

Publication Report



Unintentional Injuries

Hospital Admissions: Year ending 31 March 2014

Deaths: Year ending 31 December 2013

Publication date – 3 March 2015



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Introduction

Unintentional injury is a common cause of emergency admission to hospital for children and young adults. Unintentional injury is recorded in approximately 5% of deaths among children and 3% among adults. 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 elderly are more vulnerable.

This publication summarises information on; hospital admissions for unintentional injuries and assaults, sourced from hospital administrative systems across Scotland, up to and including the financial year 2013/14 and from death registrations sourced from National Records of Scotland, up to and including calendar year 2013.

Tables 1 and 2 in this publication present European Age Standardised Rates for deaths from unintentional injury (Table 1) and emergency hospital admissions for unintentional injury (Table 2). They have been standardised using the latest European Standard Population (ESP2013). Prior to this publication ESP1976 had been used. Figures using ESP1976 and ESP2013 are not comparable. The whole time series of data published in the tables in this report have been calculated using ESP2013, so it is appropriate to compare rates over time for years published in this report. However comparison of rates in this report compared to previously published reports would not be appropriate. The number of people being admitted to hospital or who died will not change due to the European Standard Population revision. See [Appendix A1 – Background Information](#).

For the tables on assaults (Tables 13a (Scotland) and Table 13b (Scotland)) gun assaults are now included in the category ‘other assaults’. Numbers of gun assaults have reduced over recent years and numbers of emergency hospital admissions for gun assaults in addition to deaths from gun assaults are now very small. This change also brings the Scotland tables in line with the categories used in the Health Board tables.

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](#).

Key points

- Unintentional injuries accounted for approximately 1 in 8 emergency hospital admissions for children and 1 in 11 for adults in Scotland in 2013/2014.
- There were 54,673 emergency admissions to hospital in Scotland for unintentional injuries in 2013/2014. This is approximately an increase of 2% on the previous year.
- There were 1,664 deaths in Scotland in 2013 due to unintentional injury, 13 in children under the age of 15 and 1,651 in adults aged 15 years and over.
- There were 33,390 emergency admissions to hospital due to falls in Scotland in 2013/14. This represents 61% of the total number of emergency admissions to hospital due to unintentional injuries.
- Children and adults in the most deprived areas are more likely than children and adults in the least deprived areas to have an emergency admission to hospital for an unintentional injury.

Results and Commentary

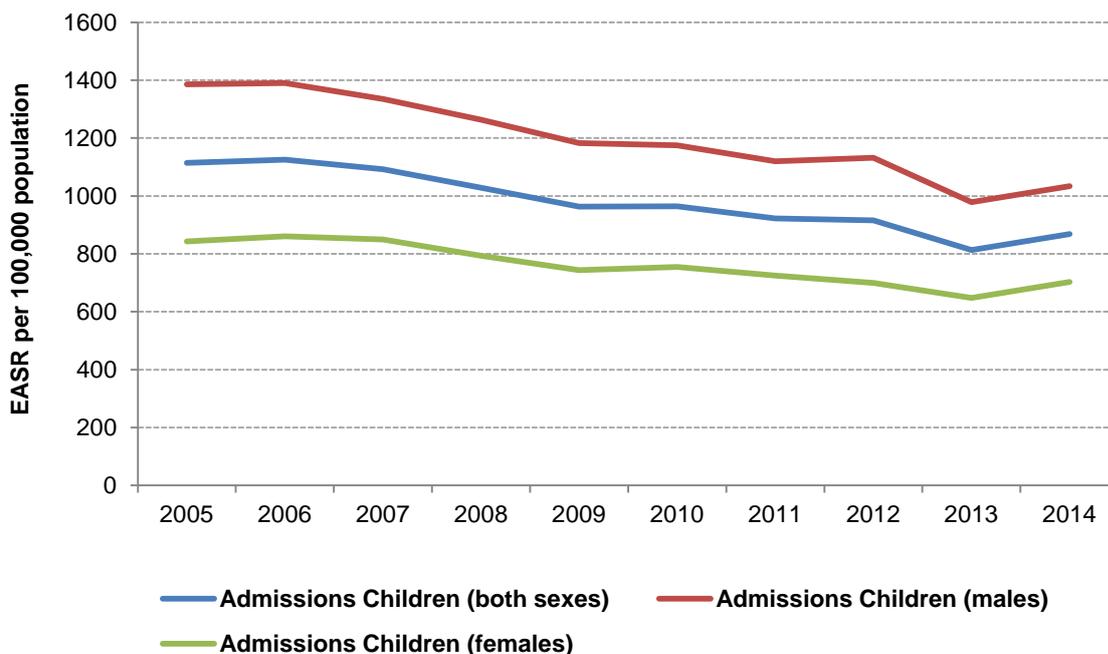
3.1 Unintentional Injuries in Children

3.1.1 Injuries in children by age group and sex

In Scotland there were 13 deaths in 2013 and 7,530 emergency admissions in 2013/14 due to unintentional injury in children under the age of 15. However, the majority of unintentional injuries result neither in death nor in hospital admission but are treated by GPs, at Accident and Emergency departments or by the child's parent or carer.

Chart 1 shows the European Age Standardised Rate (EASR) for emergency hospital admissions as a result of an unintentional injury in children for years ending 31 March 2005 to 2014. Although the rate has increased on the last year the general trend over the last ten years has been decreasing for both males and females. (See [Table 2 - children](#) in list of tables for more information).

Chart 1 - Emergency hospital admissions as a result of an unintentional injury; for children aged under 15 by gender, year ending 31 March 2005 to 2014

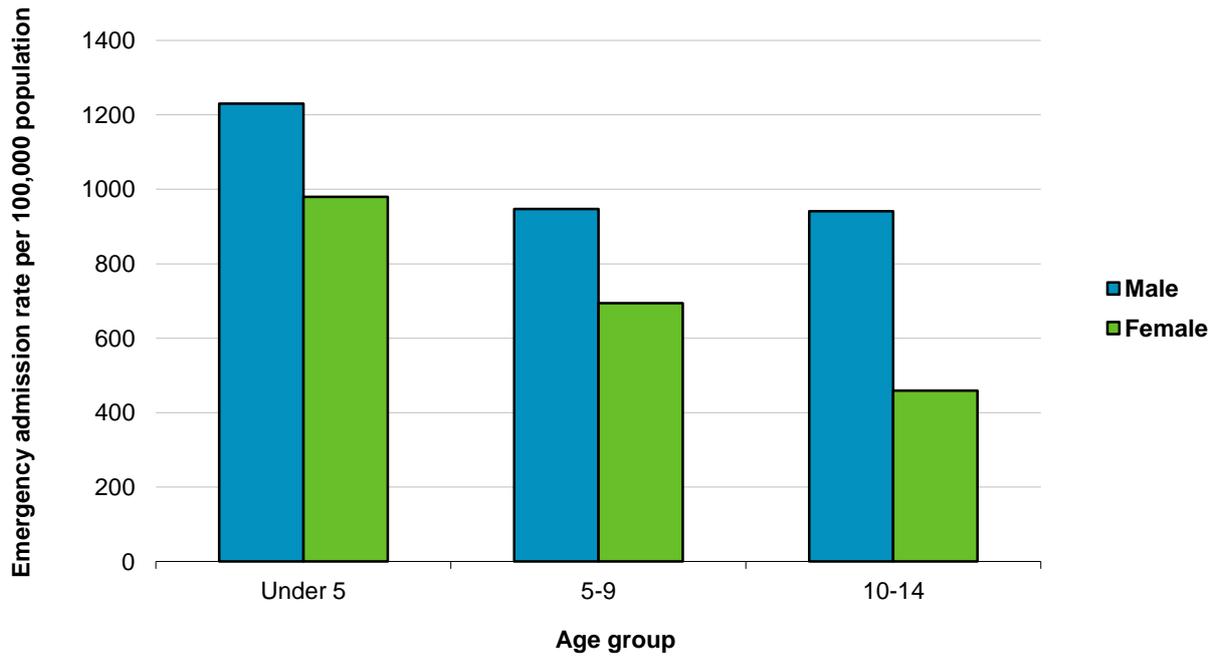


1. Directly standardised (age-sex) using the European standard population (2013).

Source: ISD Scotland, SMR01

Chart 2 shows admission rates per 100,000 population. The rate of emergency hospital admissions per 100,000 population for males aged under 15 years was 1043.1 compared to 717.2 for females in 2013/14. In all age groups, boys were more likely than girls to be admitted to hospital for unintentional injury.

Chart 2 - Emergency hospital admissions as a result of an unintentional injury; rates¹ for children aged under 15 for all Scotland by age group; year ending 31 March 2014



1. The denominator data for the rates in the chart are based on National Records of Scotland mid 2013 population estimates in each sex and age group based on the 2011 Census results.

Source: ISD Scotland, SMR01

3.1.2 Emergency admissions to hospital for unintentional injury in children by cause of injury

In Scotland, for children aged under 15 years, nearly half (49%) of the emergency admissions to hospital for an unintentional injury in 2013/2014 were the result of a fall. ([Table 3 -children](#)).

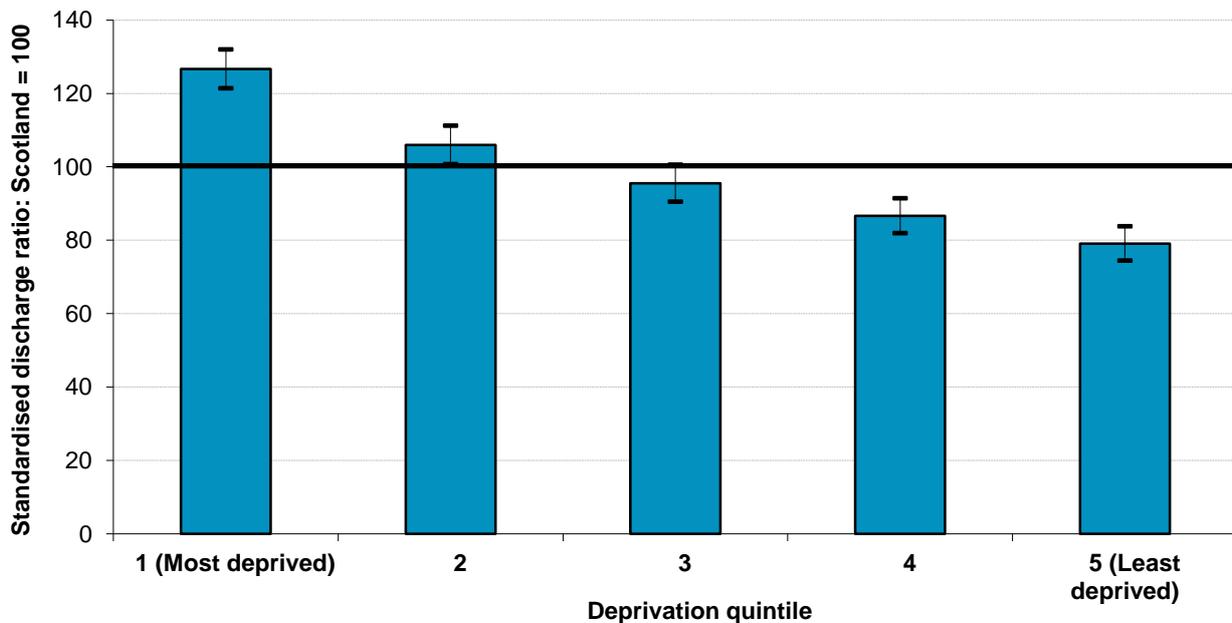
Fractures and head injuries were the most common main diagnoses among children under 15 years who were admitted to hospital for an unintentional injury. ([Table 11](#)).

3.1.3 Injuries in children 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 (quintiles) with decreasing levels of deprivation. Figures shown here are Standardised Discharge Ratios (SDRs) which express the number of discharges in each deprivation quintile as a percentage of those which would have occurred had the Scottish discharge rates for each age and sex group prevailed in that deprivation quintile. (See the [glossary](#) for further information).

Chart 3 shows that children aged under 15 living in the most deprived area were more likely than children in the least deprived area to have an emergency admission to hospital for an unintentional injury (the standardised discharge ratio is approximately 27% higher in the most deprived area compared to the Scottish average).

Chart 3 - Emergency hospital admissions as a result of an unintentional injury, children aged under 15 by deprivation quintile; year ending 31 March 2014
Standardised discharge ratio¹ with 95% confidence intervals²



1. Data are standardised for age and sex.
2. See glossary for note on confidence intervals.
3. The horizontal line shows the level for Scotland as a whole.

Source: ISD Scotland, SMR01 data; Scottish Index of Multiple Deprivation (SIMD) 2012

3.2 Unintentional Injuries in Adults

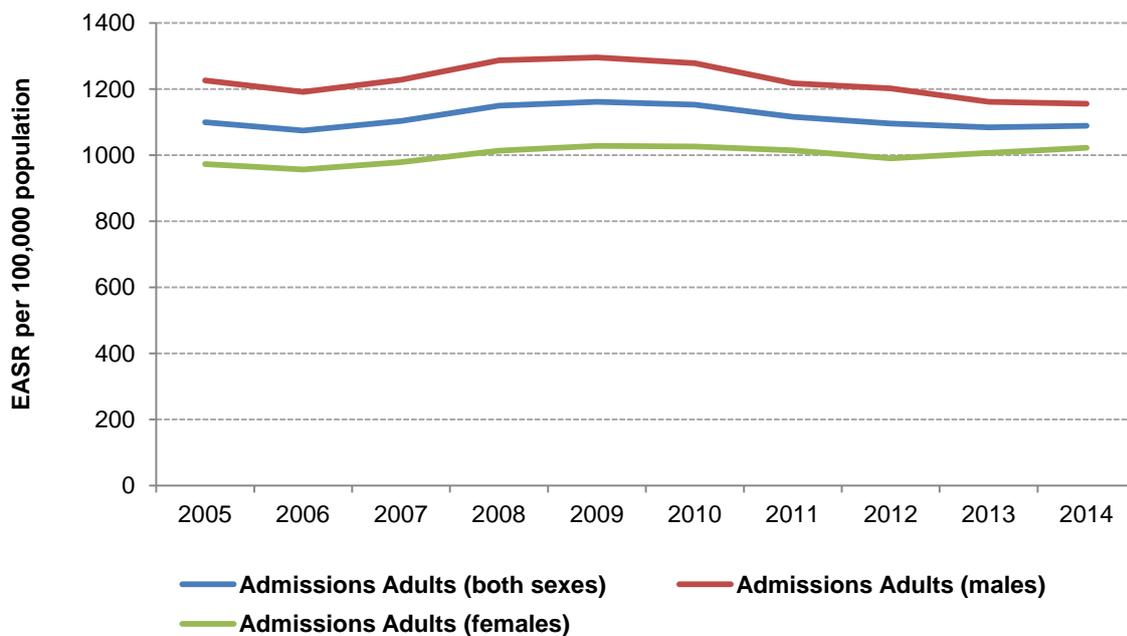
3.2.1 Injuries in adults by age group and sex

For Scotland as a whole there were 1,651 deaths in 2013 and 47,143 emergency admissions in 2013/14 due to unintentional injury in adults aged 15 years of age and over. However, the majority of unintentional injuries result neither in death nor in hospital admission but are treated by the individual, GPs or Accident and Emergency departments.

There was a slight increase (2%) in the number of deaths in Scotland in 2013 compared to 2012, as a result of an unintentional injury.

Chart 4 shows the European Age Standardised Rate (EASR) for emergency hospital admissions as a result of an unintentional injury in adults for years ending 31 March 2005 to 2014. The rate for males has been gradually decreasing since a peak of 1295.7 per 100,000 population in 2009. The rate for females has been more consistent over recent years although the general trend over the last ten years shows a slight increase. (See [Table 2 - adults](#) in list of tables for more information).

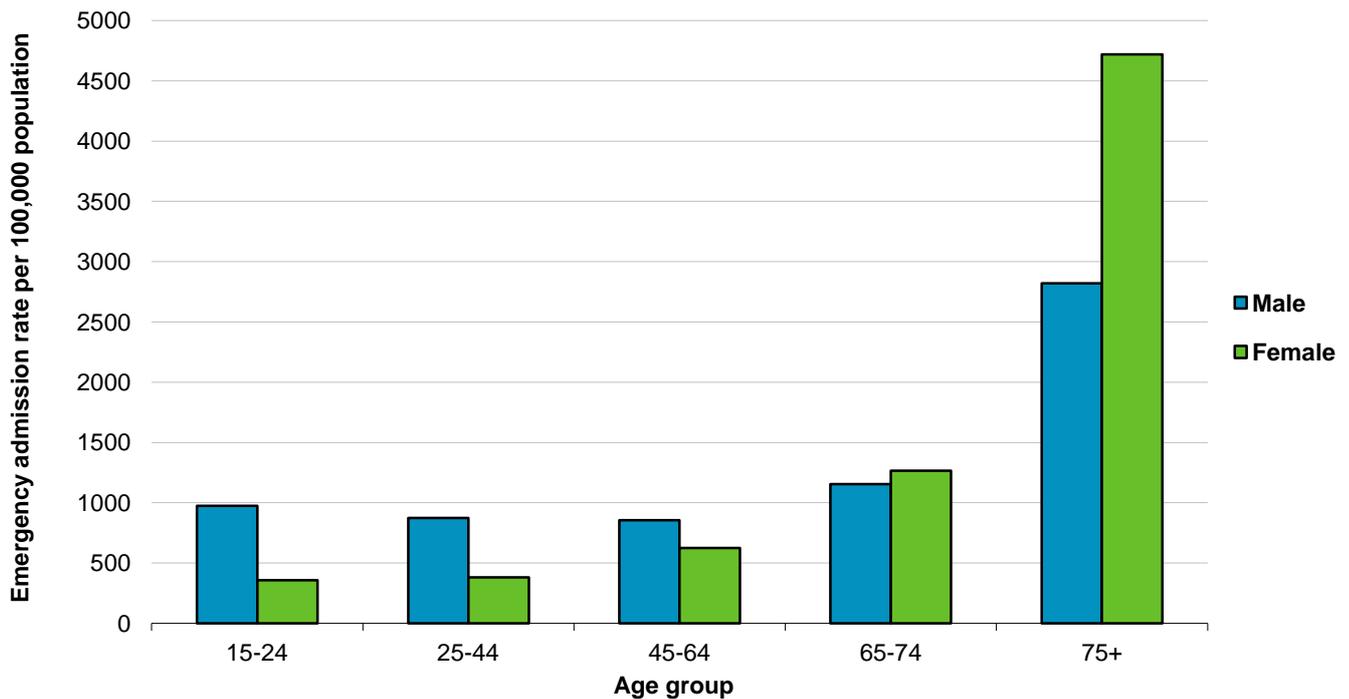
Chart 4 - Emergency hospital admissions as a result of an unintentional injury, adults aged 15 years and over by gender, year ending 31 March 2005 to 2014



Source: ISD Scotland, SMR01

The rate of emergency hospital admissions per 100,000 population for males aged 15 years and over, in 2013/14 was 1,069.0 for males compared to 1038.8 for females. Chart 5 shows admission rates per 100,000 population. Between the ages of 15-64, men were more likely than women to be admitted to hospital due to unintentional injury. However, this pattern reversed in the age groups 65-74 and 75+ where women were more likely to be admitted due to an unintentional injury.

Chart 5 - Emergency hospital admissions as a result of an unintentional injury; rates¹ for adults aged 15 and over by age group; year ending 31 March 2014



1. The denominator data for the rates in the chart are based on National Records of Scotland mid 2013 population estimates in each sex and age group based on the 2011 Census results.

Source: ISD Scotland, SMR01 data

3.2.2 Emergency admissions to hospital for unintentional injury in adults by cause of injury

Falls were the most common cause of emergency hospital admissions for unintentional injuries in adults, accounting for 63% of unintentional injury admissions to hospitals. This varied across age groups accounting for only 27% of relevant admissions in the 15-24 age group compared to 87% in the 75 and over age group. ([Table 3 - adults](#)).

Fractures and head injuries were the most common main diagnoses for adults who had an emergency hospital admission as a result of an unintentional injury. ([Table 11](#)).

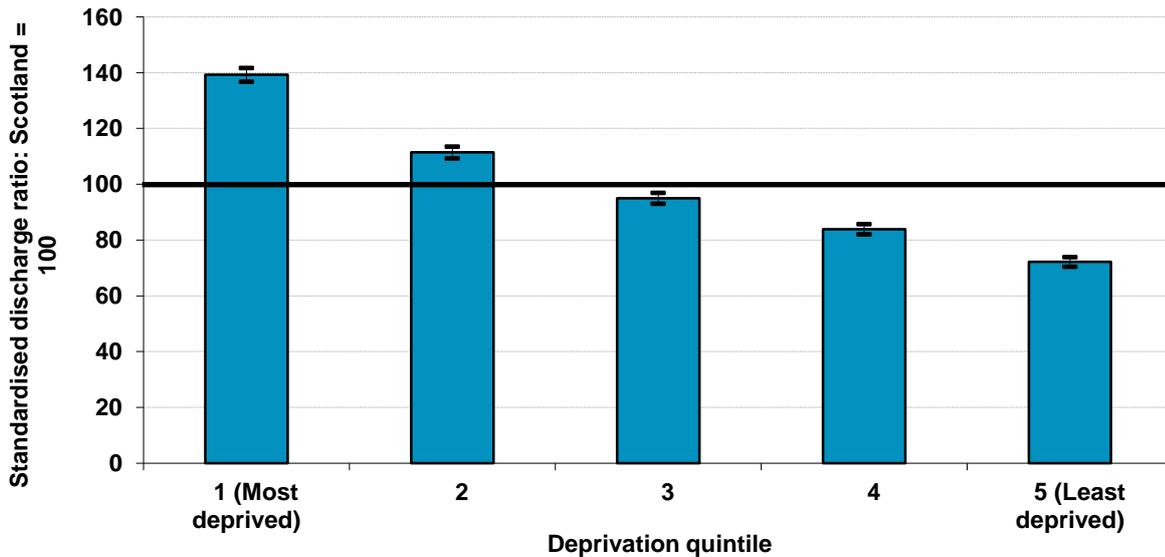
3.2.3 Injuries in adults by deprivation category

The Scottish Index of Multiple Deprivation (SIMD) is an area-based measurement of multiple deprivations. Areas in Scotland were divided into five groups (quintiles) with decreasing levels of deprivation. Figures shown here are Standardised Discharge Ratios (SDRs) which express the number of discharges in each deprivation quintile as a percentage of those which would have occurred had the Scottish discharge rates for each

age and sex group prevailed in that deprivation quintile. See the [glossary](#) for further information.

Chart 6 shows that adults aged 15 and over in the most deprived quintile were more likely than adults in the least deprived quintile to have an emergency admission to hospital for an unintentional injury (the standardised discharge ratio is 39% higher in the most deprived area compared to the Scottish average).

Chart 6 - Emergency hospital admissions as a result of an unintentional injury, adults aged 15 and over by deprivation quintile; year ending 31 March 2014
Standardised discharge ratio¹ and 95% confidence intervals²



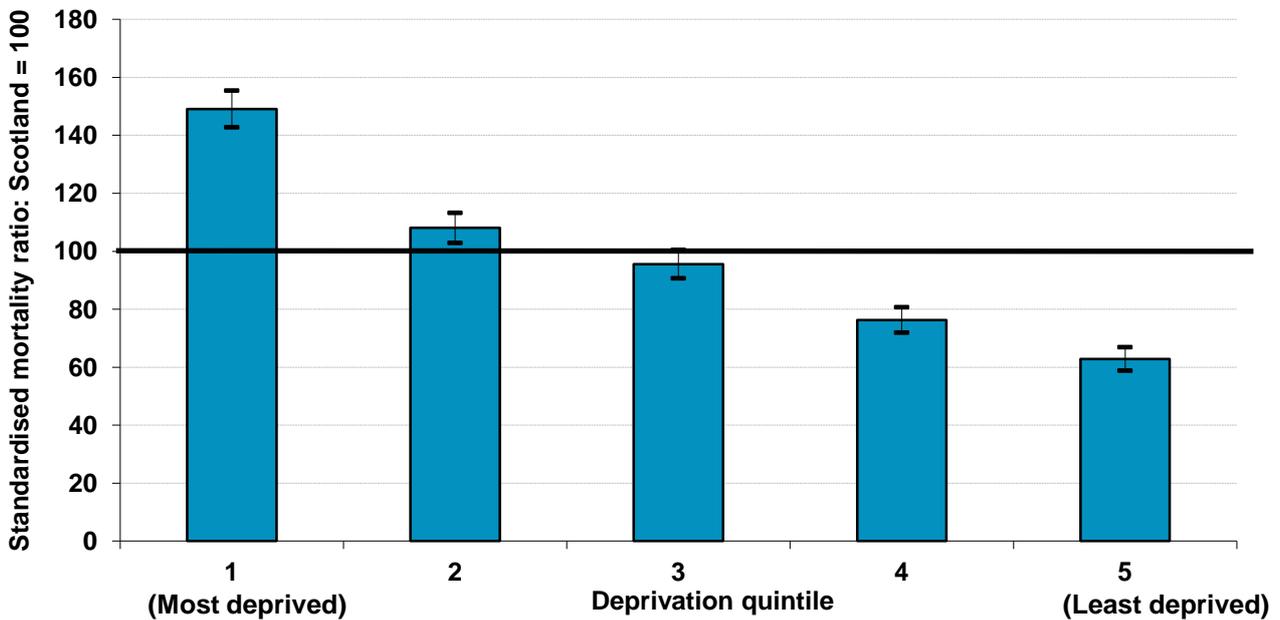
- 1. Data are standardised for age and sex.
- 2. See glossary for note on confidence intervals.
- 3. The horizontal line shows the level for Scotland as a whole.

Source: ISD Scotland, SMR01 data; Scottish Index of Multiple Deprivation (SIMD) 2012

Chart 7 shows the association between mortality from unintentional injury and deprivation for adults aged 15 years and over during the period 2009-2013.

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 49% higher in the most deprived area and 37% lower in the least deprived area compared to the Scottish average).

Chart 7 - Deaths as a result of an unintentional injury, adults aged 15 and over by deprivation quintile, standardised mortality ratios¹ and 95% confidence intervals², year ending December 2009-2013



1. Data are standardised for age and sex.
2. See glossary for note on confidence intervals.
3. The horizontal line shows the level for Scotland as a whole.
4. Some cases could not be assigned to a quintile (2%).

Source: National Records of Scotland (NRS); Scottish Index of Multiple Deprivation (SIMD) 2012

3.3 Assaults

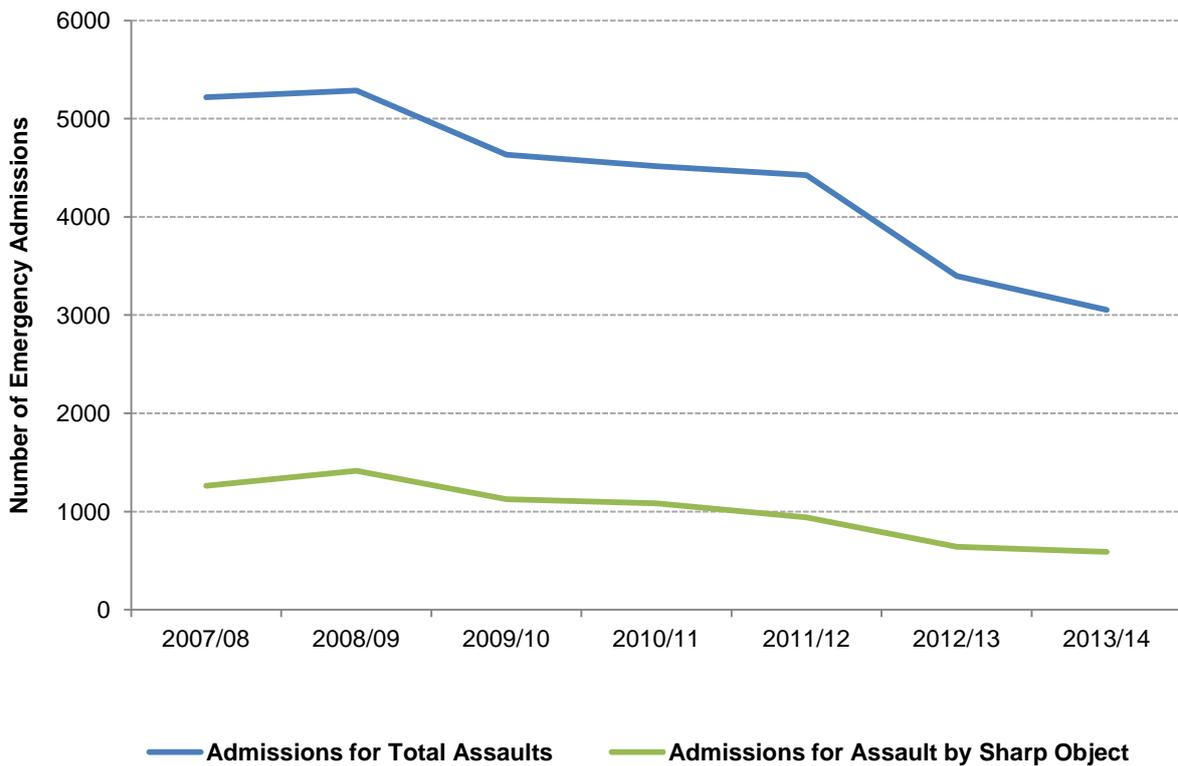
In line with the categorisation of types of injury by the International Collaborative Effort (ICE) and by the National Records for Scotland, data on assaults are presented separately from data on unintentional injuries.

For the tables on assaults (Tables 13a (Scotland) and Table 13b (Scotland)) gun assaults are now included in the category 'other assaults'. Numbers of gun assaults have reduced over recent years and numbers of emergency hospital admissions for gun assaults in addition to deaths from gun assaults are now very small. This change also brings the Scotland tables in line with the categories used in the Health Board tables.

In Scotland there were 58 deaths from assault in 2013 and 3,054 emergency admissions to hospital in 2013/2014 for assault. See Tables [13\(a\)](#) and [13\(b\)](#).

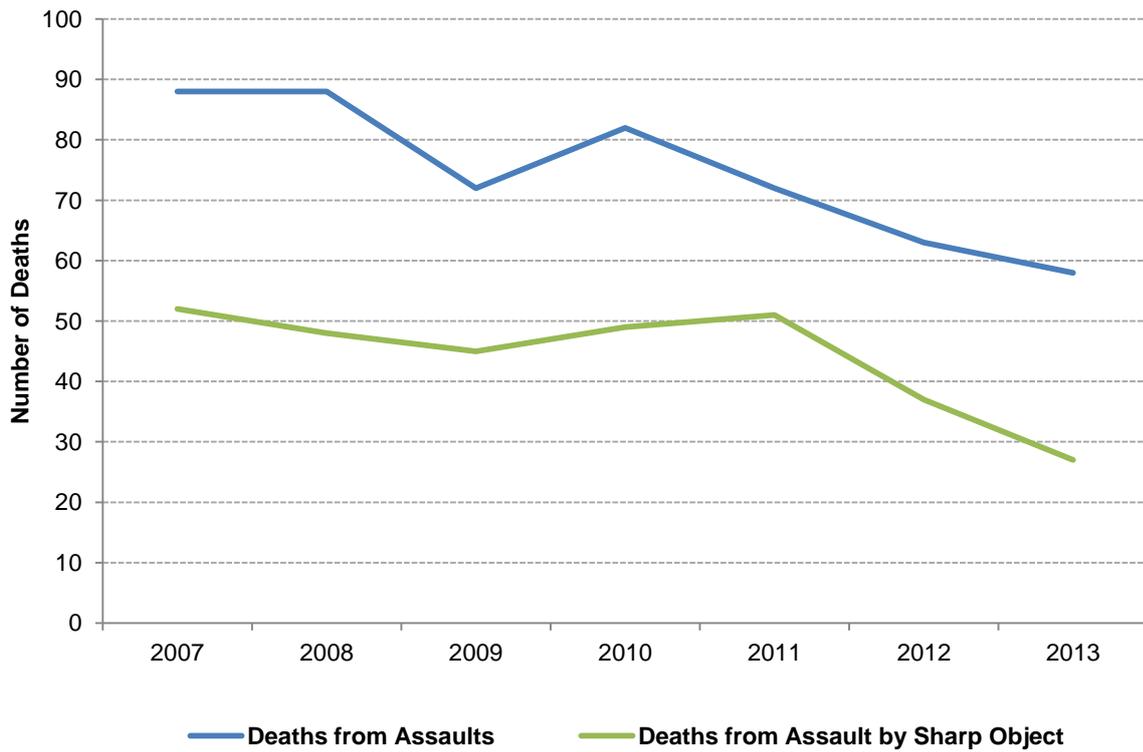
Assaults by sharp object accounted for 19% of all emergency hospital admissions for assault in 2013/14 and approximately 47% of all deaths from assault in 2013. See Chart 8 and 9.

Chart 8 – Emergency hospital admission in Scotland as a result of assault and assault by sharp object, year ending 31 March 2008 - 2014



Source: ISD Scotland, SMR01 data

Chart 9 – Deaths in Scotland as a result of assault and assault by sharp object, year ending December 2007 - 2013



Source: National Records of Scotland (NRS)

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. There were 589 emergency hospital admissions in 2013/14, reflecting an overall decrease (53%) since 2007/08 and 27 deaths in 2013 due to an assault by sharp object, an overall decrease of 48% from 2007.

3.4 Interactive Tables

The interactive tables, E1 to E4, offer in depth information on unintentional injuries by NHS Board, CHP, 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. If required Local Council Area information can be obtained by combining relevant CHP data. See [Appendix A1 – Local Council Area for more information](#).

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. Tables offer information on number of emergency hospital admissions and deaths, and crude rates by cause of assault and by health board. A table is shown at Scotland level, allowing the user to manipulate the data, for example, by selecting sex and year. Trend information is also provided at NHS Board level.

See the '[List of Tables](#)' for the full list of tables. In order to view the interactive tables the security warning option will need to be set to enable this content.

Glossary

Average length of stay	Mean stay per episode (in days) experienced by inpatients within a specialty/significant facility etc over any period of time.
Confidence Interval	Confidence intervals give an indication of the uncertainty around an estimate due to chance variation. For more information and examples, please see the section on 95% Confidence Intervals in the Appendix .
Deprivation Quintile	<p>Deprivation quintiles each contain 20% of the total population in Scotland. Deprivation quintile 1 contains the most deprived 20% of the population, while quintile 5 contains the least deprived 20%.</p> <p>Standardised rates which are presented separately for children and adults have been calculated using deprivation quintiles based on the general population of all ages.</p> <p>See SIMD for more information.</p>
Discharge	A discharge marks the end of an episode of care. Discharges include deaths and transfers to other specialties/significant facilities and hospitals.
Emergency Admission	This occurs when, for clinical reasons, a patient is admitted at the earliest possible time after seeing a doctor.
Emergency admission rate per 100,000 population	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.

Glossary continued

Episode	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.
ICD10	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 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 Scottish Index of Multiple Deprivation (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. Small areas within Scotland (datazones) are ranked by their SIMD score. Further information on the SIMD can be found on the Scottish Government website at http://www.scotland.gov.uk/Topics/Statistics/SIMD
Standardised Discharge Ratio	Expresses the numbers of discharges in each area of interest (e.g. deprivation quintile) 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 quintile) 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 No.	Name	Time period	File & size
1	Deaths as a result of unintentional injury; All ages, adults and children.	Year ending 31 December 2004 - 2013	Excel [111kb]
2	Emergency hospital admission as a result of unintentional injury; All ages, adults and children.	Year ending 31 March 2005 - 2014	Excel [78kb]
3 (adults)	Emergency hospital admissions as a result of unintentional injury, adults aged 15 and over by cause of injury, (a) both sexes, (b) males, (c) females.	Year ending 31 March 2014	Excel [68kb]
3 (children)	Emergency hospital admissions as a result of unintentional injury, children aged under 15 by cause of injury, (a) both sexes, (b) males, (c) females.	Year ending 31 March 2014	Excel [70kb]
4	Deaths as a result of unintentional injury by cause of injury and age group for adults and children.	Year ending 31 December 2013	Excel [50kb]
5	Deaths as a result of unintentional injury, adults aged 15 and over by NHS Board of residence. Number, standardised mortality ratio and confidence interval.	Year ending 31 December 2009 - 2013 Total for 5 year period	Excel [37kb]
6	Emergency hospital admissions as a result of unintentional injury by NHS Board of residence. Number, standardised discharge ratio and confidence interval. Adults, children.	Year ending 31 March 2014	Excel [44kb]
7	Deaths as a result of unintentional injury, adults aged 15 and over by deprivation quintile, number and standardised mortality ratios.	Year ending 31 December 2009 - 2013 Total for 5 year period	Excel [64kb]
8	Emergency hospital admissions as a result of unintentional injury by Community Health Partnership. Number, standardised discharge ratio and confidence interval. Adults, children.	Year ending 31 March 2014	Excel [52kb]
<i>Continued...</i>			

Continued...			
9	<p>Emergency hospital admissions as a result of unintentional injuries by deprivation quintile, presented for all and Road Traffic Accidents (RTA).</p> <p>Number, standardised discharge ratio and confidence interval.</p> <p>Adults, children.</p>	Year ending 31 March 2014	Excel [132kb]
10	<p>Emergency hospital admission as a result of a RTA. Average length of stay and type of RTA.</p> <p>a) Number of emergency hospital admissions as a result of a RTA showing average length of stay for adults and children.</p> <p>Number of emergency hospital admissions as a result of a RTA by type of RTA for adults and children.</p>	Year ending 31 March 2014	Excel [61kb]
11	<p>Number of emergency hospital admissions as a result of unintentional injury by sex and top 10 main diagnosis for Adults and Children.</p>	Year ending 31 March 2014	Excel [174kb]
12	<p>Number of emergency hospital admissions as a result of unintentional injury by selected causes of injury and top 10 main diagnosis for Adults and Children.</p>	Year ending 31 March 2014	Excel [81kb]
13a (Scotland)	<p>Emergency hospital admissions as a result of assault by sex and year.</p>	Year ending 31 March 2008 - 2014	Excel [105kb]
13a (HB)	<p>Emergency hospital admissions as a result of assault by NHS Board and year.</p>	Year ending 31 March 2008 - 2014	Excel [139kb]
13b (Scotland)	<p>Deaths in Scotland as a result of assault by sex and year.</p>	Year ending 31 December 2007 - 2013	Excel [122kb]
13b (HB)	<p>Deaths in Scotland as a result of assault by NHS Board and year.</p>	Year ending 31 December 2007 - 2013	Excel [848kb]

Interactive Tables

Table No.	Name	Time period	File & size
E1 - E2	Emergency hospital admissions as a result of unintentional injury by age group and cause of injury. Interactive table with selection of year, gender, NHS Board of Residence and Community Health Partnership.	Year ending 31 March 2005 - 2014	Excel [8154kb]
E3 - E4	Deaths in Scotland as a result of unintentional injury by age group and cause of injury. Interactive table with selection of year, gender, NHS Board of Residence and Community Health Partnership.	Year ending 31 December 2004 - 2012	Excel [6385kb]

Note: In order to view the interactive tables the security warning option will need to be set to enable this content.

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Further Information

Further information can be found on the [ISD website](#)

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Appendix

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

Many unintentional injuries result neither in death nor hospital admission but are treated by the individual, GPs, at Accident and Emergency departments or by the child's parent or carer. This information is not included in this publication.

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 for NHS Scotland for 2013/14 are 99% complete.

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 2010-2011](#)" [350kb] was published in May 2012. 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) (formerly the General Register Office for Scotland (GROS)). NRS are part of the devolved Scottish Administration. They 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.gro-scotland.gov.uk/statistics/theme/vital-events/deaths/bckgr-info/index.html>

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: <http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/accidental-deaths/the-definition-of-the-statistics>

For information on the impact of this coding change, please see the following link – Table 2. <http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/accidental-deaths/list-of-tables-and-chart>

Revisions since Previous Publication

Hospital admissions for 2012/13 were estimated to be 100% 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.

Changes since Previous Publications

European Standard Population (ESP2013)

Different countries across Europe have different population structures - some have higher percentages of young people, whilst others have a greater proportion of old people. Therefore in order to compare more accurately information on the rates of illness and death it is helpful to adjust the figures for each country to show what would be happening if each country had the same population structure. The European Standard Population (ESP) is a theoretical population adding up to a total of 100,000 which is widely used to produce European age-standardised rates or EASRs.

The ESP was originally introduced in 1976. Eurostat, the statistical institute of the European Union has recognised the need to bring this population structure up to date to reflect changes in population. Following discussion with member states the new ESP (ESP2013) has been created which is based on an average of states' population projections for 2011 - 2030. Statistics providers across the UK, including ISD, now use ESP2013.

The impact of the change from the 1976 version to the 2013 version is substantial. This is due to the way in which the European population has changed between 1976 and the projected average (2011-2030). Therefore it is not appropriate to compare the old methodology with the new methodology and to draw the conclusion that the situation has changed for better or worse. It is important to note that the actual number of people being admitted to hospital or who died will not change due to the European Standard Population revision

The 2013 European Standard Population (ESP2013) has been used to calculate the European Age Standardised Rates (EASRs) within this publication. Previous reports used ESP1976 to calculate EASRs. EASRs calculated using ESP1976 cannot be compared with EASRs calculated using ESP2013. This section contains a worked example of EASRs using both ESP1976 and ESP2013 to show how the rates differ and why they cannot be compared.

Example: Trend in age-standardised emergency admission rates for unintentional injury 2004/05-2013/14

Based on the number of emergency hospital admissions in each of the financial years, the following rates were calculated:

Crude Rate

The crude rate is the total number of admissions (or people with an illness or who die) in a region, divided by the total population of that region, and is normally expressed 'per 1,000', 'per 10,000' or 'per 100,000'.

Making comparisons on the crude rate can be misleading if the age structures of the populations of the countries or regions are quite different. Areas with larger percentages of younger people are unlikely to have as high levels of death as areas with larger percentages of older people – and therefore if we don't adjust for these differences we may draw the wrong conclusion about the health of an area simply because of the age-structure of the population. EASRs allow us to make comparisons between different geographical areas as they allow the effects of having different age structures in either the same population over time or different geographies to be removed.

European Age-Sex Standardised Rate (EASR) using ESP1976

For each 5 year age group, the crude rate is calculated and then the weighted average of all age groups is taken based on the weightings of the 1976 European Standard Population, to give the overall EASR.

European Age-Sex Standardised Rate (EASR) using ESP2013

For each 5 year age group, the crude rate is calculated and then the weighted average of all age groups is taken based on the weightings of the 2013 European Standard Population, to give the overall EASR.

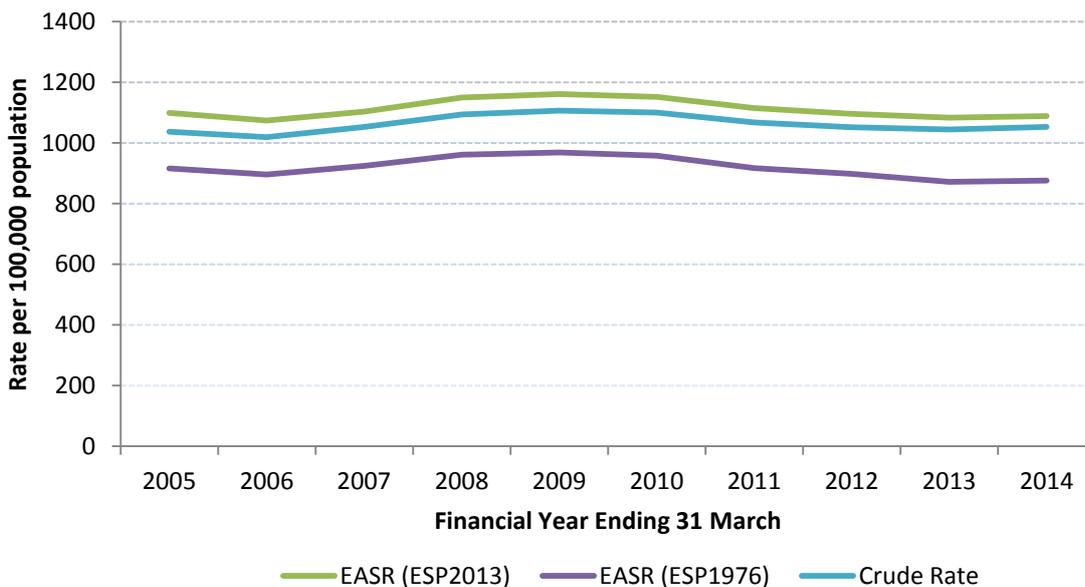
The table and chart below are for illustrative purposes to show how the rates differ.

Table A1.1: Comparison of European Age Standardised Rates (EASRs) of emergency hospital admissions for unintentional injury in adults aged 15 and over using both 1976 and 2013 European Standard Populations, and crude rates, by financial year 2004/05 to 2013/14

	Financial Year Ending 31 March									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Number of Admissions	43,676	43,249	44,961	47,172	48,065	48,142	47,030	46,781	46,583	47,143
EASR (ESP2013)	1099.5	1074.0	1103.3	1149.9	1161.6	1152.2	1115.5	1095.8	1083.9	1088.7
EASR (ESP1976)	916.1	895.7	924.2	961.2	968.8	958.2	917.1	898.7	871.9	876.2
Crude Rate	1037.5	1019.7	1052.5	1094.0	1106.3	1100.5	1067.4	1052.4	1044.3	1053.3

Source: ISD Scotland, SMR01

Figure A1.1: Comparison of European Age Standardised Rates (EASRs) of emergency hospital admissions for unintentional injury in adults aged 15 and over using both 1976 and 2013 European Standard Populations, and crude rates, by financial year 2004/05 to 2013/14



Source: ISD Scotland, SMR01

Notes:

1. The population estimates used in the calculation of rates above are based on the 2011 Census results.
2. The European Standard Population (ESP), which was first used in 1976, was revised in 2013. European Age-Sex Standardised Rates (EASRs) using ESP1976 and ESP2013 are not comparable.
3. European Age-Sex Standardised Rate (EASR), calculated using ESP1976 and using 5 year age groups 0-4, 5-9 up to an upper age group of 85+.
4. European Age-Sex Standardised Rate (EASR), calculated using ESP2013 and using 5 year age groups 0-4, 5-9 up to an upper age group of 90+.
5. The upper age group for the 2013 European Standard Population structure is 95+. However, due to Scotland population estimates data being unavailable for the 95+ age group for all required geographies and for all required years, the upper age group used is 90+. This is an amalgamated age group containing both the 90-94 and 95+ age groups.

From this example (see Table A1.1 and Figure A1.1 above), it can be seen that the EASR (using ESP2013) is the highest of the three rates. The Crude Rate is in the middle and the EASR (using ESP1976) is the lowest. Admissions for unintentional injury are higher in older age groups. ESP2013 differs from ESP1976 by its inclusion of fewer young people and more people from older age groups. Therefore, in this example, the EASRs calculated using ESP2013 are higher than those calculated using ESP1976. The trends shown for each method of calculating rates are similar, giving confidence to trend analysis. EASRs (using ESP1976) are not comparable with EASRs (using ESP2013). For example, comparing the EASR (using ESP1976) for calendar year 2012 in a report issued in 2013, to an EASR (using ESP2013) relating to the same year 2012, in a report issued in 2014, is meaningless. On this basis, findings from this publication are not comparable with previous ISD reports.

Further information can be obtained from:

ISD website: <http://www.isdscotland.org/Products-and-Services/GPD-Support/>

ONS website: <http://www.ons.gov.uk/ons/guide-method/user-guidance/health-and-life-events/revised-european-standard-population-2013--2013-esp-/index.html>

European standardised rates – Table 1 and 2

Tables 1 and 2 present European Age Standardised Rates for deaths from unintentional injury (table 1) and emergency hospital admissions for unintentional injury (table 2). In this year's report we have provided some additional breakdowns by gender. 95% Confidence intervals have also been provided to assist interpretation of the rates.

Assaults

Table 13a (Health Board) and Table 13b (Health Board) now include crude rates per 100,000 population which aids interpretation of the figures when making comparisons across the NHS boards. Table 13a (Scotland) and Table 13b (Scotland) now include the category 'gun assaults' together with the category 'other assaults'. Numbers of gun assaults have reduced over recent years and numbers of emergency hospital admissions for gun assaults in addition to deaths from gun assaults are now very small. This change also brings the Scotland tables in line with the categories used in the Health Board tables.

For further details on revisions to publications please see '[ISD revisions policy](#)'.

Injuries in the Home

Location of injury information was removed from the 2013 Unintentional Injuries publication due to concerns over quality and completeness. The main concerns were:

- The diagnosis (ICD10) 4th digit, which denotes the location, does not always correspond to the emergency admission type of location.
- The use of emergency admission type 35 (Patient injury – Other injury), 'Not Elsewhere Classified' (NEC) and diagnosis (ICD10) 4th digit code (*Unspecified place of occurrence*) are used heavily.

After further consultation with users of the data information on location of injury was reintroduced in the 2014 Unintentional Injuries publication but presented in a different way

to previously published information. Although there are still issues with the recording of this information, particularly the large numbers of ‘unknown’ or ‘unspecified’ cases, the presentation of the data under the categories ‘Home/Other/Unknown’ instead of the previously presented categories ‘Home/Other’ is considered to be more informative for users.

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:

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

For injuries coded as ICD10 V01-V99 (Transport Accidents) and Y85-Y86 (Sequelae of Transport/Other Accidents) the 4th digit does not denote ‘place of occurrence’. Emergency hospital admissions and deaths resulting from such injuries will therefore not include a location of injury breakdown within the tables in this publication. These cases will be counted under the cause of injury categories; ‘road transport accidents’ (admissions), ‘land transport accidents’ (deaths) or ‘other’ (admissions and deaths) depending on their ICD10 coding and admission type coding. Cases counted under ‘other’ have an additional location of injury category of ‘not applicable’.

Deaths from transport accidents other than land (e.g. ICD10 codes V90 - V99) and from Y85-Y86 will also be counted in the ‘other’ cause of injury category. These cases also have an additional location of injury category of ‘not applicable’ because the 4th digit does not denote the ‘place of occurrence’ as specified in the above table.

The Medical Certificate of the Cause of Death does not have a separate section for recording the place of occurrence of the event which caused the death (if that is different from the actual place of death). However, such information is occasionally included in the ‘cause of death’ details. As a result it is likely that deaths with ‘unknown’ place of occurrence will make up a large proportion of cases.

Cause of Injury

The cause of injury classifications are determined using guidance from the International Collaboration Effort (ICE) on injury statistics (see [table](#) 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.

Table 10, which shows hospital admissions for road traffic accidents, 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.

Deaths - Unintentional Injury	ICD10 (from 2000)
Table 1 – Deaths	
Table 5 – All injuries only	
Table 7 – All injuries only	
All injuries	V01-X59, Y85-Y86
Land transport accidents	V01-V89
Table 4 - Deaths by cause	
Land transport accidents	V01-V89
Poisonings	X40-X49
Falls	W00-W19
Struck by, against	W20-W22, W50-W52
Crushing	W23
Scalds	X10-X19
Accidental exposure	X58-X59
Other	Other in range V01-X59, Y85-Y86 that is not included in any of the other categories in the table.

Deaths - Assault	ICD10 (from 2000)
Table 13b – Deaths by cause	
All assaults	X85-Y09
Assault by sharp object	X99
Other	Other in range X85-Y09 that is not included in any of the other categories in the table.

Emergency Hospital Admissions

The SMR01 codes used for identifying emergency hospital admissions due to an unintentional injury and assault are outlined below.

Admissions - Unintentional Injury	SMR01 admission code(s) and ICD10 codes
Table 2 - Emergency hospital admissions Table 6 - (all injuries only)	
All injuries	SMR01 admission type code 32 - Patient injury - road traffic accident SMR01 admission type codes 33-35 and ICD10 codes V01-X59, Y85-Y86 33 - Patient injury - home incident 34 - Patient injury - incident at work 35 - Patient injury - other injury
Road traffic accidents	SMR01 admission type code 32 32 - Patient injury - road traffic accident
Table 3 - Emergency hospital admissions by cause	
Road traffic accidents	SMR01 admission type code 32 32 - Patient injury - road traffic accident
Poisonings	Admission type code 33-35 and ICD10 codes X40-X49 33 - Patient injury - home incident 34 - Patient injury - incident at work 35 - Patient injury - other injury
Falls	Admission type code 33-35 and ICD10 codes W00-W19 33 - Patient injury - home incident 34 - Patient injury - incident at work 35 - Patient injury - other injury
Struck by, against	Admission type code 33-35 and ICD10 codes W20-W22, W50-W52 33 - Patient injury - home incident 34 - Patient injury - incident at work 35 - Patient injury - other injury
Crushing	Admission type code 33-35 and ICD10 code W23 33 - Patient injury - home incident 34 - Patient injury - incident at work 35 - Patient injury - other injury
Scalds	Admission type code 33-35 and ICD10 code X10-X19 33 - Patient injury - home incident 34 - Patient injury - incident at work 35 - Patient injury - other injury
<i>Continued...</i>	

Admissions - Unintentional Injury	SMR01 admission code(s) and ICD10 codes
<i>...Continued</i>	
Accidental exposure	Admission type code 33-35 and ICD10 codes X58-X59 33 - Patient injury - home incident 34 - Patient injury - incident at work 35 - Patient injury - other injury
Other	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 33 - Patient injury - home incident 34 - Patient injury - incident at work 35 - Patient injury - other injury

Admissions - Assault	SMR01 admission code(s) and ICD10 codes
Table 13a - Emergency hospital admission by cause	
All assaults	SMR01 admission type codes 33-35 and ICD10 codes X85-Y09 33 - Patient injury - home incident 34 - Patient injury - incident at work 35 - Patient injury - other injury
Assault by sharp object	Admission type code 33-35 and ICD10 code X99 33 - Patient injury - home incident 34 - Patient injury - incident at work 35 - Patient injury - other injury
Other	Admission type code 33-35 and other ICD10 codes in the range X85-Y09 that are not included in any of the other categories in the table

Trend information

Tables presenting trend information cover the following time series:

Table 1	2004 - 2013
Table 2	2004/05 - 2013/14
Table 13A	2007/08 - 2013/14
Table 13B	2007 - 2013
Table E1, E2	2004/05 - 2013/14
Table E3, E4	2004 - 2013

Local Council Area

Information by LCA can be obtained by combining relevant CHP data (see table below).
The numbering of the interactive tables is as follows:

- E1 - Emergency hospital admissions by NHS Board
- E2 - Emergency hospital admissions by CHP
- E3 - Deaths by NHS Board
- E4 - Deaths by CHP

	Community Health Partnership (CHP)	Local Council Area (LCA)	Best fit NHS Board¹
1	East Ayrshire Community Health Partnership	East Ayrshire	Ayrshire & Arran
2	North Ayrshire Community Health Partnership	North Ayrshire	
3	South Ayrshire Community Health Partnership	South Ayrshire	
4	Scottish Borders Community Health & Care Partnership	Scottish Borders	Borders
5	Dumfries & Galloway Community Health Partnership	Dumfries & Galloway	Dumfries & Galloway
6	Dunfermline & West Fife Community Health Partnership	Fife	Fife
7	Glenrothes & North East Fife Community Health Partnership		
8	Kirkcaldy & Levenmouth Community Health Partnership		
9	Clackmannanshire Community Health Partnership	Clackmannanshire	Forth Valley
10	Falkirk Community Health Partnership	Falkirk	
11	Stirling Community Health Partnership	Stirling	
12	Aberdeen City Community Health Partnership	Aberdeen City	Grampian
13	Aberdeenshire Community Health Partnership	Aberdeenshire	
14	Moray Community Health & Social Care Partnership	Moray	
<i>Continued...</i>			

Community Health Partnership (CHP)		Local Council Area (LCA)	Best fit NHS Board ¹
<i>Continued...</i>			
15	East Dunbartonshire Community Health Partnership	East Dunbartonshire	Greater Glasgow & Clyde
17	East Renfrewshire Community Health & Care Partnership	East Renfrewshire	
18	Inverclyde Community Health & Care Partnership	Inverclyde	
20	Renfrewshire Community Health Partnership	Renfrewshire	
23	West Dunbartonshire Community Health & Care Partnership	West Dunbartonshire	
25	Argyll & Bute Community Health Partnership	Argyll & Bute	Highland
29	North Lanarkshire Community Health Partnership	North Lanarkshire	Lanarkshire
30	South Lanarkshire Community Health Partnership	South Lanarkshire	
31	East Lothian Community Health Partnership	East Lothian	Lothian
32	Midlothian Community Health Partnership	Midlothian	
35	West Lothian Community Health & Care Partnership	West Lothian	
36	Orkney Community Health Partnership	Orkney Islands	Orkney
37	Shetland Community Health Partnership	Shetland Islands	Shetland
38	Angus Community Health Partnership	Angus	Tayside
39	Dundee Community Health Partnership	Dundee City	
40	Perth & Kinross Community Health Partnership	Perth & Kinross	
41	Western Isles Community Health and Social Care Partnership	Eilean Siar	Western Isles
42	Edinburgh Community Health Partnership	Edinburgh, City of	Lothian
43	Glasgow City Community Health Partnership	Glasgow City	Greater Glasgow & Clyde
44	Highland Health and Social Care Partnership	Highland	Highland

¹On 1st April 2014 NHS Board boundaries will align with Local Council Areas. Until then there are several discrepancies with NHS Board/LCA boundaries and the table above shows the NHS Boards that are the 'best fit' to the current LCA boundaries.

Population estimates

Mid-year population estimates for 2013 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. 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 quintile) and the number of expected deaths is 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. 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 quintile) 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 1082.2 with 95% confidence intervals of 1072.6-1091.9, we can say there is a 95% certainty the true admission rate lies between 1072.6 and 1091.9.

If we wish to compare this to a standardised admission rate for a different time period, for example a rate of 1053.4 with 95% confidence interval of 1044.4-1062.5, we can say that the rate of 1082.2 (95% confidence intervals 1072.6-1091.9) is statistically significantly higher than the rate of 1053.4 (95% confidence intervals 1044.4-1062.5) due to there being no overlap of the confidence intervals for these rates.

Scottish Index for Multiple Deprivation 2012 (SIMD)

The Scottish Index of Multiple Deprivation (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. Small areas within Scotland (datazones) are ranked by their SIMD score. For the purposes of this report the population have been divided into five equal groups (quintiles). Quintile 1 to quintile 5 represent areas with decreasing levels of deprivation. Further information on the SIMD can be found on the Scottish Government website at

<http://www.scotland.gov.uk/Topics/Statistics/SIMD>

Disclosure

Where statistics provide information on small numbers of individuals, Information Services Division (ISD) 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 celina.davis@nhs.net.

A2 – Publication Metadata (including revisions details)

Metadata Indicator	Description
Publication title	Unintentional Injuries
Description	Summary of admissions to hospital and deaths in Scotland from unintentional injuries and assaults.
Theme	Health and Social Care
Topic	Unintentional Injuries
Format	Website, Excel
Data source(s)	SMR01 hospital discharges, NRS deaths
Date that data are acquired	December 2014
Release date	3 March 2015
Frequency	Annual
Timeframe of data and timeliness	Data ranges from 2004-2013 (deaths) and 2004/05-2013/14 (admissions).
Continuity of data	Data are reported from 2004.
Revisions statement	Any incomplete data due to shortfalls in submissions from NHS boards are revised at the next publication.
Revisions relevant to this publication	Details of revisions that have taken place since the previous publication can be found in Appendix A1 – Background Information .
Concepts and definitions	Appendix A1 – Background Information .
Relevance and key uses of the statistics	Making information publicly available for planning, provision of services, research and provision of comparative information.
Accuracy	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.
Completeness	Hospital admissions data for NHS Scotland for 2013/14 are estimated to be 99% complete at time of publication.
Comparability	Cause of injury classifications are determined using guidance from the International Collaboration Effort (ICE) on injury statistics.
Accessibility	It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines .
Coherence and clarity	Unintentional Injuries tables are accessible via the ISD website. Drop down menus are presented where appropriate e.g. for selection of geography, year and gender.

Value type and unit of measurement	Numbers, crude, age-specific and standardised rates are presented.
Disclosure	The ISD protocol on Statistical Disclosure Protocol is followed.
Official Statistics designation	National Statistics.
UK Statistics Authority Assessment	UK Statistics Authority Assessment
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A3 – Early Access details (including Pre-Release Access)

Pre-Release Access

Under terms of the "Pre-Release Access to Official Statistics (Scotland) Order 2008", ISD are 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

A4 – 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](#).

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.