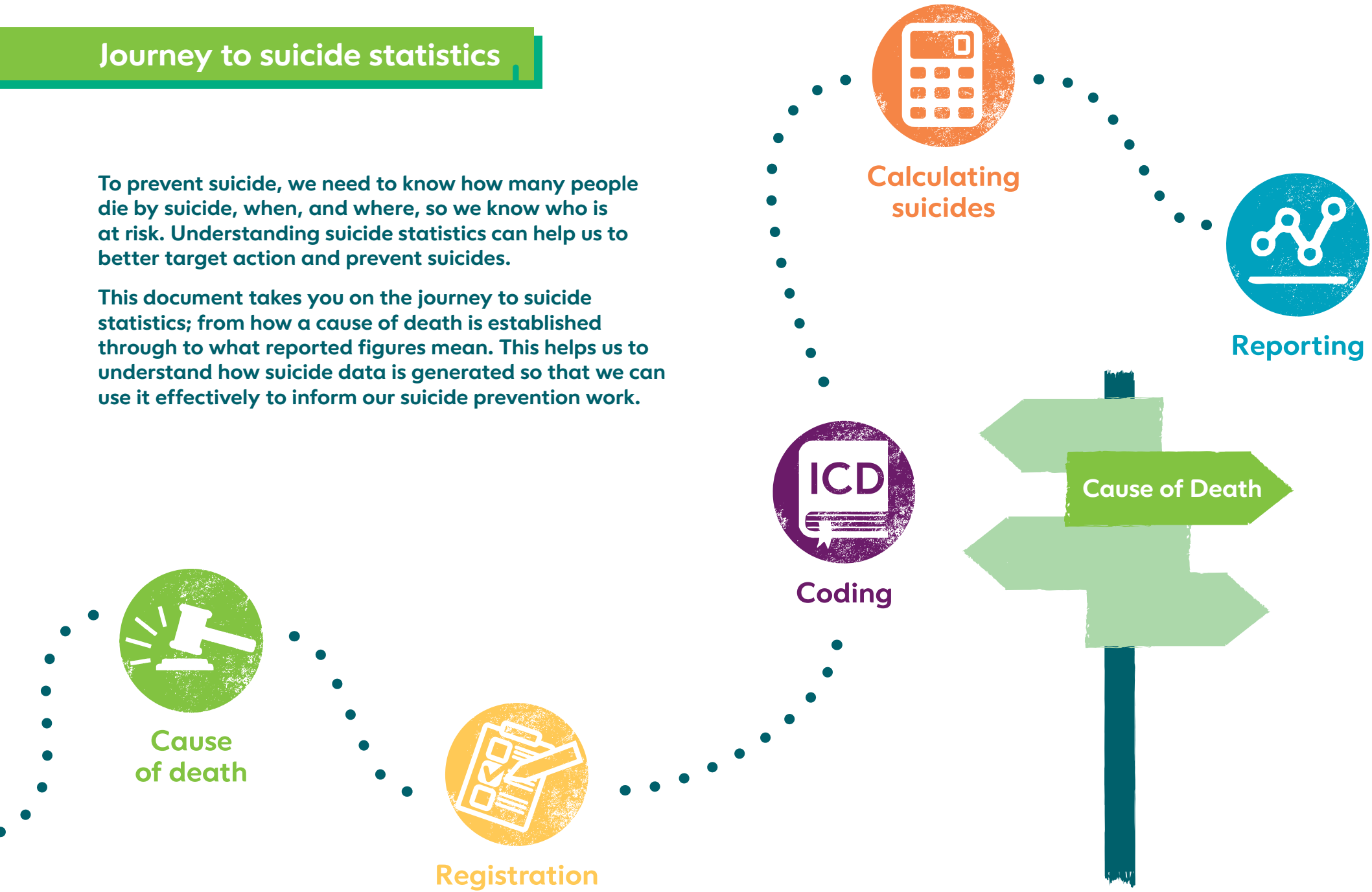
Understanding Suicide Statistics for the UK and Republic of Ireland

SAMARITANS

Journey to suicide statistics

To prevent suicide, we need to know how many people die by suicide, when, and where, so we know who is at risk. Understanding suicide statistics can help us to better target action and prevent suicides.

This document takes you on the journey to suicide statistics; from how a cause of death is established through to what reported figures mean. This helps us to understand how suicide data is generated so that we can use it effectively to inform our suicide prevention work.



Cause of death

When someone dies suddenly, the circumstances are investigated to establish the cause of death. In England, Wales, Northern Ireland and the Republic of Ireland this is done by a coroner, through an inquest. And in Scotland, the Procurator Fiscal may investigate the death through a Fatal Accident Inquiry.

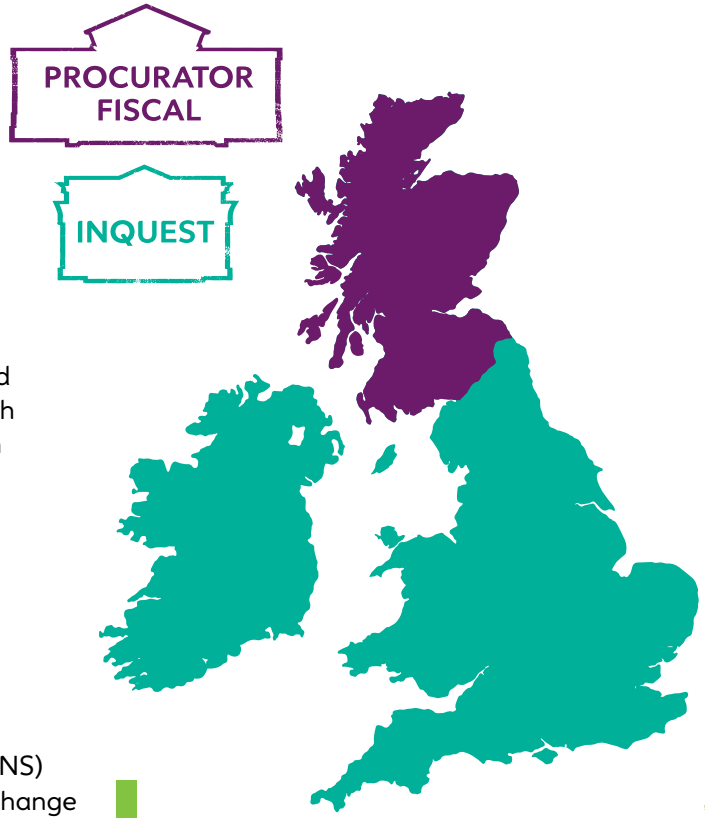
However, sometimes it can be difficult to establish whether the cause of death was suicide, which can result in deaths being misclassified.

In certain circumstances, a suicide might seem to be an accident, rather than intentional – and so it might be recorded as an accidental death. For example, this can occur in situations where the death involved a road traffic accident. It can also be difficult to determine whether there was intent to die in situations of self-harm leading to suicide.

In the Republic of Ireland, the coroner or jury must be sure, **'beyond reasonable doubt',** that it was intentional self-harm. In Scotland, the Procurator Fiscal determines whether a death was caused by suicide on the **'balance of probabilities'.**

In 2018, the standard of proof used by coroners and juries in inquests in England and Wales to determine whether a death was caused by suicide was lowered from **'beyond reasonable doubt'** to **'the balance of probabilities'.** This ruling is positive and is likely to improve the validity of suicide data as deaths may be more accurately classified as suicides in future. Coroners in Northern Ireland also apply this standard of proof.

The Office of National Statistics (ONS) analysis found that the 2018 legal change led to an increase in the proportion of deaths in England and Wales coded as suicide and a decrease in the proportion coded to 'undetermined intent'. This change in coroner practices did not impact suicide statistics overall as both codes are included in the suicide rate[1]. The ONS will continue to monitor the impact that this change has on suicide data.



1. "Change in the Standard of Proof Used by Coroners and the Impact on Suicide Death Registrations Data in England and Wales - Office for National Statistics," accessed August 16, 2021, https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/changeinthestandardofproofusedbycoronersandtheimpactonsuicidedeathregistrationsdatain englandandwales/2020-12-08.

Cause of death

When there is not enough evidence, coroners can issue an **'open verdict/ conclusion'**[2]. In England, Wales and Northern Ireland a **'narrative conclusion'** can also be issued, which gives a brief description about the circumstances surrounding the death and is given instead of a short form conclusion (such as 'suicide' or 'accidental death'). In Scotland, when there is not enough evidence to record a specific cause, such as accidental or a suicide, the Procurator Fiscal notifies the statistical agency that the death is of **'undetermined intent'.**

Within a country there are standard processes, however data still may not be completely accurate. The process for reaching a decision about the cause of death is **subjective,** so suicide may be inconsistently underreported because one coroner/Procurator Fiscal might take a different approach to another. **Social or cultural factors may also influence conclusions.** While suicide is no longer a criminal offence, ongoing stigma means suicide conclusions are sometimes less likely to be given – particularly if there are cultural or religious taboos around suicide, and for the death of a child. Different methods of suicide between males and females have also been discussed by researchers for many years: generally males seem to choose more 'final' and 'obvious' methods than females, so the intent might be determined (or assumed) more easily in methods more common to males.

2. Some nations use 'verdict' while others use 'conclusion'
3. Samaritans, "Research Briefing: Gender and Suicide," 2020.

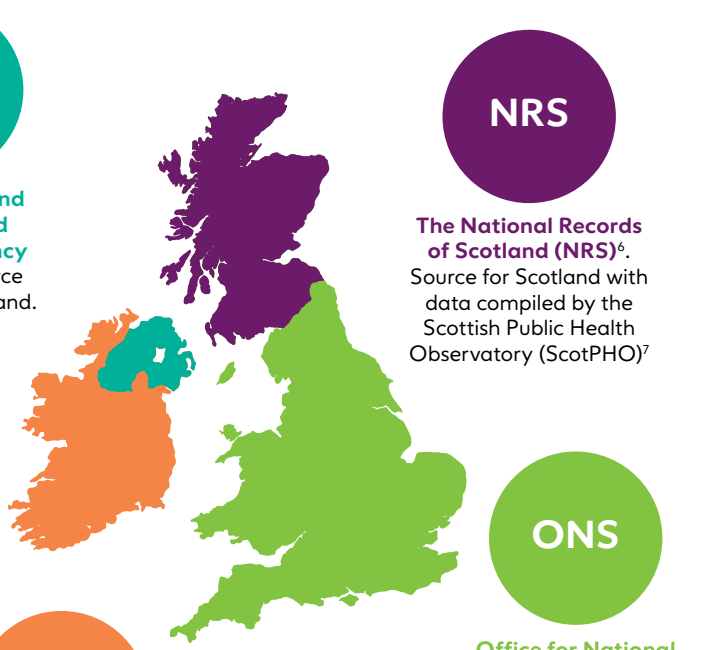
Registration

In each country, all deaths are officially registered. In Scotland deaths are registered as probable suicides within eight days, and updated if required once the cause of death is confirmed.

In the rest of the UK and the Republic of Ireland, deaths are first registered after an inquest.

In England, Wales, Northern Ireland and the Republic of Ireland, the lengthy inquest process can mean there are delays in registration which means that some deaths may not appear in official statistics for over a year. This means it takes longer for us to understand how many people, and which groups of people, are dying by suicide, and can prevent us from being able to respond to increases in suicide rates quickly.

Once registered, information is collated by the national statistical agencies in different nations. The map shows the sources for the data for the UK and the Republic of Ireland.

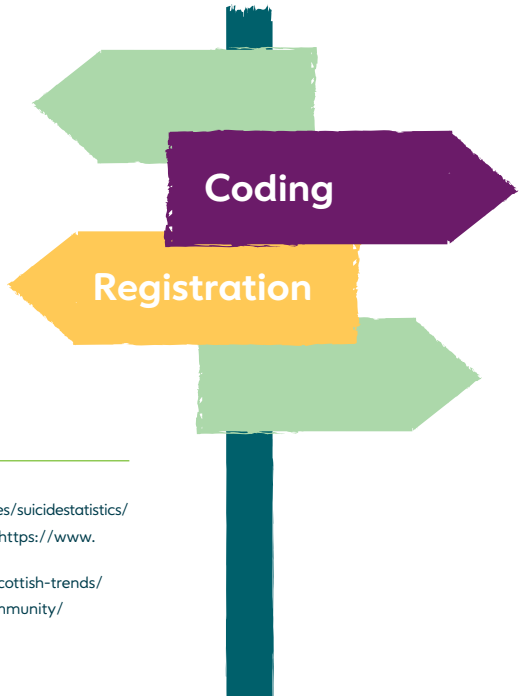


Northern Ireland Statistics and Research Agency (NISRA)[4]. Source for Northern Ireland.

The National Records of Scotland (NRS)[6]. Source for Scotland with data compiled by the Scottish Public Health Observatory (ScotPHO)[7]

Office for National Statistics (ONS)[8]. Source for combined UK data and for England, and Wales.

Central Statistics Office for Ireland (CSO)[5]. Source for the Republic of Ireland.



4. NISRA. Suicide deaths. https://www.nisra.gov.uk/statistics/cause-death/suicide-deaths

5. Central Statistics Office. Vital statistics yearly summary. https://www.cso.ie/en/statistics/birthsdeathsandmarriages/suicidestatistics/

6. NRS. Probable suicides: Deaths which are the result of intentional self-harm or events of undetermined intent. https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/suicides

7. ScotPHO. Suicide: Scottish trends. https://www.scotpho.org.uk/health-wellbeing-and-disease/suicide/data/scottish-trends/

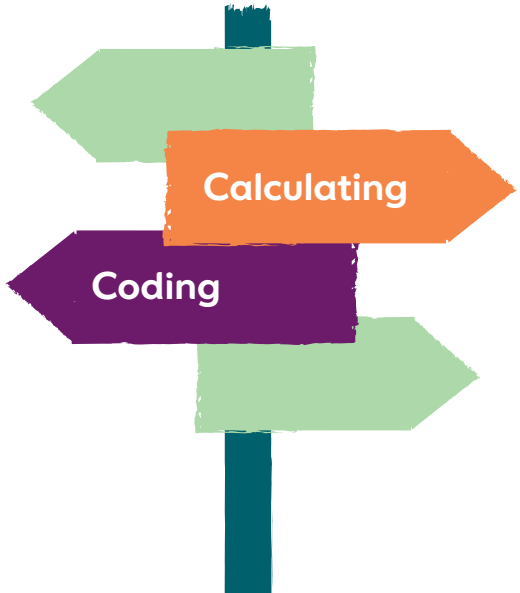
8. Office for National Statistics. Suicides in the UK: 2017 registrations. www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/suicidesintheunitedkingdomreferencetables.

Coding

Once registered, the statistical agencies code deaths based on **International Classification of Diseases, Injuries, and Causes of Death** (ICD) coding rules provided by the World Health Organisation (WHO). Short form classifications (such as suicide, accidental, and open conclusions) are easily coded in this way, however some classifications can be more problematic.

In England, Wales and Northern Ireland, statistical agencies can code narrative conclusions as suicides if the description clearly shows it was intentional self-harm. When this isn't clear they are referred to as **'hard-to-code'** narrative conclusions, which are coded as accidental deaths by the statistical agencies.

In the Republic of Ireland, an 'open verdict' from a coroner is usually coded by the statistical agencies as an 'event of undetermined intent'.



In 2011, UK statistical agencies adopted a change in the classification of deaths in line with new WHO coding rules. The change resulted in some deaths previously coded under 'mental and behavioural disorders' now being classified as 'self-poisoning of undetermined intent' and therefore included in the suicide figures[9]. Theoretically, this could mean that more deaths could be coded as 'event of undetermined intent', which is included in the UK definition of suicide. This change does not affect the Republic of Ireland statistics since their suicide definition does not include deaths of undetermined intent, only deaths of suicide and intentional self-harm.

9. Office for National Statistics, "Suicide Rates in the UK QMI https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/methodologies/suicideratesintheukqmi.

Calculating suicides

After coding, each statistical agency calculates the **total number of suicides and the rate based on the population,** which is useful for comparisons over time. The causes of death included as suicides are determined by each country's definition of suicide. The UK's definition includes deaths where the underlying cause is 'intentional self-harm' and 'events of undetermined intent'. Including both helps to account for the problem of under-reporting.

NISRA

NRS

CSO

ONS

Box 1: UK definition of suicide

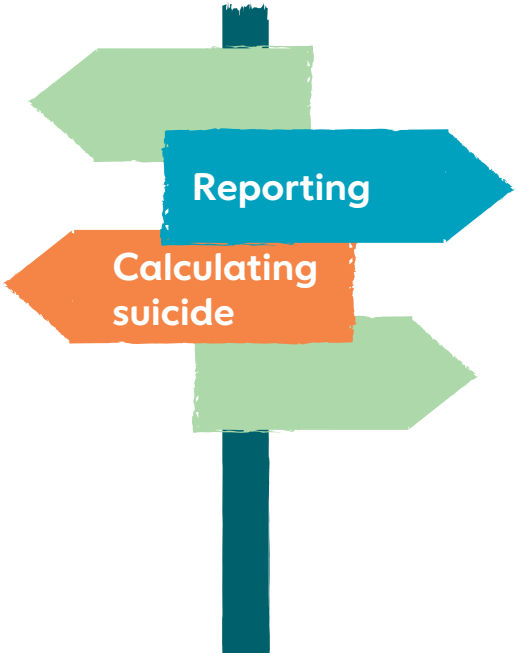
ICD-10 code	Description
X60–X84	Intentional self-harm
Y10–Y34[1]	Injury/poisoning of undetermined intent
Y87.0/Y87.2[2]	Sequelae of intentional self-harm/ injury/poisoning of undetermined intent

Table notes:

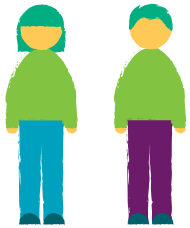
1. Excluding Y33.9 where the coroner's verdict was pending in England and Wales, up to 2006. From 2007, deaths which were previously coded to Y33.9 are coded to U50.9.
2. Y87.0 and Y87.2 are not included in England and Wales.

The Republic of Ireland's definition only includes deaths of 'suicide and intentional self-harm', not 'events of undetermined intent'.

Due to differences in processes and definitions, the Republic of Ireland and the UK are adding up different things to get the total number of suicides. This means it can be unhelpful to compare them. Instead, we can compare suicide trends between countries, considering increases or decreases over time.



Reporting



After calculating the number and rates of suicides, each national statistical agency makes them available by publishing them or providing them on request, just like they do for births and other deaths. All agencies provide regular suicide statistics, usually annually.

- In the England, Wales and Northern Ireland, routine data reflects the date of death registration. However, because of registration delays some deaths will have taken place in the previous year.
- In Scotland, deaths are registered within eight days, so data will mostly include deaths that happened in that year.
- In the Republic of Ireland, data is reported in stages. First, provisional data is released based on the year of registration. This data is later revised to reflect year of occurrence and is considered 'official' at this stage. Finally, the data is revised later again to include late registrations, but this can happen years later.

This staged approach provides challenges for comparing ROI suicide data over time as, at any given time, the data for different years may be at different stages.

Agencies provide data on sex and age, but may report on different age groupings, which impacts on the comparability of data. Some agencies publish additional information on demographics of those who die by suicide. For instance:

For England and Wales, ONS provide data on the number and rates of suicides for persons aged 10 and over. They also provide the number of suicides by Local Authority, and age-standardised three-year aggregate suicide rates. Public Health England (PHE) has created an online Suicide Prevention Profile which brings together a range of publicly available data. In the tool you can filter data by local authority area and regions of England to see which have higher, similar or lower than the national average suicide rates among different groups. It also includes local data for suicide risk factors, such as depression, mental health and unemployment, and service-related local data such as emergency hospital admissions for intentional self-harm.

For Northern Ireland, NISRA provide data on the number and rates of suicides for persons aged 10 and over. They also provide data on the number of suicide deaths by Local Government District, Health and Social Care Trust, Parliamentary Constituency, Assembly Area, and by Urban Rural Classification. They also provide the number of suicide deaths by deprivation.

For Scotland, NRS provide data on suicide rates for all age groups and rates for all persons, males and females. ScotPHO provide data on the number and five-year aggregate suicide rates for NHS Boards and Local Authorities in Scotland. Data is also available broken down by local area deprivation.

For the Republic of Ireland, CSO provide data on the number and rates of suicide by age, gender and county of residence. CSO and the Health Service Executive (HSE) also provide biannual briefings on suicide statistics

Reporting

Sensitive and responsible use of suicide statistics. When talking about suicide publicly, including in the media, it is crucial to do so sensitively and responsibly, to minimise the risk of contagion (suicidal behaviour that seems to occur as a result of previous suicides or attempts by others). Also, when talking to particularly vulnerable groups, eg, children and young people, caution should be taken with the use of statistics which although may be shocking, may have the effect of normalising suicide.

Samaritans' Media Guidelines provide advice for how to talk about suicide responsibly and sensitively.

The journey to suicide statistics is complex and there are also some key challenges that still need to be addressed to improve the accuracy and consistency of data.

However, suicide data is an important public health surveillance tool and gives us a powerful starting point to help us target our work to prevent future suicides.

The reliability and validity of suicide statistics

Suicide data is an important public health surveillance tool. Trustworthy data about suicide is essential for understanding the scale of suicide, identifying those most at risk and evaluating the effectiveness of interventions to prevent suicide.

It is therefore important that we understand the validity *(are we measuring what we think we're measuring?)* and reliability *(do we measure in the same way, over time?)* of data to ensure we are basing decisions on good information.

Validity of suicide data

Validity refers to 'how good' the data is, and whether it is a measure of what is intended. We need to understand whether suicide data actually tells us about suicide, and not another behaviour. The validity of suicide data is important to ensure we have an accurate representation of who is at risk so that interventions can be targeted effectively to prevent suicide.

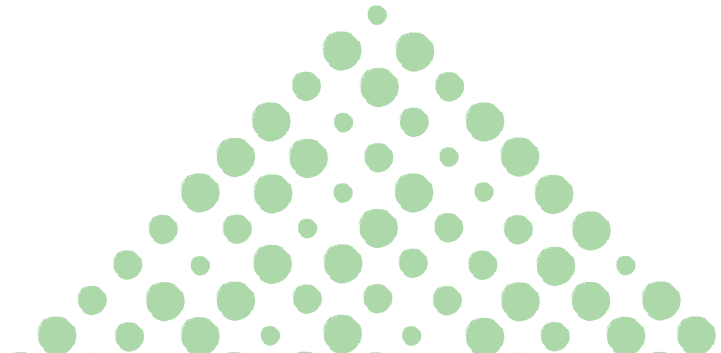
> Measuring the success, or lack thereof, of efforts to reduce suicides, suicide attempts or the impact of suicide on society at large requires access to reliable and valid data.
>
> **World Health Organisation, 2014; Preventing suicide: A global imperative[3]**

Reliability of suicide data

Reliability refers to whether data demonstrates consistency in measurement. We need to understand whether, if we counted the number of suicides in a group twice, we would come to the same number. Having reliable data about suicide is important for being able to monitor when, and for who, suicide rates are increasing.

Challenges with the validity and reliability of suicide data

The complexities described throughout the journey to suicide statistics in relation to establishing a cause of death and differing definitions of suicides are examples of problems that affect the validity and reliability of suicide data. We need to recognise and understand the limitations of suicide data to use it effectively and draw the right conclusions from it.



How can better data support suicide prevention?

There are a number of ways we can improve the validity and reliability of suicide statistics. In order to prevent suicide, it is vital that suicide statistics are accurate and comparable, comprehensive, and timely.

Accuracy and comparability

Accurate data, including agreed definitions and robust data collection practices, gives us confidence in trends over time and between countries. Differing approaches can undermine confidence in the value of analysing suicide statistics.

We want to see:

- **Revision of the statistical definition of suicide in the Republic of Ireland to include deaths of 'undetermined intent'.** In the UK, the statistical definition of suicide includes deaths of 'undetermined intent', as well as deaths where the underlying cause is 'intentional self-harm'. This improves the accuracy of suicide statistics, as it accounts for the known underreporting of suicides due to misclassification of deaths. However, in the Republic of Ireland deaths of undetermined intent are not included in the national definition, which means that suicide is potentially underreported.
- **Revision to standard of proof used by coroners in the Republic of Ireland to 'the balance of probabilities'.** Overly high burdens of proof can result in the number of suicides being underestimated, reducing the accuracy of suicide statistics. In the UK, the standard of proof required for a suicide conclusion is 'the balance of probabilities', whereas in the Republic of Ireland it is 'beyond reasonable doubt'.
- **Analysis of the impact of any coding changes on the comparability of suicide data.** Over time, changes are made to the way suicide data is coded and reported. For example, in 2011 guidance was issued in England and Wales advising coroners who investigate potential suicides to make a note on the intent of the death. This increased the likelihood of narrative conclusions being categorised as suicides. And in 2020, guidance was issued in Northern Ireland advising that drug related deaths be coded as accidental rather than undetermined intent, reducing the number of deaths coded as suicides. These changes may increase the accuracy of suicide data, but the impact of these changes, and any future changes, on the comparability of suicide data over time is not always clear and should continue to be explored.

Comprehensiveness

Understanding the risk factors associated with suicide is key to effective prevention. Suicide data can lack detail on demographics or life events, as the routine data published by official national statistical bodies is generally limited to age and sex.

We want to see:

- **National database of inquest and Procurator Fiscal findings.** In England, Wales, Northern Ireland, and the Republic of Ireland, coroners conduct detailed inquests when someone dies unexpectedly, storing the information locally in coroner records. In Scotland, suicide may be investigated by the Procurator Fiscal service. Centralised national electronic databases to collate this information would dramatically improve our understanding of the risk factors associated with people who die by suicide.
- **Routine publication of suicide data on a wider set of risk factors, in both real-time datasets and national releases.** To support our understanding of key risk factors for suicide, including how they change over time, routine datasets should capture a wider range of characteristics. This would ideally include protected characteristics such as ethnicity and sexual orientation, as well as information that relates to suicide method and risk factors such as occupation, history of mental illness and contact with services.

Timeliness

Being able to monitor and respond rapidly to any increases in suicide rates, particularly within certain groups or an area, could help prevent future deaths. The lengthy process for collecting and publishing suicide data makes it difficult to react quickly to changing trends.

We want to see:

- **Roll-out of nationwide, real-time surveillance systems for suicide.** Without national real-time data systems for potential suicides, we cannot get an accurate picture of suicide rates for the current year. The pilot nationwide system in England[10] for collecting reliable, comprehensive, and timely data on potential suicides needs to be progressed without delay and expanded to all nations across the UK and the Republic of Ireland. This will enable monitoring and rapid responses to any increases in suicide rates, particularly within certain groups or an area of the UK or the Republic of Ireland.
- **More timely death registration processes.** In Scotland, the maximum time between a death and an initial registration is eight days. This always means Scottish data is a more accurate reflection of the date of death, as the gap between death and registration is minimised. As shown above, other countries first register deaths after an inquest, which means there can be delays of a year or more. Timely death registration would enable quicker responses to emerging trends in suicide rates and avoid reported data being a mix of deaths from different years.

The complexity of suicidal behaviour and actions, alongside the subjective nature of recording deaths and differences between countries' registration processes, means that suicide data will never be completely accurate and there will always be problems related to reliability and validity. However, there are ways to address these challenges and its important we do everything possible to limit these confounding factors.

10. "Preventing Suicide in England: Fifth Progress Report of the Cross-Government Outcomes Strategy to Save Lives,", 71.

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