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# Understanding Suicide and Self-harm

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# Table of contents

<b>BACKGROUND .....</b>	<b>2</b>
<b>A PUBLIC HEALTH APPROACH .....</b>	<b>2</b>
<b>DEFINING AND QUANTIFYING SUICIDE AND SELF-HARM .....</b>	<b>4</b>
DEFINITIONS .....	4
RATES OF SUICIDE AND SELF-HARM.....	5
<b>IDENTIFYING THE SOCIAL DETERMINANTS AND INDIVIDUAL RISK FACTORS ASSOCIATED WITH SUICIDE AND SELF-HARM.....</b>	<b>8</b>
<b>A COMMENT ON PROTECTIVE FACTORS .....</b>	<b>12</b>
<b>PROPOSING A WHOLE-OF-GOVERNMENT APPROACH TO PREVENTING SUICIDE AND SELF-HARM .....</b>	<b>12</b>
CROSS-SECTORAL ACTION .....	13
SOCIAL PARTICIPATION AND EMPOWERMENT .....	16
EXAMPLES OF UNIVERSAL, SELECTIVE AND INDICATED INTERVENTIONS .....	17
<b>CONCLUSIONS.....</b>	<b>19</b>
<b>REFERENCES.....</b>	<b>20</b>
<b>ACKNOWLEDGEMENTS .....</b>	<b>24</b>

## Background

The National Suicide Prevention Office (NSPO) was created in response to recommendations in the National Suicide Prevention Adviser's Final Advice.<sup>1-4</sup> The NSPO has been charged with the task of ensuring a whole-of-government approach to suicide prevention that is informed by lived experience and creates opportunities to respond early and effectively to distress. An initial priority of the NSPO is consulting and collaborating on the development of a National Suicide Prevention Strategy.<sup>5</sup>

This blueprint paper, *Understanding Suicide and Self-harm*, is intended to help to inform the direction and scope of the NSPO's whole-of-government approach, including the work it is undertaking around the National Suicide Prevention Strategy. More broadly, it is designed as a resource to promote consistency, coordination and comprehensiveness within and across the suicide prevention sector.

*Understanding Suicide and Self-harm* answers two fundamental questions: "How can we more clearly define self-harm and suicidal behaviours?" and "What should we be doing to prevent them?"

## A public health approach

*Understanding Suicide and Self-harm* takes a public health approach.<sup>6</sup> This approach is ideal for understanding suicide and self-harm it acknowledges the critical role that social determinants play in health and wellbeing in general. The importance of social determinants in suicide and self-harm has been widely recognised by people with lived experience, particularly people from groups that are disproportionately impacted by suicide and self-harm. Evidence from scientific studies confirms the importance of social determinants in shaping risk for suicide and self-harm.<sup>7</sup>

The public health approach is broader than clinical or medical paradigms that largely focus on people once they have reached a point of crisis. The public health approach recognises the importance of ensuring that high quality care is available to these people, but also stresses that there are significant gains to be made from more "upstream" strategies that prevent people getting to the point of crisis in the first place. Many of these strategies involve addressing the major social determinants that shape people's lives.

The significance of social determinants in suicide and self-harm – and their prevention – was reflected in the National Suicide Prevention Adviser's Final Advice.<sup>1-4</sup> The whole-of-government approach to suicide and self-harm prevention the NSPO is carrying forward is a further acknowledgement that addressing these social determinants requires action from sectors outside health.<sup>4</sup>

The public health approach involves five activities: (1) defining and quantifying the problem (in this case, suicide and self-harm); (2) identifying the factors that heighten risk for the problem; (3) proposing ways to prevent or ameliorate the problem, based on epidemiological evidence; (4) implementing effective strategies at scale; and (5) evaluating the success of these strategies.<sup>6</sup> *Understanding Suicide and Self-harm* works through the first three of these activities and provides a foundation for the NSPO to develop the National Suicide Prevention Strategy and for the Australian Government and state/territory governments to implement it.

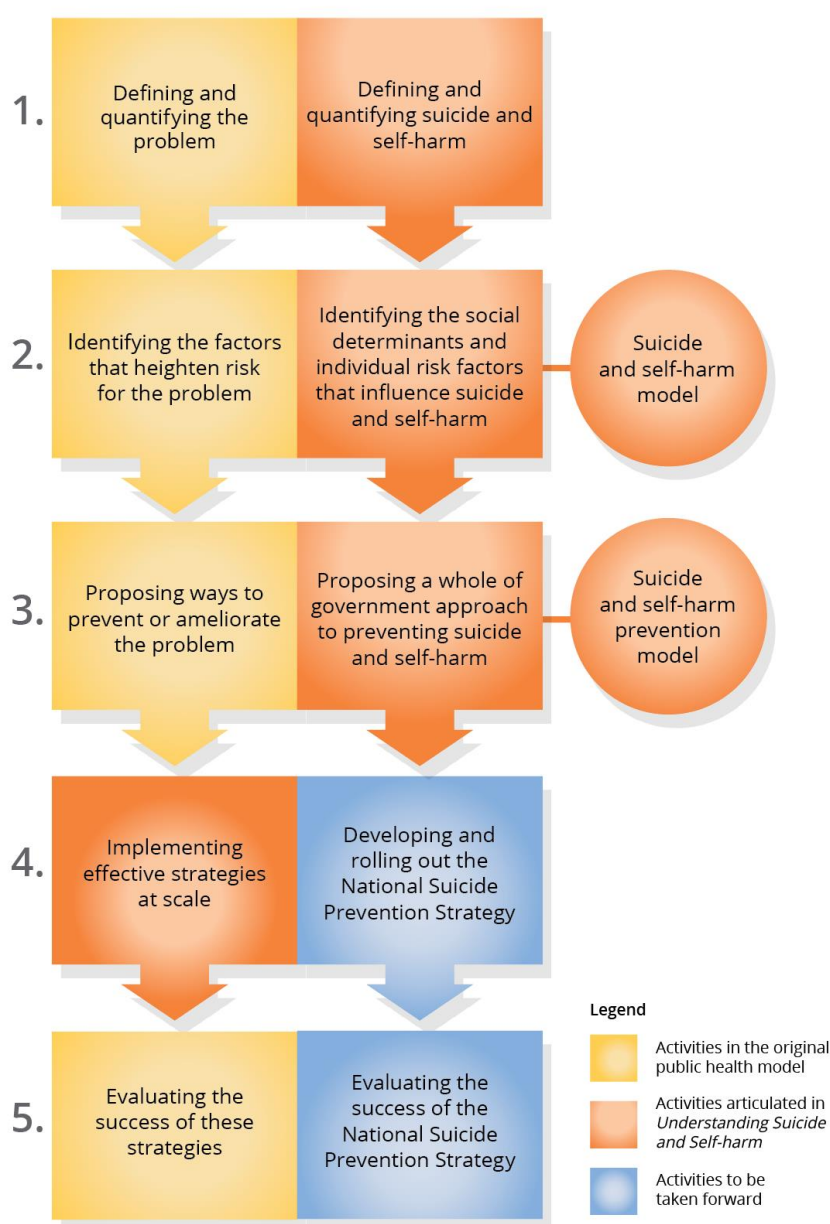
The first activity lays the groundwork for the public health approach by providing consistent definitions of suicide and self-harm that promote understanding of these behaviours within and beyond the health sector. This activity also outlines the extent of suicide and self-harm in the community.

The second activity places significant emphasis on social determinants, exploring how they might influence suicide and self-harm, either in isolation or in combination with individual-level risk factors. The second activity culminates in a model that explains suicide and self-harm in these terms.

The third activity takes this one step further and considers how strategies might be formulated to address the impact of social determinants. It explicitly recognises the potential for stakeholders from multiple sectors to contribute to reducing rates of suicide and self-harm. The third activity results in a model of suicide and self-harm prevention that describes how the whole-of-government approach should work.

Figure 1 provides an overview of the public health approach and how it has been applied to preventing suicide and self-harm in *Understanding Suicide and Self-harm*.

**Figure 1: Applying the public health approach to preventing suicide and self-harm**



*Adapted from: Satcher and Higginbotham<sup>6</sup>*

Across these activities, the public health approach seeks input from people with lived experience. *Understanding Suicide and Self-harm* draws on consultations with people with lived experience of suicide and self-harm that fed into the National Suicide Prevention Adviser's Final Advice,<sup>1-4</sup> as well as on relevant studies that have sought the views of people with lived experience in Australia and overseas. A Lived Experience Advisory Group has guided the content of *Understanding Suicide and Self-harm*. There is a recognition with all of these inputs that people with lived experience are not a homogeneous group. Each individual's story is unique, so there is not always a single collective view; more commonly there are multiple different yet equally valuable perspectives.

## Defining and quantifying suicide and self-harm

### Definitions

The terminology around suicide and self-harm is critically important. Clear, consistent definitions are vital for ensuring that everyone is "on the same page" and for improving data collection, monitoring and evaluation, as per the Final Advice.<sup>1-4</sup> Language matters too because the way we speak about suicide and self-harm has a major influence on how the community understands and responds to people who might be at risk.

Over time, there have been numerous efforts to standardise the language used to describe suicide and related thoughts and behaviours. This has resulted in a number of definitions which tend to be based on both **intent** (or motive or desire) and **outcome**.<sup>8</sup> More recently, some of these definitions have been refined and put to the test with 126 suicide prevention experts.<sup>9</sup> and 1,679 people with lived experience of suicide<sup>10</sup> in an effort to determine their acceptability. The definitions proposed below draw on this body of work, as well as on contemporary terminology in use in Australia.

It is acknowledged that language shifts over time and that modified or different definitions may emerge.

#### Suicide

**Suicide is defined as "an action that a person takes to deliberately end their own life, which results in death."** The action takes the form of poisoning or injury, and the definition reflects the intent to die and the outcome of death. The notion of intent to die is nuanced, with some people with lived experience of suicide noting that sometimes the intent may be more about escaping from unbearable suffering or pain than actually ending life, and that intent may sometimes be ambiguous.<sup>11</sup>

The term "suicide" is preferred over previously used terms like "completed suicide" and "successful suicide" which implied that a fatal outcome was desirable. In addition, the phrase "committed suicide" is not recommended because the word "committed" has connotations of crime and sin, and may therefore contribute to negative attitudes.<sup>12</sup> However, there is not universal agreement among people with lived experience about this.<sup>10</sup>

#### Suicide attempts and self-harm

**A suicide attempt is defined as "an act in which a person harms themselves with the intention of ending their life, and survives."** Again, the act involves harm due to poisoning or injury. Like the definition of suicide, this definition reflects the intent to die, but is distinguished by the outcome of survival.

**Self-harm is defined as "an act in which a person harms themselves with a motive that may or may not involve the intention of ending their life, and survives."** Once again, the harm can be due to self-poisoning or self-injury. The definition includes, but is broader than, suicide attempts. The

distinction relates to intent; some people may self-harm with suicidal intent, whereas others may self-harm for emotional relief, or as a means of coping with distressing thoughts or feelings, or for other reasons. In many instances, the motives underlying acts of self-harm will not be clear. Individuals themselves will not always be able to articulate why they self-harmed, and on any given occasion they may have had multiple, mixed reasons for doing so.<sup>13</sup> As with suicide attempts, the outcome of self-harm is survival.<sup>a</sup>

There is considerable international debate about these terms in the academic and clinical literature. In the UK, the term self-harm is now used in preference to suicide attempts in recognition of the difficulties with discerning intent. In the US, the term suicide attempts is still used, often paired with the term “non-suicidal self-injury” which is used to refer to those acts of self-harm where suicidal intent is not apparent. The latter term is problematic, however. Not only does it assume that intent is clear-cut and can be readily ascertained, but it does not cover off on acts of self-harm that involve self-poisoning as opposed to self-injury.<sup>14</sup>

Among people with lived experience of suicide, the term suicide attempt has high levels of acceptability because of its clear meaning.<sup>10</sup> Some prefer not to use this term, however, arguing that the word “attempt” implies that survival represents failure to achieve what was being attempted. The term “failed suicide attempt” is no longer used, for this reason.

For the purposes of *Understanding Suicide and Self-harm*, the term self-harm is used in preference to suicide attempt because it encompasses self-poisoning and self-injury irrespective of intent. It acknowledges the uncertainty around determining intent.

### Suicidal ideation

**Suicidal ideation is defined as “thoughts of suicide that can vary from general notions about life being meaningless or futile to intense preoccupation with ending one’s own life.”** For some people, these thoughts may be fleeting and perhaps only occur once or twice in their lifetime; for others, they will be much more pervasive. Some people may communicate their suicidal thoughts to their family or friends, whereas others may not.

### Rates of suicide and self-harm

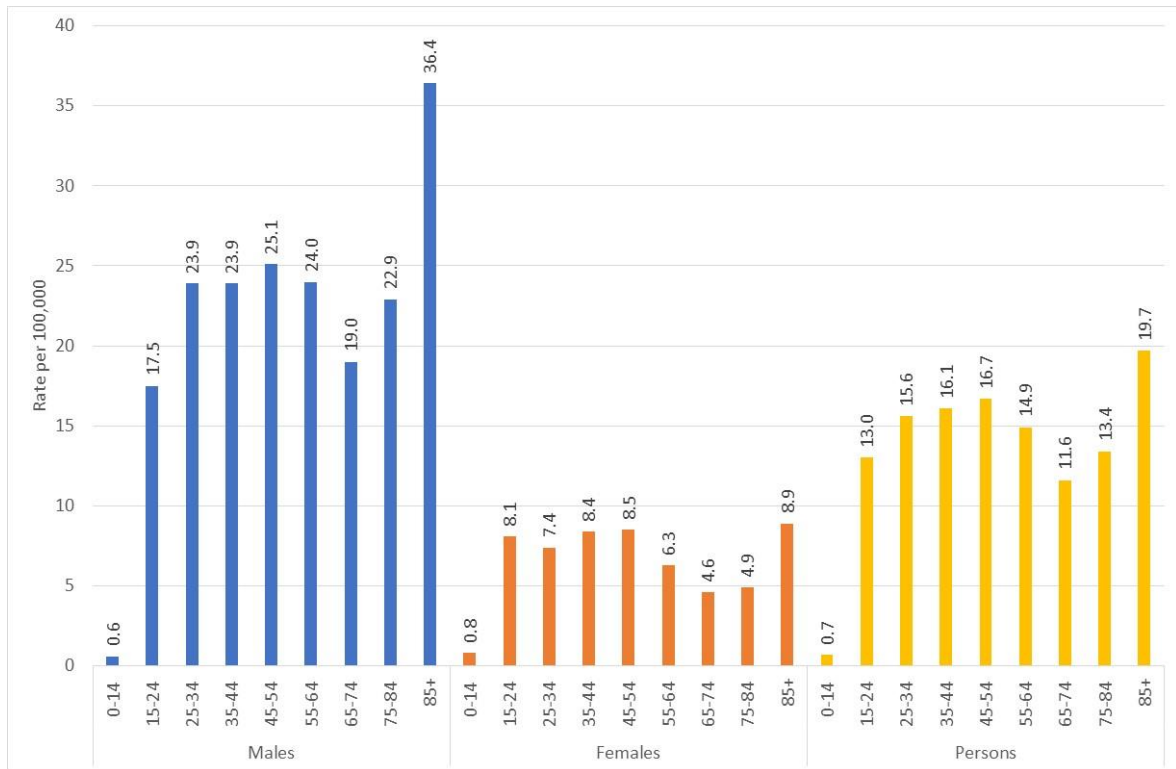
#### Suicide

Suicide statistics are collated annually by the Australian Bureau of Statistics.<sup>15</sup> In 2021, 3,144 Australians died by suicide – 2,358 men and boys and 786 women and girls. This put the total suicide rate at 12.2 per 100,000 (18.5 per 100,000 for males and 6.1 per 100,000 for females). Figure 2 provides a breakdown of suicide rates by age and sex and shows that, for both males and females, rates reached an initial peak for people in the middle adult years, dropped off for those in older age, and then rose again for the very oldest in the population.

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<sup>a</sup> Two other points are worth making here. The first is that although it is generally accepted that self-harm involves self-poisoning or self-injury, there are other forms of self-harm that warrant consideration such as emotional self-harm (e.g., self-sabotage) and extreme risk-taking with ambivalence about the outcome. The second is that despite the definition of self-harm including the outcome of survival, there may be exceptions where people self-harm without suicidal intent but do in fact die.

**Figure 2: Suicides by age and sex, 2021**



Source: Australian Bureau of Statistics<sup>15</sup>

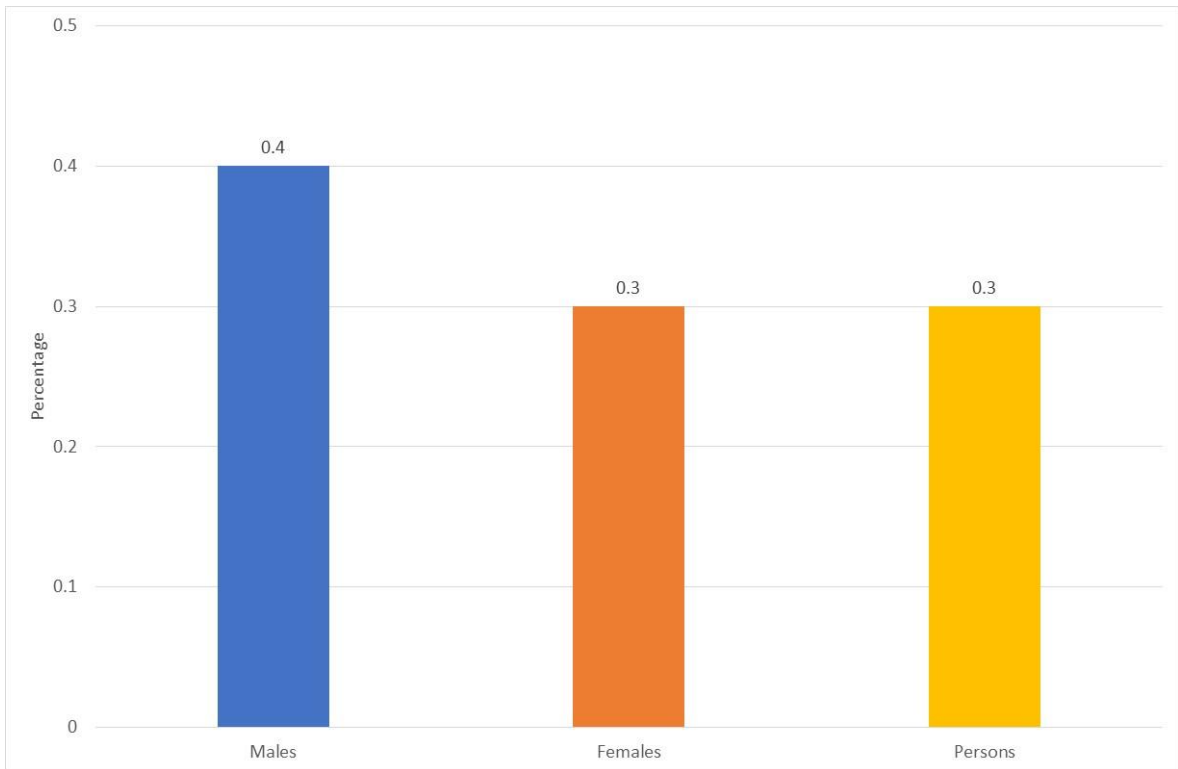
### Self-harm

One way of gauging the extent of self-harm in the community is through representative surveys of the general population. The National Study of Mental Health and Wellbeing, conducted in 2020-21, asked a random sample of 5,554 people aged between 16 and 85 whether they had attempted to take their own life in the past 12 months.<sup>16</sup> The survey revealed that 0.3% of the total sample had done so (0.4% of males and 0.3% of females; see Figure 3). Weighted to the general population, this equates to around 63,800 individuals (35,600 males and 28,200 females).

An alternative way of understanding rates of self-harm is to count the number of hospitalisations for self-harm in a given year. This information is collected by all states and territories and the Australian Institute of Health and Welfare collates and reports on it annually.<sup>17</sup> In the 2020-21 financial year, there were 29,886 hospitalisations for self-harm, 10,058 of which were for males and 19,765 of which were for females. This equates to an overall rate of 116.3 per 100,000 for the total population, and 79.0 and 152.5 per 100,000 for males and females respectively. Figure 4 shows that for females, self-harm was most prevalent among the youngest group, with 250.3 hospitalisations per 100,000 for this group. Self-harm hospitalisations among males showed a different profile, with the highest rates – 113.4 per 100,000 – occurring for males aged 25-44.

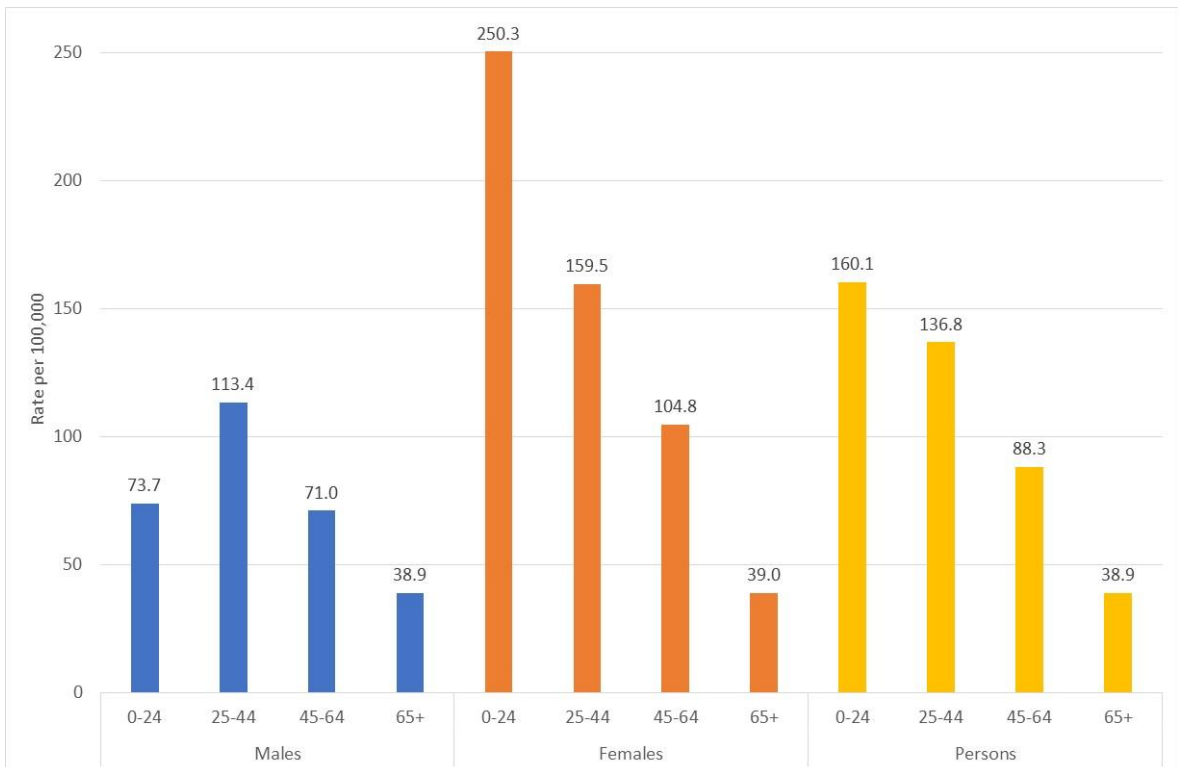
Taken together, these findings suggest that although males and females have a similar risk of self-harm, females are more likely to be hospitalised for self-harm. Some caution should be exercised here, however, because of the way that community prevalence and hospitalisation rates are calculated. With the former, the unit of counting is the person. With the latter, the unit of counting is the hospitalisation, and it is not possible to determine from the available data whether multiple hospitalisations are for the same person or for different people.

**Figure 3: 12-month community prevalence of self-harm by sex, 2020-21**



Source: Australian Bureau of Statistics<sup>16</sup>

**Figure 4: Self-harm hospitalisations by age and sex, 2020-21**



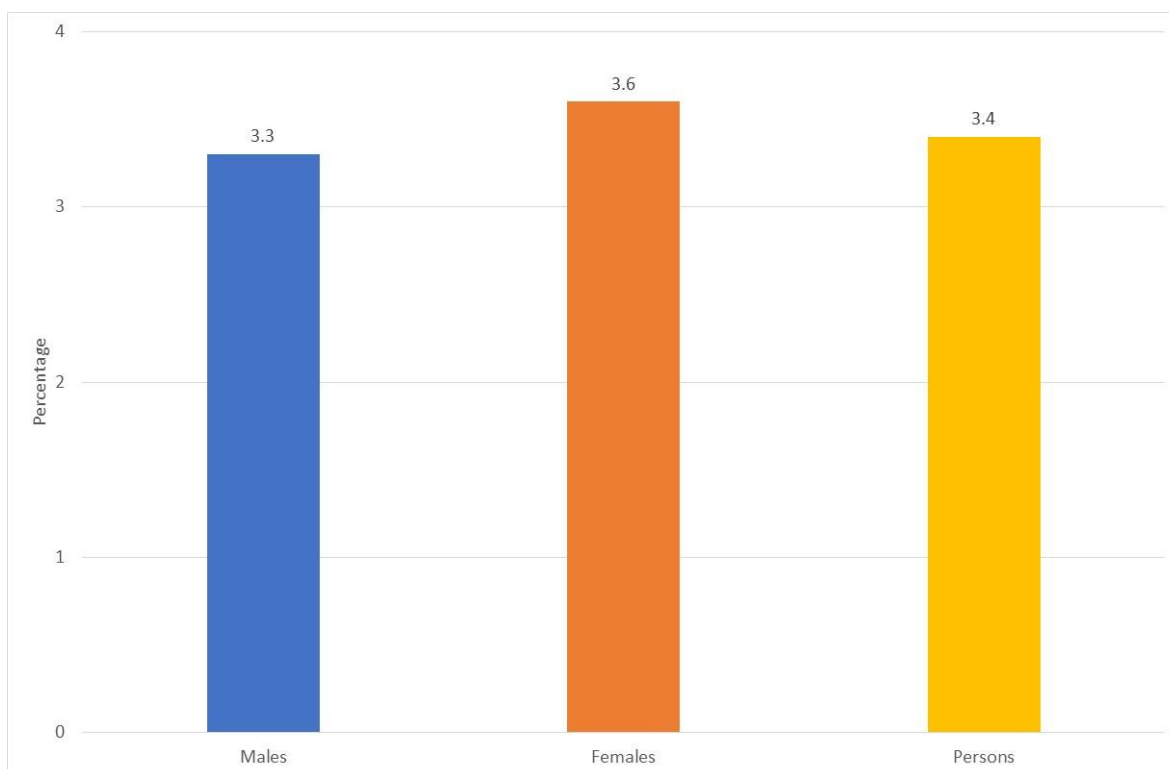
Source: Australian Institute of Health and Welfare<sup>17</sup>



## Suicidal ideation

The 5,554 participants in the National Study of Mental Health and Wellbeing were also asked about whether they had seriously thought about taking their own life in the previous 12 months.<sup>16</sup> Figure 5 shows that 3.4% of the sample had done so (3.3% of males and 3.6% of females). Weighted up to the general population, this equates to around 672,500 people (316,400 males and 356,100 females).

**Figure 5: 12-month community prevalence of suicidal ideation by sex, 2020-21**



Source: Australian Bureau of Statistics<sup>16</sup>

## Identifying the social determinants and individual risk factors associated with suicide and self-harm

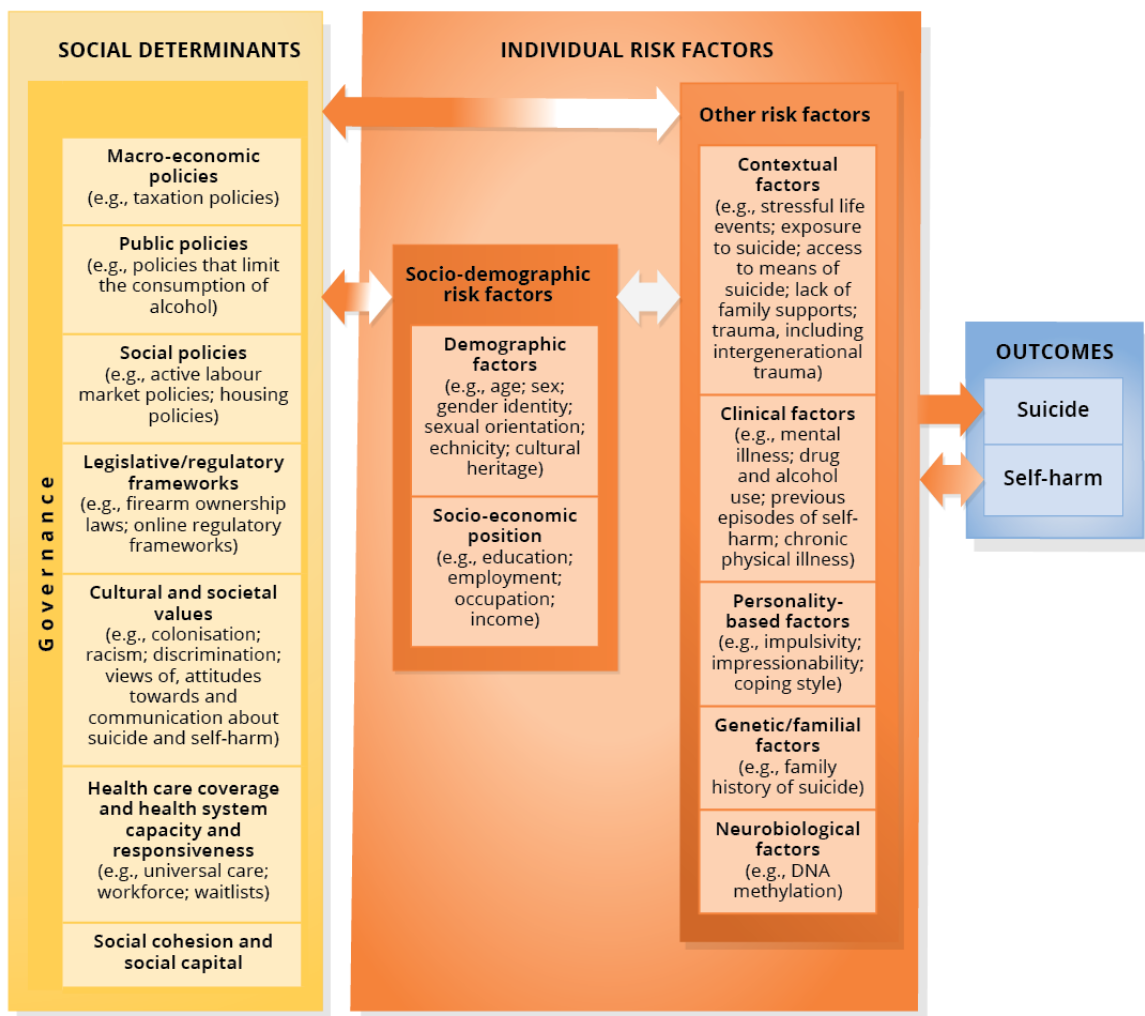
Figure 6 outlines a model that describes how suicide and self-harm behaviours may arise. It provides a framework for considering the myriad of social determinants or societal influences that impact on suicide and self-harm, identifying targets for intervention under the next activity of the public health approach. The model draws on the conceptual framework for action on the social determinants of health that was developed by the World Health Organization's Commission on Social Determinants of Health (CSDH),<sup>18</sup> and on other public health models that take a risk factor-based approach to suicide prevention.<sup>19-21</sup> It describes a range of social determinants that may play a role in suicide and self-harm by interacting with various individual-level risk factors.

The model is concerned with social determinants and individual factors that may heighten risk for suicide and self-harm. In the epidemiological literature, the term "risk factor" is used to refer to characteristics of the individual or the society in which they live that increase the likelihood of a negative outcome.

The first panel of the model highlights the kinds of social determinants that are known to have an impact on suicide and self-harm. Many of the social determinants are taken directly from the

original CSDH framework.<sup>18</sup> The list is not meant to be exhaustive, but rather to illustrate the range of social determinants. They include **macro-economic policies** (i.e., policies that are concerned with the given society's overall economy, like taxation policies), **public policies** (i.e., policies that relate to broad societal issues, like health care), **social policies** (i.e., policies relating to addressing disadvantage, like social welfare and housing), **legislative/regulatory frameworks** (i.e., laws and other regulatory mechanisms that govern the way individuals and organisations operate), **cultural and societal values** (i.e., societally reinforced beliefs and values that influence the way members of the society think and behave), and **health care coverage and health system capacity and responsiveness** (i.e., the ability of the health system to maximise the wellbeing of the society as a whole and individuals within it). All of these are underpinned by the society's **governance** (i.e., the structures, processes and principles that shape societal decision-making).

**Figure 6: Social determinants of suicide and self-harm**



*Adapted from: Solar and Irwin<sup>18</sup>*

The second panel of the model describes the kinds of individual risk factors with which the above social determinants interact, together with examples of each. These include socio-demographic, contextual, clinical, personality-based, genetic/familial and neurobiological factors. This taxonomy is based on one that was originally developed in the mid-1990s but remains a helpful way of thinking about individual-level risk factors for suicide and self-harm.<sup>19</sup> The arrows between the social determinants and the individual risk are bi-directional because they represent the interaction between the two.

Together, the two panels illustrate the breadth of the model. It incorporates the social determinants and individual-level risk factors that sit at the core of a clinical or medical approach, highlighting the importance of health care coverage and health system capacity, and the relevance of clinical factors like mental illness. It extends beyond this to take into account social determinants and individual-level risk factors that relate to wider aspects of people's lives, some of which may have an impact from childhood or even intergenerationally.

In line with the original CSDH framework, which is concerned with social determinants of health and health inequities,<sup>18</sup> the current model gives some prominence to socio-demographic risk factors, particularly those that are directly related to socio-economic position (e.g., education, employment, occupation and income). It does this because there is strong evidence from multiple studies that low socio-economic position is associated with suicide and self-harm.<sup>22-24</sup> Social determinants are particularly powerful in terms of exacerbating or mitigating this risk. We know, for example, that economic recession is usually associated with elevated rates of suicide and self-harm, and that certain **macro-economic policies** (e.g., taxation policies that widen inequalities) can intensify this, whereas particular **social policies** (e.g., active labour market policies) can offset the impact on rates of both suicide and self-harm.<sup>25-27</sup> People in low socio-economic positions are most likely to be impacted by both of these social determinants. The interactions between social determinants and various other socio-demographic risk factors are also prominent in this model, with the relationship between **culture and societal values** and ethnicity and cultural heritage being a key example. This interaction is critical, with, for example, colonisation, the forced removal of children from their family and country and racism being implicated in high rates of suicide among First Nations people<sup>28</sup> and ill-treatment, discrimination and prejudice influencing patterns of suicide in refugees and asylum seekers.<sup>29</sup> The relationship between **culture and societal values** and gender identity provides another example, with the degree to which society accepts or rejects LGBTQI people being associated with suicidal thoughts and behaviours among transgender people.<sup>30,31</sup>

The model also recognises, however, that social determinants can bypass socio-demographic risk and interact with individual risk factors that are not necessarily related to inequities or disparities. In doing so, they can have a broader influence on suicide and self-harm across the population. One example of this is the way in which **legislative/regulatory frameworks** that govern firearm availability interact with contextual factors relating to access to means and personality-based factors such as impulsivity. Multiple studies have shown that use of firearms is a relatively common method of suicide in countries where gun control laws are lax and firearms are readily accessible. Conversely, where gun control legislation is stricter, firearm suicides occur far less frequently.<sup>32,33</sup> It is conceivable that other legislative/regulatory frameworks might operate in similar ways (e.g., regulatory approaches to online safety are beginning to emerge<sup>34</sup> that could play a significant role in suicide prevention, particularly for young people). Another example is **culture and societal values** relating to views of, attitudes towards and communication about suicide and self-harm. A society's collective view of suicide is shaped by the way individuals in that society interpret what they hear and see about suicide and self-harm (e.g., in various forms of media; in discussions with their peers). This impact might be negative (e.g., if it leads them to view suicide as an acceptable option for someone in crisis, or to view people who self-harm as "weak", "selfish" or "attention-seeking"). Alternatively, it might have a positive impact if it reinforces the view that people can overcome a suicidal crisis and that help is available. This has a bearing on suicide and self-harm that transcends socio-demographic groupings, although it may interact with other individual-level risk factors (e.g., personality-based risk factors, like impressionability, and genetic/familial risk factors, like exposure to a family history of suicide).

As noted, the relationship between social determinants and individual risk factors can be bi-directional. For example, in the absence of good **public policies** and **social policies**, someone with no job, insecure housing and problematic alcohol use may be placed at risk because they lose hope for their future, see no solution, and experience depression; conversely, someone with severe mental illness may find it hard to hold down employment or settle in stable housing. If good **public**

**policies** and **social policies** are in place, however, both people may benefit from job training opportunities or rent relief and find it easier to find support for their substance use or mental illness. This is not to diminish the impact of living with substance use or mental illness, nor to deny the fact that timely access to high quality treatment is critical.

The **health system** may exert a major direct protective effect on suicide and self-harm for some. Like some of the other social determinants in the model, it may interact with the socio-demographic and other individual risk factors in the model, sometimes underpinning them and sometimes intensifying or attenuating them. Societies that offer universal health care coverage may be able to mitigate risk by addressing some of the individual-level clinical risk factors for suicide and self-harm (e.g., by offering accessible, high quality care for those with mental illness<sup>35,36</sup>). They may also be able to reduce mortality rates from self-harm by offering appropriate medical and surgical care and, for example, antidotes to self-poisoning. In addition, they may also be able to offer pharmacological management (e.g., ketamine) that may impact a myriad of potential factors involved in suicide and self-harm outcomes including neuroplasticity, inflammation, reward system, and pain processing.<sup>37</sup> However, universal health care coverage may not be enough if the health system is at capacity and people are not appropriately referred and are left to navigate the system by themselves, have long wait times to get into care, do not receive adequate care, or are unable to access care at all. These issues may be particularly problematic in rural areas, where there are fewer providers. Similarly, universal health care coverage may fall short if the health system is insufficiently responsive to particular at-risk groups. It is known, for example, that there are many cases where young people present to the emergency department having self-harmed and either receive inadequate treatment or, worse still, are turned away altogether. This not only results in less-than-ideal care in the context of an acute crisis but also increases the likelihood of a repeat episode and reduces the likelihood that individuals will seek help if one occurs.<sup>38</sup> The health system response to other at-risk groups has similarly been called into question with, for example, First Nations people experiencing, at best, a mismatch in terms of the care they receive in relation to need and, at worst, structural racism, stigma and discrimination.<sup>39</sup>

Some social determinants may benefit or disadvantage both those with socio-demographic risk factors and the population in general. **Public policies** that limit the consumption of alcohol are a case in point. Alcohol misuse is a key individual-level clinical risk factor for suicide, and although alcohol-related harms occur on a socio-economic gradient, policies that limit alcohol consumption are likely to confer benefits across all socio-economic strata.<sup>40</sup> Having said this, care should be taken here. Policies that restrict the consumption of alcohol altogether (i.e., prohibition policies) are less likely to be helpful than policies that minimise harm (e.g., policies that promote responsible drinking) because they may lead to choices that are even riskier.

In the model, **social cohesion and social capital** are important social determinants that have a protective effect. The contribution of these constructs to suicide rates has been recognised for over 120 years, well before these specific terms were in use. Durkheim's 1897 text, *Le Suicide: Étude de Sociologie (Suicide: A Study in Sociology)*,<sup>41</sup> drew attention to the fact that markers of societal integration and connectedness in certain European countries (e.g., typical family structure, dominant religion, level of economic stability) were associated with lower suicide rates. More recent studies from a number of countries have shown that social capital, as measured by indicators of social participation, political participation and trust, is inversely associated with suicide rates.<sup>42-44</sup> Despite limited evidence related to self-harm, it is likely that the same factors have a similarly important role in the incidence of these behaviours.

The ultimate outcomes in the model are suicide and self-harm, as represented by the third panel. The interplay between the social determinants and individual-level risk factors in the preceding panels mean that a disproportionate burden of both suicide and self-harm falls on those who are more susceptible to negative effects of the various social determinants. A pernicious feedback loop – represented by the bi-directional arrow – operates here with the effect that some individuals

who have self-harmed may find that they are more vulnerable to risk because they are more exposed to harmful social determinants (e.g., facing economic hardship because they are unable to return to the workforce, or bearing the brunt of negative cultural and societal values like stigma and discrimination). They may also be at more direct increased risk by virtue of having already self-harmed.<sup>45</sup> With suicide, because the outcome is fatal, the effect is unidirectional.

## A comment on protective factors

The model described in Figure 6 places particular emphasis on individual-level factors that may heighten risk for suicide and self-harm, and how various social determinants may interact with them. It is worth noting, however, that certain individual-level characteristics and circumstances – termed “protective factors” – can lower the likelihood of a negative outcome. The model is equally applicable to protective factors and recognises that some social determinants may operate to strengthen these.

Strictly speaking, protective factors are not just the inverse of risk factors. Instead, they have a buffering effect that reduces a risk factor’s impact. In practice, this subtlety in the definition may sometimes be unnecessarily confusing. For example, having a relatively good income may attenuate the heightened risk of suicide associated with living in a rural area and might therefore be viewed as a protective factor in the strictest sense of the term. But it is also the direct inverse of managing on a low income, which is recognised as a risk factor. To complicate things further, factors that may be protective for some may be risk factors for others. For example, religion may be protective for some, offering a faith-based belief system and a sense of community connection. However, it may confer risk for others, particularly if it creates conflicts around their identity or choices; religion is associated with a greater likelihood of thoughts of suicide and self-harm in same-sex attracted young people.<sup>46</sup>

## Proposing a whole-of-government approach to preventing suicide and self-harm

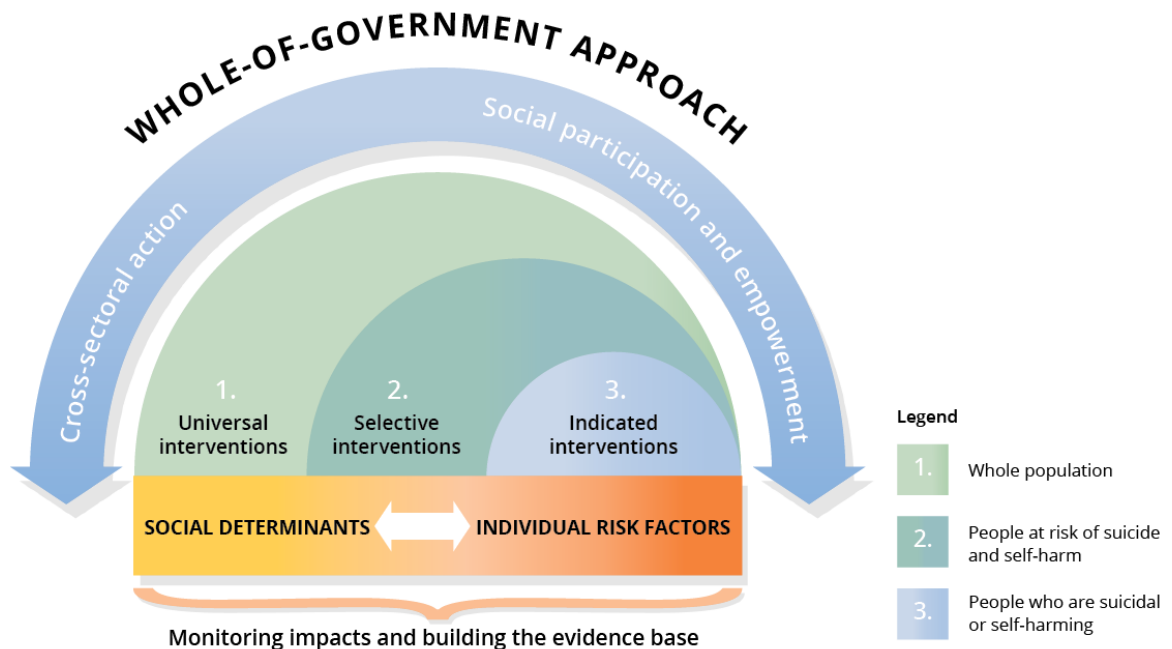
The public health approach recognises the salience of the kind of social determinants and individual-level risk factors identified above and addresses them through prevention activities classified as universal, selective or indicated depending on how their target groups are defined. In the current context, universal interventions target the whole population, without necessarily identifying individuals who might be at risk of suicide or self-harm. Selective interventions target individuals who are not yet thinking about suicide or engaging in self-harm, but who exhibit risk factors that predispose them to do so in the future. Indicated interventions are designed for individuals who are already suicidal or self-harming and include a range of solutions typically (although not exclusively) offered in clinical settings. All three types of interventions are designed to minimise or ameliorate risk factors (or bolster protective factors).

The ways in which social determinants influence suicide and self-harm will require us to intensify our focus on universal and selective interventions. We should not do this at the expense of indicated interventions for those who are already suicidal or self-harming, because these are critical, but we do need to broaden our thinking in relation to the full range of social determinants.

Figure 7 presents a hybrid, whole-of-government model for preventing suicide and self-harm which overlays the CSDH framework on the traditional public health approach. The model centres on context-specific strategies for tackling social determinants and their interactions with individual-level risk factors. These strategies take the form of universal, selective and indicated interventions that target specific populations as relevant. Importantly, these strategies involve **cross-sectoral action** that is undertaken not only by the health sector but also by sectors beyond health. The strategies are informed by and designed to promote **social participation and empowerment**.

Like the CSDH framework, this model also emphasises the importance of **monitoring the impacts of policies and other interventions and strengthening the evidence for their effectiveness**. This involves collecting data to determine what interventions are being delivered to whom and what outcomes are being achieved as a result.

Figure 7: Suicide and self-harm prevention model



Adapted from: Silverman and colleagues<sup>20,21</sup>

Further detail is provided below on the **cross-sectoral action** and **social participation and empowerment** that are integral to the whole-of-government approach. Examples of universal and selective interventions that could be deployed to address some of the key social determinants of suicide and self-harm are also provided.

### Cross-sectoral action

As indicated above, health care coverage and health system capacity and responsiveness are critical social determinants of suicide and self-harm. They are vital for ensuring that suicidal people can access appropriate services and receive the support they need. But cross-sectoral action (i.e., interventions that occur outside the health sector but which affect health outcomes) is a key component of any prevention strategy. This cross-sectoral action must involve genuine partnerships from all levels of multiple sectors.

Traditionally, policies aimed at suicide and self-harm prevention have not gone far enough in fostering cross-sectoral action. Many countries have national suicide prevention strategies, all of which aim to reduce suicide and many of which also address self-harm more generally.<sup>47</sup> Most draw on the advice of the World Health Organization and recommend a range of universal, selective and indicated interventions, underpinned by strong, cohesive leadership and, wherever possible, evidence from a range of sources.<sup>48</sup> Platt et al summarised the typical interventions and described these and their underpinnings as the *components* of national strategies.<sup>48</sup> These components are like the tree in Figure 8. The root system represents the underpinnings; oversight and coordination, which are crucial elements of strong leadership and appropriate investment, and surveillance, monitoring and evaluation which contribute to the evidence base.<sup>48</sup> The branches represent the different interventions that are commonly delivered through national strategies.<sup>48</sup>

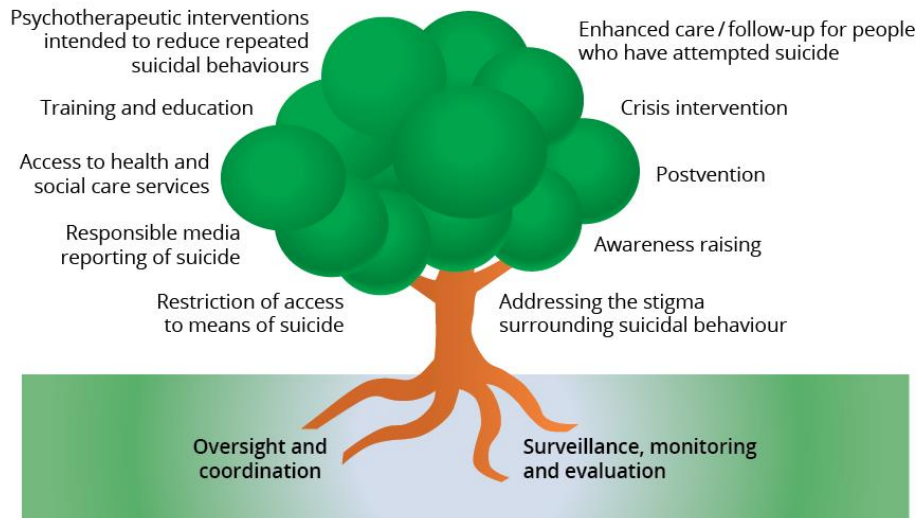
Few would dispute the value of most of the components of national strategies, and some are helpful in addressing the key social determinants of suicide and self-harm. For example, guidelines on responsible media reporting of suicide have been shown to improve reporting<sup>49</sup> and are therefore likely to help shape the way in which suicide and self-harm are viewed by the community.

However, national suicide prevention strategies are limited because they are usually signed off by health ministers and the responsibility for their oversight rests with health bureaucrats. A search of relevant national strategies conducted in November 2020 identified 28 current strategies,<sup>50</sup> 21 (75%) of which were published by health ministries.<sup>51</sup> Although these health-led strategies often make mention of the role of social determinants, they are light on genuine cross-sectoral collaboration, failing to attach appropriate import to the broader impact that policy decisions in other sectors can have on suicide and self-harm. They acknowledge the inequities created by these decisions but don't address them in a meaningful way. For example, they don't recognise the major influence on suicide and self-harm of far-reaching policies relating to economic austerity measures or detention of refugees. Nor do they recognise the impact of weak regulation of the alcohol and gambling industries, where market decisions are made for commercial gain. These policies can have a major impact on the risk of suicide and self-harm for some of the most vulnerable members of society. Worse, there is an implication that if governments recommend health sector-centric interventions prescribed by typical national suicide prevention strategies then they've "done their bit".

This skewed emphasis flows from policy to practice. This is evident in the list of interventions that comprise the typical components of national strategies in Figure 8. The majority of these are delivered by clinically oriented health and related services and focus on individuals rather than populations (e.g., access to health and social care services, psychotherapeutic interventions designed to reduce repeated suicidal and self-harming behaviours, enhanced care/follow-up for people who have attempted suicide, crisis intervention). These are a critical part of any dedicated effort to reduce suicide and self-harm and, if done well, have the potential to make a real difference for suicidal individuals who make contact with the health system. Access to these services could be improved (e.g., through more streamlined funding models or through the use of technology and digital interventions). By themselves, however, indicated interventions are not able to prevent people reaching the point of crisis; on-the-ground action from outside the health system is necessary here.

Even interventions that aren't solely the responsibility of health services tend to be implemented through a healthcare lens. For example, training and education targeting gatekeepers or first responders is often developed and delivered by health professionals, as are programs designed to address the stigma and discrimination surrounding suicide. Health services and individual health professionals have a clear role to play in preventing suicide and self-harm but achieving population-wide prevention requires a more holistic approach and a workforce with broad ranging expertise. It is absolutely appropriate that when someone is in crisis or has self-harmed that clinicians in health services should provide care, particularly if they address non-clinical issues (e.g., financial hardship, job losses and relationship break-ups) as well as clinical ones (e.g., depression), but many of the more upstream interventions may be better delivered by others in different settings (e.g., educators in schools).

**Figure 8: Typical components of national suicide prevention strategies**



Adapted from: Platt et al<sup>48</sup>

There may also be benefits in complementing some of the more clinical interventions with other approaches. There is evidence, for example, that peer workers with lived experience of suicide and self-harm may be well-placed to support those in a suicidal crisis,<sup>52</sup> either alongside clinical staff in emergency departments or mental health services or in alternative settings. “Safe spaces” are non-clinical, peer-led supports for people in a suicidal crisis that are showing promise. Some are residential and others take the form of drop-in services or “safe haven cafés”. They are not designed to replace clinical services, but rather to offer support and a means by which people can learn from others who have been in similar situations themselves. They assist people to navigate the mental health system, connect them to local services, and encourage them to develop strategies to maintain and enhance their mental health and wellbeing.<sup>53,54</sup>

National suicide prevention strategies need to involve a whole-of-government partnership that recognises how policies in a range of sectors can increase or decrease people’s risk suicide and self-harm. This would lead to better, more robust and concerted prevention efforts and signal a greater prioritisation of suicide and self-harm as major targets of societal intervention. As one example, the communications portfolio and online safety regulator might look closely at how their policies and regulations could be modified to improve online safety. This could include approaches that maximise the chances of online conversations about suicide being safe and unlikely to have adverse impacts. It could also include working with the social media industry to address the ways in which their algorithms operate, in order to maximise the helpful content and minimise the harmful content that people – particularly young people – are exposed to.

There are precedents for this. The “Health in All Policies” approach holds politicians and policy-makers from all sectors accountable for considering the consequences of their decisions on health and wellbeing, with a view to improving population health and reducing health inequities.<sup>55</sup> Ideally, national suicide prevention strategies should promote a “Suicide and Self-harm Prevention in All Policies” approach that is led by chief ministers, or by specially appointed ministers with a cross-sectoral remit. This strong leadership is critical, and relates to the notion of governance underpinning the kinds of social determinants of suicide and self-harm that are outlined in Figure 6. It is particularly important at this time, as Australians face wicked problems like climate change. Climate change creates anxiety for many who worry about their future and that of their children. We are already seeing the impacts of climate change in the form of natural disasters, like bushfires and floods, which cause trauma and lead to housing and financial problems for many. Another

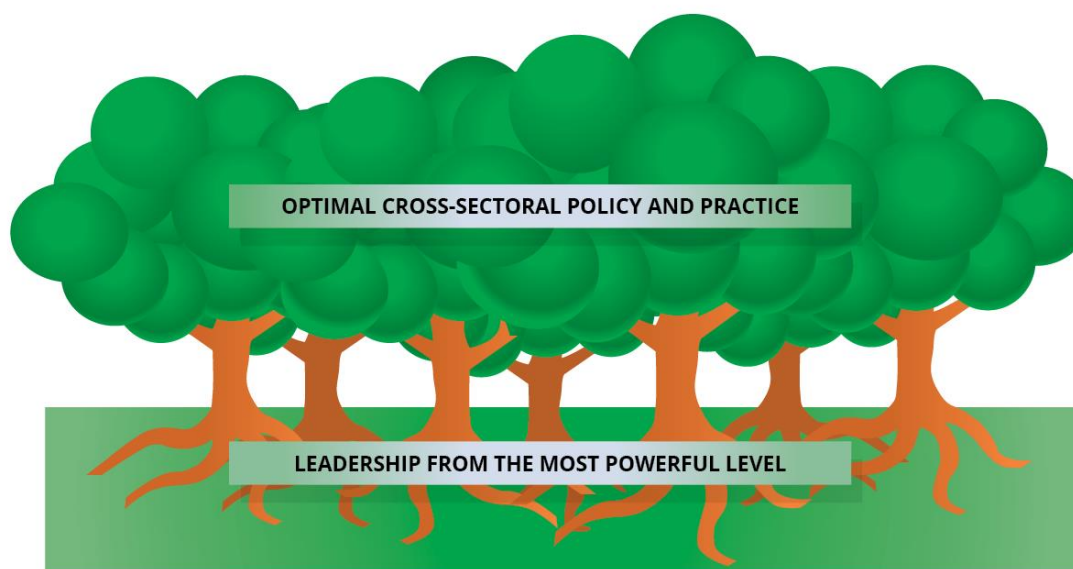


example is the cost-of-living crisis which is likely to see more and more people finding it difficult to make ends meet.

The actions that flow from more cross-sectoral suicide prevention strategies need to reflect the urgency of dealing with the social determinants of suicide and self-harm. They should draw on the best available evidence wherever possible, but should not be stalled while we wait for the evidence to accrue. Judicious decisions should be made about investing in innovative solutions that are likely to have a significant impact. Of course, these promising actions should be carefully evaluated to determine whether they do in fact achieve their goals.

In order to significantly reduce rates of suicide and self-harm, we need more than the single health sector tree in Figure 8. We need a forest of trees, like those in Figure 9, that form a multi-sector ecosystem that recognises that preventing suicide and self-harm is “everybody’s business”. Each tree represents a different sector; health is a key sector but not the only one. The trees are underpinned by a root ball that represents the most powerful leadership, and their branches are intertwined in a way that promotes optimal cross-sectoral policy and practice. Some trees are grafted from others, representing ideal cross-sectoral collaboration. Within sectors, the trees’ trunks bring the branches together to ensure that they are not competing for resources. The biodiversity of the forest floor is critical too, representing the many stakeholders who are involved at a grass-roots level and drive bottom-up initiatives that are key to innovation in suicide and self-harm prevention. These stakeholders include but are by no means limited to businesses and community and social organisations. Ultimately, the trees form a canopy that provides optimal protection against suicide and self-harm.

**Figure 9: A new approach to national suicide prevention strategies**



### ***Social participation and empowerment***

Social participation is critical for suicide and self-harm prevention. Social participation is based on the notion that all groups in society are empowered to have a significant influence on policy decisions that affect their wellbeing and quality of life. In this this case, people with lived experience of suicide should be empowered to influence decisions that affect their risk of suicide and self-harm. Family members, friends, and others who care about these people should also have a major say in these decisions, as should those who have lost someone to suicide. Again, it should be stressed that people with lived experience and those who surround and support them are not a homogeneous group. The constellations of factors that have shaped their experiences are complex

and varied, and they need to be given a platform to speak with agency and autonomy on their own terms.

A response to suicide and self-harm that fosters social participation and empowerment is vital for two reasons. The first of these is based on a simple human rights argument. Everyone has the right to participate in shaping public and social policies that affect their wellbeing or, in this case, influence their risk of suicide and self-harm. Marginalised and disempowered groups should be given priority in this regard. The second reason is that policies that influence suicide and self-harm are likely to be more effective and more sustainable if relevant groups of stakeholders have genuine ownership of them. Solutions are more likely to come from those who are affected by the social determinants of suicide and self-harm, living with them as part of their reality every day.

We have a long way to go in terms of participation and empowerment in suicide and self-harm prevention in Australia, although some progress has been made. Increasingly, people with lived experience of suicide and self-harm are being offered a seat at the decision-making table, although not all groups are well-represented (e.g., young people often miss out). Despite this generally positive direction, the decisions that people with lived experience are invited to have input into tend to be quite specific, often relating to the way in which elements of the mental health system might be better reconfigured to support them, or to how specific suicide prevention programs might be designed and delivered. Even when they are involved in higher level policy committees, these committees tend to have the health-centric policy focus described above.

Using the International Association for Public Participation definitions of types of participation, it is also fair to say that the kind of participation that people with lived experience are invited to offer sits somewhere between consulting (providing feedback) and collaborating (acting as partners in each aspect of the given decision), but is rarely one of fulsome empowerment (having final decision-making power).<sup>56</sup>

We need to ensure that people who are at heightened risk of suicide and self-harm have a genuine, meaningful influence over policy decisions in the “big-ticket” non-health areas that perpetuate their disproportionate level of risk. Their experiences need to be fully incorporated into agenda-setting across the full gamut of relevant policies. They should be involved in the highest level committees, sit on working groups that draft these policies, and be employed in relevant government departments. They should be recognised as experts; many people with lived experience of suicide and self-harm are also professionals, and viewing their input as separate to or different from that of other stakeholders creates a false dichotomy.

### ***Examples of universal, selective and indicated interventions***

The following examples of interventions relating to the social determinants of suicide and self-harm are organised around the spectrum of interventions identified in Figure 7.

#### **Example 1 – Universal intervention: Wellbeing budget (Macro-economic policies)**

Wellbeing budgets are a departure from traditional budgets delivered by governments. Traditional budgets consider things like economic outlook, likely revenue and expenses, and changes to taxes and spending. Wellbeing budgets take these financial matters into account but also focus on valuing priorities that make life worthwhile for individuals in society. New Zealand delivered its first wellbeing budget in 2019, focusing on five priorities (improving mental health; reducing child poverty; addressing the inequalities faced by Maori and Pacific island people; thriving in a digital age; and transitioning to a low-emission, sustainable economy).<sup>57-59</sup> In doing so, required ministers to collaborate with their colleagues in different portfolios and consider how their spending proposals might impact on these priorities.<sup>57-59</sup> These priorities have largely remained the same for a further three wellbeing budgets, and additional funding has been allocated to them over successive budgets.<sup>57-59</sup>

Australia delivered its first Federal wellbeing budget on 25 October 2022. The budget contains relevant measures on income and employment, personal and community safety, health, education, and the environment. These are all pervasive social determinants that are known to not only influence the overall wellbeing of the population, but also to impact on suicide and self-harm more specifically. For example, young people face significant societal pressures to do well academically and fear not being able to get into university or achieve other life goals.<sup>60</sup> They also worry about the future in the face of climate change.<sup>61</sup> These concerns can become all-consuming for young people and may precipitate feelings that life is not worth living. The fact that the budget explicitly addresses these root causes of suicide and self-harm is a welcome step.

### **Example 2 – Universal intervention: Restricting access to paracetamol (Legislative/regulatory frameworks)**

Restricting access to means is widely regarded as an extremely effective universal intervention. Measures to restrict access to a method of suicide that is of particular concern are rolled out across the population, without identifying those in the population who are at heightened risk and might benefit from the intervention. In Australia, a means of suicide that is ripe for this sort of intervention is paracetamol overdose. Overdoses by drugs are the second most common method of suicide in Australia,<sup>15</sup> and paracetamol is the substance most frequently involved in these overdoses. Hospital admissions for paracetamol poisoning are increasing, as is the quantity of tablets taken in overdose.<sup>62</sup>

At present, it is possible for Australians to buy unlimited numbers of packs of paracetamol without a prescription through pharmacies and supermarkets. In pharmacies, the most commonly purchased packs contain 96-100 tablets, and in supermarkets they contain 20 tablets.<sup>63</sup> An independent report commissioned by the Therapeutic Goods Administration (TGA) recommended that the pack sizes available in pharmacies be reduced to 24 or 48-50 and those available in supermarkets be reduced to 12-16.<sup>63</sup> It also recommended making the maximum number of packs that can be purchased in one transaction to 1-2.<sup>63</sup> These recommendations would bring Australian practice in line with that of many European countries, including countries where this sort of means restriction has been demonstrated to reduce deaths by suicide and hospital admissions for self-harm related to paracetamol poisoning.<sup>64,65</sup> The recommendations are currently being considered by the TGA. Equity issues will need to be factored into the deliberations; at present, larger pack sizes represent better value for money, so reducing pack sizes should not disadvantage people on low incomes.

### **Example 3 – Selective intervention: Active labour market programs (Social policies)**

Active labour market programs can be thought of as a selective intervention that target people who are at heightened risk of suicide and self-harm by virtue of being unemployed.<sup>66-68</sup> Risk of suicide is especially heightened for unemployed males<sup>68</sup> and when unemployment is long-term.<sup>67</sup> It follows that active labour market programs that promote secure, stable, appropriately recompensed jobs with adequate conditions can have a significant impact on suicide and self-harm risk by reducing the inequities conferred by unemployment. Active labour market programs typically include elements like: classroom or on-the-job training; job search assistance; subsidized private or public sector employment.<sup>69</sup>

Studies in Europe have shown that active labour market programs can mitigate the impact of economic recession on suicide and self-harm.<sup>22,23</sup> They may not only act to buffer the suicide and self-harm-promoting impact of income loss or financial hardship, but may also have rehabilitative effects for people who are recovering from suicidal crises. Other social protection policies (e.g., social insurance and social assistance programs) have also been shown to be beneficial.<sup>70</sup>

Active labour market programs should not be regarded as a “one-size-fits-all” solution, however. Everyone should have the opportunity of meaningful employment, but not everyone will be able to work in full time or even part time jobs. If the community perceives that opportunities have been offered but not taken up, this may have unintended consequences for some. Complementary solutions to the stresses associated with unemployment should also be explored.

#### **Example 4 – Selective intervention: Trauma-informed care for First Nations people (Cultural and societal values; health system responsiveness)**

Suicide by Australian First Nations people is associated with the cumulative and unresolved effect of colonisation and the involuntary removal of children of the Stolen Generation from their family and country. These contraventions of human rights have led to intergenerational trauma that is perpetuated and exacerbated by contemporary factors like racism, stigmatisation and discrimination.<sup>70</sup>

It is widely accepted that a trauma-informed approach to is required to address these enduring impacts on social and emotional wellbeing, both for individuals in crisis and their communities. The Centre of Best Practice in Aboriginal and Torres Strait Islander Suicide Prevention (CBPATISP) has suggested that the health system and society more broadly must acknowledge and respond to trauma. More specifically, CBPATISP recommends working with and supporting communities to impart cultural knowledge, restore or renew cultural identity and connection to family and country, and promote healing.<sup>71</sup>

#### **Example 5 – Indicated intervention: Aftercare services (health system responsiveness)**

Although many people at risk of suicide do not seek help from services, among those who do, emergency departments (EDs) are often a first point of contact.<sup>72</sup> Recent data from the National Suicide and Self-Harm Monitoring System suggest that rates of presentation to the ED for suicidal ideation or self-harm are increasing, especially in some sectors of the population (e.g., young females).<sup>73</sup>

The period following discharge from the ED is one of elevated risk for suicide,<sup>45,74</sup> yet many people are without follow-up mental health care.<sup>75</sup> Aftercare services that provide intensive support for people who have presented to the ED with self-harm or suicidal ideation represent an example of an indicated intervention that is gaining traction. These services provide assertive follow-up within 24 hours of discharge that then lasts for around three months. Some models (e.g., Beyond Blue’s Way Back Support Service) are community-based and largely peer-led, whereas others (e.g., the Hospital Outreach Post-suicidal Engagement [HOPE] service in Victoria) are hospital-based and combine clinical care with peer support. They typically involve ongoing risk management, safety planning, treatment adherence strategies, and training in problem-solving skills. People are also assisted to address any psychosocial factors that contributed to their ED presentation (e.g., drug and alcohol use, housing and/or employment problems).<sup>76</sup> Most are co-designed with people with lived experience, in order to ensure that they meet the needs of different sectors of the population.

Aftercare services are relatively new. They have been subject to limited evaluation but the evidence that does exist suggests that they show promise,<sup>76-78</sup> and modelling studies suggest that they could significantly reduce the numbers of self-harm hospitalisations and suicide deaths.<sup>79</sup>

## **Conclusions**

*Understanding Suicide and Self-harm* has clearly defined suicide and self-harm, using definitions that are based on intent and outcome, and paying heed to language preferences expressed by people with lived experience. It has also provided a framework for prevention that is based on addressing the social determinants of suicide and self-harm through a public health approach that

particularly emphasises interventions that use policy, legislative/regulatory and systems levers from beyond the health sector.

In recent years, Australia has seen increased investment in suicide and self-harm prevention, with significant additional funding made available for a range of activities and services. All of this is welcome. The suggested approach is not designed to replace these efforts, but rather to build on them through broader-ranging, longer-term, more visionary solutions that have people with lived experience at their core. It has the potential to be game-changing.

## References

1. National Suicide Prevention Adviser. Executive Summary. Canberra: Australian Government, 2020.
2. National Suicide Prevention Adviser. Compassion First: Designing our National Approach from the Lived Experience of Suicidal Behaviour. Canberra: Australian Government, 2020.
3. National Suicide Prevention Adviser. Connected and Compassionate: Implementing a National Whole of Governments Approach to Suicide Prevention. Canberra: Australian Government, 2020.
4. National Suicide Prevention Adviser. Shifting the Focus: Supporting a Comprehensive Whole of Governments Approach to Suicide Prevention. Canberra: Australian Government, 2020.
5. National Suicide Prevention Office. National Suicide Prevention Strategy Scoping Paper. Sydney: National Mental Health Commission, 2022.
6. Satcher D, Higginbotham E. The public health approach to eliminating disparities in health. *American Journal of Public Health* 2008; **98**(3): 400-3.
7. Mok K, Riley J, Rosebrock H, et al. The Lived Experience of Suicide: A Rapid Review. Sydney: Black Dog Insitutue, 2020.
8. Goodfellow B, Kolves K, De Leo D. Contemporary nomenclatures of suicidal behaviors: A systematic literature review. *Suicide and Life-Threatening Behavior* 2018; **48**(3): 353-66.
9. De Leo D, Goodfellow B, Silverman M, et al. International study of definitions of English-language terms for suicidal behaviours: A survey exploring preferred terminology. *Bmj Open* 2021; **11**(2): e043409.
10. Padmanathan P, Biddle L, Hall K, Scowcroft E, Nielsen E, Knipe D. Language use and suicide: An online cross-sectional survey. *PLOS ONE* 2019; **14**(6): 15.
11. Shamsaei F, Yaghmaei S, Haghghi M. Exploring the lived experiences of the suicide attempt survivors: a phenomenological approach. *International Journal of Qualitative Studies on Health and Well-Being* 2020; **15**(1): 9.
12. Beaton S, Forster P, Maple M. Suicide and language: Why we shouldn't use the 'C' word. *InPsych* 2013; **35**(1): 29-31.
13. Cooper J, Hunter C, Owen-Smith A, et al. "Well it's like someone at the other end cares about you." A qualitative study exploring the views of users and providers of care of contact-based interventions following self-harm. *General Hospital Psychiatry* 2011; **33**(2): 166-76.
14. Kapur N, Cooper J, O'Connor RC, Hawton K. Non-suicidal self-injury v. attempted suicide: new diagnosis or false dichotomy? *British Journal of Psychiatry* 2013; **202**(5): 326-8.
15. Australian Bureau of Statistics. Causes of Death, Australia, 2021. 2022. <https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/2021#intentional-self-harm-deaths-suicide-in-australia> (accessed 25 November 2022).
16. Australian Bureau of Statistics. National Study of Mental Health and Wellbeing. 2022. <https://www.abs.gov.au/statistics/health/mental-health/national-study-mental-health-and-wellbeing/latest-release#lived-experience-of-suicide> (accessed 25 November 2022).
17. Australian Institute of Health and Welfare. Suicide and Self-Harm Monitoring: Intentional Self-harm Hospitalisations. 2022. <https://www.aihw.gov.au/suicide-self-harm-monitoring/data/intentional-self-harm-hospitalisations> (accessed 25 November 2022).

18. Solar O, Irwin A. A Conceptual Framework for Action on the Social Determinants of Health: Social Determinants of Health Discussion Paper 2 (Policy and Practice). Geneva: World Health Organization, 2010.
19. Moscicki E. Identification of suicide risk factors using epidemiologic studies. *Psychiatric Clinics of North America* 1997; **20**(3): 499-517.
20. Silverman M, Felner R. Suicide prevention programs: Issues of design, implementation, feasibility, and developmental appropriateness. *Suicide and Life-Threatening Behavior* 1995; **25**(1): 92-104.
21. Silverman M, Maris R. The prevention of suicidal behaviors: An overview. *Suicide and Life-Threatening Behavior* 1995; **25**(1): 10-21.
22. Lemmi V, Bantjes J, Coast E, et al. Suicide and poverty in low-income and middle-income countries: A systematic review. *Lancet Psychiatry* 2016; **3**(8): 774-83.
23. Knipe D, Carroll R, Thomas K, Pease A, Gunnell D, Metcalfe C. Association of socio-economic position and suicide/attempted suicide in low and middle income countries in South and South-East Asia: A systematic review. *BMC Public Health* 2015; **15**: 1055.
24. Pritchard C. Is there a link between suicide in young men and unemployment? A comparison of the UK with other European Community Countries. *British Journal of Psychiatry* 1992; **160**: 750-6.
25. Corcoran P, Griffin E, Arensman E, Fitzgerald A, Perry I. Impact of the economic recession and subsequent austerity on suicide and self-harm in Ireland: An interrupted time series analysis. *International Journal of Epidemiology* 2015; **44**(3): 969-77.
26. Mattei G, Pistorresi B, De Vogli R. Impact of the economic crises on suicide in Italy: The moderating role of active labor market programs. *Social Psychiatry and Psychiatric Epidemiology* 2019; **54**(2): 201-8.
27. Stuckler D, Basu S, Suhrcke M, Coutts A, McKee M. The public health effect of economic crises and alternative policy responses in Europe: An empirical analysis. *Lancet* 2009; **374**(9686): 315-23.
28. Pollock N, Naicker K, Loro A, Mulay S, Colman I. Global incidence of suicide among Indigenous peoples: A systematic review. *BMC medicine* 2018; **16**(1): 145.
29. Awaad R, Dailami M, Nouredine N. US policy of public charge inadmissibility and refugee suicides. *Lancet Psychiatry* 2020; **7**(3): e12.
30. Fenaughty J, Harre N. Life on the seesaw: A qualitative study of suicide resiliency factors for young gay men. *Journal of Homosexuality* 2003; **45**(1): 1-22.
31. Hunt Q, Morrow Q, McGuire J. Experiences of suicide in transgender youth: A qualitative, community-based study. *Archives of Suicide Research* 2020; **24**: S340-S55.
32. Chen Y-Y, Wu KC-C, Wang Y, Yip PSF. Suicide prevention through restricting access to suicide means and hotspots. In: O'Connor R, Pirkis J, eds. *International Handbook of Suicide Prevention*. Chichester: Wiley Blackwell; 2016.
33. Miller M, Azrael D. Reducing suicide without affecting underlying mental health. In: O'Connor R, Pirkis J, eds. *International Handbook of Suicide Prevention*. Chichester: Wiley Blackwell; 2016.
34. Morrissey J, Kennedy L, Grace L. The opportunities and challenges of regulating the Internet for self-harm and suicide prevention. *Crisis* 2022; **43**(2): 77-82.
35. Bolton J, Robinson J. Population-attributable fractions of Axis I and Axis II mental disorders for suicide attempts: Findings from a representative sample of the adult, noninstitutionalized US population. *American Journal of Public Health* 2010; **100**(12): 2473-80.
36. Too LS, Spittal M, Bugeja L, Reifels L, Butterworth P, Pirkis J. The association between mental disorders and suicide: A systematic review and meta-analysis of record linkage studies. *Journal of Affective Disorders* 2019; **259**: 302-13.
37. Lengvenyte A, Olié E, Courtet P. Suicide has many faces, so does ketamine: A narrative review on ketamine's antisuicidal actions. *Current Opinion in Psychiatry* 2019; **21**: 132.
38. Owens C, Hansford L, Sharkey S, Ford T. Needs and fears of young people presenting at accident and emergency department following an act of self-harm: Secondary analysis of qualitative data. *British Journal of Psychiatry* 2016; **208**(3): 286-91.

39. Isaacs A, Maybery D, Gruis H. Mental health services for Aboriginal men: Mismatches and solutions. *International Journal of Mental Health Nursing* 2012; **21**: 400-8.
40. Rajput S, Aziz M, Siddiqui M. Social determinants of Health and Alcohol consumption in the UK. *Epidemiology Biostatistics and Public Health* 2019; **16**(3): 6.
41. Durkheim E. Suicide: A Study in Sociology (1951 Edition, J. A. Spaulding, & G. Simpson, Trans.). London: Routledge; 1897.
42. Dev S, Kim D. State- and county-level social capital as predictors of county-level suicide rates in the United States: A lagged multilevel study. *Public Health Reports* 2021: 33354920976555.
43. Kelly B, Davoren M, Mhaolain A, Breen E, Casey P. Social capital and suicide in 11 European countries: An ecological analysis. *Social Psychiatry and Psychiatric Epidemiology* 2009; **44**(11): 971-7.
44. Kunst A, van Hooijdonk C, Droomers M, Mackenbach J. Community social capital and suicide mortality in the Netherlands: A cross-sectional registry-based study. *BMC Public Health* 2013; **13**: 969.
45. Geulayov G, Casey D, Bale L, et al. Suicide following presentation to hospital for non-fatal self-harm in the Multicentre Study of Self-harm: a long-term follow-up study. *Lancet Psychiatry* 2019; **6**(12): 1021-30.
46. Skerrett DM, Kolves K, De Leo D. Are LGBT Populations at a Higher Risk for Suicidal Behaviors in Australia? Research Findings and Implications. *Journal of Homosexuality* 2015; **62**(7): 883-901.
47. World Health Organization. National Suicide Prevention Strategies: Progress, Examples and Indicators. Geneva: World Health Organization, 2018.
48. Platt S, Arensman E, Rezaeian M. National suicide prevention strategies: Progress and challenges. *Crisis* 2019; **40**(2): 75-82.
49. Pirkis J, Burgess P, Francis C, Blood RW, Jolley D. The relationship between media reporting of suicide and actual suicide in Australia. *Social Science and Medicine* 2006; **62**: 2874–86.
50. Schlichthorst M, Reifels L, Spittal M, et al. Evaluating the effectiveness of components of national suicide prevention strategies: An interrupted time series analysis *Crisis* In press.
51. Schlichthorst M. Personal communication. 2022.
52. Schlichthorst M, Ozols I, Reifels L, Morgan A. Lived experience peer support programs for suicide prevention: A systematic scoping review. *International Journal of Mental Health Systems* 2020; **14**: 65.
53. North East Hampshire and Farnham Clinical Commissioning Group. The Safe Haven Aldershot Evaluation Report. Aldershot: NHS, 2014.
54. Oostermeijer S, Morgan A, Cheesmond N, Green R, Reavley N. The effects of Australia's first residential peer-support Suicide Prevention and Recovery Centre (SPARC): A pilot study. Submitted.
55. World Health Organization. Health in All Policies. Geneva: World Health Organization, 2014.
56. International Association for Public Participation. Spectrum of Public Participation. Toowong: International Association of Public Participation Australasia, 2018.
57. Anderson M, Mossialos E. Beyond gross domestic product for New Zealand's wellbeing budget. *Lancet Public Health* 2019; **4**(7): E320-E1.
58. Bloomfield A. What does a wellbeing budget mean for health and health care? *Milbank Quarterly* 2019; **97**(4): 897-900.
59. Mintrom M. New Zealand's Wellbeing Budget invests in population health. *Milbank Quarterly* 2019; **97**(4): 893-6.
60. Pascoe M, Hetrick S, Parker A. The impact of stress on students in secondary school and higher education. *International Journal of Adolescence and Youth* 2020; **25**(1): 104–12.
61. van Nieuwenhuizen A, Hudson K, Chen XX, Hwong AR. The effects of climate change on child and adolescent mental health: Clinical considerations. *Current Psychiatry Reports* 2021; **23**(12).
62. Cairns R, Brown JA, Wylie CE, Dawson AH, Isbister GK, Buckley NA. Paracetamol poisoning-related hospital admissions and deaths in Australia, 2004-2017. *Medical Journal of Australia* 2019; **211**(5): 218-23.

63. Buckley N, Calear A, Cairns R, et al. Independent Expert Report on the Risks of Intentional Self-poisoning with Paracetamol. Canberra: Therapeutic Goods Administration, 2022.
64. Hawton K, Simkin S, Deeks J, et al. UK legislation on analgesic packs: before and after study of long term effect on poisonings. *British Medical Journal* 2004; **329**(7474): 1076-9.
65. Hawton K, Townsend E, Deeks J, et al. Effects of legislation restricting pack sizes of paracetamol and salicylate on self poisoning in the United Kingdom: before and after study. *British Medical Journal* 2001; **322**(7296): 1203-7.
66. Cunningham R, Milner A, Gibb S, Rijnberg V, Disney G, Kavanagh A. Gendered experiences of unemployment, suicide and self-harm: A population-level record linkage study. *Psychological Medicine* 2021: 1-9.
67. Milner A, Page A, LaMontagne A. Long-term unemployment and suicide: A systematic review and meta-analysis. *PLOS ONE* 2013; **8**(1): e51333.
68. Milner A, Page A, LaMontagne AD. Cause and effect in studies on unemployment, mental health and suicide: A meta-analytic and conceptual review. *Psychological Medicine* 2014; **44**(5): 909-17.
69. Card D, Kluge J, Weber A. What Works? A Meta-Analysis of Recent Active Labor Market Program Evaluations. Cambridge, MA: National Bureau of Economic Research, 2017.
70. Kim C. The impacts of social protection policies and programs on suicide: A literature review. *International Journal of Health Services* 2018; **48**(3): 512-34.
71. Dudgeon P, Holland C, Walker R. Fact Sheet 4 Transgenerational Trauma and Suicide. Perth: Centre of Best Practice in Aboriginal and Torres Strait Islander Suicide Prevention (CBPATISIP); Poche Centre for Indigenous Health, School of Indigenous Studies, University of Western Australia, 2019.
72. Zanus C, Battistutta S, Aliverti R, et al. Adolescent admissions to emergency departments for self-injurious thoughts and behaviors. *PLOS ONE* 2017; **12**(1): 15.
73. Australian Institute of Health and Welfare. Suicide and Self-Harm Monitoring: Intentional Self-Harm Hospitalisations among Young People. 2022. <https://www.aihw.gov.au/suicide-self-harm-monitoring/data/populations-age-groups/intentional-self-harm-hospitalisations-among-young> (accessed 25 November 2022).
74. Rhodes A, Sinyor M, Boyle M, et al. Emergency department presentations and youth suicide: A case-control study. *Canadian Journal of Psychiatry* 2019; **64**(2): 88-97.
75. Spittal MJ, Shand F, Christensen H, Brophy L, Pirkis J. Community mental health care after self-harm: A retrospective cohort study. *Australian and New Zealand Journal of Psychiatry* 2017; **51**(7): 727-35.
76. Williamson P, Hope J, Segal J, et al. A critical review of the first six months of operation of a trial Hospital Outreach Post-suicidal Engagement (HOPE) service in Australia. *Australasian Psychiatry* 2021; **29**(3): 315-21.
77. Kehoe M, Wright A, Lee S, et al. Provision of a multidisciplinary post-suicidal, community-based aftercare program: A longitudinal study. *Community Mental Health Journal* 2022.
78. Wright A, Lee S, Rylatt D, et al. Coordinated assertive aftercare: Measuring the experience and impact of a hybrid clinical/non-clinical post-suicidal assertive outreach team. *Journal of Affective Disorders Reports* 2021; **4**: 100133.
79. Atkinson J-A, Skinner A, Hackney S, et al. Systems modelling and simulation to inform strategic decision making for suicide prevention in rural New South Wales (Australia). *Australian and New Zealand Journal of Psychiatry* 2020; **54**(9): 892-901.



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