partially implemented or not at all. Political commitment, leadership, and willingness to engage in key issues are essential for ensuring that suicide prevention receives the resources and attention that it requires from national, regional, and local leaders.

Collaboration in mental health is not only the work of policymakers within government, but those individuals, organizations, and communities who have a role in developing, implementing, and enforcing policies, laws, and regulations within their institutions, whether this is done in specific provinces, schools, or the workplace environment. These entities can implement health and wellness policies that improve the overall well-being of students, staff, and other individuals. A typical example would include the case of higher education institutions that are in a unique position to develop and implement programs and policies to treat mental health issues and to support overall well-being on campuses. Whilst many higher education institutions in South Africa have wellness policies in place, these are currently not mandatory and there is no reporting or feedback mechanisms on implementation and efficacy.

In recognition that health and well-being is created by a multitude of factors beyond health care, “health in all policies” is an established collaborative approach that integrates the health implications of public policies across sectors (WHO, 2013a). Health in all policies emphasises the consequences of social and economic policies on population health, helping to strengthen the accountability of policymakers for health impacts at all levels of decision-making. Applying a “health in all policies” approach in a NSPS is essential to remodel relevant social and economic policies and it may also be effective in identifying gaps in evidence and achieving health equity (WHO, 2022).

Employers are in a key position to support evidence-based workplace wellness efforts and to implement policies and programs that foster health, wellness, and safety among their employees. Employers can

provide tailored, confidential counselling to promote life skills, combat depression, address substance-use problems and ensure access to healthy foods. They can further enhance the overall emotional well-being of employees by providing health coverage for clinical preventive services or by protecting their workers from illness and injury. These initiatives will contribute to the improvement of the health of the country's workforce whilst encouraging economic growth and reducing health-care expenditures.

The healthcare sector is a crucial partner in supporting mental health for all (WHO, 2022). It can build partnerships with government, the private sector and crucially among people with lived experience. Such people are important agents of change (WHO, 2022; United Nations, 2020), vital to improving mental health systems, services, and outcomes (Thorncroft & Tansella, 2005). The sector can provide care at community levels through qualified practitioners who offer a range of equitable and rights-based services, irrespective of age, gender, socio-economic status, race, ethnicity, disability, or sexual orientation. A multisectoral approach to delivering care is needed because effectively supporting people with mental health conditions often extends beyond clinical care alone. Included in such an approach would be the welfare, housing, employment, education, and legal sectors.

A partnership with communities is essential. Peer networks (Hilario *et al.*, 2021), NGOs (Thara & Patel, 2010), traditional healers (Bantjes *et al.*, 2017) and faith-based organizations (Bazley & Pakenham, 2019) can play a crucial role in suicide prevention. Their roles may range from advocacy to end stigma, to training and capacity building, to the provision of social support to vulnerable individuals. Partnership can also allow for follow-up care and reduce the need for treatment and recovery services through the health sector alone.

The process of developing a suicide prevention strategy offers unique opportunities to increase awareness about suicide. Responsible media reporting can assist in raising awareness about suicide, its prevention and mental health generally, and about stigma reduction more specifically (Government of Ireland, 2015). The involvement of the media in awareness efforts will open conversations and generate more sustained involvement from stakeholders and from communities (Zalsman *et al.*, 2016). Certain it is that irresponsible media reporting has been associated with suicidal behaviour. Media practices are inappropriate when they gratuitously cover celebrity suicides, report unusual methods of suicide or suicide clusters, show pictures or information about the method used, or normalise suicide as an

acceptable response to adversity. The reporting of celebrity deaths by suicide, for example, appears to have had impact on total suicides in the general population, but especially on students and young people (Niederkröthaler *et al.*, 2020, Stack, 2005, McTernan *et al.*, 2018, Quarshie *et al.*, 2020). Inappropriate media reporting practices can sensationalize suicide, increasing the risk of “copycat” suicides among vulnerable people. It can expose persons experiencing suicidal crises to previously not thought of suicide methods, increasing the chance of copying the suicidal behaviour (Daine *et al.*, 2013). Internet and social media sites have played a supplementary role in suicide communications and have been implicated in both inciting and facilitating suicidal behaviour (Westerlund *et al.*, 2012). Private individuals can readily broadcast uncensored suicidal acts and information which can be easily accessed through both media (WHO, 2014).

WHO has recognised the harmful impacts of such media and has developed guidelines for the responsible reporting of suicide by the media (WHO & International Association for Suicide Prevention, 2017). These fall outside the scope of this paper, but such guidelines are now a standard component of many national and regional suicide prevention strategies, and the reporting of suicidal behaviour in press codes of conduct for journalists and within a NSPS warrants serious consideration (McTernan *et al.*, 2018).

Towards Effective Implementation

The effectiveness of a strategy will be strongly dependent on how well it is implemented, as well as the partners involved and the communities within which they are implemented (WHO, 2018). Health-care providers, practitioners and administrators become particularly important. In many communities, public health providers are typically responsible for efforts to prevent both injury and suicide, so these are key players in suicide prevention within the health-care network (Centers for Disease Control and Prevention, 2021; Frieden, 2014). Practitioners in the field are in an ideal position to assess the needs of the communities they work in and to contribute to decisions around the approaches that are best suited to their context (Stone *et al.*, 2017). Community and faith-based organizations can also assist as they are already engaged in human services, youth, and community development at grassroots level. Such organisations can therefore provide valuable partnerships in reaching out to residents, establish credibility with community members, offset costs and access human and financial resources.

The establishment of a specific mechanism for multisectoral collaboration is key to developing both an effective NSPS and an action plan

for implementation. Such a mechanism will make prevention compulsory as a multisectoral priority that involves not only the health sector, but other relevant sectors as discussed. This offers the most practical option for bringing different stakeholders together for mental health promotion and protection, especially when it comes to addressing the structural factors that influence mental health.

A NSPS and its action plan for implementation can assist with developing the most appropriate combination of effective evidence-based interventions that should include both universal interventions that target the general population (Government of Bhutan, 2015), and selective interventions that focus on subpopulations that are at a higher risk of suicide. Selective interventions can be implemented according to the contribution of factors to the overall burden of suicide including socio-demographic characteristics, geographical location, or the prevalence of mental and substance use disorders (US Department of Health and Human Services, 2013). Interventions should be aimed at persons who are already known to be vulnerable to suicide or who have previously attempted suicide (WHO, 2018; Government of Bhutan, 2015). A comprehensive suicide prevention program, to be effective, must employ a combination of universal, selective, and indicated interventions (Hawton *et al.*, 2016).

The monitoring and evaluation of interventions is key to ensuring accountability and effective implementation (US Department of Health and Human Services, 2013). High-quality case registration and surveillance systems that allow for feedback to inform improvements are essential for research activities but must also inform monitoring and evaluation (Government of Bhutan, 2015; Government of the United Kingdom, 2012). Monitoring offers opportunities to critically examine the outcome of interventions in terms of the stated objectives but must be continuous if it is to guide changes to strategy (WHO, 2018).

Conclusion

The development of a locally appropriate suicide prevention program is necessary to reduce suicide rates in South Africa. Without this, efforts are likely to abate, suicide prevention will remain neglected, and rates will escalate. Government must take the lead in developing a comprehensive multisectoral prevention strategy for the population as a whole and for vulnerable persons especially. A NSPS that recognises the social, psychological, and cultural impacts of suicide is important and will indicate government's clear commitment to tackling suicide by providing leadership

on evidence-based strategies for its prevention.

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