Surveillance of Suicide Attempts and Self-Harm:

WHO practice manual for establishing and maintaining surveillance systems for suicide attempts and self-harm

Irish National Self-Harm Registry

Department of Health and Human Services
Melbourne

21st June 2019

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International Association for Suicide Prevention

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Overview

- Benefits of real-time surveillance systems
- Nomenclature, definitions and classification
- Standard Operating Procedures
- Training of staff involved in data collection
- Database management, data analysis and interpretation
- Reporting of surveillance outcomes and dissemination
- Maintenance and sustainability over time

World Health Organization

Figure 1. **The public health model**

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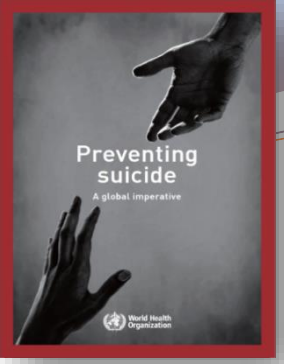
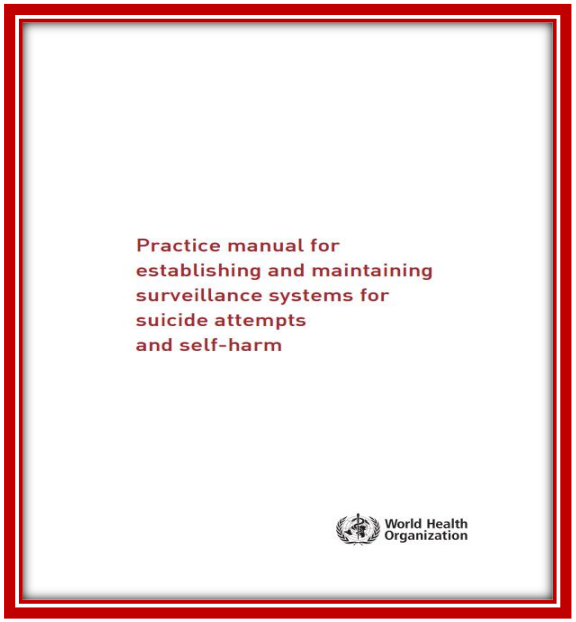


Core components of national suicide prevention strategies

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	

Establishing and maintaining Suicide Attempt/Self-harm Surveillance Systems



http://www.who.int/mental_health/suicide-revention/attempts_surveillance_systems/en/

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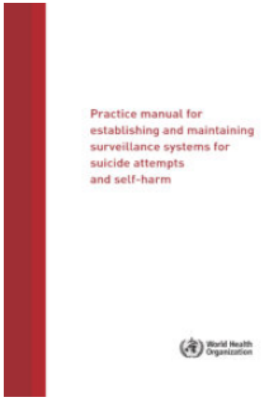
Establishing and Maintaining Surveillance Systems for Suicide Attempts and Self-Harm

The WHO Collaborating Centre for Surveillance and Research in Suicide Prevention at the National Suicide Research Foundation has developed a new E-Learning Programme based on the World Health Organisation Practice Manual for Establishing and Maintaining Surveillance Systems for Suicide Attempts and Self-Harm. This E-Learning programme was developed in collaboration with the WHO Department of Mental Health and Substance Abuse.



Course Content

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Module list

- Module 1: Background and Terminology
- Module 2: Development and Implementation
- Module 3: Training for Staff
- Module 4: Reporting of Surveillance Outcomes and Dissemination, Maintenance and Sustainability
- Module 5: Overview of Existing Surveillance Systems or Projects for Suicide Attempts and Self-Harm
- Supplementary Material

https://suicideresearchpreventionelearning.com/?sfwd-courses=establishing-and-maintaining-surveillance-systems-for-suicide-attempts-and-self-harm

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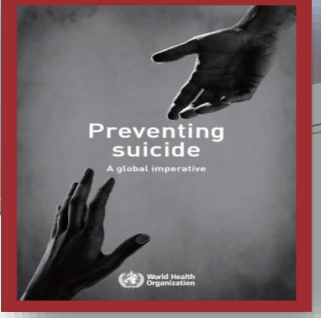

Background

- WHO Global Report on Preventing Suicide identified a need for guidance on surveillance of suicide attempts presenting to general hospitals (WHO, 2014)

- In recent years, growing number of countries where first steps have been made in setting up a monitoring system of suicide attempts presenting to one or more hospitals

- Improved surveillance and monitoring of suicide attempts presenting to general hospitals is a core element of the public health model

- Information on trends and patterns of attempted suicide presentation can contribute to effective suicide prevention strategies

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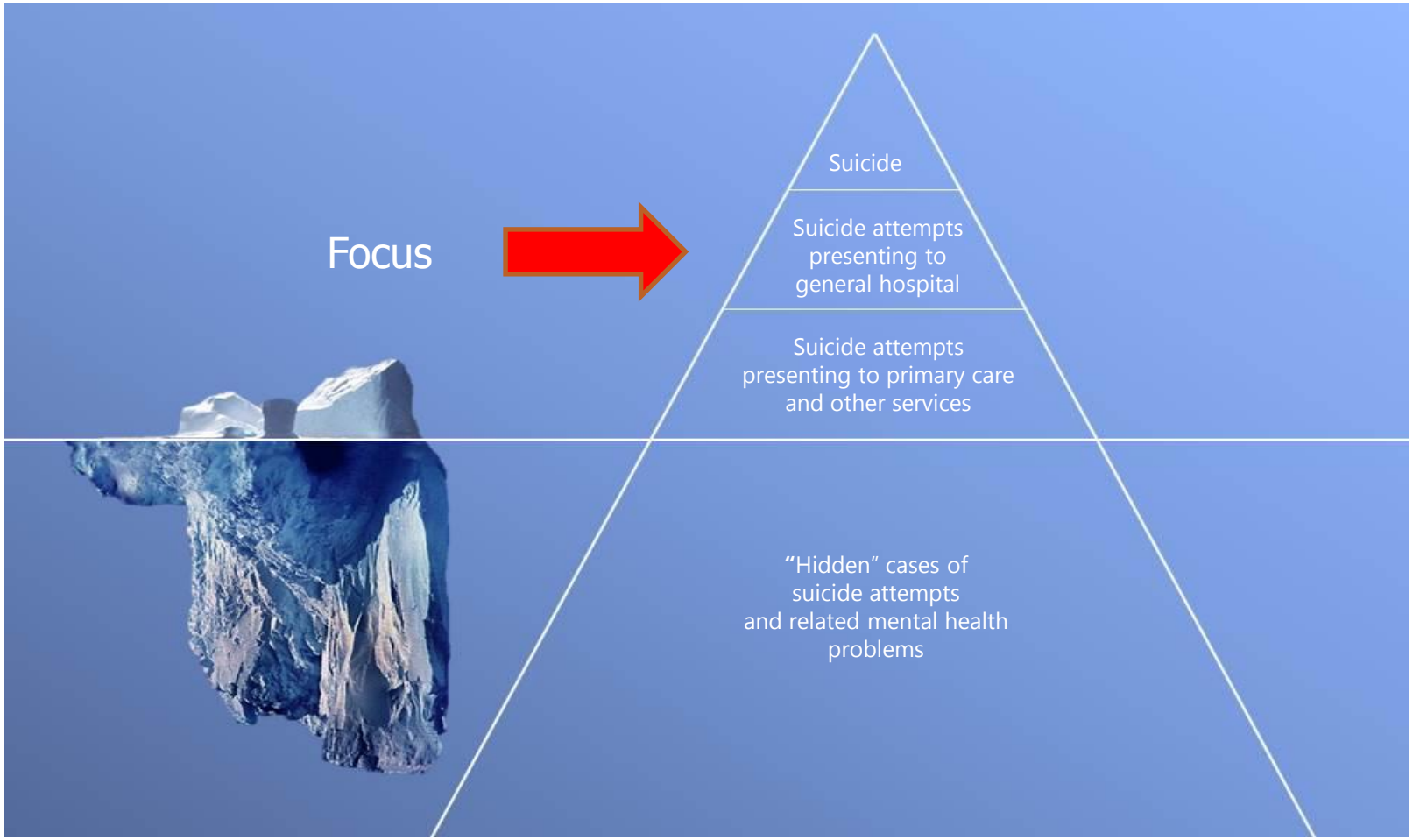
The extent of suicidal behaviour, fatal and non-fatal



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Aim of the WHO Practice Manual

- To improve standardization within and between countries with regard to establishing and maintaining a surveillance system of hospital (incl. health centres) presented suicide attempts
- For large countries, it would be recommended to develop a multi-centre surveillance system, e.g. UK, Australia, Russia
- For small countries, it would be recommended to develop a national surveillance system, e.g. Ireland, Luxembourg, Bhutan

Benefits of surveillance systems for hospital/health centre treated suicide attempts

- Informing:
  - Service provision, resource deployment and guidelines for self-harm management
  - Assessment and interventions for non-fatal suicidal behaviour
- "Real-Time Data"
- Evaluation of interventions
- Regional variations
- Clinical management of self-harm
- All attendances to hospital Emergency Departments

Social Psychiatry and Psychiatric Epidemiology (2018) 53:663–671
https://doi.org/10.1007/s00127-018-1522-1

ORIGINAL PAPER

Increasing rates of self-harm among children, adolescents and young adults: a 10-year national registry study 2007–2016

Eve Griffin[1] · Elaine McMahon[1] · Fiona McNicholas[2,3,4] · Paul Corcoran[1,5] · Ivan J. Perry[5] · Ella Arensman[1,5]

Received: 30 November 2017 / Accepted: 25 April 2018 / Published online: 2 May 2018

Abstract

Purpose Rates of hospital-treated self-harm are highest among young people. The current study examined trends in rates of self-harm among young people in Ireland over a 10-year period, as well as trends in self-harm methods.

Methods Data from the National Self-Harm Registry Ireland on presentations to hospital emergency departments (EDs) following self-harm by those aged 10–24 years during the period 2007–2016 were included. We calculated annual self-harm rates per 100,000 by age, gender and method of self-harm. Poisson regression models were used to examine trends in rates of self-harm.

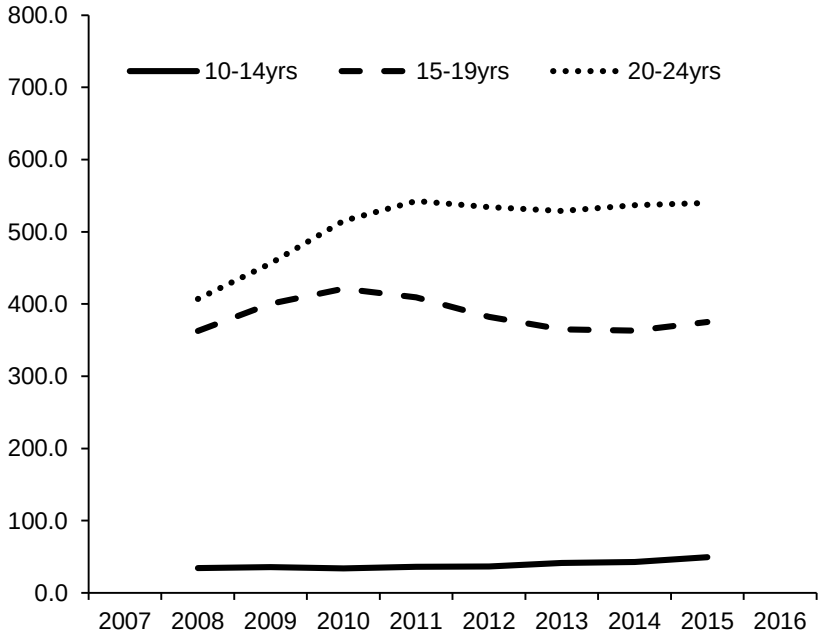
Results The average person-based rate of self-harm among 10–24-year-olds was 318 per 100,000. Peak rates were observed among 15–19-year-old females (564 per 100,000) and 20–24-year-old males (448 per 100,000). Between 2007 and 2016, rates of self-harm increased by 22%, with increases most pronounced for females and those aged 10–14 years. There were marked increases in specific methods of self-harm, including those associated with high lethality.

Conclusions The findings indicate that the age of onset of self-harm is decreasing. Increasing rates of self-harm, along with increases in highly lethal methods, indicate that targeted interventions in key transition stages for young people are warranted.

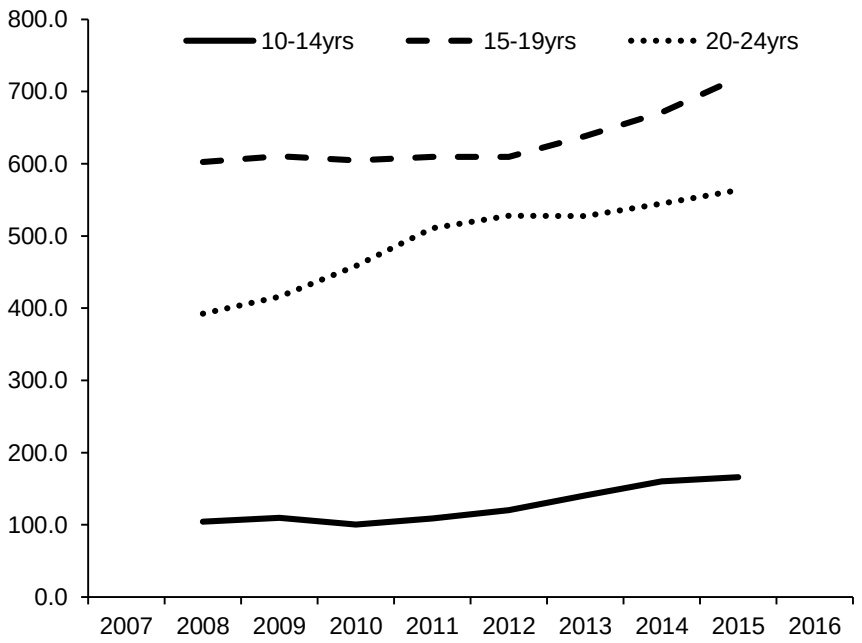
Keywords Self-harm · Young people · Epidemiology

Self-harm among young people in Ireland, 2007-2016

Male



Female



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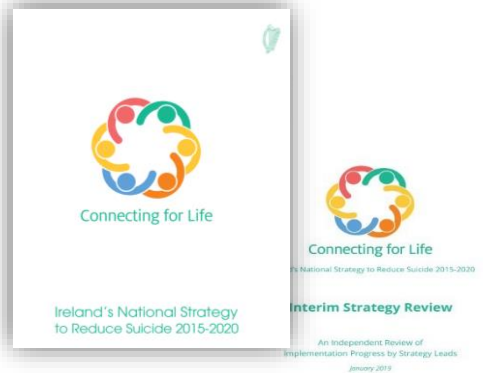
Self-harm intervention and suicide prevention at national level in Ireland

- National Clinical Programme for the Assessment and Management of Patients Presenting to Emergency Departments following Self-Harm

- *Connecting for Life*, Ireland's National Strategy to Reduce Suicide, 2015-2020



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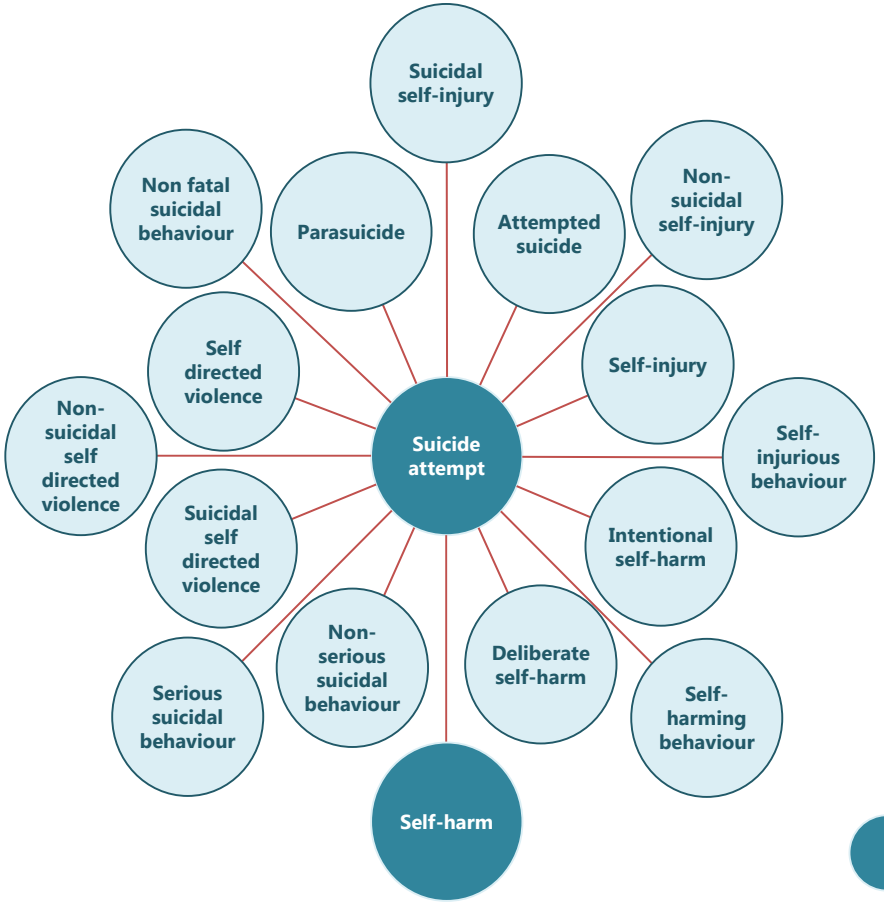
Nomenclature, definitions and classification - Challenges

- Need for consistency in terminology and definitions in order to achieve comparable data on suicide attempts within and across countries
- Reaching agreement on the terminology and definition is complicated by the varying levels of suicidal intent and heterogeneity of motives reported by people engaging in self-harming behaviour *(Scoliers et al, 2009; McAuliffe et al, 2007; Hjelmeland et al, 2002)*
- Globally, more similarities between definitions compared to the wide ranging terminology
- Translating English language terms in other languages may have a different meaning
- Quantification of suicidal intent cannot be fully represented by one term and would be more suitable for classification (operational criteria).

Terms used to describe intentional self-harming behaviour



"It's a new word I came up with, your honor. I'm still working on a definition for it."

Recommended terms

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Proposed terminology and definition

- The terms ‘self-harm’ or ‘self-harming behaviour’ offer the most common ground internationally

- However, this term cannot always be translated with the same meaning in other languages. Therefore, the term ‘suicide attempt’ might be preferred in such instances

- Proposed definition, which is common in several surveillance systems and monitoring studies:

“A non-habitual act with non-fatal outcome that the individual, expecting, or taking the risk, to die or to inflict bodily harm, initiated and carried out with the purpose of bringing about wanted changes” (De Leo et al, 2004)

Inclusion criteria

- ***Inclusion criteria:***
  - All methods of self-harm are included i.e., drug overdoses, alcohol overdoses, lacerations, illicit drug overdose, ingestion of pesticides, attempted drowning's, attempted hangings, gunshot wounds, etc. where it is clear that the attempt was intentionally inflicted;
  - All individuals alive on admission to hospital following an act of attempted suicide are included;
  - All methods of self-harm as per ICD-10 coding.

- Some individuals may use a combination of methods, such as overdose of medication together with self-cutting. If the individual has engaged in multiple methods of intentional self-harm at the time of presentation, all methods should be recorded.

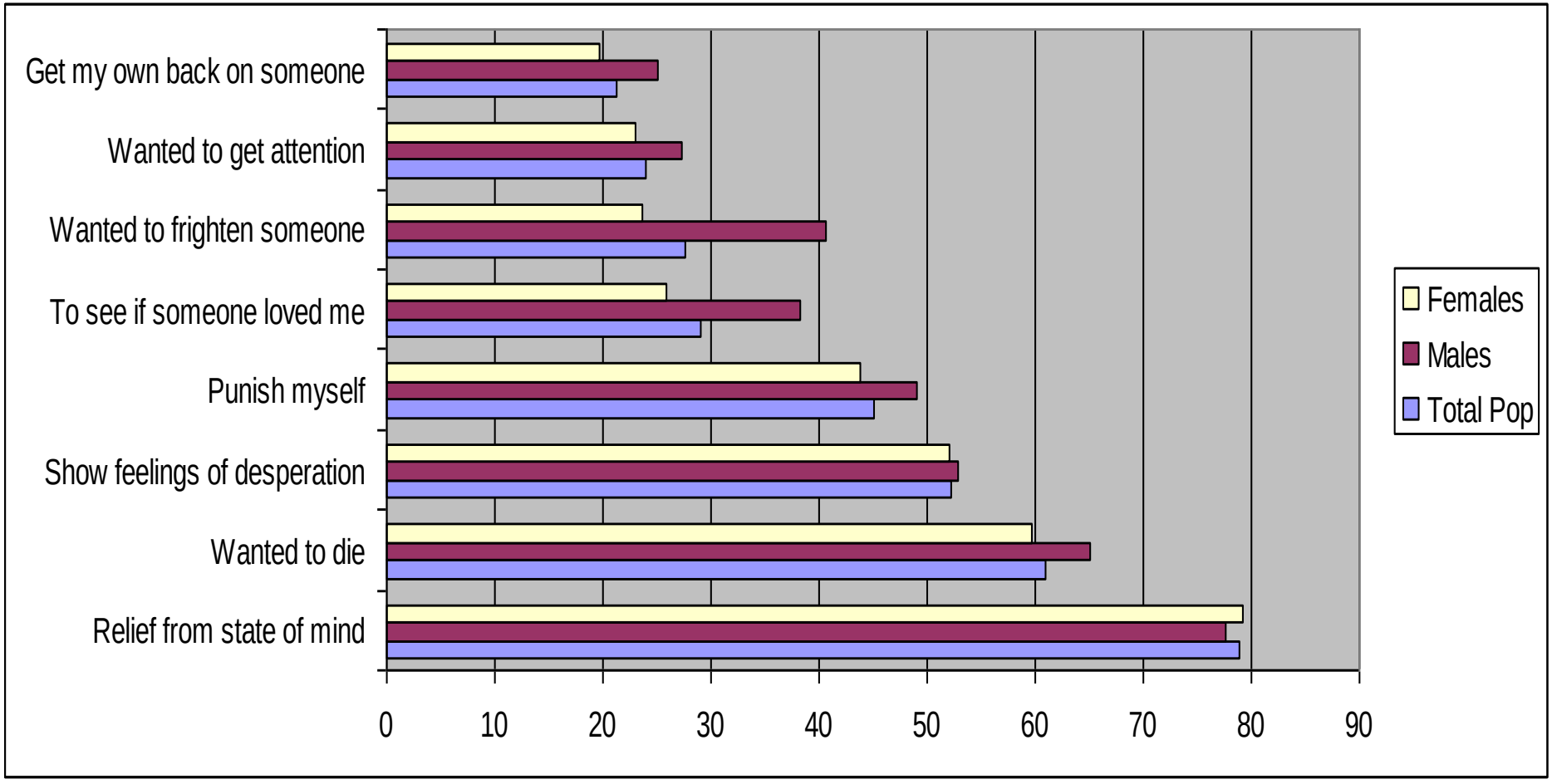
Exclusion criteria

- Alcohol overdoses/intoxication only BUT without the intention to self-harm and when no other methods of self-harm are combined

- Accidental overdoses of street drugs where there is a clear link with regular drug use or addiction

- Specific examples of self-harm without a deliberate intention to cause self-harm:
  - Individual put his/her foot through the door in anger.
  - Individual took usual medication twice by accident to relieve chronic back pain
  - Drugs taken to induce abortion
  - Self-referral due to thoughts/ideation e.g. had thoughts of drowning by jumping off bridge but took no action and went to emergency department for help

Motives related to self-harm by gender



Scoliers et al, 2009; Rasmussen et al, 2016

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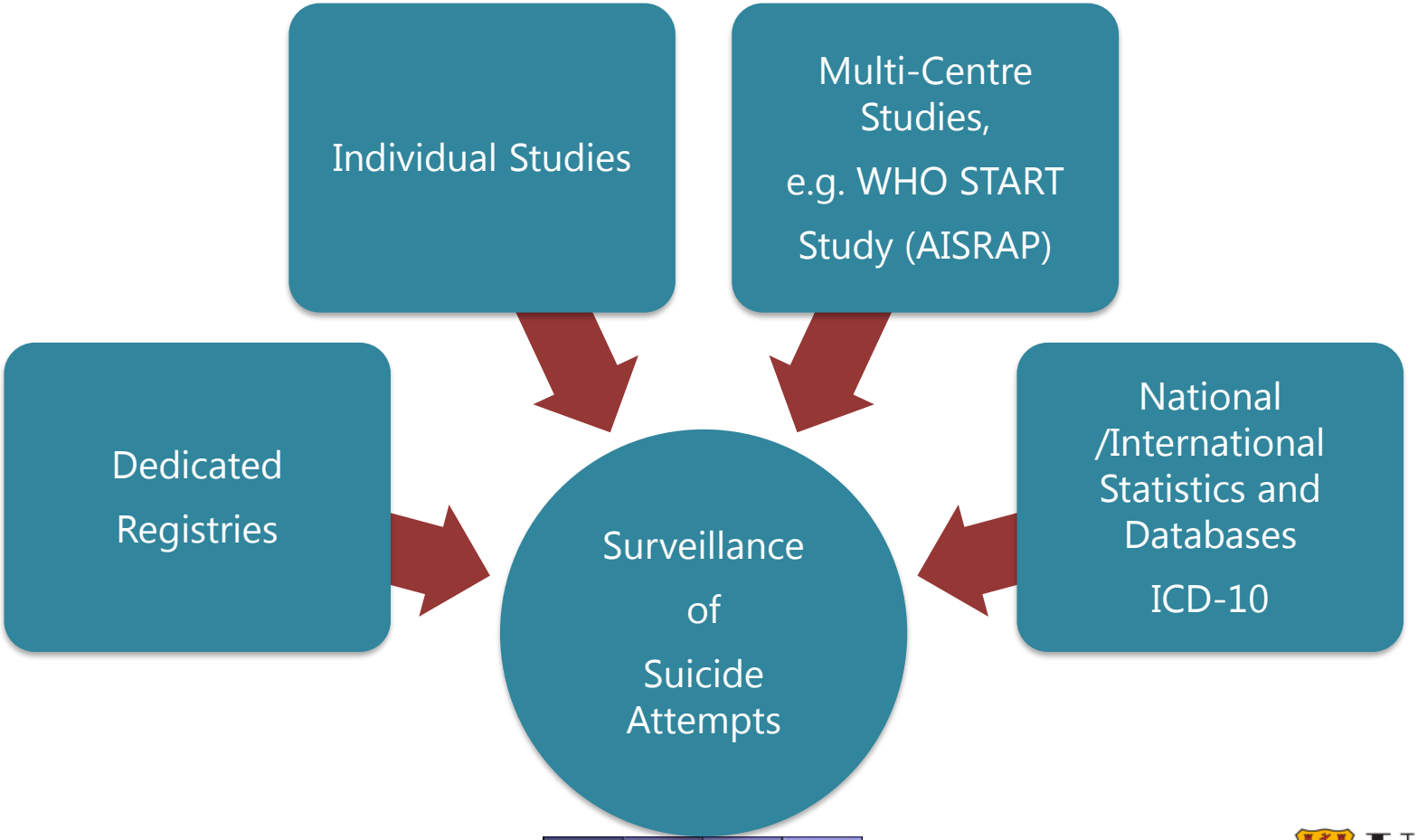
Different methods used in surveillance of hospital treated suicide attempts



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Development and implementation of a surveillance system for suicide attempts

Important aspects and elements:

- Informing and engaging governments and relevant stakeholders
- Governance and requirements of coordinating agencies
- Costs and potential funding sources
- Setting up a surveillance system
  -Standard Operating Procedures
  -Case ascertainment
  -Data items

- Registration forms/systems and data entry
  -Coding and data entry

- Ethical requirements, confidentiality and data protection, in particular GDPR

Data items

- Core data items:

-Data collector
-Date of registration
-Hospital number
-Unique event number
-Unique person identification number
-Sex
-Date of birth
-Age
-Postal code/area code
-Date of presentation
-Time of presentation
-Mode of arrival at the hospital
-Seen by on arrival at the hospital
-Date of self-harm
-Day of the week of the self-harm
-Time of the self-harm
-Location of the self-harm
-Method(s) according to ICD-10 codes
-Medical severity of the self-harm
-Statement of intention to die
-History of self-harm
-Psychological/psychiatric assessment in the hospital
-Diagnosis
-Admission to hospital
-Discharge

- Optional data items, e.g:

-Nationality
-Country of origin
-Ethnicity
-Religion
-Marital status
-Employment status etc.

Training of staff involved in data collection

Why is this important?

- Available information in hospital records on cases of suicide attempts is limited and sometimes incomplete

- Achieving standardisation and uniformity within and across countries will contribute to improved accuracy and comparability of data on hospital referred suicide attempts globally

Innovative element of manual and E-Learning Programme:

- Active learning section involving a series of case vignettes and guidance based on inclusion and exclusion criteria following from the definition. In addition to cases, non-cases and ambiguous cases are also included.

Database management, data analysis and interpretation

- Data management procedure involving five key stages
  1. Data collection
  2. Data compiling
  3. Data cleaning
  4. Data analysis
  5. Data interpretation

- Data analysis

  -Recommended statistical analysis

  -Multi-annual data and advanced statistical analysis

Reporting of surveillance outcomes and dissemination & Maintenance and sustainability over time

Reporting of surveillance outcomes and dissemination

- Annual and multi-annual reports including suggested formats
- Evidence briefs for Government representatives, policy makers and other relevant stakeholders
- Papers for peer reviewed journals

Maintenance and sustainability over time

- Maintaining standardization and quality of data collection
- Arranging independent reviews of the system
- Government support and long term funding

PLOS ONE

RESEARCH ARTICLE

Recommended next care following hospital-treated self-harm: Patterns and trends over time

Ella Arensman[1,2]*, Eve Griffin[1], Caroline Daly[1], Paul Corcoran[1,2], Eugene Cassidy[3,4], Ivan J. Perry[2]

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OPEN ACCESS

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Data Availability Statement: The data used in this manuscript comes from the National Self-Harm Registry Ireland and contains sensitive patient information. As a result, access to this data set is restricted and facilitated by the National Suicide Research Foundation. All data requests may be made to the National Suicide Research Foundation (info@nsrf.ie).

Funding: The National Self-Harm Registry Ireland is funded by the Irish Health Service Executive's National Office for Suicide Prevention.

Abstract

Objective

The specific objectives of this study were to examine variation in the care of self-harm patients in hospital settings and to identify the factors that predict recommended next care following self-harm.

Methods

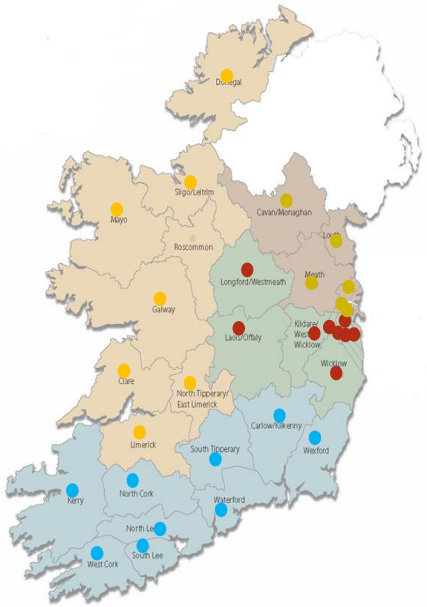
Data on consecutive presentations to Irish emergency departments (EDs) involving self-harm from the National Self-Harm Registry Ireland from 2004 to 2012 were utilised. Univariate and multivariate regression analyses were performed to assess the associations between patients' clinical and demographic characteristics, and recommended next care received.

Results

Across the study period a total 101,904 self-harm presentations were made to hospital EDs, involving 63,457 individuals. Over the course of the study there was a declining number of presentations resulting in patient admission following attendance with self-harm. Recommended next care varied according to hospital location, with general admission rates ranging from 11% to 61% across administrative health regions. Multinomial logistic regression identified that the factor which most strongly affected next care was the presenting hospital. Being male, older age, method, repeat self-harm, time of attendance and residence of the patient were all identified as influencing care received. Psychiatric admission was most common when highly lethal methods of self-harm were used (OR = 4.00, 95% CI, 3.63–4.41). A relatively large proportion of patients left the ED without being seen (15%) and the risk of doing so was highest for self-harm repeaters (1.64, 1.55–1.74 for those with 5+ presentations).

National Self-Harm Registry Ireland

- Operated by the National Suicide Research Foundation via the Department of Health and Children
- Full coverage since 2006 (36 hospitals)
- Pop (2016 est): 4,593,300



Northern Ireland Registry of Self-Harm

- Established in **2007** as a pilot project in the Western area
- Expanded to all trust areas (12 hospitals) since April 2012
- Pop (2016 est): 1,829,700

Challenges

? Data systems not uniform across hospitals

✓ Standardised case ascertainment approach in each hospital, including multiple sources (e.g. triage and psychiatric notes)

? Hospital policy on visitation times/ space

✓ Data Registration Officers must be flexible in working in the ED and must be ready to leave if asked

✓ Data Registration Officers will visit in the evening/ at weekends

? Assuring data quality

✓ Annual cross-validation of consecutive cases

✓ Team meetings and up-skilling of Data Registration Officers (at least 4 per year)

? Motivating hospitals

✓ Quarterly reporting on hospital data

✓ Presentations for staff

✓ Allowing access to data for research

Any country-specific needs / challenges??

Implementation of suicide and suicide attempt/self-harm surveillance systems

- **Suicide and Suicide attempt/Self-Harm Surveillance Systems**

1. What are facilitating factors for improving surveillance of suicide and suicide attempts/self-harm in your country?

2. What are challenges/barriers?

3. How can surveillance of suicide attempts/self-harm in your region/country be improved?

Acknowledgements

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