Unintentional Injuries in Scotland

Hospital Admissions: Year ending 31 March 2017
Deaths: Year ending 31 December 2016

Publication date 06 March 2018
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Find out more about the Code of Practice at:

Find out more about National Statistics at:
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Introduction

Unintentional injury is a common cause of emergency admission to hospital for adults and children. In the financial year ending 31 March 2017, unintentional injuries accounted for approximately 1 in 9 emergency hospital admissions for children and 1 in 11 for adults. Another possible outcome of unintentional injury is death. This was the case for approximately 1 in 15 child and 1 in 26 adult deaths during the calendar year ending 31 December 2016.

The term ‘unintentional injury’ is preferred to ‘accidents’ as the latter implies that events are inevitable and unavoidable whereas a high proportion of these incidents are now regarded as being preventable. Unintentional injuries can occur in any age group, but children and the elderly are generally more vulnerable.

This publication summarises information on emergency hospital admissions as a result of unintentional injuries and assaults, sourced from hospital administrative systems across Scotland, up to and including the financial year 2016/17. Deaths are also reported, sourced from death registrations from National Records of Scotland, up to and including calendar year 2016. The figures reported in this publication are for Scottish residents who died as a result of an unintentional injury or were admitted to hospital as an inpatient under an appropriate emergency admission code.

Deaths from drug abuse, specifically acute intoxication, were classified as ‘mental and behavioural disorders’ prior to 2011. From 2011 onwards these deaths are counted under ‘accidental poisoning’ (where applicable). Care is required when comparing these statistics before and after 2011. For more information see Appendix A1.
Main Points

- Unintentional injuries accounted for approximately 1 in 10 emergency hospital admissions in Scotland in 2016/17 (1 in 11 for adults and 1 in 9 for children).

- Those from the most deprived areas were more likely than those from the least deprived areas to have an unintentional injury.

- 85% of unintentional injuries in those aged 65 and over were due to falls.

- The rate of falls in those aged 65 and over has increased from 19.5 per 1,000 in 2007/08 to 21.4 in 2016/17.

- Assaults have decreased: there were 2,346 emergency admissions to hospital resulting from assault in 2016/17; a decrease of 55% in the past ten years.

- Deaths from poisonings have increased: there were 850 deaths due to poisoning in 2016, an increase of 28% since 2015.
Results and Commentary
3.1 Unintentional Injuries in Children

3.1.1 Injuries in children by age group and gender

In Scotland, for children under the age of 15, there were 18 deaths as a result of unintentional injury in the calendar year ending 31 December 2016. There were also 7,221 emergency admissions to hospital for children in the financial year ending 31 March 2017.

However, the majority of unintentional injuries result neither in death nor in hospital admission but are treated by GPs, Accident & Emergency departments or by the child's parent or carer. Figures reported in this publication are for Scottish residents who died as a result of an unintentional injury or were admitted to hospital as an inpatient under an appropriate emergency admission code.

Chart 1 - Emergency hospital admissions as a result of an unintentional injury; rates¹ for children aged under 15, by gender, year ending 31 March 2008-2017

The general trend over the last ten years has been decreasing admission rates for both males and females. In 2016/17 the rate of emergency hospital admissions per 100,000 population for males aged under 15 was 961.4 compared to 697.3 for females.

See Table 3 for more information.
Chart 2 - Emergency hospital admissions as a result of an unintentional injury; rates\(^1\) for children aged under 15, by age group, year ending 31 March 2017

<table>
<thead>
<tr>
<th>Age group</th>
<th>Male Rate</th>
<th>Female Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 5</td>
<td>1,320.7</td>
<td>1,000.0</td>
</tr>
<tr>
<td>5-9</td>
<td>1,000.0</td>
<td>800.0</td>
</tr>
<tr>
<td>10-14</td>
<td>1,200.0</td>
<td>900.0</td>
</tr>
<tr>
<td>0-14</td>
<td>1,400.0</td>
<td>1,100.0</td>
</tr>
</tbody>
</table>

1. Rate per 100,000 based on National Records of Scotland mid 2016 population estimates.
Source: ISD Scotland, SMR01 data

Chart 2 shows admission rates per 100,000 population. The rate of emergency hospital admission per 100,000 males aged under 15 was 965.5 compared to 706.9 for females in 2016/17. In all the child age groups, males were more likely than females to be admitted to hospital for an unintentional injury.

See Table 5 for more information.
3.1.2 Injuries in children by cause of injury

For Scotland in 2016/17, nearly half (47.0%) of the 7,221 emergency admissions to hospital for children aged under 15 due to an unintentional injury were the result of a fall. Falls were by far the most common cause of emergency admissions due to unintentional injury in children, for males and females.

See Table 5 for more information.

With falls being responsible for such a high proportion of the emergency admissions, fractures and head injuries were the most common main diagnoses among children admitted to hospital due to unintentional injuries.

See Table 13 and Table 14 for more information.
3.1.3 Injuries in children by deprivation

The Scottish Index of Multiple Deprivation (SIMD) is an area-based measurement of multiple deprivation. Areas are divided into five groups with decreasing levels of deprivation. Figures shown here are standardised discharge ratios (SDRs) which express the number of discharges in each deprivation area as a percentage of those which would have occurred had the Scottish discharge rates for each age and sex group prevailed in that deprivation area.

See the Appendix for more information on standardised ratios, confidence intervals and SIMD.

**Chart 3 - Emergency hospital admissions as a result of an unintentional injury; children aged under 15, by deprivation area, standardised discharge ratio¹ with 95% confidence intervals, year ending 31 March 2017**

1. Data are standardised for age and sex.
The horizontal line shows the level for Scotland as a whole.
Source: ISD Scotland, SMR01 data; SIMD 2016

Chart 3 shows that for 2016/17, children aged under 15 living in the most deprived areas were more likely than children in the least deprived areas to have an emergency admission to hospital for an unintentional injury.

The standardised discharge ratio was 22% higher in the most deprived areas compared to the Scottish average. In the least deprived areas, the standardised discharge ratio was 18% lower.

See Table 10 for more information.
3.2 Unintentional Injuries in Adults

3.2.1 Injuries in adults by age group and gender

In Scotland, for those aged 15 and over, there were 2,196 deaths as a result of unintentional injury in the calendar year ending 31 December 2016. There were also 49,476 emergency admissions to hospital for adults in the financial year ending 31 March 2017.

However, the majority of unintentional injuries result neither in death nor in hospital admission but are treated by the individual, GPs or Accident & Emergency departments. Figures reported in this publication are for Scottish residents who died as a result of an unintentional injury or were admitted to hospital as an inpatient under an appropriate emergency admission code.

There was an increase of 17% in the number of deaths in Scotland as a result of unintentional injury in 2016 (2,196) compared to 2015 (1,874) and an increase of 2% in the number of emergency hospital admissions in 2016/17 (49,476) compared to 2015/16 (48,490).

Chart 4 - Emergency hospital admissions as a result of an unintentional injury; rates\textsuperscript{1} for adults aged 15 and over, by gender, year ending 31 March 2008-2017

Chart 4 shows the European Age Standardised Rate (EASR) per 100,000 for emergency hospital admissions as a result of an unintentional injury in adults for years ending 31 March 2008 to 2017.

The rate for adult males has shown an overall decrease since a peak of 1,295.4 in 2009. However, for females, the general trend over the last ten years shows a slight increase. In

\textsuperscript{1} Rate per 100,000 directly standardised (age-sex) using the European standard population (2013).
Source: ISD Scotland, SMR01 data
2016/17 the rate of emergency hospital admissions per 100,000 for males aged 15 and over was 1,183.7 compared to 1,043.5 for females. The overall adult rate was 1,113.6.

See Table 3 for more information.

Chart 5 - Emergency hospital admissions as a result of an unintentional injury; rates\(^1\) for adults aged 15 and over by age group, year ending 31 March 2017

1. Rate per 100,000 based on National Records of Scotland mid 2016 population estimates. 
Source: ISD Scotland, SMR01 data

Chart 5 shows admission rates per 100,000 population. Between the ages of 15-64, males were more likely than females to have an emergency admission to hospital due to an unintentional injury. However, this pattern reversed in the age groups 65-74, 75-84 and 85+ where females had the higher admission rates.

There were a total of 49,476 admissions of adults aged 15 and over in 2016/17. Just over 50% of these were in the 65 and over age groups.

See Table 5 for more information.
3.2.2 Injuries in adults by cause of injury

Falls were the most common cause of emergency hospital admissions for unintentional injuries in adults, accounting for 64% of unintentional injury admissions to hospitals. This varied across age groups, although each older age group had a higher percentage of admissions caused by a fall, from 28% of emergency admissions by those aged 15-24 to 88% of emergency admissions by those aged 75 and over.

See Table 5 for more information.

Similar to the child age groups, fractures and head injuries were the most common main diagnoses for adults aged 15 and over who had an emergency hospital admission as a result of an unintentional injury.

See Table 13 and Table 14 for more information.
3.2.3 Injuries in adults by deprivation

The Scottish Index of Multiple Deprivation (SIMD) is an area-based measurement of multiple deprivation. Areas in Scotland were divided into five groups, each with decreasing levels of deprivation. Figures shown here are standardised discharge ratios (SDRs) which express the number of discharges in each deprivation area as a percentage of those which would have occurred had the Scottish discharge rates for each age and sex group prevailed in that deprivation area.

See the Appendix for more information on standardised ratios, confidence intervals and SIMD.

Chart 6 - Emergency hospital admissions as a result of an unintentional injury; adults aged 15 and over, by deprivation area, standardised discharge ratio\(^1\) with 95% confidence intervals, year ending 31 March 2017

1. Data are standardised for age and sex.
The horizontal line shows the level for Scotland as a whole.
Source: ISD Scotland, SMR01 data; SIMD 2016

Chart 6 shows that for 2016/17, adults aged 15 and over living in the most deprived areas were more likely than adults in the least deprived areas to have an emergency admission to hospital for an unintentional injury.

The standardised discharge ratio was 43% higher in the most deprived areas compared to the Scottish average. In the least deprived areas, the standardised discharge ratio was approximately 29% lower.

See Table 10 for more information.
Chart 7 - Deaths as a result of an unintentional injury; adults aged 15 and over, by deprivation area, standardised mortality ratios\(^1\) and 95% confidence intervals, year ending 31 December 2012-2016

1. Data are standardised for age and sex. The horizontal line shows the level for Scotland as a whole. 
Source: National Records of Scotland; SIMD 2016

Chart 7 shows the association between mortality from unintentional injury and deprivation for adults aged 15 and over during the period 2012-2016.

Taking into account the age and sex breakdown of the population compared to Scotland there were more deaths from unintentional injuries in deprived areas than less deprived areas. The standardised mortality ratio was approximately 71% higher in the most deprived areas and 45% lower in the least deprived areas, compared to the Scottish average.

See Table 11 for more information.
3.2.4 Injuries in adults aged 65 and over

Unintentional injuries among older people, particularly those aged 65 and over, are a major and growing health concern. Emergency hospital admissions for unintentional injury are set to rise in this age group over the next decade as our population ages, which has a wide range of social and economic consequences.

Falls are of particular interest as they are the cause of such a higher proportion of hospital admissions, especially in the older age groups. This is being addressed by a national improvement programme.
http://www.gov.scot/Publications/2014/04/2038

Since 2010 the National Falls Programme has aimed to support health and social care partnership areas to implement local integrated pathways which enable a systematic and evidence based approach to falls prevention and management.

The ‘falls rate per 1,000 population aged 65+’ has also been named as one of the health and social care indicators. This is in an effort to more accurately measure and ultimately reduce numbers of falls among the elderly.

In 2016/17 there were 25,144 emergency admissions to hospital for an unintentional injury in those aged 65 and over, with 85% of these being the result of a fall.

Further information on falls in the 65 and over age group can be found in Table 16 which shows numbers and rates at NHS Board and council area level, split by sex and presented across various age groups.

See Table 16 for more information.
3.3 Assaults

In line with the categorisation of types of injury by the International Collaborative Effort (ICE) and by National Records of Scotland, data on assaults are presented separately from data on unintentional injuries.

Gun assaults are included in the category ‘other assaults’. This is because the number of gun assaults has reduced over recent years and as such, the number of emergency hospital admissions and deaths resulting from gun assaults are very small.

**Chart 8 - Emergency hospital admission in Scotland as a result of assault and assault by sharp object, year ending 31 March 2008-2017**

![Chart showing emergency hospital admissions](source)

Source: ISD Scotland, SMR01 data

Chart 8 shows that for all ages (adults and children) there were a total of 2,346 emergency admissions to hospital in Scotland resulting from assault in 2016/17. There has been a decrease of 55% in the past ten years from 5,218 emergency admissions in 2007/08.

Expressed as a rate per 100,000, the emergency admission rate as a result of assault was 43.4 in 2016/17 compared to 100.9 in 2007/08.

Assaults by sharp object accounted for 22% of all emergency hospital admissions for assault in 2016/17.
Chart 9 shows that for all ages (adults and children) there were a total of 53 deaths in Scotland resulting from assault in 2016. This is a slight increase compared with 2015, though there has been a decrease of almost 40% in the past ten years from 88 deaths in 2007.

3.3.1 Assault by sharp object

Information on emergency hospital admissions and deaths due to injury caused by assault by a knife or other sharp object provides one way of assessing the impact of knife crime.

In the past ten years there has been a large decrease in the frequency of assaults involving knives or other sharp objects. There were 517 emergency hospital admissions in 2016/17, reflecting an overall decrease of 59% since 2007/08, and 29 deaths in 2016, an overall decrease of 44% since 2007.

See Table 15 for more information.
3.4 Interactive Tables

Interactive tables (Table 1 for emergency admissions and Table 2 for deaths) offer in depth information on unintentional injuries by NHS Board, council area, gender, year, age group, cause of injury and location of injury. Each table allows the user to manipulate the data by selecting the category of interest.

Trend information is provided, although it is vital to take account of the caveats around the data for deaths. Care will need to be taken when comparing statistics for 2011 onwards with figures for earlier years due to changes in coding rules for causes of death. The changes, which affect the coding of accidental poisoning, tend to increase the total number of deaths assigned to unintentional injury. A link with more detailed information on the changes is provided in the relevant tables.

Interactive files are also available on assaults (Table 15). This table offers information on the most recent ten year period showing the number of emergency hospital admissions and deaths, with numbers and rates each year, type of assault and NHS Board.

Table 16 provides an in depth look at unintentional injuries as a result of falls. This table presents numbers and rates per 1,000 population, by age group, gender, NHS Board and council area.
## Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average length of stay</td>
<td>Mean stay (in days) for each episode.</td>
</tr>
<tr>
<td>Confidence interval</td>
<td>Confidence intervals give an indication of the uncertainty around an estimate due to chance variation. For more information and examples, please see the Appendix.</td>
</tr>
<tr>
<td>Deprivation area</td>
<td>Deprivation areas each contain 20% of the total population in Scotland. Deprivation area 1 contains the most deprived 20% of the population, while area 5 contains the least deprived 20%.</td>
</tr>
<tr>
<td>Discharge</td>
<td>A discharge marks the end of an episode of care. Discharges include deaths and transfers to other specialties/significant facilities and hospitals.</td>
</tr>
<tr>
<td>Emergency Admission</td>
<td>This occurs when, for clinical reasons, a patient is admitted at the earliest possible time after seeing a doctor.</td>
</tr>
<tr>
<td>Emergency admission rate per 100,000 population</td>
<td>Number of emergency admissions for a specific age group divided by the population of that age group multiplied by 100,000. For example, the rate in males aged 5-9 years is the number of emergency admissions for males aged 5-9 divided by the mid-year population estimate of the number of males in Scotland aged 5-9 multiplied by 100,000.</td>
</tr>
<tr>
<td>Episode</td>
<td>An SMR01 episode is generated when a patient is discharged from hospital but also when a patient is transferred between hospitals, significant facilities, specialties or to the care of a different consultant.</td>
</tr>
<tr>
<td>ICD10</td>
<td>International Statistical Classification of Diseases and Related Health Problems, 10th Revision. This is an internationally used system produced by the World Health Organisation and used for classifying diagnoses. It is</td>
</tr>
</tbody>
</table>
Information Services Division

used in Scotland for coding both hospital discharges and deaths.

Inpatient
This is when a patient occupies an available staffed bed in a hospital and either; remains overnight whatever the original intention or is expected to remain overnight but is discharged earlier.

Non-routine admission
These are inpatients discharged following an emergency unplanned admission (includes emergency transfers).

Scottish Index of Multiple Deprivation (SIMD)
The SIMD is an area-based measurement of multiple material deprivation which combines seven domains (income, employment, education, housing, health, crime and geographical access) into an overall index.

Standardised Discharge Ratio
Expresses the numbers of discharges in each area of interest (e.g. deprivation area) as a percentage of those which would have occurred had the Scottish discharge rates for each age and sex group prevailed in that area of interest.

Standardised Mortality Ratio
Expresses the numbers of deaths in each area of interest (e.g. deprivation area) as a percentage of those which would have occurred had the Scottish death rates for each age and sex group prevailed in that area of interest.

Further details on data definitions and standards are available in the NHS Scotland Health & Social Care data dictionary.
# List of Tables

<table>
<thead>
<tr>
<th>Table No.</th>
<th>Name</th>
<th>Time period</th>
<th>File &amp; size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Emergency hospital admissions as a result of unintentional injury by age group and cause of injury.</strong>&lt;br&gt;Selection of year, sex, NHS Board and Council area.</td>
<td>Year ending 31 March 2008 – 2017</td>
<td>Excel [3791kb]</td>
</tr>
<tr>
<td>2</td>
<td><strong>Deaths in Scotland as a result of unintentional injury by age group and cause of injury.</strong>&lt;br&gt;Selection of year, sex, NHS Board and Council area.</td>
<td>Year ending 31 December 2007 - 2016</td>
<td>Excel [1952kb]</td>
</tr>
<tr>
<td>3</td>
<td><strong>Emergency hospital admission as a result of unintentional injury.</strong>&lt;br&gt;Number, standardised rates and confidence intervals.</td>
<td>Year ending 31 March 2008 – 2017</td>
<td>Excel [43kb]</td>
</tr>
<tr>
<td>4</td>
<td><strong>Deaths as a result of unintentional injury.</strong>&lt;br&gt;Number, standardised rates and confidence intervals.</td>
<td>Year ending 31 December 2007 - 2016</td>
<td>Excel [51kb]</td>
</tr>
<tr>
<td>5</td>
<td><strong>Emergency hospital admissions as a result of unintentional injury, by cause of injury.</strong>&lt;br&gt;Both sexes, males, females.</td>
<td>Year ending 31 March 2017</td>
<td>Excel [51kb]</td>
</tr>
<tr>
<td>6</td>
<td><strong>Deaths as a result of unintentional injury by cause of injury and age group.</strong>&lt;br&gt;Adults, children.</td>
<td>Year ending 31 December 2016</td>
<td>Excel [22kb]</td>
</tr>
<tr>
<td>7</td>
<td><strong>Emergency hospital admissions as a result of unintentional injury by NHS Board of residence.</strong>&lt;br&gt;Number, standardised ratio and confidence intervals.</td>
<td>Year ending 31 March 2017</td>
<td>Excel [21kb]</td>
</tr>
<tr>
<td>8</td>
<td><strong>Deaths as a result of unintentional injury, adults aged 15 and over by NHS Board of residence.</strong>&lt;br&gt;Number, standardised ratio and confidence intervals. &lt;br&gt;Adults only.</td>
<td>Year ending 31 December 2012 - 2016</td>
<td>Excel [17kb]</td>
</tr>
<tr>
<td>9</td>
<td><strong>Emergency hospital admissions as a result of unintentional injury by council area of residence.</strong>&lt;br&gt;Number, standardised ratio and confidence intervals.</td>
<td>Year ending 31 March 2017</td>
<td>Excel [26kb]</td>
</tr>
<tr>
<td>10</td>
<td><strong>Emergency hospital admissions as a result of</strong></td>
<td>Year ending</td>
<td>Excel</td>
</tr>
<tr>
<td></td>
<td>Title</td>
<td>Download</td>
<td>File Size</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>11</td>
<td>Deaths as a result of unintentional injury by deprivation</td>
<td>Year ending 31 December 2012 – 2016 (Combined)</td>
<td>Excel [25kb]</td>
</tr>
<tr>
<td></td>
<td>Number, standardised ratio and confidence intervals. Adults only.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Emergency hospital admission as a result of a road traffic accident.</td>
<td>Year ending 31 March 2017</td>
<td>Excel [29kb]</td>
</tr>
<tr>
<td></td>
<td>Number of emergency hospital admissions with average length of stay.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Number of emergency hospital admissions as a result of unintentional injury by sex and top 10 main diagnoses. Adults, children.</td>
<td>Year ending 31 March 2017</td>
<td>Excel [37kb]</td>
</tr>
<tr>
<td>14</td>
<td>Number of emergency hospital admissions as a result of unintentional injury by cause and top 10 main diagnoses. Adults, children.</td>
<td>Year ending 31 March 2017</td>
<td>Excel [41kb]</td>
</tr>
<tr>
<td>15</td>
<td>Emergency hospital admissions and deaths as a result of assault.</td>
<td>Year ending 31 March 2008 - 2017 &amp; Year ending 31 December 2007 - 2016</td>
<td>Excel [146kb]</td>
</tr>
<tr>
<td></td>
<td>Number of emergency hospital admissions, by type, for adults and children. Number of deaths as the result of an assault, by type, for adults and children.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Emergency hospital admissions as a result of falls by age group.</td>
<td>Year ending 31 March 2008 – 2017</td>
<td>Excel [429kb]</td>
</tr>
<tr>
<td></td>
<td>Selection of year, sex, NHS Board and Council area.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Contact
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Further Information
Further Information can be found on the ISD website.

For more information on emergency care see the emergency care section of the ISD website.

The next release of this publication will be March 2019.

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Please provide feedback on this publication to help us improve our services.
Appendices
A1 – Background Information

Sources
Information relating to unintentional injury and assault is derived from two sources:

- Non-obstetric/non-psychiatric hospital inpatient data (SMR01)
- Mortality data (NRS death registrations)

Many unintentional injuries result neither in death nor hospital admission but are treated by the individual, GPs, at Accident and Emergency departments or by a child’s parent or carer. This information is not included in this publication. The figures reported in this publication are those who died as a result of an unintentional injury or were admitted to hospital as an inpatient under an appropriate emergency admission code.

Furthermore, only Scottish residents with a known area of residence are included.

SMR01
Hospital inpatient activity data is collected across NHS Scotland and is based on nationally available information routinely drawn from hospital administrative systems across the country. The principal data source is the SMR01 (acute inpatients and day cases) return. Information on SMR data completeness can be found on the Hospital Records Data Monitoring SMR Completeness web page, while information on the timeliness of SMR data submissions can be found on the SMR Timeliness web page. It is estimated that hospital admissions data (SMR01) for NHS Scotland for 2016/17 are 99% complete nationally.

The ISD Data Quality Assurance (DQA) team is responsible for evaluating and ensuring SMR datasets are accurate, consistent and comparable across time and between sources. Details of the quality assurance process for SMRs are published on the DQA methodology web page. The most recent report ‘Assessment of SMR01 Data Scotland 2014-2015’ [1.87MB] was published in August 2016. The DQA team’s previous projects web page contains details of past Data Quality Assurance Assessments, including final reports and findings.

Mortality Data
The deaths data are obtained from the National Records of Scotland (NRS). NRS are part of the devolved Scottish Administration and are responsible for the registration of births, marriages, civil partnerships, deaths, divorces, and adoptions. They also run the Census and use the Census and other data to publish information about population and households. Further information about the NRS death data can be found on their Deaths statistics web page. Information on the quality of NRS data on deaths can be found on the NRS website; http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/deaths-background-information

Recoding of drug abuse deaths from acute intoxication
Deaths from drug abuse, specifically acute intoxication, were classified as ‘mental and behavioural disorders’ prior to 2011. From 2011 onwards these deaths are counted under ‘accidental poisoning’ (where applicable). Care is required when comparing these statistics before and after 2011. For more detailed information on the changes, please see link below:
For information on the impact of this coding change, please see the following link – Table 2.

Revisions since previous publication
Hospital admissions for 2015/16 were estimated to be 98% complete at the time of publication of the previous Unintentional Injuries report. However, as SMR01 is a dynamic dataset any updates to data for previous years will be reflected in this publication. Subsequent changes in numbers from previous publications are expected to be small.

Place of Injury
Prior to the 2013 publication the emergency admission type codes were used to denote ‘location of injury’. From the 2014 publication onwards we have used the fourth digit of the ICD10 codes W000-X599 to denote ‘place of occurrence’ using the following categories:

<table>
<thead>
<tr>
<th>ICD10 4th digit Place of Occurrence category</th>
<th>Location of Injury classification presented</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Home</td>
<td>Home</td>
</tr>
<tr>
<td>1 Residential Institute</td>
<td></td>
</tr>
<tr>
<td>2 School, other institution and public</td>
<td></td>
</tr>
<tr>
<td>3 Sports and athletics area</td>
<td></td>
</tr>
<tr>
<td>4 Street and highway</td>
<td>Other</td>
</tr>
<tr>
<td>5 Trade and service area</td>
<td></td>
</tr>
<tr>
<td>6 Industrial and construction area</td>
<td></td>
</tr>
<tr>
<td>7 Farm</td>
<td></td>
</tr>
<tr>
<td>8 Other specified places</td>
<td></td>
</tr>
<tr>
<td>9 Unspecified place</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

For this 2018 publication, the place of occurrence for an injury admission is taken from the first of the six possible discharge diagnosis entries on an SMR01 discharge record.

Cause of Injury
The cause of injury classifications are determined using guidance from the International Collaboration Effort (ICE) on injury statistics (see tables below for further information on causes of injury and relevant ICD10 codes).

Age groups
Data are presented in the tables for children (0-14 years) and adults (15+ years). Some tables provide the additional age groups: 0-4, 5-9, 10-14, 15-24, 25-44, 45-64, 65-74 and 75+ years. Tables which include data on falls also include the additional age groups of 65+ and 85+.
Table 12, which shows hospital admissions for road traffic accidents, counts children as those aged under 17 and includes an additional age category, which represents young adult drivers, (17-24 years).
Deaths
The ICD10 codes used for identifying deaths due to an unintentional injury and assault are outlined below:

<table>
<thead>
<tr>
<th>Deaths - Unintentional Injury</th>
<th>ICD10 (from 2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All injuries</td>
<td>V01-X59, Y85-Y86</td>
</tr>
<tr>
<td>Land transport accidents</td>
<td>V01-V89</td>
</tr>
<tr>
<td>Poisonings</td>
<td>X40-X49</td>
</tr>
<tr>
<td>Falls</td>
<td>W00-W19</td>
</tr>
<tr>
<td>Struck by, against</td>
<td>W20-W22, W50-W52</td>
</tr>
<tr>
<td>Crushing</td>
<td>W23</td>
</tr>
<tr>
<td>Scalds</td>
<td>X10-X19</td>
</tr>
<tr>
<td>Accidental exposure</td>
<td>X58-X59</td>
</tr>
<tr>
<td>Other</td>
<td>Other in range V01-X59, Y85-Y86 that is not included in any of the other categories.</td>
</tr>
</tbody>
</table>

Deaths - Assault
The ICD10 codes used for identifying deaths due to an assault are outlined below:

<table>
<thead>
<tr>
<th>Deaths - Assault</th>
<th>ICD10 (from 2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All assaults</td>
<td>X85-Y09</td>
</tr>
<tr>
<td>Assault by sharp object</td>
<td>X99</td>
</tr>
<tr>
<td>Other</td>
<td>Other in range X85-Y09 that is not included in any of the other categories.</td>
</tr>
</tbody>
</table>

Emergency Hospital Admissions
The SMR01 codes used for identifying emergency hospital admissions due to an unintentional injury and assault are outlined below:

<table>
<thead>
<tr>
<th>Admissions - Unintentional Injury</th>
<th>SMR01 admission code(s) and ICD10 codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>All injuries</td>
<td>SMR01 admission type code 32 - Patient injury - road traffic accident</td>
</tr>
<tr>
<td></td>
<td>SMR01 admission type codes 33-35 and ICD10 codes V01-X59, Y85-Y86</td>
</tr>
<tr>
<td></td>
<td>33 - Patient injury - home incident</td>
</tr>
<tr>
<td></td>
<td>34 - Patient injury - incident at work</td>
</tr>
<tr>
<td></td>
<td>35 - Patient injury - other injury</td>
</tr>
<tr>
<td>Road traffic accidents</td>
<td>SMR01 admission type code 32</td>
</tr>
<tr>
<td></td>
<td>32 - Patient injury - road traffic accident</td>
</tr>
<tr>
<td>Poisonings</td>
<td>Admission type code 33-35 and ICD10 codes X40-X49</td>
</tr>
<tr>
<td></td>
<td>33 - Patient injury - home incident</td>
</tr>
<tr>
<td></td>
<td>34 - Patient injury - incident at work</td>
</tr>
<tr>
<td></td>
<td>35 - Patient injury - other injury</td>
</tr>
<tr>
<td>Falls</td>
<td>Admission type code 33-35 and ICD10 codes W00-W19</td>
</tr>
<tr>
<td></td>
<td>33 - Patient injury - home incident</td>
</tr>
<tr>
<td></td>
<td>34 - Patient injury - incident at work</td>
</tr>
<tr>
<td></td>
<td>35 - Patient injury - other injury</td>
</tr>
<tr>
<td>Struck by, against</td>
<td>Admission type code 33-35 and ICD10 codes W20-W22, W50-W52</td>
</tr>
<tr>
<td></td>
<td>33 - Patient injury - home incident</td>
</tr>
</tbody>
</table>
### Information Services Division

<table>
<thead>
<tr>
<th>Injury Type</th>
<th>Admission Type Code and ICD10 Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crushing</td>
<td>Admission type code 33-35 and ICD10 code W23</td>
</tr>
<tr>
<td>Scalds</td>
<td>Admission type code 33-35 and ICD10 code X10-X19</td>
</tr>
<tr>
<td>Accidental exposure</td>
<td>Admission type code 33-35 and ICD10 codes X58-X59</td>
</tr>
<tr>
<td>Other</td>
<td>Admission type code 33-35 and other ICD10 codes in the range V01-X59 Y85-Y86 that are not included in any of the other categories in the table</td>
</tr>
</tbody>
</table>

### Population estimates

Mid-year population estimates for 2016 are based on the results of the 2011 Census. This will be the case for all years going forwards until the next Census results are released.

### Standardised Mortality Ratio

The standardised mortality ratio (SMR) provides a rate for one group of people as a percentage of the rate in the reference population (in this case Scotland as a whole). It is adjusted to take account of differences in the age and sex structures of the populations being compared. The SMR is calculated as the number of observed deaths divided by the number of expected deaths times 100, where the number of observed deaths is the actual number of deaths in each area of interest (e.g. NHS Board, deprivation area) and the
number of expected deaths is the number of deaths that would have been ‘expected’ in the area of interest if the Scottish death rates for each age and sex group had prevailed.

**Standardised Discharge Ratio**
The standardised discharge ratio (SDR) is the discharge rate in an area as a percentage of the rate in a reference area (in this case Scotland as a whole). It is adjusted to take account of differences in the age and sex structure of the populations being compared. The SDR is calculated as the number of observed discharges divided by the number of expected discharges times 100, where the number of observed discharges is the actual number of discharges in each area of interest (e.g. NHS Board, deprivation area) and the number of expected discharges is the number of discharges that would have been 'expected' in the area of interest if the Scottish discharge rates for each age and sex group had prevailed.

**95% Confidence Intervals**
Confidence intervals give an indication of the uncertainty around an estimate due to chance variation.

**Standardised Mortality Ratio (SMR) example:**
An estimate of the statistical significance of the standardised ratio (for SMRs or SDRs) can be obtained from the 95% confidence interval. If the confidence interval does not include 100, the difference in unintentional injury rates recorded for a particular population compared with the standard population (Scotland) is said to be 'statistically significant'. For example, for a ratio of 158 with 95% confidence intervals of 129-188, the difference from the standard population is deemed to be statistically significant since the range 129-188 does not include 100.

**European Age Standardised Rate (EASR) example:**
An estimate of the statistical significance of the standardised rate can be obtained from the 95% confidence interval. For example for a standardised admission rate per 100,000 population of 1,082.2 with 95% confidence intervals of 1,072.6-1,091.9, we can say there is a 95% certainty the true admission rate lies between 1,072.6 and 1,091.9.

If we wish to compare this to a standardised admission rate for a different time period, for example a rate of 1,053.4 with 95% confidence interval of 1,044.4-1,062.5, we can say that the rate of 1,082.2 (95% confidence intervals 1,072.6-1,091.9) is statistically significantly higher than the rate of 1,053.4 (95% confidence intervals 1,044.4-1,062.5) due to there being no overlap of the confidence intervals for these rates.

**Scottish Index for Multiple Deprivation 2016**
The SIMD is an area-based measurement of multiple material deprivation which combines seven domains (income, employment, education, housing, health, crime and geographical access) into an overall index. For the purposes of this report the population have been divided into five equal groups where quintile 1 to 5 represent areas with decreasing levels of deprivation. Further information on the SIMD can be found at: http://www.isdscotland.org/Products-and-Services/GPD-Support/Deprivation/SIMD/

**Disclosure**
Where statistics provide information on small numbers of individuals, Information Services Division have a duty, under the Data Protection Act, to avoid directly or indirectly revealing any personal details. Due to the sensitive nature of some topics, some small numbers have been suppressed in this publication. These are shown in the publication as asterisks. In
addition, some secondary suppression may be required to prevent the calculation of suppressed data.

**Future publications**
We aim to make our publications as useful and informative as possible for users. If you have any comments on recent changes or suggestions for improvement for future publications please email nss.isdmaternity@nhs.net.
### Appendix 2 – Publication Metadata

<table>
<thead>
<tr>
<th>Metadata Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publication title</strong></td>
<td>Unintentional Injuries</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Summary of admissions to hospital and deaths in Scotland from unintentional injuries and assaults.</td>
</tr>
<tr>
<td><strong>Theme</strong></td>
<td>Health and Social Care.</td>
</tr>
<tr>
<td><strong>Topic</strong></td>
<td>Unintentional Injuries.</td>
</tr>
<tr>
<td><strong>Format</strong></td>
<td>PDF report and Excel workbooks.</td>
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<tr>
<td><strong>Data source(s)</strong></td>
<td>SMR01 hospital discharges &amp; NRS deaths.</td>
</tr>
<tr>
<td><strong>Date that data are acquired</strong></td>
<td>January 2018.</td>
</tr>
<tr>
<td><strong>Release date</strong></td>
<td>6 March 2018.</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>Annual.</td>
</tr>
<tr>
<td><strong>Timeframe of data and timeliness</strong></td>
<td>Data ranges from 2007-2016 (deaths) and 2007/08-2016/17 (admissions).</td>
</tr>
<tr>
<td><strong>Continuity of data</strong></td>
<td>Data are reported from 2007 for deaths and from 2007/08 for emergency admissions.</td>
</tr>
<tr>
<td><strong>Revisions statement</strong></td>
<td>Any incomplete data due to shortfalls in submissions from NHS Boards are revised at the next publication.</td>
</tr>
<tr>
<td><strong>Revisions relevant to this publication</strong></td>
<td>Details of any revisions that have taken place since the previous publication can be found in Appendix A1 – Background Information.</td>
</tr>
<tr>
<td><strong>Concepts and definitions</strong></td>
<td>Appendix A1 – Background Information.</td>
</tr>
<tr>
<td><strong>Relevance and key uses of the statistics</strong></td>
<td>Making information publicly available for planning, provision of services, research and provision of comparative information.</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>SMR01 data are subjected to validation on submission. The figures are compared to previous years' figures and to expected trends. The SMR01 data are also occasionally assessed for accuracy by ISD’s Data Quality Assurance.</td>
</tr>
<tr>
<td><strong>Compleness</strong></td>
<td>Hospital admissions data for NHS Scotland for 2016/17 are estimated to be 99% complete at time of publication.</td>
</tr>
<tr>
<td><strong>Comparability</strong></td>
<td>Cause of injury classifications are determined using guidance from the International Collaboration Effort (ICE) on injury statistics.</td>
</tr>
<tr>
<td><strong>Accessibility</strong></td>
<td>It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines.</td>
</tr>
<tr>
<td><strong>Coherence and clarity</strong></td>
<td>Unintentional Injuries tables are accessible via the ISD website. Drop down menus are presented where appropriate e.g. for selection of geography or year.</td>
</tr>
<tr>
<td><strong>Value type and unit of measurement</strong></td>
<td>Numbers, crude, age-specific and standardised rates are presented.</td>
</tr>
<tr>
<td><strong>Disclosure</strong></td>
<td>The ISD protocol on Statistical Disclosure Protocol is followed.</td>
</tr>
<tr>
<td><strong>Official Statistics designation</strong></td>
<td>National Statistics.</td>
</tr>
<tr>
<td><strong>UK Statistics Authority Assessment</strong></td>
<td>UK Statistics Authority Assessment</td>
</tr>
<tr>
<td><strong>Last published</strong></td>
<td>7 March 2017</td>
</tr>
<tr>
<td><strong>Next published</strong></td>
<td>March 2019 (provisional)</td>
</tr>
<tr>
<td><strong>Date of first publication</strong></td>
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<tr>
<td>Help email</td>
<td><a href="mailto:nss.isdmaternity@nhs.net">nss.isdmaternity@nhs.net</a></td>
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</tr>
<tr>
<td>Date form completed</td>
<td>February 2018</td>
</tr>
</tbody>
</table>
Appendix 3 – Early access details

Pre-Release Access

Under terms of the "Pre-Release Access to Official Statistics (Scotland) Order 2008", HPS is obliged to publish information on those receiving Pre-Release Access ("Pre-Release Access" refers to statistics in their final form prior to publication). The standard maximum Pre-Release Access is five working days. Shown below are details of those receiving standard Pre-Release Access.

Standard Pre-Release Access:

Scottish Government Health Department

NHS Board Chief Executives

NHS Board Communication leads
Appendix 4 – 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 (ie assessed by the UK Statistics Authority as complying with the Code of Practice)
- National Statistics (ie legacy, still to be assessed by the UK Statistics Authority)
- Official Statistics (ie still to be assessed by the UK Statistics Authority)
- other (not Official Statistics)

Further information on ISD’s statistics, including compliance with the Code of Practice for Official Statistics, and on the UK Statistics Authority, is available on the ISD website.