Implementation and Evaluation of National Suicide Prevention Strategies: Progress and Challenges

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Disclosure

I have no actual or potential conflict of interest in relation to this presentation.

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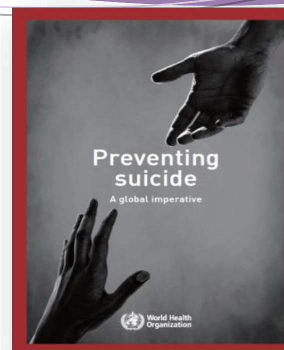
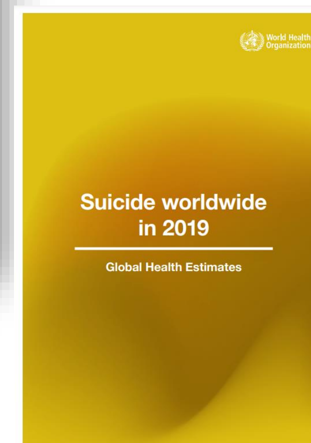
Learning objectives

To enhance the knowledge and understanding of the development, implementation and evaluation of national suicide prevention strategies

Context

- WHO Global Report on **Preventing Suicide** *(WHO, 2014)*





- **Suicide worldwide in 2019: global health estimates.** World Health Organization. *(WHO, 2021)*

- **UN Sustainable Development Goals**: SDGs 2030, e.g. Target 3.4: *By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.*

- **LIVE LIFE**: An implementation guide for suicide prevention in countries *(WHO, 2021)*

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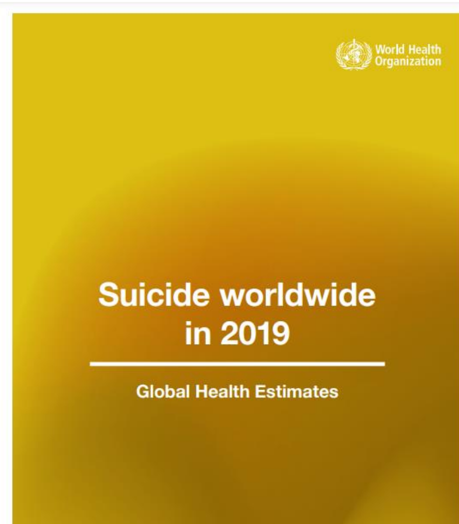
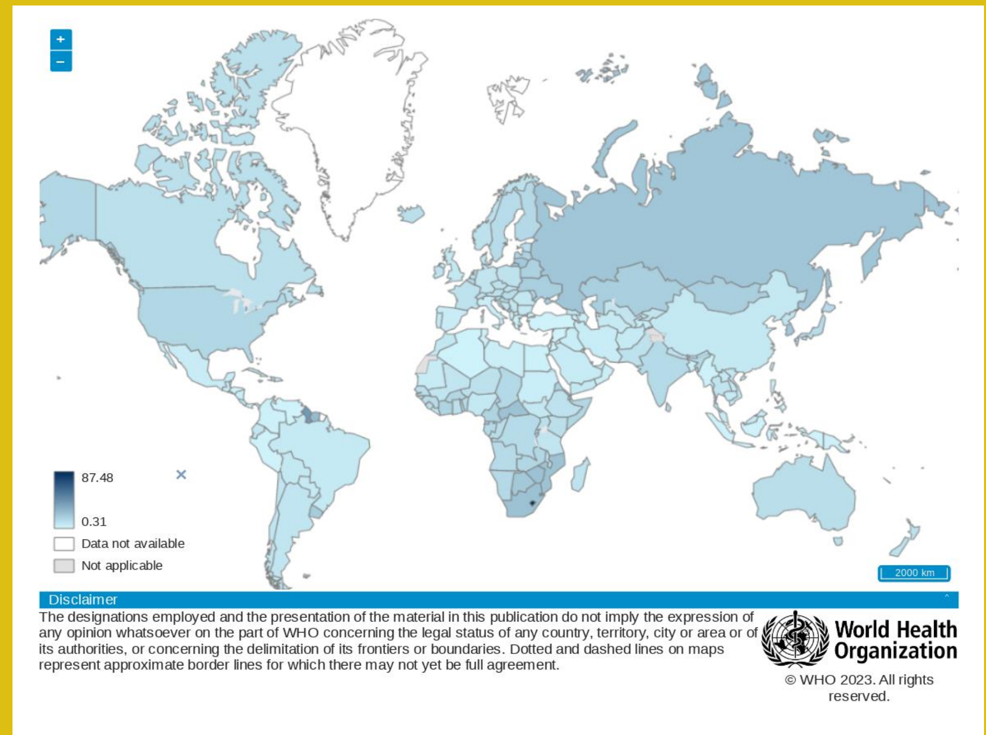
A Closer Look



SUICIDE WORLDWIDE IN 2019: GLOBAL HEALTH ESTIMATES
World Health Organization.
(WHO, 2021)

SUICIDE RATES (PER 100 000 POPULATION)
AGE-STANDARDIZED
YEAR: 2019
BOTH SEXES



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Suicide worldwide in 2019: global health estimates. World Health Organization. *(WHO, 2021)*

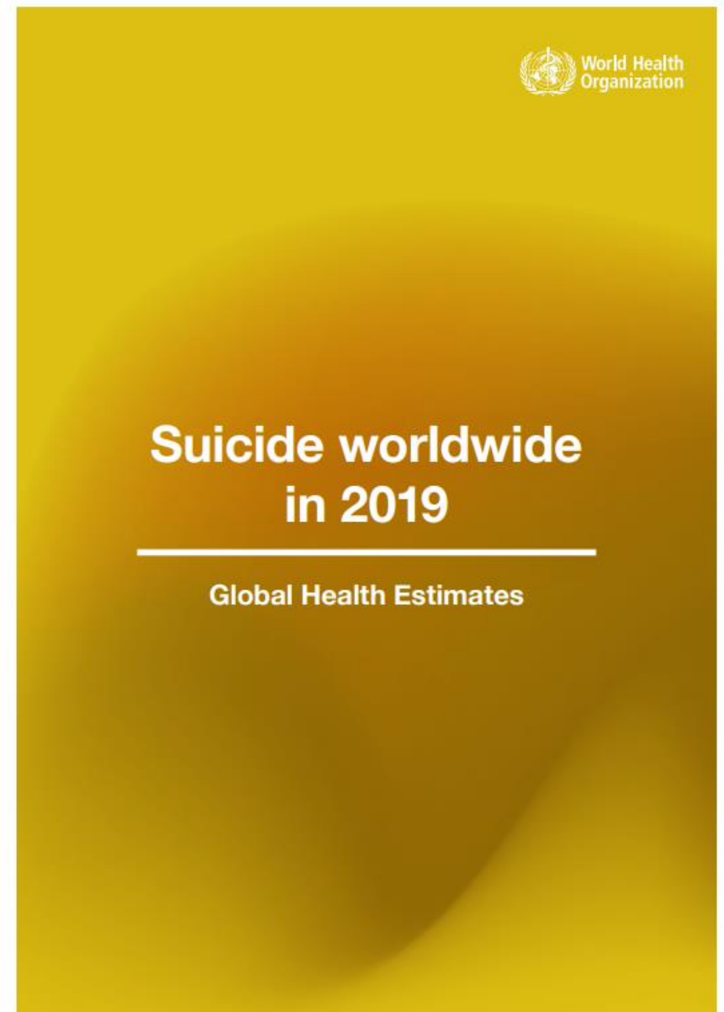
- The global age-standardized suicide rate is somewhat in decline, but this is not observed in all countries.
- Should the decline continue **at its current rate, global SDG and WHO targets to reduce suicide mortality by one third by 2030 will not be met.**
- Lives will be lost, while suicides are preventable.

LIMITING ACCESS TO MEANS OF SUICIDE

EARLY IDENTIFICATION, ASSESSMENT, MANAGEMENT AND FOLLOW-UP

FOSTERING SOCIO-EMOTIONAL LIFE SKILLS IN ADOLESCENTS

INTERACTING WITH THE MEDIA FOR RESPONSIBLE REPORTING OF SUICIDE



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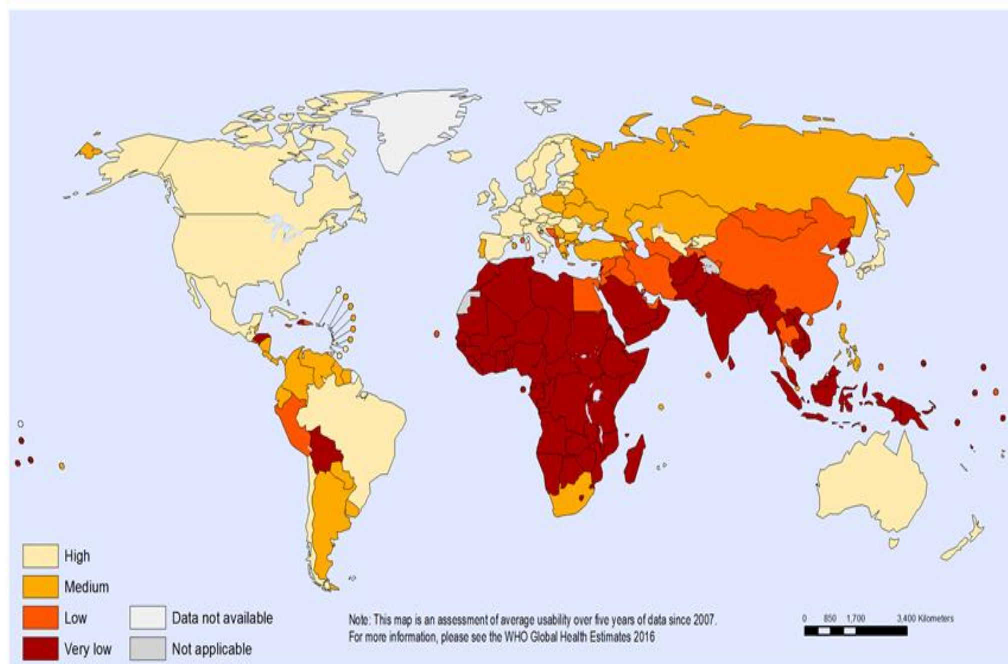
Suicide surveillance - Data Quality

Preventing suicide
A manual for case registration of suicide and attempted suicide

- The quality and availability of data on suicide and suicide attempts is poor globally
- ONLY 20 countries are known to have gathered national survey data and 3 have national hospital-based suicide attempt data
- ONLY 60 countries have good-quality vital registration data on suicide mortality
- Improvement of surveillance and dissemination of data is necessary to inform action



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Suicide numbers during the first 9-15 months of the COVID-19 pandemic compared with pre-existing trends: An interrupted time series analysis in 33 countries

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Summary

Background Predicted increases in suicide were not generally observed in the early months of the COVID-19 pandemic. However, the picture may be changing and patterns might vary across demographic groups. We aimed to provide a timely, granular picture of the pandemic's impact on suicides globally.

Methods We identified suicide data from official public-sector sources for countries/areas-within-countries, searching websites and academic literature and contacting data custodians and authors as necessary. We sent our first data request on 22nd June 2021 and stopped collecting data on 31st October 2021. We used interrupted time series (ITS) analyses to model the association between the pandemic's emergence and total suicides and suicides by sex-, age- and sex-by-age in each country/area-within-country. We compared the observed and expected numbers of suicides in the pandemic's first nine and first 10-15 months and used meta-regression to explore sources of variation.

Findings We sourced data from 33 countries (24 high-income, six upper-middle-income, three lower-middle-income; 25 with whole-country data, 12 with data for area(s)-within-the-country, four with both). There was no evidence of greater-than-expected numbers of suicides in the majority of countries/areas-within-countries in any analysis; more commonly, there was evidence of lower-than-expected numbers. Certain sex, age and sex-by-age groups stood out as potentially concerning, but these were not consistent across countries/areas-within-countries. In the meta-regression, different patterns were not explained by countries' COVID-19 mortality rate, stringency of public health response, economic support level, or presence of a national suicide prevention strategy. Nor were they explained by countries' income level, although the meta-regression only included data from high-income and upper-middle-income countries, and there were suggestions from the ITS analyses that lower-middle-income countries fared less well.

Interpretation Although there are some countries/areas-within-countries where overall suicide numbers and numbers for certain sex- and age-based groups are greater-than-expected, these countries/areas-within-countries are in the minority. Any upward movement in suicide numbers in any place or group is concerning, and we need to remain alert to and respond to changes as the pandemic and its mental health and economic consequences continue.

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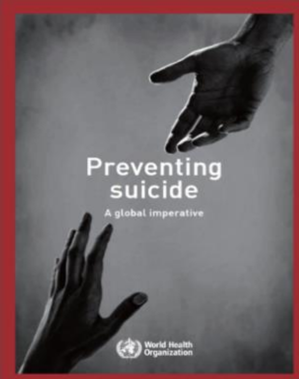
Challenges in developing and implementing national suicide prevention programmes

- Ineffective planning, co-ordination, collaboration, lack of enforcement of guidelines and insufficient resources

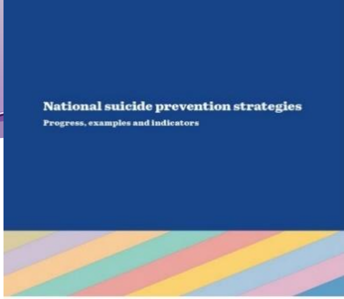
- Lack of independent and systematic evaluations of national suicide prevention programmes

- Address real-time developments, in particular, mental health needs and suicide prevention among refugees and migrants from LMICs

- Despite many challenges, encouraging developments in relation to initiating or completing national suicide prevention programmes, e.g: Lithuania, Guyana, Namibia, Afghanistan



Core components of national suicide prevention strategies



1) Surveillance	7) Crisis Intervention
2) Means Restriction	8) Postvention
3) Media	9) Awareness
4) Access to Services	10) Stigma Reduction
5) Training and Education	11) Oversight and Coordination
6) Treatment	

World Health Organization

LIVE
cross-cutting foundations

- Situation analysis
- Multisectoral collaboration
- Awareness raising
- Capacity building
- Financing
- Surveillance, monitoring and evaluation

Key effective evidence-based interventions

L	I	F	E
Limit access to means of suicide	Interact with the media on responsible reporting	Foster life skills of young people	Early identify everyone affected

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Strategic actions and targeted suicide prevention activities that may reinforce the development of a national strategy

In countries where a fully developed, comprehensive national strategy is not yet in place, this should not delay targeted suicide prevention programmes, while these can contribute to a national response.

Regardless of the current level of implementation and context, countries can commence with strategic actions for suicide prevention (bottom up), e.g:

- Engaging with relevant stakeholders
- Training of health and community based professionals, and changing attitudes.
- Reducing access to means
- Building surveillance
- Raising awareness
- Engaging with the media

A community driven, regional action plan, can draw national interest and provide a basis for wider implementation – Bottom up and Top Down approach.

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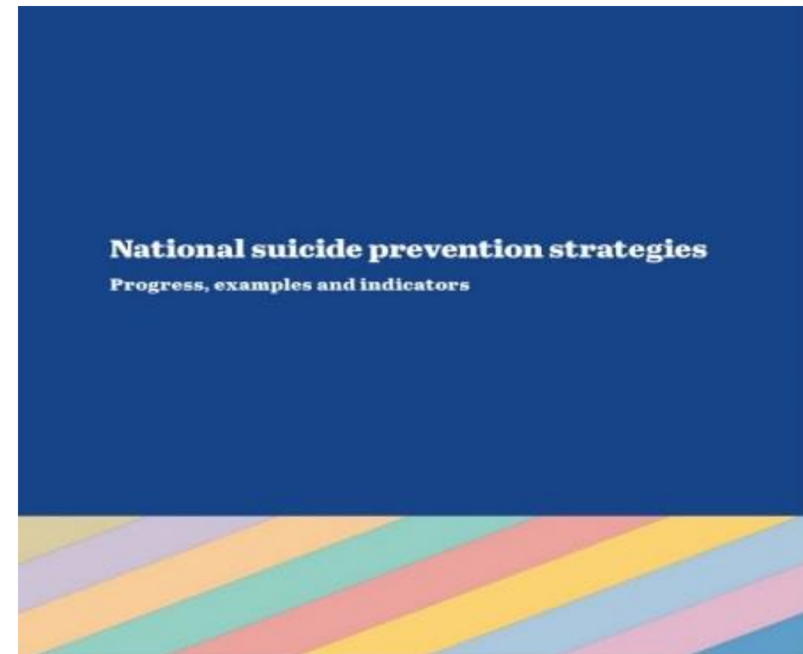
Country examples of 1st or 2nd national suicide prevention strategy

First strategy:
- Bhutan
- Guyana
- Iran
- Republic of Korea
- Switzerland
- Namibia (2nd national strategy in progress)
- Uruguay

Second strategy:
- England
- Ireland
- Sweden
- Japan
- USA



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Ella Arensman
Diego De Leo
Jane Pirkis
(Editors)

Suicide and Suicide Prevention From a Global Perspective

I A S P
International Association for Suicide Prevention

hogrefe

- This monograph includes summary accounts of suicide and suicide prevention across WHO regions, including Europe, Southeast Asia, Americas, Africa, Eastern Mediterranean, and Western Pacific.
- The monograph addresses the extent of suicide and self-harm around the globe divided into the six regions, differentiating low- and middle-income countries from high-income countries.
- **Existing interventions and suicide prevention programmes are reported and discussed within each region.**

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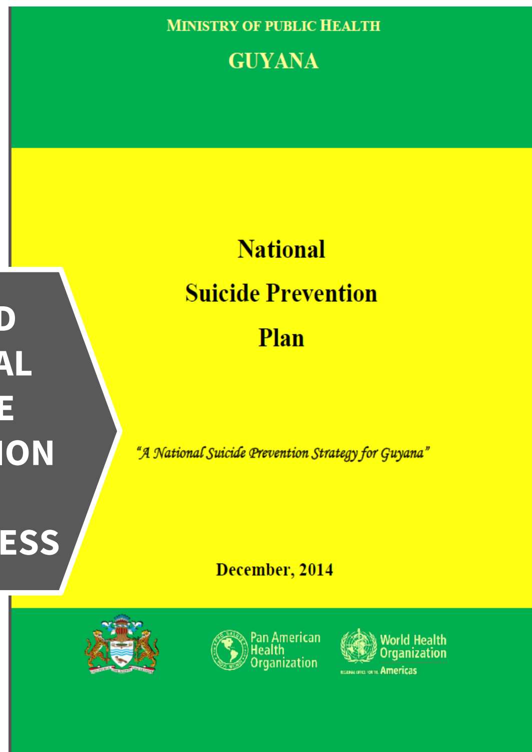
Countries with recently completed/initiated national suicide prevention programmes despite many challenges *EXAMPLES*

Guyana


MINISTRY OF PUBLIC HEALTH

GUYANA

National

Suicide Prevention

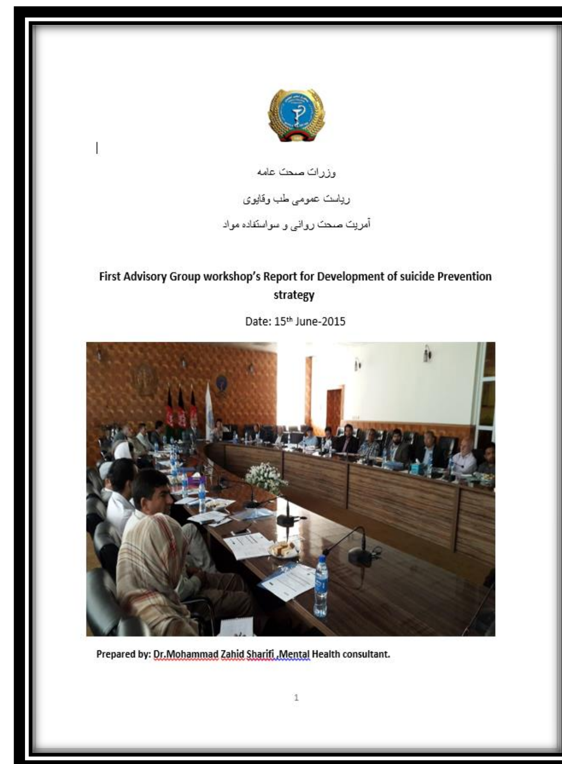
Plan

"A National Suicide Prevention Strategy for Guyana"

December, 2014

SECOND NATIONAL SUICIDE PREVENTION PLAN IN PROGRESS

Afghanistan


وزرات صحت عامه

ریاست عمومی طب وقایوی

آمریت صحت روانی و سواستفاده مواد

First Advisory Group workshop's Report for Development of suicide Prevention strategy

Date: 15th June-2015

Prepared by: Dr.Mohammad Zahid Sharifi ,Mental Health consultant.

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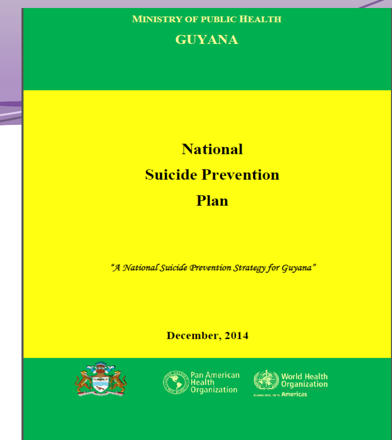
Example Guyana

Ministry of Health
Guyana



- National Suicide Prevention Plan (2015-2020)
- High rate of suicide: 44.2 suicides per 100,000 people in 2017 (WHO)
- Long-term criminalisation of suicide and attempted suicide
- Universal interventions, targeting the whole of a population to reduce access to means and reduce inappropriate media coverage of suicide.
- The Strategy relies on cross-cutting values and principles:

1) Universal health coverage 2) Human rights 3) Evidence-based practice and interventions for treatment and prevention 4) Life course approach

Example Afghanistan

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ریاست عمومی طب وقایوی

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- National Suicide Prevention Strategy in Development
- In 2015, the suicide rate in Afghanistan was 5.7 per 100,000 people (WHO)

  - However, the accuracy of the suicide data is limited
- The Afghan Ministry of Public Health (MoPH) reported 4,466 self-poisoning and 4,136 self-immolation cases in 2015 across Afghanistan, where suicides exceed deaths by homicide and war combined annually
- The strategy is based on the following key values, respect for diversities; sensitiveness to socio-culture-religious and gender issues; promotion of the society dignity and respect for the human rights of people.

Evaluation of national suicide prevention programmes from an international perspective

- Evaluation of implementation in 6 countries; reports from 4 countries: Finland, Scotland, Northern Ireland and Republic of Ireland
- Evidence of impact of national suicide prevention programmes: inconsistent
- Challenges related to evaluating complex interventions, incl. multiple interacting components, change over time, quality of implementation, synergistic effects

Example: Trends in US Suicide Deaths among young people, 1999 to 2017, following Suicide Prevention Legislation

US National Suicide Prevention Strategy 2001 and legislation on youth suicide prevention in 2004, during declining youth suicide rate.

No impact of these strategies on reversing the increasing trend that started in 2007.

The revision of the National Strategy for Suicide Prevention in 2012 was followed, in 2015, by a further increase in male youth suicide rates.

Mishara & Stijelja, 2020

RESEARCH LETTER

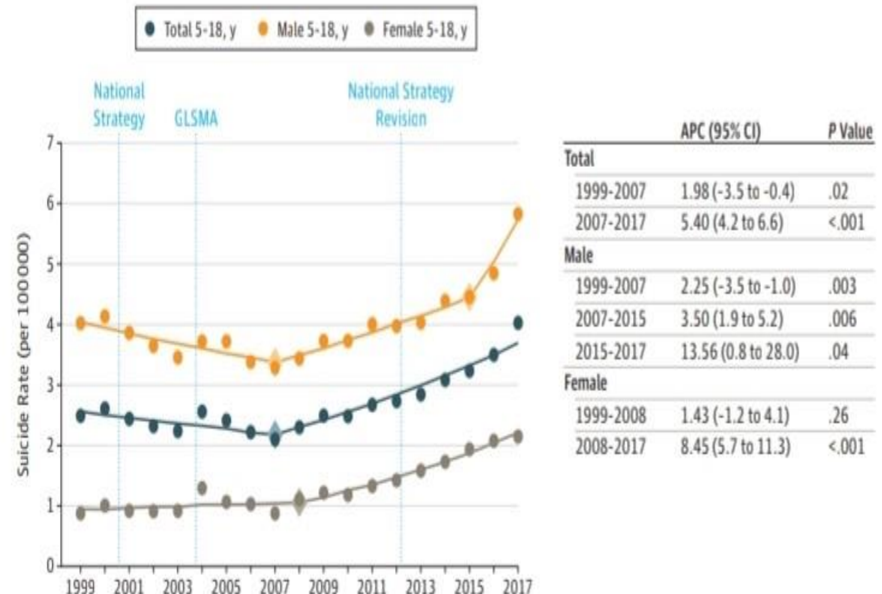
Trends in US Suicide Deaths, 1999 to 2017, in the Context of Suicide Prevention Legislation

Burstein et al[1] have reported that visits to US hospital emergency departments (EDs) for suicide attempts (SA) or suicide ideation (SI) doubled among youth aged 5 to 18 years between 2007 and 2015. The question remains whether this trend is paralleled by an increase in suicides. The United States has greatly invested in youth suicide prevention during this period. If only ED visits increased but not suicide mortality, this

approval or use informed consent procedures, and thus this study did not obtain such approval or consent. We used SPSS version 26.0 (IBM) for analyses, with 2-sided *P* values less than .05 considered significant. Data analysis occurred from April 2019 to May 2019.

Results | From 1999 to 2007, suicide rates for individuals aged 5 to 19 years fell steadily (**Figure 1**), with an annual percentage change (APC) of −1.98% (95% CI, −3.5% to −0.4%; *P* = .02). Beginning in 2007, the overall suicide rate increased by an APC of 5.4% (95% CI, 4.2%-6.6%; *P* < .001)

Figure 1. Joinpoint Analysis of Changes in Trends of US Suicide Rates of Children and Adolescents Aged 5 to 18 Years, by Sex, United States, 1999-2017



	APC (95% CI)	P Value
Total		
1999-2007	1.98 (-3.5 to -0.4)	.02
2007-2017	5.40 (4.2 to 6.6)	<.001
Male		
1999-2007	2.25 (-3.5 to -1.0)	.003
2007-2015	3.50 (1.9 to 5.2)	.006
2015-2017	13.56 (0.8 to 28.0)	.04
Female		
1999-2008	1.43 (-1.2 to 4.1)	.26
2008-2017	8.45 (5.7 to 11.3)	<.001

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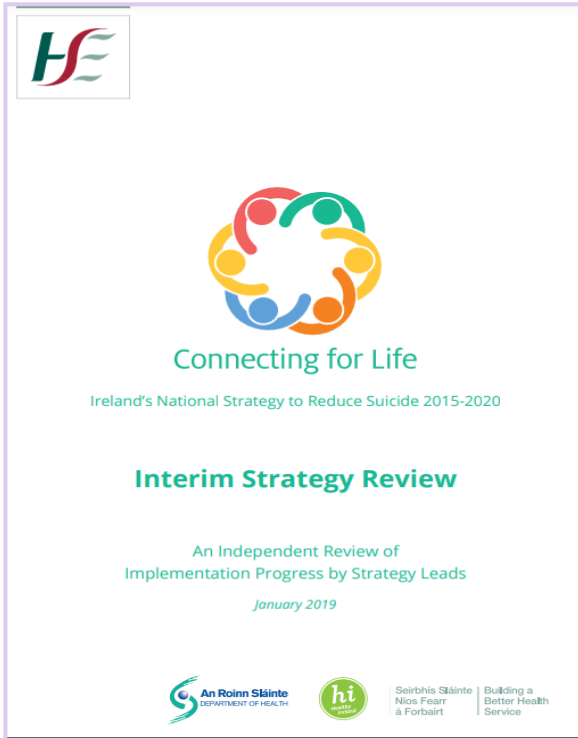
IRELAND CASE STUDY: SUMMARY OF RESULTS

Evaluation of a National Suicide Prevention Strategy



- For five out of the seven goals, it was concluded that good progress was made with implementing the key actions
- For actions with limited progress, specific recommendations were provided to optimise the implementation
- The interim review highlighted the need to develop a *CfL* Implementation Plan for 2020-24, informed by a review of available evidence, and with key partners to secure the commitments required at Departmental/cross-sectoral level

Evaluation of National Suicide Prevention Programmes - Challenges

Primary outcomes:

- Identify effects on the incidence of suicide and suicide attempts/self-harm at national level
- Issues related to accuracy and timeliness of suicide mortality data

Intermediate outcomes:

- Changes in intermediate outcomes, e.g. knowledge, attitudes, help-seeking behaviour, not consistently associated with changes in primary outcomes
- Assessing the impact of confounding factors

OPEN ACCESS

Check for updates

A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance

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Accepted: 9 August 2021

The UK Medical Research Council's widely used guidance for developing and evaluating complex interventions has been replaced by a new framework, commissioned jointly by the Medical Research Council and the National Institute for Health Research, which takes account of recent developments in theory and methods and the need to maximise the efficiency, use, and impact of research.

Complex interventions are commonly used in the health and social care services, public health practice, and other areas of social and economic policy that have consequences for health. Such interventions are delivered and evaluated at different levels, from individual to societal levels. Examples include a new surgical procedure, the redesign of a healthcare programme, and a change in welfare policy. The UK Medical Research Council (MRC) published a framework for researchers and research funders on developing and evaluating complex interventions in 2000 and revised guidance in 2006.[1-3] Although these documents continue to be widely used and are now accompanied by a range of more detailed guidance on specific aspects of the research process,[4-8] several important conceptual, methodological and theoretical developments have taken place since 2006. These developments have been included in a new framework commissioned by the National Institute of Health Research (NIHR) and the MRC.[9] The framework aims to help researchers work with other stakeholders to identify the key questions about complex interventions, and to design and conduct research with a diversity of perspectives and appropriate choice of methods.

Development of the Framework for Developing and Evaluating Complex Interventions

The updated Framework for Developing and Evaluating Complex Interventions is the culmination of a process that included four stages:

- A gap analysis to identify developments in the methods and practice since the previous framework was published
- A full day expert workshop, in May 2018, of 36 participants to discuss the topics identified in the gap analysis
- An open consultation on a draft of the framework in April 2019, whereby we sought stakeholder opinion by advertising via social media, email lists and other networks for written feedback (52 detailed responses were received from stakeholders internationally)
- Redraft using findings from the previous stages, followed by a final expert review.

We also sought stakeholder views at various interactive workshops throughout the development of the framework: at the annual meetings of the Society for Social Medicine and Population Health (2018), the UK Society for Behavioural Medicine (2017, 2018), and internationally at the International Congress of Behavioural Medicine (2018). The entire process was

SUMMARY POINTS

Complex intervention research can take an efficacy, effectiveness, theory based, and/or systems perspective, the choice of which is based on what is known already and what further evidence would add most to knowledge

Complex intervention research goes beyond asking whether an intervention works in the sense of achieving its intended outcome—to asking a broader range of questions (eg, identifying what other impact it has, assessing its value relative to the resources required to deliver it, theorising how it works, taking account of how it interacts with the context in which it is implemented, how it contributes to system change, and how the evidence can be used to support real world decision making)

A trade-off exists between precise unbiased answers to narrow questions and more uncertain answers to broader, more complex questions; researchers should answer the questions that are most useful to decision makers rather than those that can be answered with greater certainty

Complex intervention research can be considered in terms of phases, although these phases are not necessarily sequential: development or identification of an intervention, assessment of feasibility of the intervention and evaluation design, evaluation of the intervention, and impactful implementation

At each phase, six core elements should be considered to answer the following questions:

How does the intervention interact with its context?
What is the underpinning programme theory?
How can diverse stakeholder perspectives be included in the research?
What are the key uncertainties?
How can the intervention be refined?
What are the comparative resource and outcome consequences of the intervention?

The answers to these questions should be used to decide whether the research should proceed to the next phase, return to a previous phase, repeat a phase, or stop

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Intermediate and long-term outcome indicators

Increased awareness of suicide signs and symptoms

Improved identification of those at risk

Improved access to care

Improved provision of capacity and quality mental health care

Reduction in access to lethal suicide methods

Reduction in suicidal ideation and non-fatal self-harm

Reduction in suicide

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2023 IASR/AFSP
INTERNATIONAL SUMMIT ON SUICIDE RESEARCH
SUICIDAL BEHAVIOR: SCIENCE IN THE SERVICE OF PREVENTION
OCTOBER 15-18, 2023
WORLD TRADE CENTER BARCELONA
Barcelona, Spain
SUICIDERESEARCHSUMMIT.ORG

Thank you!

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