Health Innovation Network South London

ZSA Resources

Evidence Review 1
National Approaches to Suicide Prevention Strategies and Policies

Zero Suicide Alliance

Because ONE life lost is ONE too many

Introduction to the ZSA Resources and the Evidence Reviews developed by the Health Innovation Network

The Zero Suicide Alliance (ZSA) secured funding from the Department of Health and Social Care to develop a world leading 'ZSA Resources' digital suicide prevention resource for its members that work across all sectors engaged with or influenced by suicide prevention.

The ZSA Resources are based on our core belief that everyone, everywhere, in every population can take action to promote good mental health, and prevent mental ill health and suicide.

The content of the ZSA Resources has therefore a very practical focus: to constantly seek out the needs of our membership, and to provide members with the resources and implementation tools they tell us they need, to turn their ambition into action. These resources include easy access evidence briefings, new accessible data, visualised into maps of their local area, live examples of implementation solutions in practice, peer learning and support networks, 'help' clinics, virtual conferences and webinars, and links to international communities of practice, research, innovation, and more.

To develop our resource, the ZSA initially commissioned our ZSA Alliance partner, the Health Innovation Network, to undertake a stakeholder consultation of people from each of our membership sectors to identify their needs. This report is available here: www.zerosuicidealliance.com/ZSA-Resources/introduction/zsa-evidence-briefings

The Health Innovation Network (HIN) is the Academic Health Science Network (AHSN) for south London, one of 15 AHSNs across England. As the bodies that connect NHS and academic organisations, local authorities, the third sector and industry, they are catalysts that create the right conditions to facilitate change across whole health and social care economies, with a clear focus on improving outcomes for patients. The HIN is therefore perfectly placed to identify and spread health innovation at pace and scale; driving the adoption and spread of innovative ideas and technologies across large populations.

At the request of our members, ZSA commissioned the HIN to undertake research, bring together experts, and produce a series of evidence briefings on the state of knowledge in a number of key suicide prevention areas. Rigorous desk top research took place over a period of 10.5 weeks mid May 2019 – 2 August 2019. All sections were subsequently reviewed by relevant Virtual Steering Group members. The information sources in this report are correct at time of research.

The Evidence Reviews will be continuously updated as new knowledge becomes available, and to include the impacts of COVID-19. We will reach out to our members and Alliance partners to secure feedback on how the resources are used, how they can be updated and how they can be improved to support action.

We very much hope you find these briefings useful. Please continue to tell us how we can help you save lives, to get in touch please visit: www.zerosuicidealliance.com/get-involved/contact-us

Introduction

National suicide prevention strategies focus the awareness of Government and demonstrate commitment to prioritising and tackling suicide, providing leadership and guidance to support implementation of evidence based interventions in suicide prevention. The World Health Organisation published its first suicide prevention report in 2014; 'Preventing Suicide: a global imperative'. Since then, some 40 countries at all income levels have adopted a national suicide prevention strategy.

In 2019 , Lewitzka et al. published the first review undertaken investigating the effectiveness of national suicide prevention strategy programmes. Few studies investigated the effectiveness of suicide prevention strategies, and those available revealed inconsistent outcomes. Yet using a statistical approach involving the segmented regression analysis of interrupted time series data, Lewitzka et al. concluded that the implementation of a national strategy is an effective tool to reduce suicide rates, stating that special attention should be drawn to different approaches regarding age groups, as well concerning the female population.

Methodology

National strategies included in this review reflect the World Health Organisation (WHO) (2012) LIVE approach, below, and contain most of the WHO recommended components of a national strategy (see Table 1).

- **L**: Leadership through the mobilisation of multiple stakeholders
- **I**: Interventions that are evidence based
- **V**: Vision to work towards the goal of suicide reduction, including adequate resource and financing to sustain interventions and identify new innovations. Appointment of a suicide prevention champion
- **E**: Evaluation of strategies and interventions, including surveillance systems to monitor delivery and impact allowing adaptations to be made if needed.

Table 1: WHO recommended strategy components

Component	Goal and objective
Surveillance	Quality and timeliness of national data on suicide and suicide attempts, including integrated data collection system to identify vulnerable groups.
Means restriction	Reduce availability, accessibility and attractiveness of the means of suicide (e.g. high places, pesticides). Reduce toxicity/lethality of available means.
Media	Promote implementation of media guidelines to support responsible reporting of suicide in print, media broadcasting and social media
Access to services	Promote increased access to comprehensive services for those vulnerable to suicidal behaviours. Remove barriers to care.
Training and education	Maintain comprehensive training programmes for identified gatekeepers (e.g. health workers, educators, police). Improve the competencies of mental health and primary care providers in the recognition and treatment of vulnerable persons.
Treatment	Improve the quality of clinical care and evidence-based clinical interventions, especially for individuals who present to hospital following a suicide attempt. Improve research and evaluation of effective interventions.
Crisis intervention	Ensure that communities have the capacity to respond to crises with appropriate interventions and that individuals in a crisis have access to emergency mental health care, including through telephone helplines or the internet.
Postvention	Improve response to care for those affected by suicide and suicide attempts. Provide supportive and rehabilitative services to persons affected by suicide attempts.
Awareness	Establish public information campaigns to support the understanding that suicides are preventable. Increase public and professional access to information about all aspects of preventing suicidal behaviour
Stigma reduction	Promote the use of mental health services, and services for the prevention of substance abuse and suicide. Reduce discrimination against people using these services.
Oversight and coordination	Establish institutions or agencies to promote and coordinate research, training and service delivery in respect of suicidal behaviours. Strengthen the health and social system response to suicidal behaviours.

Findings

Focus on country

There is international variance and availability of national strategy evaluations. A review of the literature found evaluations of national strategies from Australia, UK (England, Wales, Scotland and Northern Ireland), Sweden and Norway were frequently presented together. New Zealand and the Netherlands are cited as countries with robust national strategies, yet full evaluations are unavailable. Instead, smaller evaluations of specific activities have been undertaken and these are presented separately. Canada was originally identified for inclusion by the HIN, however there is no formalised national strategy in Canada. Currently in place is The Federal Framework for Suicide Prevention (Health Canada, 2016), but there is no funding attached to the framework, nor is there coordinated oversight of suicide prevention initiatives. Suicide trends in the USA, specifically suicide methods (e.g. firearms), although vary significantly from the UK there are relevant system wide evaluations. In particular, the Henry Ford system in Detroit adopted a zero-suicide approach in 2001 with a programme of screening every patient for risk of suicide and a focus on preventative care which resulted in a significant reduction in suicides.

Evaluation of effectiveness

As mentioned above, evaluative evidence of national strategies is extremely limited and often incomplete. Lewitzka et al. published the first review investigating the effectiveness of national suicide prevention programmes by comparing 4 countries with national programmes against 4 control countries with no national programme over a 30 year period. The study found that implementation of a national study appeared to be an effective tool to reduce suicide rates.

The WHO review 'National suicide prevention strategies: Progress, examples and indicators' (2018) states that detecting changes in suicide rates that could be attributed to a national strategy is extremely difficult, as by design national strategies have multiple components, are rolled out on a large scale and are exposed to fluctuations in suicide rates over time. The WHO review showcases 10 national examples of evaluation indicators and targets, but unfortunately does not provide commentary on evaluation findings. Instead it cites three countries as examples (England, Scotland and Sweden: see Table 3) of successful stories in suicide prevention national strategy development and these findings are detailed below.

A recent Canadian summary of national strategies (Payne, 2018) provided comprehensive analysis of evaluations from the following six countries, chosen due to their similar activities and high level outcomes: Australia, England, Finland, Northern Ireland, Norway and Scotland. These findings are included in this review as the countries reflected those identified in our original proposal.

Summary of findings

The WHO review identified shared commonalities across the three identified successful strategies: leadership from Government; collaborative and partnership working and sharing of information across all sectors; stigma reduction through public awareness campaigns and responsible media reporting and being anchored in a public health approach to suicide prevention. The six country review by Payne (2018) identified the following common themes that influenced successful implementation of the strategies: improved data surveillance through establishment of research networks to support capacity building and data sharing, creation of sustainable infrastructure (e.g. Research centres and collaborative networks); where Government departments partnered with communities to encourage them to take ownership and remove duplication, and those who coordinated actions locally; allowing for diverse community needs to be addressed.

Areas of improvement

There was consensus across both Payne (2018) and the WHO reviews that countries need to improve on the following areas to strengthen the success of the strategies.

1.3.4.1 Better data surveillance

1.3.4.2 Undertaking more sophisticated and a long term approach to evaluation of interventions, with quantifiable outcome measures

1.3.4.3 Securing long term funding for permanent activities, not short term funding for one off time limited interventions

1.3.4.4 Continuous development and dissemination of evidence based methods

Payne (2018) additionally reported countries should:

- Partner early with professional groups, especially when changes to education, practice and service delivery are expected outcomes
- Recognise the need for greater community engagement, collaboration and local responsiveness

Netherlands

Its programme's evaluation is unclear between between 2014-2017. The Dutch strategy is delivered by '113 suicide prevention', which is the national suicide prevention centre. Its Annual Report in 2016 states that there were increases in the number of people with suicidal thoughts that were helped by 113, most via its crisis telephone line. Informal commentary available on the 113 websites highlight improved activities across care, media, education and social-economic sectors. 113 works closely with academic and Government institutions on the delivery of its prevention programmes, and each programme states that it will be evaluated but presently there is no data available to review effectiveness.

New Zealand

A full evaluation of the most recent New Zealand Suicide Prevention Strategy 2006–2016 is not available. The strategy included implementation and delivery of two training initiates that have both being evaluated independently. The Ministry of Health states that the views are of the authors and not necessarily endorsed by the Ministry. The evaluation (Oliver, 2015) showed both interventions provided satisfactory basic suicide first aid training with good outcomes in terms of skills acquisition, confidence, and readiness to apply the learning. The authors conclude it meets the needs of many of the Ministries priority audiences for suicide first aid training but does not specifically equip to manage the cultural aspects of suicide prevention, particularly within the Maori community.

Table 2: Six country national strategy evaluation review by Payne (2018)

Country	Strategy & Timeframe	Evaluation Documents	Current strategy / Next Steps	High-Level Outcomes	Results: Age-Standardized Suicide Rate (per 100 000)		
					Baseline	Evaluation Year	June 2018
Australia	National Suicide Prevention Program (NSPP) 1999-ongoing	External – Evaluation of Suicide Prevention Activities (2014) Research/ Commentary – Australia's National Suicide Prevention Strategy: The Next Chapter (2006)	National Suicide Prevention Strategy 2015 Transforming Suicide Prevention Research: A National Action Plan (2015)	-Improved access to support for people at risk of suicide (e.g., Better Access Program) - Improved skills (gatekeeper training) - Improved knowledge, attitudes and help-seeking (media campaign) - Improved media reporting of suicide	14.6 (1997) M: 23.3 F: 6.2	12.0 (2014) M: 18.4 F: 5.9	11.8 (2016) M: 17.9 F: 5.9
Finland	National Suicide Prevention Project 1986-1996	Research/ Commentary – The Finnish National Suicide Prevention Program Evaluation (1999) Research – Evaluation Strategy for Finland's Suicide Prevention Project (1996) External/ Research/ Government – Suicide Prevention in Finland 1986-1996: External Evaluation by an International Peer Group (1999)	Integrated in mental health promotion – National Institute for Health and Welfare	-Improved knowledge, attitudes (reduced stigma) and skills at multiple levels (training) - Improved research - Improved health service coordination	24.6 (1985) M: 40.4 F: 9.8	22.5 (2000) M:43 F: 10.9	16.3 (2015, WHO)
Northern Ireland	Protect Life: A Shared Vision Northern Ireland Protect Life Suicide Prevention Strategy and Action Plan 2006-201	External – Evaluation of the Implementation of the NI Protect Life Suicide Prevention Strategy and Action Plan (2012)	Protect Life: A Shared Vision Northern Ireland Protect Life Suicide Prevention Strategy and Action Plan 2012 - 2014 (refreshed 2012) Protect Life 2: A Strategy for Suicide Prevention in the North of Ireland (2016) – consultations ongoing	-Improved awareness of Suicide (e.g.,public information media campaigns) - Improved skills at multiple levels (training) - Improved research and knowledge - Improved media reporting of suicide	17 (2006) M: 29.2 F: 6.4	16 (2001) M: 27.2 F: 8.9	18 (2016) M: 27.3 F: 9.2

Country	Strategy & Timeframe	Evaluation Documents	Current strategy / Next Steps	High-Level Outcomes	Results: Age-Standardized Suicide Rate (per 100 000)		
					Baseline	Evaluation Year	June 2018
Norway	The National Plan for Suicide Prevention 1994-1998	Research/ Commentary – National Plan for Suicide Prevention 1994-1995: Evaluation Findings (2000) Research/ Commentary – National Plan for Suicide Prevention: Follow-up Project 2000- 2002 (2001)	The National Plan for Suicide Prevention (201417) – Norwegian Board of Health	-Improved research Improved awareness of suicide - Improving knowledge and skills at multiple levels (training) - Improved health service coordination, including follow-up	12.2 (1994) M:17.7 F: 69.	12.4 (1998) M:18.2 F: 6.7	12.0 (2016)
Scotland	Choose Life: A National Strategy and Action Plan to Prevent Suicide in Scotland 2002	Evaluation of the First Phase of Choose Life: The National Strategy and Action Plan to Prevent Suicide in Scotland (2006) Research Findings – Evaluation of the First Phase of Choose Life: The National Strategy and Action Plan to Prevent Suicide in Scotland (2006) Evaluation of Phase 2 (2006 - 2008) of the Choose Life Strategy and Action Plan (2010)	Suicide Prevention Strategy 2013 - 2016	-Improved awareness of suicide (e.g., public information media campaigns) - Improved knowledge and skills at multiple levels (training) - Improved reporting of suicide in the media - Improved research	18.0 (2002) M: 27.5 F: 8.5	16.4 (2008) M: 25.0 F: 7.8	13.0 (2016) M: 18.9 F:7.2
Sweden	The Swedish National Programme for Suicide Prevention 2008, 2015 (Original 1995)	Research/ Commentary – Advantages and Pitfalls of the Swedish National Program for Suicide Prevention 2008 (2015)	National Action Programme for Suicide Prevention (2015) – Public Health Agency of Sweden	-Improved research - Improved knowledge and skills at multiple levels (training) - Reduced alcohol availability - Improved health service coordination, including follow-up	18.2 (2008) M:19.2 F: 6.7	N/A	11.7 (2015) M: 17.7 F: 6.7
As produced by Payne (2018)							
Netherlands					N/A	N/A	N/A
New Zealand		New Zealand Youth Suicide Prevention Strategy Phase 2 Evaluation (2005)	National Agenda on Suicide 2018-2021 A Strategy to Prevent Suicide in New Zealand: Draft for public consultation		N/A	N/A	N/A

Table 3: World Health Report (2018) Examples of Successful Suicide Prevention Strategies

Country	Reason for success
England	Evidence based; emphasis on cross sectorial collaboration across Government, its agencies and voluntary/charitable organisations. A multi-sector approach across health, social care, justice and public health. Noted reasons for success: • Broad support across all professions and all sectors; • Advocacy by bereaved families has engaged political leaders and the media; • Reliance on up to date data and evidence • National oversight allows the strategy to evolve and address emerging priorities • Agency partnerships to publish guidance (NICE and PHE) • Links to wider mental health policy (community care, stigma reduction and psychological therapies) HIN Comment: It is important to note here a recently published report by the Samaritans (2019) welcomes the progress made in developing a national strategy in England, acknowledging success in 97% of local authority areas having a local plan and initial NHSE funding starting to reach high risk areas for suicide. However, its recommendations echo the WHO areas for improvement stating that England needs to focus on better data collection, sharing best practice national and locally to reduce duplication, robust evaluation of local plans and a stronger commitment across all Government departments.
Scotland	Long standing focus on suicide prevention (since 2002) collaborative working across wide range of multi sector partners, including sharing data and information about what works in suicide prevention. (Part) evaluated and refreshed maintaining a sustained focus on suicide prevention actions and outcomes. Reasons for success: • Key partners have ease of access to a dedicated Government suicide prevention team with a common vision • Public health approach combining population based action and a focus on equity within interventions (high risk groups) working within and beyond traditional mental health services • Training across the health and social care system • National public awareness campaigns • Patient safety work with a specific focus on discharge planning • Tackling problem drinking across all health settings and treatment of depression in primary care.
Sweden	Long standing Government focus on suicide prevention (since 1995) has sent a strong signal to the population that it is an issue of importance. A public health approach to working in collaboration with multi-sector partners. Reasons for success: • Change in societal attitudes, stigma reduction and understanding that suicidal behaviours are preventable • Deep understanding of risk factors and how these can be reduced by social/ medical and psychological measures • Deep understanding of protective factors.

Related findings from research

Youth Suicide Prevention

Youth suicide rates are rising in several high income countries, understanding how young people interact with health systems and support services is critical in developing a national strategy. A systematic review and meta-analysis of what works in youth suicide prevention (Robinson, 2018) examined 99 global studies, mainly conducted in high income countries. The author cautioned that most studies for young people are originally designed for adults with little or no adaptation for young people, however adolescence and young adulthood are critical development periods that require specific tailored attention. Interventions will be covered in detail in other reports; however, it is important to note that the author found variable evidence to support specific approaches to reducing youth suicide, due to small study size and weak or conflicting evidence across studies. Presented below are findings from the review that are important to note when considering the components of a national strategy for younger people:

- Multimodal interventions generally reported reductions in rates of suicide and/or self harm
- Educational programmes, gatekeeper training, screening and treatment responses appear to positively impact young people, and should be included in place based approaches
- There were no studies in primary care settings, despite GPs identifying youth suicide prevention training as a need, so this is an opportunity that should be considered in strategy development
- Online interventions to treat depression and anxiety was found to be effective and acceptable to young people at risk of suicide, and is an important avenue for prevention work yet to be capitalised on
- Most study participants were female, resulting in a lack of knowledge about effective interventions in young men
- Dialectical Behaviour Therapy is found to be more effective in reducing repeat suicide attempts in adolescents, compared to individual and group therapy.

Approaches for completed versus attempted suicides

A systematic review and meta-analysis (Hofstram 2018) looked at the effect size of suicide prevention interventions, highlighted important learning that is relevant to strategy development. The authors found that multi-level interventions demonstrated greater effects, and these effect sizes rise significantly with the number of levels involved. Interventions were found to be effective for both completed and attempted suicides, however the effect size for completed suicides was larger, and varied between settings eg. secondary or community care. The author suggests that caution should be applied when choosing interventions, as one that is effective against completed suicides may not be as effective within attempted suicides, commenting that a possible explanation is that the profile of people who attempt suicide may differ in terms of personality disorder or method of suicide. The author gives the example of historically, completed suicides are more likely to be middle aged/elderly men who choose lethal means such as hanging, whereas younger women attempt suicide using less lethal means such as overdose or cutting, although there is emerging evidence from the United States (Bridge et al, 2018) that younger women are increasingly choosing more lethal means.

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