Suicide: key points

- Suicide is a leading cause of death in Scotland among people aged 15-34 years.
- There was a total of 795 suicides (deaths from intentional self-harm and events of undetermined intent combined) registered in Scotland in 2013. This figure is based on the new coding rules introduced by the National Records of Scotland (NRS) in 2010.
- The corresponding estimated 2013 figure based on the old coding rules (see note below) is 746 suicides.
- In 2013, the suicide rate for males was more than three times that for females.
- The suicide rate for persons in Scotland reduced by 19% between 2000-02 and 2011-13. This was close to the target of a 20% reduction.
- Suicide rates are strongly related to deprivation level. In 2009-13, the age-standardised rate was more than three times higher in the most deprived tenth of the population (decile) compared to the least deprived decile (25.7 compared to 7.1 per 100,000 population respectively).
- Suicide rates vary among NHS board and local authority (LA) areas, but there is considerable year-on-year fluctuation. No NHS board or LA had a significant increase or decrease in the rate for persons between 1983-87 and 2009-2013, and the rates for 2009-13 did not differ significantly from the Scottish average.
- In 2008 (the latest year for which comparable UK data are available) the Scottish suicide rates for males and for females were approximately double the rates recorded for England & Wales, but the rates for England & Wales may be under-estimated.

Suicide coding: In 2011, NRS changed its coding rules for certain causes of death, and some deaths previously coded under 'mental and behavioural disorders' are now classed as 'self-poisoning of undetermined intent' and consequently as suicides. This update primarily presents data based on the old rules, for assessing trends over time. We also present data from 2011 onwards based on the new rules when single year figures are shown. Further information is given in the Suicide Statistics technical paper (section 5).

ScotPHO welcomes feedback from users on the information included in this update and the manner of presentation and how it could be improved; please email us at scotpho@nhs.net.
Section updates:

The last major update of this section, adding data on suicides registered in 2013, was completed in August 2014. (Please see the Suicide Statistics technical paper (section 5) for details of changes in methodology for this update.)

The next major update, adding suicides registered in 2014, is due in August 2015.

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An Official Statistics Publication for Scotland produced by Information Services Division (ISD) on behalf of ScotPHO. See the ISD About Our Statistics web page for further information on ISD and Official Statistics.

Page last updated: 12 August 2014
Suicide: introduction

Suicide is a leading cause of death in Scotland among people aged 15-34 years. In 2012, suicide accounted for 29% of all male deaths in this age group (181 out of 619 deaths), and 21% of all female deaths (57 out of 271 deaths).

Many factors put individuals at risk of suicide, with four key groups of risk factors identified:

- risks and pressures within society, including poverty and inequalities, access to methods of suicide, prevalence of alcohol problems and substance misuse, and changing trends in society such as marital breakdown;
- risks and pressures within communities, including neighbourhood deprivation, social exclusion, isolation, and inadequate access to local services;
- risks and pressures for individuals, including sociodemographic characteristics, previous deliberate self harm, lack of care, treatment and support towards recovery from serious mental illness, loss (e.g. bereavement or divorce), and experience of abuse;
- quality of response from services, including insufficient identification of those at risk.

The relationship between these factors is complex. Choose Life's action plan - Scotland's suicide prevention strategy and action plan - states that such factors should not be addressed in isolation.


Risk and Protective Factors for Suicide and Suicidal Behaviour published in December 2008 is a systematic international literature review of review-level data on suicide risk factors and primary evidence of protective factors against suicide.

Please note that when analysing suicide data, it is conventional to combine deaths by intentional self-harm with deaths of undetermined intent, and this is what is done in this section. We refer to the data as ‘suicides’ but the term ‘probable suicides’ may also be used to acknowledge the inclusion of deaths of undetermined intent.

Page last updated: 27 August 2013
Suicide: policy context

The Scottish Government's Choose Life strategy and action plan to help prevent suicide in Scotland was launched in December 2002. This ten-year action plan included the target of reducing the suicide rate in Scotland by 20% by 2013. Over the last few years, a wide range of actions have been implemented to support people at risk of suicide. Progress towards the target is measured using 3-year rolling rates, and between 2000-02 and 2011-13 there has been a downward trend, with an overall decrease of 19%.

In 2009, the Scottish Government reviewed Choose Life in conjunction with key delivery partners and published the report 'Refreshing the National Strategy and action plan to prevent suicide in Scotland'. This report acknowledged the progress that had been made, but broadened the approach to include a greater focus on action to reduce suicide in clinical services, including in general practice, mental health and substance misuse services.

The Mental health strategy published in 2012 sets out the Scottish Government's commitments in respect of mental health improvement, services and recovery, to ensure delivery of effective, high quality care and treatment for people with a mental illness, their carers and families. Many of the commitments will contribute towards prevention and the long-term reduction in the number of suicides in Scotland.

In 2013, the new Suicide prevention strategy 2013-2016 was published by the Scottish Government, setting out key areas of work to continue to reduce the number of suicides in Scotland, and focusing on activities in communities and in services. It stated that: 'The World Health Organization has adopted a global target that suicides will be reduced by 10% by 2020. During the period of this strategy, we want to continue the downward trend in the rate of suicide in Scotland and make progress towards the WHO target.'

Differences in recording procedures make it difficult to compare suicide rates between countries. It would appear that Scotland's rates of probable suicide (intentional self-harm and events of undetermined intent combined) are higher than in England and Wales, but Scotland's rates for suicide (intentional self-harm only) are generally around the European Union average.

Page last updated: 12 August 2014
Suicide: Scottish trends

In 2013, a total of 795 suicides were registered in Scotland (611 males and 184 females). Following convention, these numbers include deaths coded to 'intentional self-harm' and to 'events of undetermined intent'. These figures are based on the new coding rules (see Suicide Statistics technical paper, section 4). National Records of Scotland (NRS) estimate that under the old coding rules, the total would have been 746 suicides (570 males and 176 females). Note that figures based on the old coding rules are used in analysing time trends, for consistency.

Chart 1 (view chart) shows annual suicide trends in Scotland over the past 32 years, for persons, males and females. Based on the old coding rules, in 2013 the European age-sex-standardised rate (EASR) for persons was 14.3 deaths per 100,000 population, similar to the 2012 figure (14.5 per 100,000). The rate peaked at 18.2 deaths per 100,000 population in 1993.

The chart shows that the EASR for males was 21.7 deaths per 100,000 in 1982, compared to 22.1 in 2013 (old coding rules). However, there was a general increase in the 1990s and a general decrease in recent years. For females, rates have tended to decrease from 10.7 deaths per 100,000 in 1982 to 6.4 in 2013. In 2013, the suicide rate for males was over three times that for females.

For comparison, 2013 EASRs based on the new coding rules are included in the file Suicide_National_Overview(109KB). The rates are: 15.2 deaths per 100,000 population for persons, 23.7 for males and 6.7 for females. The figures are higher than for the old coding, but the gender split is similar.

The target was to reduce the suicide rate in Scotland by 20% between 2000-02 and 2011-13. Three-year rolling averages (based on the old coding rules) included in the file show that over this period there was a 19% fall in suicide rates overall (21% for males and 14% for females).

Suicide coding categories

Chart 2 (view chart) presents the annual EASR trends over the last 32 years for intentional self-harm and events of undetermined intent separately (using old coding rules). The pattern of a rise then a decline over the period is generally seen for each category.

Age groups

Chart 3 (view chart) shows age-specific crude suicide rates for males in two three-year time periods: 1991-93 and 2011-13 (old coding rules). Rates have fallen for males of all ages except those aged 35-54, with the highest suicide rate now in males aged 35-44 years. The largest percentage point falls between the two time periods were in the males aged 15-24 and 65-74.
A similar pattern is seen for females, with rates falling for all ages except for those aged 35-54 years (Chart 4) (view chart). The highest rate is in females aged 45-54 years. The largest percentage point falls between the two time periods were in females aged 65-74 and 75+.

For background information on the use of EASRs, rebased populations and coding changes, please see the Suicide Statistics technical paper (sections 4 and 5).

Page last updated: 13 August 2014
Suicide: by NHS board

This page provides a breakdown of suicides (deaths caused by intentional self-harm and events of undetermined intent) by NHS board area, based on the boundaries at 1st April 2014.

The file Suicide NHS Board overview (244KB) presents numbers, crude rates and European age-standardised rates (EASRs) for 5-year periods from 1984-88 to 2009-13 (old coding rules). The file includes Persons Trend, Male Trend and Female Trend data, and Charts of the EASRs for 2009-13. In addition, the Annual Deaths worksheet presents suicide numbers by NHS board by year, from 1982 to 2013, with the figures from 2011 onwards based on both the old and new coding rules. Technical terms and methodology are explained in the downloadable file and in the Suicide Statistics technical paper (section 4).

There is considerable fluctuation over time for the EASRs for the NHS board areas, but none of them showed a statistically significant increase or decrease for persons between 1984-88 and 2009-13 (based on the finding that for each board, the 95% confidence intervals for the two time-periods overlapped).

Equally, none of the NHS boards had a significantly lower or higher suicide rate for persons than Scotland as a whole for 2009-13 (Persons Trend and Chart 1 in the file), with the confidence interval of the EASR for each NHS board overlapping with that for Scotland.

For males (Male Trend and chart 2 in file), the suicide rate during 2009-13 was significantly higher in Shetland than in Scotland as a whole.

For females (Female Trend and chart 3 in file), the rates for 2009-13 did not differ significantly from Scotland as a whole.

Further NHS Board data (5-year moving average numbers) are available from the vital events reference tables on the National Records of Scotland (NRS, formerly GROS) website.

NHS board area geographies: In April 2014, new NHS board boundaries were introduced, based on local authority areas (or aggregates). These boundaries are used throughout this publication. There may therefore be slight changes from the previous (August 2013) publication.

For background information on the use of annual rates, rebased populations and NHS board area geographies, please see the Suicide Statistics technical paper (sections 4 and 5).

Page last updated: 12 August 2014
Suicide: by local authority

This page provides a breakdown of suicide (deaths from intentional self-harm and events of undetermined intent) by local authority area.

The file Suicide local authority overview(353KB) presents numbers, crude rates and European age-standardised rates (EASRs) for 5-year periods from 1984-88 to 2009-13 (old coding rules). The file includes Persons Trend, Male Trend and Female Trend data, and Charts of the EASRs for 2009-13. In addition, the Annual Deaths worksheet presents suicide numbers by local authority by year, from 1982 to 2013, with the figures from 2011 onwards based on both the old and new coding rules. Technical terms and methodology are explained in the downloadable file and in the Suicide Statistics technical paper (section 4).

There is considerable fluctuation over time for the EASRs for local authorities, but none of them showed a statistically significant increase or decrease for persons between 1984-88 and 2009-13 (based on the finding that for each board, the 95% confidence intervals for the two time-periods overlapped).

Equally, no local authority had a significantly lower or higher suicide rate for persons than Scotland as a whole for 2009-13 (Persons Trend and Chart 1 in the file), with the confidence interval of the EASR for each local authority overlapping with that for Scotland.

For males (Male Trend and chart 2 in file), the suicide rate during 2009-13 was significantly lower for South Ayrshire and significantly higher for Highland, Inverclyde, Moray and the Shetland Islands than for Scotland as a whole.

For females (Female Trend and chart 3 in file), the rates were significantly lower in East Dunbartonshire, East Renfrewshire and Perth & Kinross, and significantly higher in Glasgow City than in Scotland as a whole.

Further local authority data (5-year moving average numbers) are available from the vital events reference tables on the National Records of Scotland (NRS) (formerly GROS) website.

For background information on the use of annual rates and rebased populations, please see the Suicide Statistics technical paper (section 5).

Page last updated: 12 August 2014
Suicide: deprivation

Deaths by suicide (intentional self-harm and events of undetermined intent combined) have been analysed for areas classified by the Scottish Index of Multiple Deprivation (SIMD). Small areas (data zones) were assigned a deprivation score and grouped into deciles (tenths of the population) ranging from 10 = least deprived to 1 = most deprived.

The file Suicide deprivation overview (200KB) shows suicide numbers, crude rates and European Age-standardised rates (EASRs) by SIMD decile, for the two latest 5-year time periods (2004-08 and 2009-13). The file includes Persons Trend, Males Trend and Females Trend data, and Charts with EASRs for 2009-13. Data for 2011 onwards are estimates based on the old coding rules for consistency. Note that SIMD 2009 (version 2) was used for the 2004-08 rates, and SIMD 2012 was used for 2009-13; the most relevant SIMD release for the period. Technical terms and methodology are explained in the downloadable file and in the Suicide Statistics technical paper (section 4).

For both sexes, Persons Trend and Chart 1 in the file show a strong relationship between deprivation and suicide rate. The rate in the least deprived decile (7.1 per 100,000 population) is half the Scottish average (14.5 per 100,000), while the rate in the most deprived decile (25.7 per 100,000) is almost double the Scottish average. The three least deprived deciles are each significantly lower than Scotland as a whole, while the two most deprived are significantly higher.

A very similar pattern is observed in the rates for males and females separately (Males Trend, Females Trend and Charts 2 and 3 in the file).

For background information on the use of annual rates, deprivation deciles and rebased populations, please see the Suicide Statistics technical paper (Glossary and section 5).

Page last updated: 12 August 2014
Suicide: in the UK

Mortality rates from suicide (intentional self-harm and events of undetermined intent combined) are presented for males and females, all ages, by the Office for National Statistics for: the UK; 'England, Wales & elsewhere*'; Scotland; and Northern Ireland. The latest comparable data available for all the countries are for 2008 (before the coding rules changed). The source is United Kingdom Health Statistics 2010 - Chapter 7: Mortality and life expectancy (319Kb) (download the Excel file then click on the worksheet '7.2b Full').

Chart 1 (view chart) shows the suicide rates recorded for males for these countries. The Scotland and Northern Ireland rates (24.1 and 24.7 per 100,000 population respectively) are approximately double the 'England, Wales & elsewhere' rate (12.6 per 100,000).

Chart 2 (view chart) shows the corresponding suicide rates recorded for females. The Scotland rate is highest at 7.7 per 100,000 population, double that of the 'England, Wales & elsewhere' rate (3.8 per 100,000).

Some caution is needed in drawing conclusions about the apparently higher suicide rates recorded for Scotland, because the figures for suicides in England and Wales may be under-estimates. In England and Wales, whether a death due to injury is classified as intentional or accidental depends on information provided by coroners. Narrative verdicts from coroners often do not provide information on whether the injuries were due to intentional self-harm, were accidental or were of undetermined intent. In these circumstances, coding rules mean that classification of the death defaults to 'accidental', and hence suicides may be underestimated. An editorial by Gunnell et al provides further background.

The 2014 ONS bulletin Suicides in the United Kingdom, 2012 reports that the number of suicides in adults aged 15 and over in the UK has fallen during the time period 1981 to 2012 (In 2012 there were 5,981 suicides, 64 less than in 2011 (6,045) and 397 less than in 1992 (6,378).

Suicide rates in the UK as a whole were similar in 2012 to 2011 for males (18.2 compared with 18.1 per 100,000 population respectively). The corresponding female rates were 5.2 compared with 5.6 per 100,000 respectively. Male rates reached a peak of 21.9 per 100,000 in 1988. Female suicide rates have been consistently much lower than male rates and have decreased more steadily.

* 'England, Wales and elsewhere' covers both residents and non-residents, in line with the data for Scotland and Northern Ireland.

Page last updated: 12 August 2014
Suicide: international

International mortality rates from suicide (not including undetermined intent) are published annually by the Organisation for Economic Co-operation and Development (OECD) in their Health at a Glance report. This allows comparisons between the UK and other OECD countries, and shows that the UK rate is lower than the OECD average.

International mortality rates from suicide (not including undetermined intent) are also included in the Scotland and European Health for all Database. This allows comparisons between Scotland, the UK and other European countries. The Scotland rate has generally been lower or around the EU average since the 1980s.

However, when analysing suicide data, it is conventional to combine deaths by intentional self harm with deaths of undetermined intent as it is believed that the overwhelming majority of ‘undetermined’ deaths are probable suicides. This is particularly necessary when comparing data from different countries as differing legal arrangements and social/religious attitudes may lead to different proportions of likely suicides being assigned to these two groups. In England and Wales, for example, all possible suicides are subject to a public inquest in a coroner’s court. Before returning a verdict of suicide, the coroner will require proof ‘beyond all reasonable doubt’. Many possible suicides end up as 'open' verdicts and are subsequently included in the mortality statistics for England and Wales as 'undetermined' deaths.

Page last updated: 12 August 2014
Suicide: mental illness

The National Confidential Inquiry (NCI) into Suicides and Homicides by People with Mental Illness collects UK data on suicides and homicides by people under the care of psychiatric services (defined as those who have had service contact within the previous year). The NCI is a research project funded by the National Patient Safety Agency (NPSA), the Scottish Government and Department of Health and Social Services in Northern Ireland.

The NCI reports that approximately one quarter of people who died by suicide in England and Wales, Scotland and Northern Ireland had been in contact with mental health services in the year before death. You can view the most recent reports on the NCI website.

The Scottish Suicide Information Database Report 2014 is an ISD publication presenting results from the Scottish Suicide Information Database (ScotSID) on deaths from suicide registered in Scotland from 2009. It includes expanded information on demographics and prior contact with a range of health services, including outpatient and inpatient mental health services and prescribing in the community for mental health drugs.

Information on mental health is available on the Mental Health section of the ScotPHO website.

Page last updated: 13 August 2014
Suicide: key data sources

The National Records of Scotland (NRS) (formerly GROS) compiles the official statistics on suicides (i.e. deaths caused by intentional self-harm and events of undetermined intent) in Scotland.

The Office for National Statistics (ONS) compiles the suicide data for England and Wales.

The Northern Ireland Statistics & Research Agency (NISRA) collects the suicide data for Northern Ireland.

The Central Statistics Office Ireland compiles the data for the Republic of Ireland.

When considering suicide data, it is conventional to combine deaths by intentional self harm with deaths of undetermined intent as it is believed that the overwhelming majority of 'undetermined' deaths are probable suicides. This is particularly necessary when comparing data from different countries as differing legal arrangements and social/religious attitudes may lead to different proportions of likely suicides being assigned to these two groups.

In England and Wales, for example, all possible suicides are subject to a public inquest in a coroner's court. Before returning a verdict of suicide, the coroner will require proof 'beyond all reasonable doubt'. Many possible suicides end up as 'open' verdicts and are subsequently included in the mortality statistics for England and Wales as 'undetermined' deaths.

It is advisable to exclude those data classified as 'pending investigation' (i.e ICD-9 E988.8 and ICD-10 Y33.9) as these codes are used in England and Wales in cases where a coroner adjourns an inquest awaiting prosecution of a third party, with a large proportion subsequently found to be homicides.
Suicide: key references and evidence

Suicide Statistics technical paper for these web pages


References


Towards a Mentally Flourishing Scotland, 2009-2011: This policy and action plan outlines the Government’s plans for mental health improvement for the period 2009-2011. Scottish Government, 2009

A report by Meltzer and others titled Non-fatal suicidal behaviour among adults aged 16 to 74 in Great Britain(631kb) presents the analysis of the data on suicidal thoughts and attempts collected in the 2000 ONS survey of psychiatric morbidity among adults in Great Britain.


Effectiveness evidence

ScotPHO’s purpose is to describe the pattern of health across the Scottish population. As a supplementary service to users, we include the following links to external sources of quality-assured evidence on effectiveness of interventions which may include relevant material for this topic. These links are provided as an aid to users. They are by no means exhaustive nor should they be necessarily viewed as authoritative.

NHS Health Scotland: Scottish Briefings on NICE public health guidance - Index page

NHS Evidence: Public health evidence - Home page

Centre for Reviews and Dissemination - Home page

Cochrane Reviews - Topic index page

EPPI-Centre: Evidence library - Home page

National Institute for Health and Clinical Excellence (NICE) guidance - Topic index page

Scottish Intercollegiate Guidelines Network (SIGN) - Home page

Please note: ScotPHO is not responsible for the content or reliability of linked websites and does not necessarily endorse the views expressed within them. Listing should not be taken as endorsement of any kind. ScotPHO can take no responsibility for information contained on websites maintained by other organisations or for actions taken as a result of information contained on websites maintained by other organisations.

To report a broken link on the ScotPHO website, please email details to the ScotPHO team of the web page containing the broken link together with the web address you were unable to access.

Page last updated: 07 August 2014
Suicide: useful links

The Scottish Suicide Information Database Report 2014 is an ISD publication presenting results from the Scottish Suicide Information Database (ScotSID). It includes expanded information on demographics and prior contact with health services.

The Choose Life website is the key suicide prevention portal for Scotland. This website provides details of local and national activity.

The National Records of Scotland (NRS) (formerly GROS) publish additional information relating to suicides in Scotland.

Another resource which may be of interest is the National Confidential Inquiry into Suicides and Homicides by People with Mental Illness.

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Page last updated: 12 August 2014
Suicide - Archive

Suicide Statistics – archived publications.

Information on suicide statistic is presented on the ScotPHO web pages in a format and structure consistent with other topics on the site, for ease of use. This allows the user quick access to pages on particular aspects, with appropriate links to other suicide pages on the menu and, where appropriate, to other ScotPHO topics etc. It also ensures that the user is always accessing the most up to date data and text.

During the UK Statistics Authority assessment of compliance with the Code of Practice for Official Statistics in 2013, the ScotPHO ISD team was asked to ensure that the current and historic releases of the suicide webpage content were disseminated in forms that “enable and encourage analysis and re-use”. Therefore, a series of links is given below to 'reports' created by taking 'snapshots' of the suicide statistics webpages prior to them being overwritten by a new annual publication.

PLEASE TAKE CARE NOT TO ACCESS AN ARCHIVE VERSION IF YOU ARE LOOKING FOR THE MOST RECENT REPORT.

Please note that links within the reports have been disabled to avoid users accessing out-of-date information. For the latest information please see the relevant live web page.

Latest report

Suicide Statistics to 2013 - August 2014 (325kb) To be finalised.

Archive reports

Updated key points page 10 July to 13 August (with section update notes) (109kb)

Suicide Statistics to 2012 – August 2013.(171kb).


If you have any comments/suggestions about this archive page please email craig.collins@nhs.net.

Page last updated: 12 August 2014