

Publication Report



The Scottish Suicide Information Database Report 2012

2009-2010 data

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Introduction

During the 2008 “Choose Life” summit, NHS Health Scotland made a commitment to lead work to establish a Scottish Suicide Information Database (ScotSID) to improve the quality of information available on suicides in Scotland. A steering group was set up and the Information Services Division (ISD) was commissioned to develop, analyse and maintain the database.

The overall aim of the Scottish Suicide Information Database is to provide a central repository for information on all probable suicide deaths in Scotland, in order to support epidemiology, preventive activity, and policy making.

The database covers demographic information, contact with health services and related health data, and will eventually (through inclusion of information from other data sources) provide details relating to the suicide event and individuals’ wider social circumstances.

This is the second report from the Scottish Suicide Information Database and presents data on deaths due to probable suicide in 2009 and 2010. This report reflects the recent addition of data relating to attendances at Accident and Emergency departments and dispensed prescriptions.

The Scottish Suicide Information Database

ScotSID contains the death records of all probable suicides occurring in Scotland from January 2009, along with additional variables derived from the following sources held by the Information Services Division:

- General acute hospital inpatient and daycase records (SMR01)
- Psychiatric hospital discharge records (SMR04)
- Outpatient attendances (SMR00)
- Maternity records (SMR02)
- Scottish Drug Misuse Database (SMR25)
- Accident and Emergency (A&E) attendances (Sep 2009 onwards)
- Prescriptions dispensed in the community (Prescribing Information System, PIS)

A list of the current ScotSID data items can be found in appendix 2. More information on the ISD data sets can be found on the [ISD website](#).

In addition to these records that have already been included, it is hoped that over time, relevant information from other data sources will be linked in to ScotSID to provide a wider range of information on issues such as individuals’ circumstances, the nature of their deaths, and their contact with services. Details on these and other potential ScotSID developments can be found in appendix 3. Examples of potential additional information include those arising from scrutiny processes, and from the Procurator Fiscal. Brief descriptions are given below.

The deaths of all individuals who are thought to have committed suicide within a year of being under the care of NHS Scotland mental health services should be subject to a formal suicide review process. If there is concern about the care provided, the death should also be referred to the Mental Welfare Commission. It is anticipated that information on these scrutiny processes for deaths from January 2012 onwards will be provided to ISD by Healthcare Improvement Scotland for incorporation into ScotSID.

A pilot exercise to determine the feasibility of incorporating information from police sudden death reports submitted to the Procurator Fiscal into ScotSID was completed in 2012. This pilot and further investigation into additional data sources will help inform how ScotSID continues to develop and capture a wider range of information on the health and wider social circumstances of individuals.

Methods

Definition of a probable suicide

The National Records of Scotland (NRS) define probable suicides as deaths resulting from:

- intentional self harm (codes X60–X84, Y87.0 of the International Classification of Diseases, Tenth Revision (ICD10)); and
- events of undetermined intent (ICD10 codes Y10-Y34, Y87.2).

'Events of undetermined intent' are cases where it is not clear whether the death was the result of intentional self-harm, an accident or an assault. It is thought that most of these deaths are likely to be suicides and therefore NRS combine these with the 'intentional self-harm' deaths to produce their statistics. As some 'undetermined intent' deaths will not have been suicides, including these cases may over estimate the 'true' (unknowable) number.

The definition of a probable suicide for ScotSID is based on the NRS classification. As deaths for people aged less than 5 are not likely to be suicides, these have been excluded from the statistics in this publication.

In 2011, NRS made a change to the way deaths are classified to match changes in World Health Organisation coding rules. This has resulted in some deaths previously coded under 'mental and behavioural disorders' now being classed as 'self-poisoning of undetermined intent' and therefore included in the suicide figures. A small number of probable suicides which occurred in 2010 were not registered until 2011. To ensure consistency across the two years of data in this publication, only those classified using the old coding criteria are included.

More information on the definition of a probable suicide and changes in the coding rules can be found on the [NRS website](#).

Linkage to other ISD datasets

NRS undertakes national reporting of all deaths due to intentional self harm or undetermined intent on an annual basis and routinely sends information relating to these deaths to ISD. Following carefully designed procedures to ensure the security and confidentiality of the data, these are then electronically linked to other databases held by ISD. More information on the record linkage methods used can be found in Appendix 4.

Data Confidentiality and Information Governance

ScotSID links existing information relating to individuals who are thought to have committed suicide from a range of sources. The specific data elements that were linked for this report include individuals' death records, hospital emergency, outpatient and inpatient attendance records and prescriptions dispensed in the community. It is envisaged that future linkages will extend to GP records, police sudden death records and suicide review reports from mental health services. The linkage of this information will enable as complete a picture as possible to be built up of those individuals who are thought to have committed suicide and help identify high risk groups.

Full Privacy Advisory Committee (PAC) approval for the linkage of data items from individuals' ISD health records into ScotSID was granted. The PAC also grants approval for data linkage requests for data held by National Services Scotland and NRS.

The person identifiable information used for linkage purposes and contained within ScotSID includes:

- Forename
- Surname
- Previous Name
- Community Health Index (CHI) Number
- Gender
- Postcode
- Date of Birth
- Date of Death / Date Death Registered

ScotSID is held within ISD in accordance with established information security and data protection/confidentiality procedures. Access is limited to authorised ISD personnel only. All ISD staff are aware of the rules governing the handling of confidential data appropriately, and all sign the 'Confidentiality Guidelines for ISD staff'. Although information on those who have died is not directly covered by the Data Protection Act

1998, ISD considers that such data are protected by a Duty of Confidence and their confidentiality needs to be protected. ISD produced the document 'How the Scottish Suicide Information Database Project Meets the Six Caldicott Guardian Principles' which was disseminated to all NHS Board Caldicott Guardians.

The person identifiable data are stored separately from any contextual information and used only for linkage purposes to incorporate other datasets. For the purposes of this report, analysis was undertaken on a pseudo-anonymised dataset (data for which the personal identifiers had been removed and replaced with a unique identifier).

Epidemiology of Suicide

Over the last decade, suicide and non-fatal self-harm have become increasingly recognised as important issues for public health policy and practice in Scotland. A key reason for this interest is the high suicide rates observed in Scotland compared to the rest of the UK.

Suicide Rates in Scotland

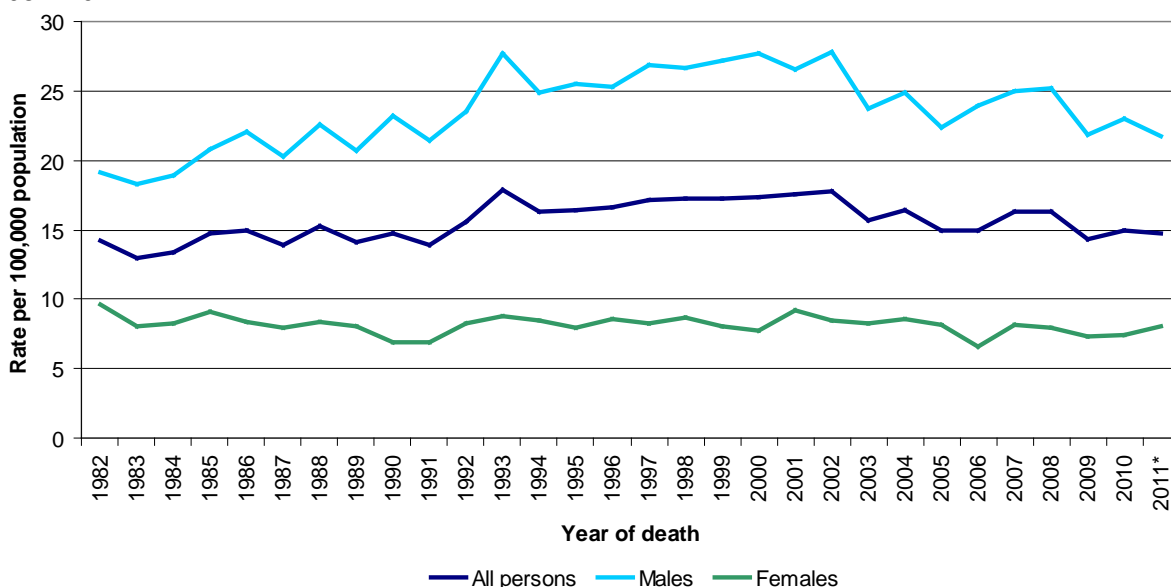
In its annual mortality report¹, the NRS publish information on the number of probable suicides (deaths which are the result of intentional self-harm or events of undetermined intent combined). There were 889 probable suicides in Scotland in 2011. However, NRS estimate that only 772 of these would have been counted as suicides under the old coding rules. Further analysis by the Scottish Public Health Observatory (ScotPHO) revealed that this represented a European age-sex-standardised rate (EASR) in 2011 of 14.5 per 100,000 population compared to 14.7 per 100,000 in 2010².

Figure 1 shows national probable suicide trends in Scotland over the past 30 years². The rate peaked in 1993 at 17.6 per 100,000 and again in 2002 and has since shown an overall decline. Since 1990, between 72% and 77% of all probable suicides are male.

For males, rates peaked in the 1990s and early 2000s, the highest being observed in 2002 (27.1 per 100,000 males) with an overall decline thereafter. A peak was observed again in 2008 but not at the same level as during the previous decade.

For females, rates decreased from 9.7 deaths per 100,000 women in 1982, the highest rate observed over the time period, to 7.8 per 100,000 in 2011.

Figure 1: Deaths caused by intentional self harm and events of undetermined intent in Scotland: EASRs, 1982–2011*



*2011 figures are based on the old coding rules to ensure consistency with previous years

¹ Probable Suicides: Deaths which are the Result of Intentional Self-harm or Events of Undetermined Intent, National Records of Scotland www.gro-scotland.gov.uk/statistics/theme/vital-events/deaths/suicides/index.html

² Suicide: key points, ScotPHO, www.scotpho.org.uk/health-wellbeing-and-disease/suicide/key-points (accessed October 2012)

Further analysis by ScotPHO using three-year rolling averages, show that, based on the old coding rules, between 2000-02 and 2009-11 there was a 17% fall in suicide rates overall (19% for males and 9% for females). The national HEAT target is to reduce the suicide rate between 2002 and 2013 by 20%.

Scottish Suicide Rates compared to other European countries

The Glasgow Centre for Population Health³ recently reported on mortality rates in Scotland relative to 19 other European countries from 1950-2010, though for some countries data were not available for the whole time period.

Despite the recent decline in Scottish suicide rates, the Scottish rate for males of working age (aged 15-74) was 73% higher than in England and Wales in 2010 compared to 6% higher in 1968. The Scottish female suicide rate was almost double the rate in England and Wales. The suicide rate in Northern Ireland was comparable to the Scottish rate for both genders.

The study showed that Scottish suicide rates for men and women of working age have remained above the Western European mean since 1993.

Scotland's relative ranking deteriorated from having the eighth highest male suicide rate in Western Europe in 1971-1975 to having the third highest in 2001-2005. Similarly, for females, the Scotland suicide rate also deteriorated from the eighth highest in 1971-1975 to the fourth highest in 2001-2005. Comparisons with data for 2006-2010 are not yet available.

The Scottish male suicide rates are comparable to Swedish rates and considerably lower than the rates in Finland, Hungary and Poland. Male suicide rates are consistently higher than in the Southern European countries during the time periods when comparable data are available.

Female suicide rates in Scotland are comparable to Norway, Denmark and France and slightly lower than in Sweden, Finland and Hungary. Female suicide rates have been consistently higher than in Poland and also in the Southern European countries since the mid 1990s.

Reporting by ScotSID

NRS publishes its annual figures by 'year of registration' whereas ScotSID figures are based on 'year of death'. Therefore, deaths that occurred in 2010 but were not registered until 2011 would be included in ScotSID's 2010 figures, but would appear in the NRS's published figures for 2011. Appendix 5 provides further explanation of the difference between the ScotSID cohort and NRS reported figures. NRS published information on deaths registered in 2011 in its annual mortality report in August 2012.

³ Scottish Mortality in a European Context, 1950 – 2010. An analysis of comparative mortality trends, Glasgow Centre for Population Health www.gcph.co.uk/assets/0000/3606/Scottish_Mortality_in_a_European_Context_2012_v11_FINAL.pdf

Acknowledgements

The Scottish Suicide Information Database was initiated by Dr Laurence Gruer OBE, Director of Public Health Science, NHS Health Scotland, who also chaired the ScotSID Steering Group until May 2012. Professor Stephen Platt, University of Edinburgh, has now taken on the role of chair. The ScotSID project team is funded by NHS Health Scotland as part of its mental health improvement programme.

The report was prepared by Claire Clark, Cheryl Denny and Garry Hecht (ISD).

We would like to take this opportunity to thank the members of the ScotSID Steering Group who have provided valuable support and advice (see membership in Appendix 7).

Thank you also to the Scottish Fatalities Investigation Unit, for all their support and assistance during the Procurator Fiscal pilot and also to NHS Health Improvement Scotland for their assistance in identifying suicide review information for incorporation into ScotSID.

Key points

- There was a total of 1,533 deaths due to self harm and events of undetermined intent in 2009 and 2010. Of these, 1,501 (98%) were Scottish residents.
- Almost three quarters of those who died were male, and almost half were aged between 35 and 54 years.
- The number of probable suicides in the most deprived quintile is more than three times higher than the number in the least deprived quintile.
- Among those of employment age, 67% were in employment and a wide range of occupations was represented.
- Seventy one percent of suicidal acts occurred in a private dwelling.
- Sixteen percent of those completing suicide died in hospital.
- Of the 1,501 Scottish residents, 890 (59%) had been an inpatient in a general hospital less than five years before death. Of these, 25% had a diagnosis of 'Injury from Intentional Self Harm' and 18% had a diagnosis of 'Unintentional Injury (including assault by another person)', at discharge.
- Of the 1,501 Scottish residents, 21% had been a psychiatric inpatient less than five years before death.
- There was a total of 757 probable suicides in 2010 for Scottish residents. Of these, 424 (56%) had mental health prescriptions dispensed within twelve months prior to death. About 1 in 5 (21.5%) attended A&E within three months prior to death.

Results and Commentary

1 The Scottish Suicide Information Database Cohort

The number of probable suicides may fluctuate from year to year, and it is therefore preferable to use pooled statistics over several years. As a result, where available, the data in this publication relate to 2009 and 2010 combined.

1,533 individuals are included in ScotSID for 2009-2010 (1,132 males, 401 females). Of these 1,142 are classified by the NRS as deaths due to intentional self harm, while 391 are classified as deaths due to events of undetermined intent. These have been combined and represent the ScotSID cohort of deaths due to probable suicide.

Thirty-two individuals in the cohort were not Scottish residents. As the NRS publish information on all deaths that occur in Scotland, including non-resident persons, analysis relating to person demographics (tables 1 – 11 and figures 2 and 3) is conducted using the full cohort.

1.1 Socio-demographics

1.1.1 Geographical Area

Table 1 shows the numbers and mortality rates for probable suicides by NHS Board. For Scottish residents, the NHS Board reflects where the individual lived at the time of death. Thirty individuals who are thought to have committed suicide in Scotland in 2009-10 were not residents of Scotland and for two individuals, the country of residence was not known. For these cases, the NHS Board reflects where the individual died.

European age-sex-standardised rates (EASRs) are also presented for each NHS board area. Age and gender structures may differ across NHS boards and, in order to compare their rates, these have been age-sex-standardised by applying a 'standard population' structure. The standardised rate is calculated by multiplying each crude age-sex-specific rate by the corresponding age-sex group weight from the standard population (in this case the hypothetical European Standard population) and then summing up these values. The rate per 100,000 population is then displayed.

The figures in brackets represent 95% confidence intervals. These confidence intervals describe the degree of uncertainty around the EASR. A 95% confidence interval implies that 95 times out of 100, the interval will include the true underlying rate. The width of the confidence interval depends on the size of the population and the underlying variability in the data. Rates in the smaller NHS Boards are subject to a greater degree of year-on-year fluctuation than larger population areas, therefore caution should be taken when interpreting these data.

If the confidence interval around an NHS board rate does not include the Scotland rate it can be said that the suicide rate in the NHS board is significantly higher or lower than the rate across Scotland as a whole.

The highest standardised mortality rate is observed in NHS Shetland (18.9 per 100,000 population), followed by NHS Dumfries & Galloway (17.0 per 100,000 population). However, neither is statistically significantly higher than the Scotland rate.

Male age standardised rates are consistently higher than those for females and significantly higher in most NHS Boards, except NHS Orkney, NHS Shetland and NHS Western Isles.

The highest standardised rate for males was in NHS Dumfries & Galloway, while for females, rates were highest in NHS Shetland.

Table 1: Deaths caused by probable suicide¹ – Rates (Crude and EASRs) by NHS Board, Scotland, 2009-10

NHS Board ²	Number of Probable Suicides	Crude Mortality Rate per 100,000 Population	Age-Sex Standardised Rates (All)	Age Standardised Rates (Males)	Age Standardised Rates (Females)
Scotland	1,533	14.7	14.5 (13.1-16.0)	21.8 (20.5-23.1)	7.3 (6.6-8.0)
Ayrshire & Arran	94	12.8	13.7 (8.3-19.9)	21.0 (16.3-26.6)	6.4 (3.9-9.6)
Borders	30	13.3	15.0 (4.8-28.4)	26.8 (17.2-39.6)	3.2 (0.5-9.6)
Dumfries & Galloway	47	15.8	17.0 (7.3-29.0)	28.3 (19.4-39.6)	5.7 (2.3-11.2)
Fife	110	15.1	15.6 (9.9-22.1)	27.1 (21.8-33.2)	4.1 (2.3-6.7)
Forth Valley	67	11.5	11.7 (6.4-18.1)	18.7 (14.0-24.6)	4.7 (2.6-8.0)
Grampian	165	15.1	14.5 (10.2-19.3)	21.9 (18.2-26.1)	7.0 (5.0-9.6)
Greater Glasgow & Clyde	398	16.6	16.1 (13.0-19.5)	23.1 (20.5-26.0)	9.2 (7.6-11.0)
Highland	103	16.6	16.1 (9.9-23.1)	22.8 (17.6-28.9)	9.3 (6.3-13.3)
Lanarkshire	169	15.0	15.0 (10.6-19.9)	22.1 (18.3-26.5)	7.9 (5.8-10.5)
Lothian	230	13.8	13.4 (10.0-17.1)	19.4 (16.5-22.6)	7.4 (5.7-9.4)
Orkney	5	12.5	14.2 (0.0-52.7)	23.9 (6.1-61.7)	4.5 (0.1-25.1)
Shetland	9	20.2	18.9 (0.0-53.0)	25.3 (9.2-55.3)	12.5 (2.5-36.6)
Tayside	101	12.6	12.3 (7.6-17.8)	18.4 (14.4-23.2)	6.3 (4.1-9.2)
Western Isles	5	9.5	9.6 (0.0-37.1)	15.9 (3.2-42.8)	3.3 (0.0-18.2)

Source: NRS

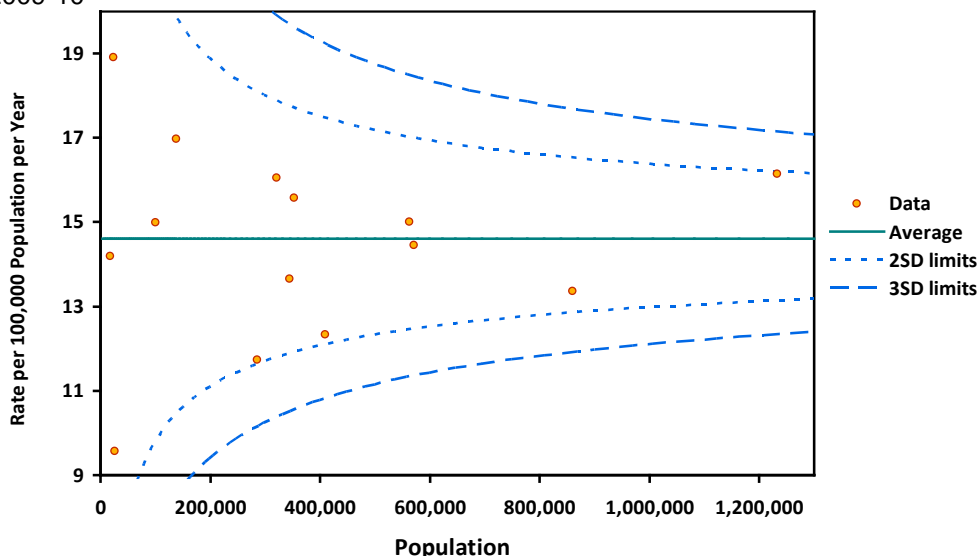
¹ ScotSID cohort excludes <5 year olds

² For Scottish residents, this is the NHS Board of residence at the time of death. For individuals resident outwith Scotland or where the country of residence is unknown, the NHS Board reflects where the individual died (32 cases).

Figure 2 illustrates the variation in rates across the NHS Boards by corresponding population size. Each data point refers to an NHS Board and the average rate for all NHS Boards is also shown. The standard deviation (SD) illustrates the amount of variation from the average. The best estimate of expected variation is the third SD limit.

All NHS Boards currently appear within the control limits, suggesting an expected level of variation.

Figure 2: Deaths caused by probable suicide¹ – Rates (combined sex EASRs) by NHS Board, Scotland, 2009-10



Source: NRS

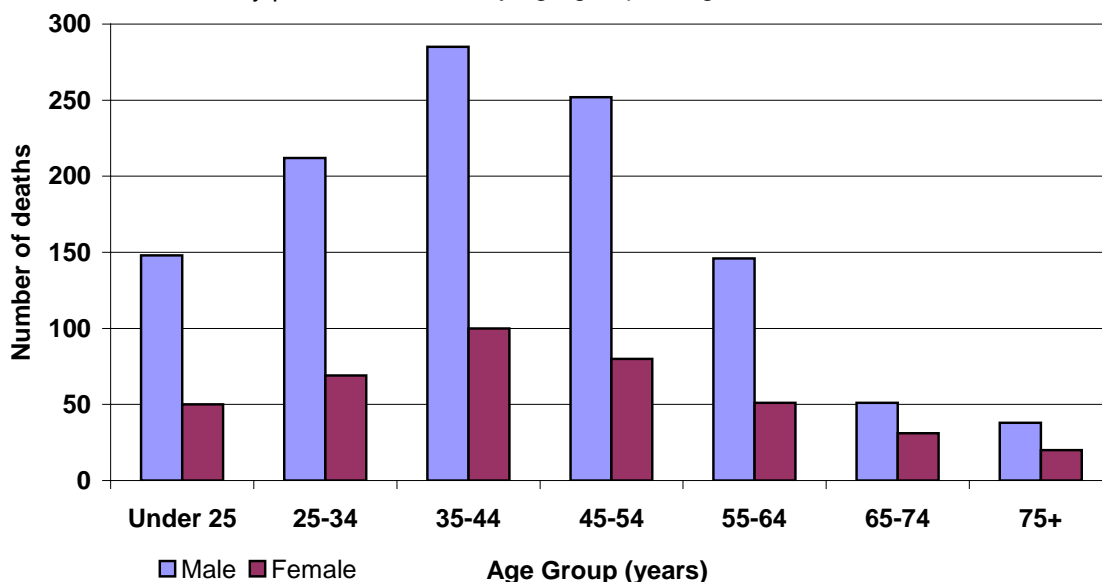
¹ ScotSID cohort excludes <5 year olds

Note: Population is adjusted due to Standardised Calculation

1.1.2 Age and Gender

The gender and age group breakdown of the ScotSID cohort is shown in Figure 3. Almost three quarters of the cohort were males (1,132, 73.8%). The median age at death for men was 42 years and for women, 43 years. The highest proportion of deaths occurred in the 35-44 year age group (25.1%), followed by the 45-54 year age group (21.7%). Patterns were similar for both males and females.

Figure 3: Deaths caused by probable suicide¹ by age-group and gender, Scotland, 2009-10



Source: NRS

¹ ScotSID cohort excludes <5 year olds

1.1.3 Socio-economic Deprivation

Table 2 shows the number of probable suicides by deprivation quintile. The quintiles used in the table are based on the Scottish Index of Multiple Deprivation (SIMD) published in 2009 (revised in 2010), known as SIMD 2009. Individuals have been allocated to a SIMD quintile based on their postcode of residence at the time of death. Each quintile consists of approximately 20% of the population living in Scotland, with deprivation quintile 1 indicating the population living in the most deprived areas. If there were no association between suicide and deprivation, around 20% of all individuals dying by suicide would be expected to live in each deprivation quintile. In fact, it can be seen that deaths by suicide are considerably more common among individuals living in deprived, rather than affluent, areas. The number of probable suicides in the most deprived quintile is more than three times higher than in the least deprived quintile. This is consistent with analysis published by ScotPHO⁴ which shows those living in the most deprived deciles of Scotland have a significantly increased risk of suicide compared to Scotland as a whole.

Table 2: Deaths caused by probable suicide¹ by SIMD 2009 quintile, Scotland, 2009-10

SIMD Quintile	Number	%
1 – most deprived	487	32.4
2	362	24.1
3	306	20.4
4	198	13.2
5 – least deprived	148	9.9
Total	1,501	100.0
Not resident in Scotland	32	

Source: NRS

¹ ScotSID cohort excludes <5 year olds

⁴ Suicide: deprivation, ScotPHO www.scotpho.org.uk/health-wellbeing-and-disease/suicide/data/deprivation

1.1.4 Marital Status

Marital status was known for 1,518 (99.7%) of cases aged 16 and over. Just over two-thirds (69.4%) of cases in ScotSID were reported as single, widowed or divorced at the time of their death. The remaining 30.6% were reported as married or in a civil partnership (Table 3).

The 2009/10 Scottish Household Survey (SHS⁵) reported the marital status of 'adults (aged 16 years or over) in private households'. These figures are included in the table for comparison purposes. Just under half (49.5%) of cases in ScotSID were reported as 'single', which is higher than the 32% in the general population. Similarly, the rate for 'divorced/civil partnership dissolved' was also higher in ScotSID (14.7% compared to 10%). The proportions in the remaining categories were lower in ScotSID.

Table 3: Deaths caused by probable suicide by Marital Status – aged 16 and over, Scotland, 2009-10

Marital Status	Number	%	2009/10 SHS ¹ %
Single	751	49.5	32
Married/Civil Partnership	464	30.6	51
Widowed/Surviving Civil Partner	80	5.3	8
Divorced/Civil Partnership Dissolved	223	14.7	10
Total	1,518	100.0	100
Not recorded	5	-	-

Source: NRS

¹ Scottish Household Survey 2009/10 for 'adults (aged 16 years or over) in private households'

1.1.5 Employment Status and Occupation

Of the 1,533 cases, 1,383 (90.2%) were of employment age (16-64 years). Employment status was known in 1,380 cases (Table 4). Approximately two thirds of these (67%) were in employment at the time of their death. Approximately one third (33%) were either unemployed, students or unable to work due to a long term condition.

Table 4: Deaths caused by probable suicide by Employment Status – 16-64 year olds, Scotland, 2009-10

Employment Status	Number	%
Student/Unemployed ¹	455	33.0
Employed/Self Employed	925	67.0
Total	1,380	100.0
Not recorded	3	-

Source: NRS

¹ Includes long term conditions and independent means

The last known occupation was available for 1,083 (78.3%) of the individuals of employment age. Due to the vast range of different occupations of the ScotSID cohort, the occupations have been grouped using the [Standard Occupational Classification 2000](#) (SOC 2000). Occupations are combined into 353 'unit' occupational groups, e.g. 'Painters and Decorators', forming the base tier of the classification, and these are combined further to form nine 'major' occupational groups, e.g. 'Skilled Trades Occupations', which form the top tier of the classification.

Table 5 shows the occupations by 'major' occupational group. The most common occupational group was 'Skilled Trades Occupations' (254 cases, 23.5%), followed by the 'Elementary Occupations' group (189 cases, 17.5%). 'Students' are not included in the SOC 2000 classification but have been added to the table for comparison.

⁵ Scotland's People Annual report: Results from 2009/10 Scottish Household Survey
<http://www.scotland.gov.uk/Publications/2011/08/17093111/0>

Table 5: Deaths caused by probable suicide by Occupational Group¹ – 16-64 year olds, Scotland, 2009-10

'Major' Occupational Group¹	Number	%
Administrative and Secretarial Occupations	51	4.7
Associate Professional and Technical Occupations	109	10.1
Elementary Occupations ²	189	17.5
Managers and Senior Officials	58	5.4
Personal Service Occupations	64	5.9
Process, Plant and Machine Operatives	171	15.8
Professional Occupations	72	6.6
Sales and Customer Service Occupations	56	5.2
Skilled Trades Occupations	254	23.5
Students ³	46	4.2
Other	13	1.2
Total	1,083	100.0
Not recorded	300	

Source: NRS

¹ 'Major' occupation groups as defined in the [Standard Occupational Classification 2000](#)

² Elementary occupations consist of routine tasks which mainly require the use of hand-held tools and often some physical effort

³ 'Students' are not included in the SOC 2000 classification but have been added to the table for comparison

Table 6 provides a list of the most frequently occurring 'unit' occupational groups. The most common unit group was 'Labourers in building and woodworking trades' (64 cases). This constituted 33.9% of those in the 'Elementary Occupations' major occupational group mentioned in Table 5. Other commonly occurring unit groups were 'Care Assistants/Home Carers' and 'Sales and retail assistants'. 'Students' are not included in the SOC 2000 classification but have been added to the table for comparison.

Table 6: Deaths caused by probable suicide by Most Common Occupations¹ (count >20) – 16-64 year olds, Scotland, 2009-10

'Unit' Occupational Group¹	Number
Care Assistants and Home Carers	31
Carpenters and Joiners	26
Chefs, cooks	21
Cleaners, domestics	24
Electricians, Electrical Fitters	26
Gardeners and Groundsmen/Groundswomen	21
Labourers in building and woodworking trades	64
Painters and Decorators	24
Sales and retail assistants	30
Students ²	46

Source: NRS

¹ 'Unit' occupation groups as defined in the [Standard Occupational Classification 2000](#)

² 'Students' are not included in the SOC 2000 classification but have been added to the table for comparison

1.2 Circumstances of Death

1.2.1 Method of Suicide

The most common method of suicide for all age groups was 'hanging, strangulation & suffocation' (672 cases, 43.8%). This was followed by 'poisoning' (496, 32.4%) (Table 7). The methods listed in the table are defined by groupings of ICD10 codes for the underlying cause of death.

Table 7: Deaths caused by probable suicide¹ by age and method of suicide, Scotland, 2009-10

Method of suicide	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Hanging, Strangulation & Suffocation	119	60.1	309	46.4	191	36.1	53	37.9	672	43.8
Poisoning	43	21.7	221	33.2	187	35.3	45	32.1	496	32.4
Jumping or falling from high place	20	10.1	54	8.1	44	8.3	10	7.1	128	8.3
Drowning & submersion	3	1.5	33	5.0	42	7.9	18	12.9	96	6.3
Firearm	3	1.5	5	0.8	12	2.3	7	5.0	27	1.8
Other and unspecified ²	10	5.1	44	6.6	53	10.0	7	5.0	114	7.4
Total	198	100.0	666	100.0	529	100.0	140	100.0	1,533	100.0

Source: NRS

¹ ScotSID cohort excludes <5 year olds

² Includes deaths caused by smoke and fire, sharp objects (e.g. knives), moving objects (e.g. trains) and unspecified events (e.g. the death certificate said simply "head injury", with no indication of its cause)

A gender-specific breakdown of the methods used (Tables 8 & 9) shows that 'hanging, strangulation & suffocation' was the most common method amongst males (549 cases, 48.5%), while 'poisoning' was most common amongst females (189, 47.1%). This concurred with previous findings by Platt et al in 2007⁶. The second method of choice for males was 'poisoning' (307, 27.1%) and for females was 'hanging, strangulation & suffocation' (123, 30.7%).

Table 8: Deaths caused by probable suicide¹ by age and method of suicide – Males, Scotland, 2009-10

Method of suicide	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Hanging, Strangulation & Suffocation	90	60.8	252	50.7	163	41.0	44	49.4	549	48.5
Poisoning	30	20.3	139	28.0	115	28.9	23	25.8	307	27.1
Jumping or falling from high place	14	9.5	40	8.0	32	8.0	4	4.5	90	8.0
Drowning & submersion	3	2.0	23	4.6	35	8.8	7	7.9	68	6.0
Firearm	3	2.0	5	1.0	11	2.8	7	7.9	26	2.3
Other and unspecified ²	8	5.4	38	7.6	42	10.6	4	4.5	92	8.1
Total	148	100.0	497	100.0	398	100.0	89	100.0	1,132	100.0

Source: NRS

¹ ScotSID cohort excludes <5 year olds

² Includes deaths caused by smoke and fire, sharp objects (e.g. knives), moving objects (e.g. trains) and unspecified events (e.g. the death certificate said simply "head injury", with no indication of its cause)

⁶ The epidemiology of suicide in Scotland 1989-2004 www.scotland.gov.uk/Resource/Doc/168696/0046868.pdf

Table 9: Deaths caused by probable suicide¹ by age and method of suicide – Females, Scotland, 2009-10

Method of suicide	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Hanging, Strangulation & Suffocation	29	58.0	57	33.7	28	21.4	9	17.6	123	30.7
Poisoning	13	26.0	82	48.5	72	55.0	22	43.1	189	47.1
Jumping or falling from high place	6	12.0	14	8.3	12	9.2	6	11.8	38	9.5
Drowning & submersion	-	-	10	5.9	7	5.3	11	21.6	28	7.0
Firearm	-	-	-	-	1	0.8	-	-	1	0.2
Other and unspecified ²	2	4.0	6	3.6	11	8.4	3	5.9	22	5.5
Total	50	100.0	169	100.0	131	100.0	51	100.0	401	100.0

Source: NRS

¹ ScotSID cohort excludes <5 year olds² Includes deaths caused by smoke and fire, sharp objects (e.g. knives), moving objects (e.g. trains) and unspecified events (e.g. the death certificate said simply "head injury", with no indication of its cause)

1.2.2 Month & Day of Death

There was no significant association between occurrence of suicide and the day of the week or month of the year.

1.2.3 Post Mortem Undertaken

Most sudden and unexpected deaths are referred for post mortems in order to determine the cause of death. It is a matter for the Procurator Fiscal to decide whether there should be a post mortem examination. If the deceased has died in hospital and the Procurator Fiscal decides that the death does not require any further action or investigation, the question of a post mortem examination to establish the cause of death is a matter for the hospital.

In 1,394 cases (91.3%) a post mortem was performed, while for 8.7% of cases, a post mortem was not performed (Table 10). In six cases, it was not possible to determine whether a post mortem was undertaken. This may occur in instances where a case was recorded as 'may be performed' but the outcome was not known at the time of the NRS statistical database 'freeze'.

Table 10: Deaths caused by probable suicide¹ – Post Mortem Indicator, Scotland, 2009-10

Post Mortem Indicator	Number	%
Has been performed	1,394	91.3
Not performed	133	8.7
Total	1,527	100.0
Not Known ²	6	-

Source: NRS

¹ ScotSID cohort excludes <5 year olds² Cases recorded as 'may be performed' but outcome was not known at time of the NRS data freeze

1.2.4 Place where suicidal act & death occurred

The majority of events that caused death occurred in a private dwelling (70.7%) (Table 11). The second most frequent category is 'other specified place' (23.6%), which includes locations such as a beach, campsite, railway line, river, school and sport area etc.

Table 11: Deaths caused by probable suicide¹ – Place where suicidal act occurred, Scotland, 2009-10

Place of Occurrence ²	Number	%
Private dwelling ³	924	70.7
Street or highway	24	1.8
Trade and service area	22	1.7
Residential Unit	16	1.2
Industrial and construction area	12	0.9
Other specified place	309	23.6
Total	1,307	100.0
Not known (Unspecified place)	226	

Source: NRS

¹ ScotSID cohort excludes <5 year olds

² Based on the ICD-10 codes for the place of occurrence of the event which caused the death

³ Private dwelling refers to a person's home, or someone else's home, garage, garden, driveway etc.

238 individuals (15.5%) died in hospital. The location where the suicidal act occurred was unspecified in the majority of these cases, perhaps because it was not known by the hospital doctor who completed the death certificate (which is the source of much of the NRS data). The remaining 84.5% are likely to have died at the same location as the suicidal act occurred.

It is anticipated that more comprehensive information regarding the place where a suicide was attempted may be available from the Procurator Fiscal. Information from the Procurator Fiscal may also provide more detail on the locations recorded as 'other specified place' and 'unspecified place' in Table 11. Details of a pilot exercise to determine the feasibility of obtaining additional data items for ScotSID from police sudden death reports submitted to the Procurator Fiscal can be found in appendix 3.

2 Contact with Health Services

Of the 1,533 individuals included in ScotSID for 2009-2010, 1,501 were Scottish residents and thirty were resident outwith Scotland. For two individuals, the country of residence was not known. The individuals who are thought to have committed suicide in Scotland but were not residents would be unlikely to have had any contact with acute services, and therefore not eligible for record linkage using Scottish health service data. Analysis pertaining to health information (tables 12-34) is only presented for those people whose place of usual residence is recorded as Scotland. The gender and age group breakdown of the Scottish residents held on ScotSID is shown in Table 12.

Table 12: Deaths caused by probable suicide¹ by age and gender – Scottish Residents, 2009-10

Gender	Age <25	Age 25-44	Age 45-64	Age 65+	Total
Males	145	487	387	88	1,107
Females	48	166	129	51	394
Total	193	653	516	139	1,501

Source: NRS

¹ ScotSID cohort excludes <5 year olds

2.1 General Acute Hospital Discharge Episodes

ScotSID links the death records for probable suicides with data on inpatient and daycase discharges from non-obstetric and non-psychiatric specialties in general acute hospitals in Scotland. More information on this data can be found on ISD's [Inpatient and Day Case Activity](#) webpage.

101 individuals had at least one episode discharge date matching the date of death. Of these, 20 had no other episode within five years prior to death. Episodes with a discharge date matching the date of death are excluded from tables 13 to 16 as these admissions are likely to have been in response to the suicidal act itself rather than for other care.

Tables 13, 14 and 15 show the number and percentage of cases that had at least one general acute hospital discharge within the last 30 days, 12 months and five years, respectively, before death. These figures are cumulative. Of the 1,501 individuals who were resident in Scotland at the time of death, 9% had been an inpatient and discharged within 30 days of death, whilst 32.3% had been discharged within one year. Over half (59.3%) had been discharged from a general acute hospital within five years of their death. The remaining 611 individuals had no record of a general acute hospital discharge in the five years before their death.

Prior admission rates increased with age and were generally higher for females than males. In the general population, hospital admission rates tend to be higher for females than males in all but the youngest and oldest age groups. For more information see the ISD's [Hospital Care](#) webpage.

Table 13: Deaths caused by probable suicide¹ – patients discharged from a general acute hospital within 30 days prior to death, by age and gender, Scottish Residents, 2009-10

Gender	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Males	7	4.8	37	7.6	34	8.8	16	18.2	94	8.5
Females	1	2.1	19	11.4	12	9.3	9	17.6	41	10.4
Total	8	4.1	56	8.6	46	8.9	25	18.0	135	9.0

Source: NRS; SMR01

¹ ScotSID cohort excludes <5 year olds

Table 14: Deaths caused by probable suicide¹ – patients discharged from a general acute hospital within 12 months prior to death, by age and gender, Scottish Residents, 2009-10

Gender	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Males	28	19.3	136	27.9	119	30.7	42	47.7	325	29.4
Females	12	25.0	66	39.8	56	43.4	26	51.0	160	40.6
Total	40	20.7	202	30.9	175	33.9	68	48.9	485	32.3

Source: NRS; SMR01

¹ ScotSID cohort excludes <5 year olds

Table 15: Deaths caused by probable suicide¹ – patients discharged from a general acute hospital within 5 years prior to death, by age and gender, Scottish Residents, 2009-10

Gender	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Males	73	50.3	259	53.2	226	58.4	64	72.7	622	56.2
Females	23	47.9	123	74.1	82	63.6	40	78.4	268	68.0
Total	96	49.7	382	58.5	308	59.7	104	74.8	890	59.3

Source: NRS; SMR01

¹ ScotSID cohort excludes <5 year olds

The main diagnosis at discharge of the 890 individuals who had at least one general acute hospital discharge within five years before death is presented in Table 16. In cases where an individual had multiple episodes, this relates to the most recent episode (excluding discharges occurring on the day of death). High level ICD10 chapter headings were used to categorise the relevant conditions due to the large volume of detailed ICD10 diagnostic codes used.

The table shows 'Injury, poisoning and other external causes' as either a result of intentional self-harm or unintentional injury. It is not known if some or any of these unintentional incidents were actually intentional. However, it is recognised that the boundaries between intentional and unintentional are not always clear^{7, 8}.

Table 16 shows that the most frequent reason for treatment as an inpatient was intentional self-harm, followed by an unintentional injury or assault. This pattern was consistent across each time period (30 days, 12 months, and five years). The number of individuals treated for a self inflicted injury was 54 (40%) of the 135 individuals who were discharged within 30 days prior to death, 130 (26.8%) within 12 months prior to death and 218 (24.5%) within five years prior to death.

⁷ National Institute for Health and Clinical Excellence (2011) *Self-harm: longer-term management*. London: National Collaborating Centre for Mental Health. <http://guidance.nice.org.uk/CG133/>

⁸ Department of Health and Human Sciences, Centers for Disease Control and Prevention, www.cdc.gov/ncipc/wisqars/nonfatal/definitions.htm.

Table 16: Deaths caused by probable suicide¹ – patients discharged² from a general acute hospital within 30 days, 12 months and 5 years before death, by main diagnosis, Scottish Residents, 2009-10

Main Diagnosis	Most recent general acute hospital discharge within:					
	5 years		12 months		30 days	
	Number	%	Number	%	Number	%
Injury, poisoning and other external causes – Intentional Self Harm ³	218	24.5	130	26.8	54	40.0
Injury, poisoning and other external causes – Unintentional ⁴	160	18.0	81	16.7	18	13.3
Diseases of the digestive system	109	12.2	53	10.9	15	11.1
Symptoms and abnormal findings not elsewhere classified	95	10.7	63	13.0	17	12.6
Diseases of the respiratory system	46	5.2	24	4.9	6	4.4
Diseases of the circulatory system	34	3.8	16	3.3	3	2.2
Mental and behavioural disorders	27	3.0	15	3.1	7	5.2
Malignant and non-malignant neoplasms	23	2.6	16	3.3	5	3.7
Other	178	20.0	87	17.9	10	7.4
Total	890	100.0	485	100.0	135	100.0
Number of individuals with no general acute hospital discharge	611		1,016		1,366	

Source: NRS; SMR01

¹ ScotSID cohort excludes <5 year olds

² Most recent discharge, excluding discharges occurring on the day of death

³ Includes 6 cases where the contributing cause was 'Intentional Self Harm' or 'undetermined intent' however this was not indicated in the main diagnosis

⁴ The episode of care reported was classified as unintentional injury and it is not known if some or any of these incidents were actually intentional

2.2 Discharges from Mental Health Specialties

ScotSID links the death records for probable suicides with data on inpatient and daycase admissions and discharges from mental health specialties. More information on this data can be found on ISD's [Psychiatric Hospital Activity](#) webpage.

Tables 17, 18 and 19 show the number and percentage of cases that had at least one psychiatric discharge within the last 30 days, 12 months and five years, respectively, before death. These figures are cumulative.

Of the 1,501 individuals who were resident in Scotland at the time of death, 66 (4.4%) had been psychiatric inpatients, discharged within 30 days prior to death. 192 (12.8%) individuals were discharged within 12 months prior to death and 313 (20.9%) were discharged within five years prior to death. The remaining 1,188 (79.1%) individuals had no record of a psychiatric hospital discharge in the five years before their death.

Overall rates for females were around double the rates for males. Prior admission rates for the 'under 25s' were generally less than half compared to the other age groups for each of the time periods.

Seventeen cases had a date of death that matched the date of discharge. This could indicate that the individual died whilst in hospital, shortly after discharge, or whilst on pass from an inpatient unit or ward (for Mental Health specialties the definition of a 'pass' applies only when the length of absence does not exceed twenty eight nights). Episodes with a discharge date matching the date of death are included in the tables as patients are not admitted to a psychiatric unit after significant self harm, and therefore these admissions are not in response to a suicidal act.

Table 17: Deaths caused by probable suicide¹ occurring within 30 days of discharge from a mental health specialty by age and gender, Scottish Residents, 2009-10

Gender	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Males	2	1.4	16	3.3	16	4.1	6	6.8	40	3.6
Females	-	-	13	7.8	11	8.5	2	3.9	26	6.6
Total	2	1.0	29	4.4	27	5.2	8	5.8	66	4.4

Source: NRS; SMR04

¹ ScotSID cohort excludes <5 year oldsTable 18: Deaths caused by probable suicide¹ occurring within 12 months of discharge from a mental health specialty by age and gender, Scottish Residents, 2009-10

Gender	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Males	9	6.2	51	10.5	41	10.6	10	11.4	111	10.0
Females	3	6.3	37	22.3	30	23.3	11	21.6	81	20.6
Total	12	6.2	88	13.5	71	13.8	21	15.1	192	12.8

Source: NRS; SMR04

¹ ScotSID cohort excludes <5 year oldsTable 19: Deaths caused by probable suicide¹ occurring within 5 years of discharge from a mental health specialty by age and gender, Scottish Residents, 2009-10

Gender	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Males	17	11.7	93	19.1	63	16.3	14	15.9	187	16.9
Females	6	12.5	59	35.5	44	34.1	17	33.3	126	32.0
Total	23	11.9	152	23.3	107	20.7	31	22.3	313	20.9

Source: NRS; SMR04

¹ ScotSID cohort excludes <5 year olds

Only one in five suicides had a psychiatric discharge in the five years prior to death. There are currently limited data on contact with primary and specialist community based mental health care services in the years prior to death. Opportunities for intervention/ prevention may not always be easy to determine, and future suicide prevention strategies need to take into account all the contacts that an 'at risk' individual may have in the period prior to a suicide attempt.

The main diagnosis at discharge of the 313 individuals who had a psychiatric discharge within five years prior to death is presented in Table 20. In cases where an individual had multiple admissions, this relates to the most recent discharge. The most frequent condition at discharge was 'mood (affective) disorders' followed by 'mental and behavioural disorders due to psychoactive substance use'. Other common conditions were 'schizophrenia, schizotypal and delusional disorders' and 'neurotic, stress related and somatoform disorders'.

Table 20: Deaths caused by probable suicide¹ – patients discharged from a mental health specialty within the last 30 days, 12 months and 5 years before death, by main diagnosis, Scottish Residents, 2009-10

Main Diagnosis	Most recent psychiatric hospital discharge within:					
	5 years		12 months		30 days	
	Number	%	Number	%	Number	%
Mood (affective) disorders	108	34.5	67	34.9	22	33.3
Mental and behavioural disorders due to psychoactive substance use	71	22.7	37	19.3	11	16.7
Schizophrenia, schizotypal and delusional disorders	55	17.6	38	19.8	13	19.7
Neurotic, stress related and somatoform disorders	35	11.2	23	12.0	10	15.2
Disorders of adult personality and behaviour	24	7.7	17	8.9	6	9.1
Other	20	6.4	10	5.2	4	6.1
Total	313	100.0	192	100.0	66	100.0
Number of individuals with no psychiatric hospital discharge	1,188		1,309		1,435	

Source: NRS; SMR04

¹ ScotSID cohort excludes <5 year olds

The majority of admissions to a mental health specialty were informal in status, i.e., the individual was voluntarily admitted (Table 21). Only 29 individuals were detained under the provisions of the Mental Health (Scotland) Acts 1960 & 1984 and the Mental Health (Care and Treatment) (Scotland) Act 2003 (formal admission) within five years prior to death. In cases where an individual had multiple admissions, this relates to the most recent admission.

A patient's status may change during an inpatient episode. Patients who are admitted on a formal basis and have their status revoked whilst in hospital will still be counted as a formal admission in the table below.

Table 21: Deaths caused by probable suicide¹ – patients discharged from a mental health specialty within the last 30 days, 12 months and 5 years before death, by status on admission, Scottish Residents, 2009-10

Status on admission	Most recent psychiatric hospital discharge within:					
	5 years		12 months		30 days	
	Number	%	Number	%	Number	%
Informal admission ²	284	90.7	174	90.6	57	86.4
Formal admission ³	29	9.3	18	9.4	9	13.6
Total	313	100.0	192	100.0	66	100.0
Number of individuals with no psychiatric hospital discharge	1,188		1,309		1,435	

Source: NRS; SMR04

¹ ScotSID cohort excludes <5 year olds

² Voluntary mental health admission

³ Patients detained under the provisions of the Mental Health (Scotland) Acts 1960 & 1984 and the Mental Health (Care and Treatment) (Scotland) Act 2003

2.3 Psychiatric Outpatient Appointments

ScotSID links the death records for probable suicides with data on outpatient appointments (new and return/follow-up, whether the patient attended or not) in specialties other than A&E and Genito-Urinary Medicine. Not all hospitals submit data for return appointments, as completion of this information is not mandatory. Therefore, the data may underestimate the true number of outpatient appointments offered. More information on this data can be found on ISD's [Outpatient Activity](#) webpage.

Of the 1,501 individuals who were resident in Scotland before death, 92 (6.1%) were allocated a psychiatric outpatient appointment within 30 days of their death (Table 22). 292 individuals (19.5%) were allocated a psychiatric outpatient appointment within twelve months prior to death (Table 23). The figures were generally higher for females. This includes appointments where the patient did not attend.

Table 22: Deaths caused by probable suicide¹ occurring within 30 days of a psychiatric outpatient appointment^{2,3} by age and gender, Scottish Residents, 2009-10

Gender	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Males	3	2.1	33	6.8	17	4.4	2	2.3	55	5.0
Females	3	6.3	16	9.6	12	9.3	6	11.8	37	9.4
Total	6	3.1	49	7.5	29	5.6	8	5.8	92	6.1

Source: NRS; SMR00

¹ ScotSID cohort excludes <5 year olds

² Includes DNAs (Did not attend)

³ Not all hospitals submit an SMR00 for return appointments as completion of this information is optional; therefore, this may be an underestimate of the true number of outpatient appointments offered

Table 23: Deaths caused by probable suicide¹ occurring within 12 months of a psychiatric outpatient appointment^{2,3} by age and gender, Scottish Residents, 2009-10

Gender	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Males	35	24.1	91	18.7	54	14.0	7	8.0	187	16.9
Females	9	18.8	46	27.7	34	26.4	16	31.4	105	26.6
Total	44	22.8	137	21.0	88	17.1	23	16.5	292	19.5

Source: NRS; SMR00

¹ ScotSID cohort excludes <5 year olds

² Includes DNAs (Did not attend)

³ Not all hospitals submit an SMR00 for return appointments as completion of this information is optional; therefore, this may be an underestimate of the true number of outpatient appointments offered

Of the 292 individuals allocated an appointment within the year before death, 225 (77.1%) attended the most recent appointment whilst 67 (22.9%) did not attend and gave no prior warning (Table 24). Of these 67 DNAs, 20 were among the 92 individuals who had an appointment allocated 30 days before death. Non-attendance was more common in respect of follow-up/return appointments (28.7% DNA rate) than new appointments (17.4%).

Of the 292 individuals, just over half (149) were new appointments while the remaining were follow up/return appointments.

Table 24: Deaths caused by probable suicide¹ – Appointment Type by Clinic Attendance Status², Scottish Residents, 2009-10

Appointment Type	Attended	Did not attend	Total
New outpatient	123	26	149
Follow-up/ return outpatient ³	102	41	143
Total	225	67	292

Source: NRS; SMR00

¹ ScotSID cohort excludes <5 year olds

² Attendance status at most recent appointment

³ Not all hospitals submit an SMR00 for return appointments as completion of this information is optional; therefore, this may be an underestimate of the true number of outpatient appointments offered

2.4 Life Events

ScotSID links the death records for probable suicides with maternity and birth data. Records are only available on births within a Scottish maternity unit and therefore details of home births or children born outwith Scotland will not be captured. Records on the fourth or subsequent babies in a multiple delivery are also not captured. More information on this data can be found on ISD's [Maternity and Births](#) webpage.

Of the 394 female Scottish residents in the cohort, maternity records indicated that 93 had biological children under the age of 16 (Table 25). This represented 23.6% of all female deaths. Of these 93 cases, 53.8% had one child, 28% had two children and 18.3% had three or more. These figures include one stillbirth and two neonatal deaths. Nine (2.3%) females gave birth less than twelve months before death. The outcome for all nine births was a live birth.

Table 25: Deaths caused by probable suicide¹ – Number of Biological Children under 16 years of age, Scottish Residents, 2009-10

Number of children under 16 years ^{2,3}	Number	%
0	301	76.4
1	50	12.7
2	26	6.6
3+	17	4.3
Total number of female probable suicides	394	100.0

Source: NRS; SMR02

¹ ScotSID cohort excludes <5 year olds

² Excludes home births or children born outwith Scotland

³ Excludes fourth or subsequent babies in a multiple delivery

2.5 Contact with Drug Services

The Scottish Drug Misuse Database (SDMD) offers a profile of drug misusers based on reports submitted on individuals when they first attend a service for assessment of their drug misuse problems. The information presented relates to new patients/clients, i.e. any person who, at the time of presenting, is not currently in contact with a service that provides specialist assessment of a client's drug misuse care needs. Details on the method used to link this data to the ScotSID cohort can be found in Appendix 4.

Of the 1,501 Scottish residents in the ScotSID cohort, 91 (6.1%) were known to specialist drug services (statutory and non-statutory) as well as medical services such as general practice and hospitals.

Fifty-one (56%) out of the 91 cases had injected drugs at some point in their lives, 36 (39.6%) had never injected, and no information was available for four individuals.

Table 26 shows the last 'known' year of initial contact with drug services. This date represents the date of the client's initial assessment and does not represent any follow-up the client may have had thereafter.

Table 26: Deaths caused by probable suicide¹ – Year of last known assessment² by drug services, Scottish Residents, 2009-10

Year of last known initial contact ²	Number	%
2006	14	15.4
2007	18	19.8
2008	24	26.4
2009	26	28.6
2010	9	9.9
Total	91	100.0
Number of individuals with no record on SDMD	1,410	

Source: NRS; Scottish Drug Misuse Database

¹ ScotSID cohort excludes <5 year olds

² This date represents the date of the client's initial assessment and does not represent any follow-up the client may have had thereafter

Twenty-one individuals had undergone assessment with drug services within six months of their death, while a further 14 had undergone assessment within six months to a year (Table 27).

Table 27: Deaths caused by probable suicide¹ – Time period of last known assessment² by drug services before death, Scottish Residents, 2009-10

Months/Years	Number	%
Within 6 months	21	23.1
6 to 12 months	14	15.4
12 months to 2 years	24	26.4
Over 2 years	32	35.2
Total	91	100.0
Number of individuals with no record on SDMD	1,410	

Source: NRS; Scottish Drug Misuse Database

¹ ScotSID cohort excludes <5 year olds

² This date represents the date of the client's initial assessment and does not represent any follow-up the client may have had thereafter

Of the 35 cases that were assessed within one year of their death, 23 had reported using drugs in the past month while eight reported that they had not. There were four cases where there was no information recorded. For those that had used drugs, 13 had taken one drug in the past month and a further nine had taken two or more. There was no information for one individual. The most common drugs reported to have been used were heroin, cannabis (unspecified), diazepam and ecstasy.

It is clear that the information on drug use in this section is very limited and reliable inferences regarding its role in the suicide of those individual in the ScotSID cohort cannot be made. Nonetheless, this section has been included in order to illustrate the type of analysis that will be possible in future years, using data derived from future linkages as well as information gained via the Procurator Fiscal.

2.6 Probable Suicides in 2010

The recording of CHI became mandatory for A&E attendances in September 2009, and has only been reliably captured on the Prescribing Information System (PIS) since January 2009. Therefore, analysis pertaining to prescriptions dispensed in the community and A&E attendances (tables 28-34) is only presented for probable suicides occurring in 2010. The gender and age group breakdown of the Scottish residents held on ScotSID for 2010 is shown in Table 28.

Table 28: Deaths caused by probable suicide¹ by age and gender – Scottish Residents, 2010

Gender	Age <25	Age 25-44	Age 45-64	Age 65+	Total
Males	69	241	200	53	563
Females	26	77	65	26	194
Total	95	318	265	79	757

Source: NRS

¹ ScotSID cohort excludes <5 year olds

2.7 Prescribing

ISD maintains a comprehensive database of details of NHS prescriptions dispensed in the community in NHS Scotland, which is augmented by information on prescriptions that originate in NHS Scotland but are dispensed elsewhere in the UK. All these prescriptions are dispensed by community pharmacies, dispensing doctors and a small number of specialist appliance suppliers. The data do not include products purchased "over the counter" or prescriptions dispensed within hospitals. Prescriptions processed internally by Boards for payment purposes are also excluded from the data.

CHI has only been reliably captured on the Prescribing Information System (PIS) since January 2009. Therefore, analysis is presented for prescriptions dispensed within 12 months prior to death for probable suicides occurring in 2010.

The PIS is primarily used to reimburse pharmacies for the medications they dispense. Three dates pertaining to each prescription are potentially captured on the system: (Actual) Prescribed Date; (Actual) Dispensed Date; and Paid Date. Historically, the paid date is the only one that has been reliably captured on all records. The paid date is the last day of the month in which the prescription was processed by Practitioner Services Division (PSD) and payment issued to the dispenser. There is therefore a lag between the date a prescription was issued and/or dispensed and the paid date. This lag can be considerable, for example up to a few months, if pharmacies delay submitting their records to PSD. As it is the only date currently available, the paid date has been used to identify all prescriptions processed within the twelve months prior to the date of death (or after the date of death) for individuals dying by suicide in 2010. It is recognised that this method may provide an over-estimate of the proportion of individuals receiving a prescription within twelve months of their death. It is hoped that, as information on actual prescribed and dispensed dates becomes more complete within PIS, this will be used in future to provide more accurate estimates of the proportion of individuals receiving specific medications prior to their death, along with information on the proportion of prescriptions that are actually dispensed.

The following medicines prescribed for mental health have been examined:

- British National Formulary (BNF) chapter 4.1: Hypnotics and Anxiolytics indicated for the treatment of Anxiety and Insomnia
- BNF 4.2: Drugs licensed for the treatment of psychoses and related disorders.
- BNF 4.3: Antidepressant drugs

Of the 757 Scottish residents included in ScotSID for 2010, 424 (56%) had mental health prescriptions dispensed within twelve months prior to death. It cannot be determined from the data what proportion of the drug dispensed was actually consumed. The gender and age group breakdown of these 424 cases is shown in Table 29.

Table 29: Deaths caused by probable suicide¹ – Individuals with mental health prescriptions dispensed within 12 months² prior to death, by age and gender, Scottish Residents, 2010

Gender	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Males	23	33.3	127	52.7	108	54.0	26	49.1	284	50.4
Females	9	34.6	62	80.5	51	78.5	18	69.2	140	72.2
Total	32	33.7	189	59.4	159	60.0	44	55.7	424	56.0

Source: NRS; PIS

¹ ScotSID cohort excludes <5 year olds

² Estimated by the date the prescription was processed by PSD for payment

Table 30 shows the number of individuals who had at least one mental health prescription dispensed in the twelve months prior to death by BNF Heading. 339 individuals (80%) were prescribed antidepressant drugs, 271 (63.9%) were prescribed hypnotics and anxiolytics and 126 (29.7%) were prescribed drugs licensed for the treatment of psychoses and related disorders. Individuals with multiple prescriptions are only counted once per BNF heading but may be counted under more than one BNF heading if prescribed more than one type of medicine.

Table 30: Deaths caused by probable suicide¹ – Individuals with mental health prescriptions dispensed within 12 months² prior to death, by BNF Heading, Scottish Residents, 2010

BNF Heading ³	Number	%
Hypnotics and Anxiolytics	271	63.9
Drugs licensed for the treatment of psychoses and related disorders	126	29.7
Antidepressant drugs	339	80.0
Total number of individuals	424	100.0
Number of individuals with no mental health prescriptions within 12 months prior to death	333	

Source: NRS; PIS

¹ ScotSID cohort excludes <5 year olds

² Estimated by the date the prescription was processed by PSD for payment

³ Individuals may be counted under more than one BNF heading

Almost two thirds of those who are thought to have committed suicide and received at least one mental health prescription were taking hypnotics or anxiolytics in the twelve months prior to death. This may represent increased levels of anxiety and/or agitation in individuals at greater risk of self-harm or suicide and is consistent with studies reporting high rates of benzodiazepine use associated with suicide or self-harm. Further analysis and stratification by method of suicide may help to explore some of these relationships.

2.8 Accident & Emergency Attendances

Information on Emergency Department attendances across Scotland is collected and maintained by ISD. All sites that provide emergency care are required to submit data. The A&E database contains data from June 2007 to the present day on patient attendances at Emergency Departments, Minor Injuries Units and community hospital A&E departments across NHS Scotland.

There are two levels of data submitted: episode and aggregate level data. The larger hospitals with emergency departments generally submit episode level data containing a detailed record for each patient attendance. Smaller sites such as minor injury units or community hospitals generally only submit aggregate level data as they do not have the information systems and support to enable collection of detailed patient based information.

Recording of CHI for A&E attendances became mandatory only from September 2009 and therefore analysis is presented for admissions within three months prior to death for probable suicides occurring in 2010. Data can only be linked for records where the CHI number has been recorded within those sites recording episode

level data. Completeness of CHI for A&E attendances varies from 98% to approximately 50-60% in some departments. Therefore, these statistics may underestimate the true number of attendances at A&E.

Of the 757 Scottish residents in the ScotSID cohort who died in 2010, 115 (15.2%) attended A&E within 30 days prior to death and 163 (21.5%) attended within three months prior to death. These figures are cumulative. The gender and age group breakdown of the attendance within three months is shown in Table 31.

Attendance rates for females were generally higher than males, with the exception of the 45-64 age group. However, in the general population, for 2010/11, attendance rates were higher for males in all age groups. For more information see ISD's [Emergency Department Activity](#) webpage.

Table 31: Deaths caused by probable suicide¹ – Individuals with at least one A&E attendance² within 3 months prior to death, by age and gender, Scottish Residents, 2010

Gender	Age <25		Age 25-44		Age 45-64		Age 65+		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Males	14	20.3	53	22.0	39	19.5	13	24.5	119	21.1
Females	7	26.9	20	26.0	9	13.8	8	30.8	44	22.7
Total	21	22.1	73	23.0	48	18.1	21	26.6	163	21.5

Source: NRS; A&E attendances

¹ ScotSID cohort excludes <5 year olds

² Not all sites submit episode level data and CHI completeness rates vary, therefore this may be an underestimate of the true number of A&E attendances

Table 32 shows the frequency of attendances at A&E within three months prior to death. A total of 594 (78.5%) had no A&E attendances, 111 (14.6%) had one visit and 52 (6.9%) visited at least twice.

Table 32: Deaths caused by probable suicide¹ – Frequency of A&E attendances² within 3 months prior to death, Scottish Residents, 2010

Number of A&E attendances ²	Number	%
0	594	78.5
1	111	14.6
2	35	4.6
3	10	1.3
4+	7	0.9
Total	757	100.0

Source: NRS; A&E attendances

¹ ScotSID cohort excludes <5 year olds

² Not all sites submit episode level data and CHI completeness rates vary, therefore this may be an underestimate of the true number of A&E attendances

Tables 33 and 34 give further detail on the individual's most recent A&E attendance. Of the 163 individuals who attended A&E within three months prior to death, 37 (22.7%) died the same day and 44 (27%) died later that week. Table 34 shows that 26 of those who died the same day as attending A&E died in hospital; the remainder died later that day, following discharge from A&E.

Table 33: Deaths caused by probable suicide¹ – Time between most recent A&E attendance² and death, Scottish Residents, 2010

Number of days	Number	%
0 (died the same day)	37	22.7
1 day	12	7.4
2 days	13	8.0
3 to 7 days	19	11.7
>1 to <4 weeks	31	19.0
4 to <8 weeks	26	16.0
8 to 13 weeks	25	15.3
Total	163	100.0
Number of individuals with no A&E attendances within 3 months prior to death	594	

Source: NRS; A&E attendances

¹ ScotSID cohort excludes <5 year olds

² Not all sites submit episode level data and CHI completeness rates vary; therefore some A&E attendances may not be captured

For the 163 individuals who attended A&E within three months prior to death, Table 34 shows the discharge destination of the most recent attendance. Nearly half (43.6%) were admitted elsewhere to NHS healthcare, 34.4% returned to their home/usual place of residence and 16% died in A&E.

Table 34: Deaths caused by probable suicide¹ – Discharge destination at most recent A&E attendance², Scottish Residents, 2010

Discharge destination	Number	%
Admission to same NHS healthcare provider	71	43.6
Private residence	33	20.2
Death	26	16.0
Usual place of residence	23	14.1
Other	10	6.1
Total	163	100.0
Number of individuals with no A&E attendances within 3 months prior to death	594	

Source: NRS; A&E attendances

¹ ScotSID cohort excludes <5 year olds

² Not all sites submit episode level data and CHI completeness rates vary; therefore some A&E attendances may not be captured

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- ⁹ Choose life: A National Strategy and Action Plan to Prevent Suicide in Scotland,
www.scotland.gov.uk/Publications/2002/12/15873/14466
- ¹⁰ Refreshing The National Strategy and Action Plan to Prevent Suicide in Scotland: Report of The National Suicide Prevention Working Group, <http://www.scotland.gov.uk/Publications/2010/10/26112102/0>

Glossary

A&E admission	the presence of a patient in an A&E service seeking unplanned medical attention
Acute Hospital Care/Activity	includes services such as: consultation with specialist clinicians; emergency treatment; routine, complex and life saving surgery; specialist diagnostic procedures; close observation and short-term care of patients. 'Acute' hospital care includes activity occurring in major teaching hospitals, district general hospitals and community hospitals but excludes obstetric, psychiatric and long stay care services.
British National Formulary (BNF)	a standard classification of drugs into conditions of primary therapeutic use, the aim is to provide prescribers, pharmacists and other healthcare professionals with sound up-to-date information about the use of medicines.
Continuous inpatient stay	an unbroken period of time that a patient spends as an inpatient. A patient may change consultant, significant facility, specialty and/or hospital during a continuous inpatient stay.
Deterministic matching	used when there is a common unique identifier between the datasets to be linked, for example the CHI number.
Discharge	a discharge marks the end of an episode of care. Discharges include deaths and transfers to other specialties/significant facilities and hospitals as well as routine discharges home.
EASR	European age standardised rate
Funnel plot	a type of chart where the indicator of interest is plotted against the denominator or sample size - this gives it the characteristic funnel shape. For more information on the use of statistical process control charts in public health please see www.apho.org.uk/resource/item.aspx?RID=39445
ICD 10	The International Classification of Diseases and Related Health Problems, Tenth Revision
Outpatient	is a patient who attends (outpatient attendance) a consultant or other medical clinic or has an arranged meeting with a consultant or a senior member of their team outwith a clinic session. Outpatients are categorised as new outpatients or follow-up (return) outpatients.
Probability matching	uses a set of identifiers to estimate the <i>probability</i> that two records correspond
Probable Suicide	deaths for which the underlying cause is classified as 'intentional self-harm' or 'event of undetermined intent'
Specialty	is defined as a division of medicine or dentistry covering a specific area of clinical activity. A full listing of specialties covered by the data sets used in this publication is available on the NHS Scotland Health & Social Care data dictionary Specialty Listing web page.

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2	Deaths caused by probable suicide by SIMD 2009 quintile, Scotland	2009-2010	Excel [141kb]
3	Deaths caused by probable suicide by Marital Status, Scotland	2009-2010	Excel [141kb]
4	Deaths caused by probable suicide by Employment Status – 16-64 year olds, Scotland	2009-2010	Excel [141kb]
5	Deaths caused by probable suicide by Occupational Group – 16-64 year olds, Scotland	2009-2010	Excel [141kb]
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12	Deaths caused by probable suicide by age and gender – Scottish Residents	2009-2010	Excel [141kb]
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3	Deaths caused by probable suicide by age-group and gender, Scotland	2009-2010	Excel [141kb]

Contact

Claire Clark
Senior Information Analyst, Information Services Division
claire.clark2@nhs.net
0131 275 6145

Garry Hecht
Senior Information Analyst, Information Services Division
garryhecht@nhs.net
0141 282 2293

Angela Prentice
Information Manger, Information Services Division
angela.prentice@nhs.net
0131 275 6691

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Appendix

A1 Policy Context

The Scottish Government's Choose Life strategy and action plan⁹ was launched in December 2002. This ten year action plan had seven objectives, the last of which stated:

Knowing What Works: *improving the quality, collection, availability and dissemination of information on issues relating to suicidal behaviour (and self-harm) and on effective interventions to ensure the better design and implementation of responses and services and use of resources.*

During the 2008 "Choose Life" summit, NHS Health Scotland made a commitment to lead work to establish a Scottish Suicide Information Database, in order to address the dearth of contextual information available within a central resource. As a direct result of this, ISD were commissioned by NHS Health Scotland to develop, analyse and maintain such a database (ScotSID).

In 2010, the national suicide prevention working group, led by the Scottish Government, met to consider the findings of two evaluations of the Choose Life strategy undertaken thus far, in order to determine the next stage of action. The aim of each evaluation was as follows:

- a) Phase 1 Evaluation: Assess whether a sustainable infrastructure had been developed nationally and locally to support the Choose Life Strategy in achieving its objectives.
and
- b) Phase 2 Evaluation: To examine progress against the original objectives; whether, and to what extent, the lessons of Phase 1 had been implemented; and whether Choose Life had influenced national and local policies.

The working group published a document 'Refreshing the National Strategy and Action Plan to Prevent Suicide in Scotland'¹⁰ which recommended a more focused approach, targeting in particular, high risk groups. This report identified six refreshed objectives; the key objective most pertinent to the role of ScotSID was:

"Ensure interventions to reduce suicidal behaviour are informed by evidence from research and evaluated appropriately".

The working group emphasised that the new objectives took account of progress during the implementation of Choose Life and built on the objectives originally identified in the programme.

⁹ Choose life: A National Strategy and Action Plan to Prevent Suicide in Scotland, www.scotland.gov.uk/Publications/2002/12/15873/14466

¹⁰ Refreshing The National Strategy and Action Plan to Prevent Suicide in Scotland: Report of The National Suicide Prevention Working Group, www.scotland.gov.uk/Publications/2010/10/26112102/0

A2 ScotSID data items

National Records of Scotland (NRS)
Date of death
Date of registration
Registration district number
Gender
Employment status
Occupation code
Marital status
Place of occurrence
Institution
Primary cause of death
Secondary cause of death 0
Post mortem
NHS Board of residence
CHP Code
Local Government region
Local Government district
Age
Council area
Country of residence code
SIMD quintile based on postcode at time of death
SIMD decile based on postcode at time of death
Time of death
General acute hospital inpatient and daycase records (SMR01)
Ethnic group
Main condition
Other condition 1
Other condition 2
Other condition 3
Other condition 4
Other condition 5
Admission date
Admission type
Old admission type code
Admission Reason
Discharge date
Continuous inpatient stay
Length of stay
Health Board of residence
Health Board of treatment
SE Urban Rural code 2004
Discharges from Mental Health Specialties (SMR04)
Ethnic group
Main condition at discharge
Other condition at discharge 1
Other condition at discharge 2

Other condition at discharge 3
Other condition at discharge 4
Other condition at discharge 5
Date of admission
Admission reason
Specialty
Date of discharge
Discharge type
Admission/transfer from
Waiting list type
Discharge/transfer to
Admission - referral from
Admission type
Treatment NHS board
Status on admission
SE Urban Rural code 2004
Arrangements for aftercare 1
Arrangements for aftercare 2
Arrangements for aftercare 3
Arrangements for aftercare 4
Outpatient Attendances (SMR00)
Specialty
Clinic date
Referral Type
Clinic attendance (attendance status)
Date referral received
Referral reason 1
Referral reason 2
Referral reason 3
Referral reason 4
SE Urban Rural code 2004
Prescriptions dispensed in the community (Prescribing Information System, PIS)
Calendar year
Month
Approved name
Prescribable item name
Item code
Item description
Product description
Item strength
Item strength unit of measure
Drug Formulation code
BNF chapter code
BNF section
BNF sub section
Defined daily dose conversation
Number of dispensed items

Number of Defined Daily Doses Dispensed
Dispensed quantity
Maternity Records (SMR02)
Outcome of pregnancy, baby 1
Outcome of pregnancy, baby 2
Outcome of pregnancy, baby 3
Date of delivery
SE Urban Rural code 2004
Scottish Drug Misuse database (SMR25)
Known Illicit Drug User Assessment Completed Date
IV Drug Use
Contact with Drug Services
Recent Illicit Drug User
Illicit Drug Use in Past Month 1
Illicit Drug Use in Past Month 2
Illicit Drug Use in Past Month 3
Illicit Drug Use in Past Month 4
Illicit Drug Use in Past Month 5
Frequency Drug 1
Frequency Drug 2
Frequency Drug 3
Frequency Drug 4
Frequency Drug 5
A&E attendances - Sep 2009 onwards
Location/Hospital code
Case reference number
Arrival mode
Referral Source
Diagnosis 1
Diagnosis 2
Diagnosis 3
Disease 1
Disease 2
Disease 3
Discharge destination
Referred To 1
Referred To 2
Referred To 3
Arrival date
Arrival time
Date of Discharge, Admission or Transfer
Time of Discharge, Admission or Transfer
Intent of injury
Presenting complaint
Health Improvement Scotland (HIS) - 2012 onwards
Review undertaken by NHS Board (Y/N)
Referred to the Mental Welfare Commission (Y/N)

A3 Future ScotSID developments

The overall aim of the Scottish Suicide Information Database is to provide a central repository for information on all probable suicide deaths in Scotland, in order to support epidemiology, preventive activity, and policy making. Further investigation into additional data sources will help inform how ScotSID continues to develop and capture a wider range of information on the health and wider social circumstances of individuals.

In the coming year, consideration will be given to incorporate information from Procurator Fiscal reports and Health Improvement Scotland. Linking these additional sources should provide a clearer picture of the factors leading to these tragic events and the circumstances in which they took place. The accumulating number of cases, the greater detail and the trends over time will together provide an increasingly strong foundation for understanding suicide in Scotland.

Further detail on work undertaken to obtain information from Procurator Fiscal reports and Health Improvement Scotland are given below.

Police Sudden Death Reports/Procurator Fiscal Services

The Crown Office and Procurator Fiscal Service has a duty to investigate all sudden and unexplained deaths, as well as deaths in suspicious circumstances. Deaths are usually reported to the Procurator Fiscal by the police, a doctor or the Registrar of Births, Deaths and Marriages. A recently established specialist unit, the Scottish Fatalities Investigation Unit, holds information on all sudden, suspicious, accidental and unexplained deaths in a central location for all 11 Procurator Fiscal areas in Scotland.

A pilot exercise to determine the feasibility of obtaining additional data items for ScotSID from police sudden death reports submitted to the Procurator Fiscal was undertaken in 2012. The following information was obtained by the Crown and Procurator Fiscal's Office for a random sample of 40 records of death due to intentional self harm or events of undetermined intent:

- Date of Suicidal Act
- Time of Suicidal Act
- Place of Suicidal Act
- Suicide Note
- Circumstances of Death
- Ethnicity
- Employment Status
- Occupation
- Recent Event (Last 12 months)
- Recent Event Type (Last 12 months)
- Living Where
- Living with Whom
- Looked After or Accommodated Child
- Number of Children <16 Lived with Deceased
- Number of Biological Children <16
- History of Self Harm (Ever)
- Method of Previous Self Harm Episodes

It is proposed that this information will be added to ScotSID in 2013 and will be included in the December 2014 ScotSID report.

Healthcare Improvement Scotland (HIS)

The Healthcare Improvement Scotland Suicide Reporting System has been set up to assist NHS boards to improve the way that suicide/critical incident reviews are carried out and help reduce risk within mental health services. When a suicide takes place, great care must be taken to understand what happened and to learn from any lessons identified. It is also important to use those lessons to improve services and help staff recognise where risk exists.

Information, including a review report, is submitted by each Health Board to HIS when a person is thought to have committed suicide (or when suicide is the possible cause of death) and has had contact with mental health services within one year prior to their death.

Once learning points are extracted from each review report, HIS is required to delete all personal identifiable information from the database. For this reason it will not be possible to obtain retrospective data for those people who are thought to have committed suicide in 2010. Consequently, the starting point for data collection will be January 2012.

At present, data fields recorded by HIS as part of their suicide recording system do not include CHI, thus hindering record linkage using the deterministic matching approach. As a result, the probability matching approach will be employed instead. This approach uses a set of identifiers to estimate the probability that two records correspond and to decide the threshold level of agreement for matching of records.

The two variables that will be collected from January 2012 onwards are:

- Review undertaken by NHS Board
- Referred to the Mental Welfare Commission

Primary Care Information

A pilot exercise, exploring the feasibility of extracting data on possible suicides from GP notes, was completed in 2011. However, further investigation into obtaining GP data is on hold due to the proposed development of a national GP data extraction service which may provide a more efficient way of accessing primary care data for record linkage.

A4 Record Linkage

Record linkage is a means of identifying records in different databases that relate to the same individual. For the purposes of the ScotSID database, two approaches were employed in order to link the different records together:

- Deterministic (or Exact) matching – uses a common unique identifier (e.g. Community Health Index (CHI) number)
- Probability matching – uses a set of identifiers to estimate the *probability* that the two records correspond.

Deterministic matching was used when there was a common unique identifier between the datasets to be linked, for example the CHI number.

CHI became mandatory for A&E attendances in September 2009, and therefore linkage with this dataset was only available for records after this date.

For linkage to the Scottish Drugs Misuse Database, where CHI is not recorded, probability matching was used.

A5 Difference between ScotSID and NRS Figures

The reporting methods for ScotSID differ from the National Records for Scotland (NRS).

Date of registration vs date of death

The NRS publishes its annual figures by 'year of registration' whereas ScotSID figures are based on 'year of death'. Therefore, deaths that occurred in 2010 but were not registered until in 2011 would be included in ScotSID's 2010 figures however would appear in the NRS's published figures for 2011.

Age of ScotSID cohort

The definition of a probable suicide for ScotSID is based on the NRS classification of a probable suicide; however as deaths for people aged less than 5 are not likely to be suicides, these have been excluded from the statistics in this publication.

Changes in coding rules

In 2011 NRS made a change to the way deaths are classified to match changes in World Health Organisation coding rules. This has resulted in some deaths previously coded under 'mental and behavioural disorders' now being classed as 'self-poisoning of undetermined intent' and therefore included in the suicide figures. In annual mortality report¹ in 2012, NRS published figures for 2011 based on both the old coding rules and the new coding rules.

There are a small number of probable suicides which occurred in 2010 but were not registered until 2011, and to ensure consistency across the 2 years of data in this publication, only those classified using the old coding criteria are included.

More information on the definition of a probable suicide or changes in the coding rules can be found on the [NRS website](#).

In its annual mortality report¹, the NRS publish information on the number of probable suicides (deaths which are the result of intentional self-harm or events of undetermined intent combined). There were 746 probable suicides in Scotland in 2009, 781 in 2010 and 772 in 2011 using the old coding rules. Table 35 summaries the breakdown of NRS's reported figures by year of death and year of registration.

Table 35: Deaths caused by probable suicide - by year of registration and year of death, Scotland

Year of registration	Year of death				Total	Age 0-4
	2008	2009	2010	2011 ¹		
2009	12	734	-	-	746	-
2010	-	26	755	-	781	1
2011¹	-	-	20	752	772	1
Total²	n/a	760	775	n/a	n/a	n/a

¹ 2011 figures are based on the old coding rules

² Totals are given only for 2009 and 2010 because the table does not show all the probable suicides that occurred in other years. For example, some of the probable suicides that occurred in 2011 were not registered until 2012, and so are not counted in this table

The row totals are the figures published in the NRS annual mortality report, i.e. by year of registration. The column totals relate to the year of death. The frequencies of probable suicides occurring in 2009 and 2010 (column totals) were 760 and 775 respectively. The ScotSID figures equate to the total of these deaths, excluding the 2 cases age 0-4 years, i.e 1,533.

A6 Publication Metadata (including revisions details)

Metadata Indicator	Description
Publication title	The Scottish Suicide Information Database Report 2012
Description	This publication describes the development of the Scottish Suicide Information Database (ScotSID) and presents data on deaths due to self harm and undetermined intent in 2009 and 2010.
Theme	Health and Social Care
Topic	Mental Health
Format	PDF Document
Data source(s)	The Scottish Suicide Information Database (ScotSID): NRS, General hospital inpatient and daycase records (SMR01), Psychiatric hospital discharge records (SMR04), Outpatient Attendances (SMR00), Maternity Records (SMR02), Scottish Drug Misuse database (SMR25), Accident and Emergency (A&E) attendances, Prescriptions dispensed in the community (Prescribing Information System, PIS)
Date that data are acquired	August 2012
Release date	18 December 2012
Frequency	Annual
Timeframe of data and timeliness	Deaths due to self harm and undetermined intent in 2009 and 2010
Continuity of data	In 2011 NRS made a change to the way deaths are classified to match changes in World Health Organisation coding rules. This has resulted in some deaths previously coded under 'mental and behavioural disorders' now being classed as 'self-poisoning of undetermined intent'. There are a small number of probable suicides which occurred in 2010 but were not registered until 2011, and to ensure consistency across the 2 years of data in this publication, only those classified using the old coding criteria are included.
Revisions statement	Further investigation into additional data sources will help inform how ScotSID continues to develop and capture a wider range of information on the health and wider social circumstances of individuals. Supplementary data may be included in future publications. In the coming year, consideration will be given to incorporate information from Procurator Fiscal reports and Health Improvement Scotland.
Revisions relevant to this publication	This report reflects the recent addition of data relating to attendances at Accident and Emergency departments and dispensed prescriptions.
Concepts and definitions	The definition of a probable suicide for ScotSID is based on the NRS classification of deaths due to self harm or undetermined intent. As deaths for people aged less than 5 are not likely to be suicides these have been excluded from the statistics in this publication. There are a small number of probable suicides which occurred in 2010 but were not registered until 2011, and to ensure consistency across the 2 years of data in this publication, only those classified using the old coding criteria are included.
Relevance and key uses of the statistics	Making information publicly available for suicide prevention, provision of comparative information and planning purposes.
Accuracy	Quality checks are conducted by ISD. Figures are compared to previously published data and expected trends.
Completeness	Completeness rates of the SMRs held by ISD and contained in ScotSID can be found on ISD's SMR completeness webpage.
Comparability	Some data contained in the report are comparable to that of other European countries and studies carried out in England and Wales.

Accessibility	It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines .
Coherence and clarity	All ScotSID tables and charts are accessible via ISD's Mental Health webpage.
Value type and unit of measurement	Numbers, percentages, crude and European age standardised rates per 100,000 and 95% confidence intervals.
Disclosure	The ISD protocol on Statistical Disclosure Protocol is followed.
Official Statistics designation	Official Statistics
UK Statistics Authority Assessment	Not submitted for assessment
Last published	20 Dec 2011
Next published	Dec 2013
Date of first publication	20 Dec 2011
Help email	NSS.ScotSIDdata@nhs.net
Date form completed	19 November 2012

A7 ScotSID Steering group membership, December 2012

Name	Title/Organisation
Alana Atkinson	Choose Life Programme Manager, NHS Health Scotland
David Christmas	Consultant Psychiatrist, NHS Health Scotland
Claire Clark	Senior Information Analyst, Information Services Division
Moira Connolly	Principal Medical Officer, Scottish Government
Cheryl Denny	Principal Information Analyst, Information Services Division
Frank Dixon	Vital Events Statistician, National Records of Scotland
Garry Hecht	Senior Information Analyst, Information Services Division
Monica Merson	Head of Health and Wellbeing Team, NHS Health Scotland
Stephen Platt	Professor of Health Policy Research, University of Edinburgh
Angela Prentice	Information Manger, Information Services Division
Andrew Sim	Samaritans
Cameron Stark	Consultant in Public Health Medicine, NHS Highland
Elaine Strange	Service Manager, Information Services Division
Mark Taylor	Consultant Psychiatrist, NHS Lothian
Rachel Watson	Lothian and Borders Police
Anna Wimberley	Clinical Governance Support and Development, Healthcare Improvement Scotland
Rachael Wood	Consultant in Public Health Medicine, Information Services Division

A8 ISD and Official Statistics

About ISD

Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.

Information Services Division (ISD) is a business operating unit of NHS National Services Scotland and has been in existence for over 40 years. We are an essential support service to NHSScotland and the Scottish Government and others, responsive to the needs of NHSScotland as the delivery of health and social care evolves.

Purpose: To deliver effective national and specialist intelligence services to improve the health and wellbeing of people in Scotland.

Mission: Better Information, Better Decisions, Better Health

Vision: To be a valued partner in improving health and wellbeing in Scotland by providing a world class intelligence service.

Official Statistics

Information Services Division (ISD) is the principal and authoritative source of statistics on health and care services in Scotland. ISD is designated by legislation as a producer of 'Official Statistics'. Our official statistics publications are produced to a high professional standard and comply with the Code of Practice for Official Statistics. The Code of Practice is produced and monitored by the UK Statistics Authority which is independent of Government. Under the Code of Practice, the format, content and timing of statistics publications are the responsibility of professional staff working within ISD.

ISD's statistical publications are currently classified as one of the following:

- National Statistics (i.e. assessed by the UK Statistics Authority as complying with the Code of Practice)
- National Statistics (i.e. legacy, still to be assessed by the UK Statistics Authority)
- Official Statistics (i.e. still to be assessed by the UK Statistics Authority)
- other (not Official Statistics)

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The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics. Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.