Alcohol-Related Hospital Statistics
Scotland 2016/17
Publication date – 21 November 2017
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Introduction
This publication provides an annual update to figures on the alcohol-related inpatient and day case activity taking place within general acute hospitals and psychiatric hospitals in Scotland. This release covers general acute hospital activity for the financial years 1981/82 to 2016/17 and psychiatric hospital admissions from 1997/98 to 2015/16.

Using this publication
Data accompanying this report is published in a Tableau electronic dashboard. This interactive dashboard has been designed to allow users to visualise figures included in this report. An Excel workbook is also available for users wishing to directly access detailed data that has been used to create the dashboard.

Background
Excessive consumption of alcohol can result in a wide range of health problems. Some may occur after drinking over a relatively short period, such as acute intoxication (drunkenness) or poisoning (toxic effect). Others develop more gradually, only becoming evident after long-term heavy drinking, such as damage to the liver and brain. In addition to causing physical problems, excessive alcohol consumption can lead to mental health problems such as alcohol dependency. This publication reports on conditions that are entirely due to alcohol. Alcohol can also play a factor in a range of other conditions such as injuries; epilepsy; cancer. Estimates of the number of inpatient and day case hospitalisations are based on counts where alcohol-related conditions are diagnosed during the hospital stay (see diagnostic codes Appendix A1). Attendances at Accident and Emergency that do not result in an admission to hospital are not included.

There are two types of hospitals where patients with alcohol-related conditions can be admitted. General acute hospitals are facilities in which patients receive care under specialties other than mental health, maternity, neonatal and geriatric long stays. A small proportion of patients receive treatment for alcohol-related mental health conditions in a psychiatric hospital. Hospitalisations data from these two settings come from two sources, both of which are included in this report (see data sources Appendix A1).

This publication includes reporting of three types of hospital activity measures; continuous inpatient stays (referred to as ‘stays’), patient counts and new patient counts. Stays are distinct alcohol-related hospital admissions which occur within a year. Counts of patients are the number of people who have had at least one alcohol-related hospital admission during a particular year. New patient counts describe how many people each year have an alcohol-related admission that have not had an alcohol-related admission in the past 10 years (see Glossary for additional detail).

European Age-sex Standardised Rates (EASR)
This publication includes rates of activity presented as European Age-sex Standardised Rates (EASR). Comparisons of rates that have not been standardised can be misleading when the age structures of populations differ between geographical areas or where they have changed over time. For example alcohol-related hospital admissions are more common in males and older people. Adjustment for age and sex using the EASR prevents misleading comparisons between areas that may have populations with different age or gender structures.

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Main points

- In 2016/17 there were 36,235 alcohol-related hospital admissions (stays) in general acute hospitals in Scotland. These relate to 24,060 Scottish residents who had at least one admission to hospital with an alcohol-related condition. Of these people 11,777 were admitted for an alcohol-related admission for the first time or had not been admitted to hospital for an alcohol-related admission in the previous 10 years.

- In 2016/17 the alcohol-related stay rate per 100,000 population in general acute hospitals was 685.2 an increase compared to the previous year (673.2). Prior to this there had been a steady decline in alcohol-related stays since 2007/08.

- The rate of alcohol-related stays in psychiatric hospitals in 2015/16 is unchanged from previous year (2014/15) at 54.4 per 100,000 population.

- Stays in general acute hospitals for alcohol liver disease continues to rise for the fourth consecutive year, with a rate of 140.0 stays per 100,000 population during 2016/17. This is similar to 2007/08 (140.1 per 100,000 population), which is the highest recorded since 1997/98.

- There is a difference in the pattern of alcohol-related admissions by deprivation. In the general acute setting in 2016/17, there were nearly eight times as many people (per 100,000 population) admitted from the most deprived areas compared to the least deprived areas. In the psychiatric setting in 2015/16, the difference was more pronounced, with just over 15 times as many people from the most deprived areas.
Results and Commentary

Overall hospital admissions

In 2015/16, 92% of the alcohol-related admissions in Scotland were to general acute hospitals and 8% to psychiatric hospitals.

The European Age-Sex Standardised Rate (EASR) for alcohol-related general acute hospital stays was 685.2 stays per 100,000 population in 2016/17. This was 1.8% higher than the previous year, an absolute increase of 12 stays per 100,000 population.

The European Age-Sex Standardised Rate for alcohol-related psychiatric hospital stays was 54.4 stays per 100,000 population in 2015/16. This was the same as in the previous year.

General acute hospital admissions

The section below focuses on general acute hospitals only, where the majority of alcohol-related hospital admissions take place; psychiatric hospital admissions are covered in a later section.

National trends from 1981/82 to 2016/17

The rate of alcohol-related hospital stays and patients consistently increased from 1981/82 to a peak in 2007/08 and reduced thereafter until 2015/16. In 2016/17 there has been an increase in the rate of hospital stays and patients. (Figure 1).

Despite a 20% reduction (an absolute decrease of 170.3 stays per 100,000 population) between 2007/08 and 2016/17, the 2016/17 rate of stays per 100,000 population remains substantially (4.4 times) higher than it was in 1981/82. In 2016/17 over three times as many people were admitted to hospital at least once for an alcohol-related condition compared to 36 years ago. Over the same time period the average number of admissions per patient per year increased from 1.1 in 1981/82 to 1.5 in 2016/17.

Figure 1: Alcohol-related hospitalisation rates for general acute hospitals, Scotland, financial years 1981/82 to 2016/17

1 European age sex standardised rates (EASR). The EASR is calculated using 2013 European Standard Population

Provisional
In 1991/92 (the first year such figures were calculated) over two thirds (69%) of patients with an alcohol-related admission were classified as new patients (patients who had not been admitted for an alcohol-related condition in the previous 10 years). In 2016/17 just under half (49%) of the patients admitted were classified as new.

Gender and Age

Alcohol-related hospital admissions are around three times more common in males compared to females. The rate of hospital stays in 2016/17 was 989.1 per 100,000 population for males compared to 381.4 per 100,000 population for females. Males accounted for 71% of alcohol-related hospital stays in 2016/17.

Over time the rates of hospitalisation have shown broadly similar patterns for both males and females. Since the peak in 2007/08 the hospital stays rate has decreased by 21% for males and 17% for females (Figure 2).

![Figure 2: Alcohol-related hospital stay rates\(^1\) by gender for general acute hospitals, Scotland, financial years 1997/98 to 2016/17\(^p\)](image)

\(^1\) European age sex standardised rates (EASR). The EASR is calculated using 2013 European Standard Population

\(^p\) Provisional

Alcohol-related admission rates in general acute hospitals increase with age, tailing off in those aged 65 years and over for males and 55 an over for females (Figure 3).

In 2016/17, the highest rate of stays in general acute hospitals for males was 1,740.9 per 100,000 population in the 55-64 year age group. The highest rate for females was in a slightly younger age group; 668.0 per 100,000 population in the 45-54 year old age group (Figure 3).
Since 1997/98 the rate of alcohol-related general acute hospital stays increased in all age groups for both males and females to a peak in 2007/08. Thereafter a reduction was observed to the current year (2016/17) with the exception of the 55-64 age group for females whose rate in 2016/17 is greater than in 2007/08 (Figure 4). The size of these reductions has not been equal. The largest reductions in the rate of hospital stays were seen in those aged less than 25 years, for males and aged 15-24 for females where rates have dropped by 50% or more since 2007/08.

Reductions in stay rates have been smaller in the older age groups. For example males aged 65 years or more had around a 10% reduction and for females the rate reduced by only 1%.

With the larger decreases in the younger age groups over time, the rate of stays per 100,000 population in the male over 65 age group has overtaken the previously lower 35-44 age group; while the female over 65 age group rate of stays has overtaken both the 15-24 and 25-34 age groups (Figure 4).

1 European age sex standardised rates (EASR). The EASR is calculated using 2013 European Standard Population
2 Provisional
Psychiatric hospital admissions

Alcohol-related psychiatric hospital activity data is not available for the same time period as for general acute hospitals. This publication reports on trends from financial year 1997/98 up to the end of financial year 2015/16.

Although alcohol-related admissions to psychiatric hospitals make up the minority of all alcohol-related admissions around one in seven of all psychiatric hospitalisations have at least one alcohol-related diagnosis.²

National trends from 1997/98 to 2015/16

Alcohol-related hospital admissions to psychiatric hospitals have decreased since 1997/98 (Figure 5). The age and sex adjusted rate of stays fell by 47% between 1997/98 and 2015/16, from 103.0 to 54.4 stays per 100,000 population. This does not necessarily reflect falls in the prevalence of alcohol related problems, since similar reductions have been seen for all psychiatric hospitalisations. These falls have occurred over a time period where there has been a shift away from delivering care for patients with mental health problems within a hospital setting to providing these services in the community.

In contrast to the acute hospital setting, where the average number of admissions per patient has increased, the average admissions per patient within the psychiatric setting decreased slightly from 1.3 in 1997/98 to 1.2 in 2015/16.

Figure 5: Alcohol-related hospitalisation rates¹ for psychiatric hospitals, Scotland, financial years 1997/98 to 2015/16⁰

1 European age sex standardised rates (EASR). The EASR is calculated using 2013 European Standard Population
² Provisional

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² Mental Health Hospital Inpatient Care: Trends up to 31st March 2016
http://isdscotland.scot.nhs.uk/Health-Topics/Mental-Health/Publications/2017-03-14/Section-2-2-Age-Gender.xls?13:34:51
Gender and Age

As with general acute hospital admissions, the rate of alcohol-related psychiatric hospital stays is consistently greater in males compared to females. The rate of hospital stays in 2015/16 was 76.7 per 100,000 population for males, over twice the rate for females at 32.1 per 100,000 population. Psychiatric admissions are generally more common in males compared to females, though the male predominance is more pronounced for alcohol-related conditions than for other conditions.²

The highest rate of alcohol-related stays within psychiatric hospitals are seen in those aged 35-44 years for males and 45-54 years for females (Figure 6).

Alcohol-related psychiatric hospital stay rates per 100,000 population have decreased over time across all ages and genders with the exception of the under 15 age group which remains the same (Figure 6). The fall in rates are largest for both males and females aged 15-24, a similar pattern also seen for general acute hospitals.

Figure 6: Alcohol-related hospital stay rates¹ by gender and age group
Scotland, psychiatric hospitals, financial years 1997/98 to 2015/16²

¹ European age sex standardised rates (EASR). The EASR is calculated using 2013 European Standard Population
² Provisional
Geographical variation (Acute and Psychiatric Settings)

There is variation in the rate of alcohol-related admissions by NHS Board and local authority. Differences in service delivery models, local policy and relative levels of deprivation across Scotland are likely to account for some of this variation. Figure 7 shows the latest alcohol-related stay rates for general acute admissions and psychiatric admissions for each of the Scottish NHS Boards.

**Figure 7: Alcohol-related hospital stay rates\(^1\) by NHS Board and hospital setting**

**General acute hospitals 2016/17\(^p\)**

**Psychiatric hospitals 2015/16\(^p\)**

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\(^1\) European age sex standardised rates (EASR). The EASR is calculated using 2013 European Standard Population

\(^p\) Provisional
Trends observed in Scotland overall are largely repeated within local areas, although often showing more variable patterns from year to year. All NHS Boards have seen a reduction in the rate of alcohol-related stays in general acute hospitals since the peak of activity in 2007/08. NHS Boards Ayrshire & Arran, Greater Glasgow & Clyde and Lanarkshire have high admission rates in both a general acute and psychiatric hospital setting.

Variation between the NHS Boards with the highest and lowest rates of alcohol-related hospital stays has been evident over time. In 2016/17, the highest general acute hospital stay rate (in NHS Greater Glasgow and Clyde) was a little over double the lowest rate (NHS Dumfries and Galloway).

In general nearly all NHS Boards have had reductions in psychiatric alcohol-related stays and patient rates since 2007/08. The size of the reduction has been smaller in NHS Boards where rates are higher, leading to an increase in differences between areas with highest and lowest admission rates. In 2007/08 (discounting Island boards where admission rates are very low) the stay rate in psychiatric hospitals was five times greater in the NHS Board with the highest admission rate and in 2015/16 the rate was over seven times greater.

NHS Island boards (Orkney, Shetland and Western Isles) have lower psychiatric hospital admission rates for alcohol-related conditions; this is likely to reflect models of service delivery rather than levels of harm.
Deprivation

The following section shows variations in alcohol-related admissions to general acute and psychiatric hospital admissions by deprivation in Scotland.\(^3\)

In both the general acute and psychiatric settings there is a clear correlation between levels of deprivation in an area and rates of alcohol-related admissions. All activity measures (stays, patients and new patients) increase with increased levels of deprivation. Figure 8 illustrates how alcohol-related stay rates have varied over time across each of the deprivation deciles.

**Figure 8: Alcohol-related hospital stay rates\(^1\) by SIMD decile and hospital setting Scotland, Financial years 2007/08 to latest available figures**

<table>
<thead>
<tr>
<th>General Acute Hospitals</th>
<th>Psychiatric Hospitals</th>
</tr>
</thead>
</table>

1 European age sex standardised rates (EASR). The EASR is calculated using 2013 European Standard Population

In 2016/17, in the general acute setting, there were nearly nine times as many stays (per 100,000 population) and nearly eight times as many people (per 100,000 population) with at least one alcohol-related admission, when comparing those living in the most deprived areas of Scotland to those living in the least deprived areas. For psychiatric alcohol-related admissions the inequality is even more pronounced, in 2015/16 the stay rates in the most deprived areas of Scotland were just over 16 times higher than those in the least deprived areas and the patient rates were just over 15 times higher.

Over time the increases and subsequent reductions in alcohol-related stays have been more marked in the more deprived areas. There continues to be an inequality gap for alcohol related admissions between those living in the most and least deprived parts of Scotland.

Since 2007/08 the largest reductions in the rate of stays, patients and new patient admissions to general acute hospitals have been seen in the more deprived deciles. The past two latest years show small increases for the rate of stays in the most deprived deciles (Figure 9).

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3 The Scottish Index of Multiple Deprivation (SIMD) ranking can be used to divide the Scottish population into ten groups (deciles). Each decile represents the same number of people; those living in areas in decile 1 live in the most deprived areas of Scotland and those in decile 10 live in the least deprived.
Type of admission

As emergency admissions are by definition unplanned they can lead to unpredictable demands on hospital resources such as staff or available beds.

In 2016/17, within the general acute setting, 93% of the alcohol-related inpatient stays resulted from emergency admissions. The percentage of alcohol-related admissions that were emergencies has not varied significantly since 1997/98 and has consistently been above 90%.

A smaller proportion of alcohol-related admissions to psychiatric hospitals were emergencies. In 2015/16, within the psychiatric hospital setting, 47% of the stays were emergencies.

Specific alcohol related conditions

The conditions most commonly recorded during alcohol-related hospital admissions are those within the category ‘mental and behavioural disorders due to the use of alcohol’. This category covers a range of diagnoses such as acute intoxication and harmful use of alcohol. It also includes some conditions generally associated with longer term alcohol misuse such as alcohol dependence and withdrawal states.

The second most prevalent group of diagnoses are those associated with alcoholic liver disease, followed by toxic effects of alcohol.

Figure 10 shows the inpatient stay rates for all conditions and the three most common conditions recorded during alcohol-related admissions in general acute hospitals.

Hospital records can include up to six diagnostic codes; this publication reports on hospitalisations that include one or more alcohol-related diagnostic codes in any of the diagnostic code positions.
Figure 10: Alcohol-related hospital stay rates\(^1\) to general acute hospitals by diagnosis group, Scotland, Financial years 1997/98 to 2016/17\(^p\)

![Graph showing alcohol-related hospital stay rates](image)

\(^p\) Provisional

\(^1\) European age sex standardised rates (EASR). The EASR is calculated using 2013 European Standard Population (Acute) – Rates calculated using general acute hospital activity only

**Mental and behavioural disorders due to use of alcohol**

There are a number of separate diagnostic codes that form the category ‘mental and behavioural disorders due to the use of alcohol’.

The relative proportions of these diagnoses vary between the acute and psychiatric setting. Within general acute hospitals, stays with a diagnosis of harmful use or acute intoxication are the most common of the mental and behavioural disorders due to use of alcohol. Within the psychiatric setting stays with diagnosis of alcohol dependence are the most common, followed by harmful use, then psychotic and amnesic disorders.

Figure 11 shows how the rate of stays, in general acute hospitals, for specific conditions within mental and behavioural disorders due to the use of alcohol, compared over time. Harmful use and acute intoxication are the most common diagnoses.
Figure 11: Mental and behavioural disorders due to use of alcohol stay rates\(^1\) to general acute hospitals by specific diagnosis code, Scotland, Financial years 1997/98 to 2016/17\(^p\)

![Graph showing stay rates per 100,000 population for different alcohol-related conditions from 1997/98 to 2016/17.]

\(^p\) Provisional

\(^1\) European age sex standardised rates (EASR). The EASR is calculated using 2013 European Standard Population (Acute) – Rates calculated using general acute hospital activity only

Harmful use, acute intoxication and toxic effects of alcohol

Local variation in coding of medical records can make understanding the changing patterns of activity more difficult. Patterns of hospital activity for conditions such as harmful use, acute intoxication and toxic effects of alcohol, in particular, can be influenced by the interpretation and application of national coding and terminology guidance.

Hospital admissions with a diagnosis of harmful use reduced markedly from 2010/11 to 2011/12 at the same time as the rates with a diagnosis of acute intoxication increased. These changes coincided with the issue of national coding guidance relating to these conditions.\(^4\)

This guidance is likely to have influenced the application of these diagnostic codes contributing to the increase in admissions for acute intoxication and reduction in harmful use.

Withdrawal state

Alcohol withdrawal is a group of symptoms which can occur when an individual reduces or stops alcohol use after long periods of use. It can be accompanied by convulsions. Although rates of inpatient stays and patients with a diagnosis of withdrawal state are comparatively low, the rate of stays with this diagnosis code has increased since 1997/98 in the general acute setting (Figure 11). Psychiatric hospital stays which include a diagnosis of withdrawal state are also low compared with the other alcohol-related psychiatric diagnoses but have shown reductions since 1997/98.

Alcohol dependence

Inpatient stay rates for alcohol dependence have remained comparatively low since 1997/98, fluctuating little in general acute hospitals but showing a steady decline in psychiatric hospitals. Despite the comparatively low rate in 2015/16, 71% of the alcohol-related psychiatric stays included a diagnosis of alcohol dependence syndrome.

Alcoholic liver disease

There are several diagnostic codes that make up the classification alcoholic liver disease; these include reversible conditions such as fatty liver disease as well as conditions where damage to the liver may be longer lasting, such as cirrhosis and hepatitis. Hepatic (liver) failure is an end-stage event that results from severe liver damage.

Over time, admissions with a diagnosis of alcoholic liver disease have not shown the same pronounced increase then decrease that has been seen for total alcohol-related conditions (Figure 12). Figure 10 shows that the rate of hospital stays for this condition are low compared to other alcohol related problems. However they have increased by 68% since 1997/98, from 83.2 to 140.0 stays per 100,000 population in 2016/17.

Between 2007/08 and 2012/13 the rate declined slightly. However over the last four years the rate has risen again, increasing by over 13% since 2012/13 and reaching the levels seen in 2007/08.

Figure 12: Alcoholic Liver Disease stay rates\(^1\) to general acute hospitals by specific diagnosis code, Scotland, Financial years 1997/98 to 2016/17\(^p\)

In 2016/17 cirrhosis was the most commonly recorded of the alcoholic liver disease diagnoses. Rates of general acute hospitals stays which include a diagnosis of cirrhosis show a relatively consistent increase since 2007/08. Over the same time period the rate of new patient admissions has increased, from 3.5 per 100,000 population in 2007/08 to 9.2 per 100,000 population in 2016/17. Since 2007/08 the average number of stays per patient, for patients with a diagnosis of cirrhosis, has increased from 1.5 stays to 1.8 stays per patient.
Since 2007/08 general acute stays including a diagnosis of unspecified alcoholic liver disease have reduced. This may be linked to increased use of less invasive diagnostic procedures, such as liver scanning, and is likely to some degree to account for the increases seen with cirrhosis admissions.

Over the last five years, hospital activity figures show small increases in the rate per 100,000 population of new patients having admissions with a diagnosis of alcoholic liver disease in a general acute hospital, from 18.5 in 2011/12 to 20.7 in 2016/17.

Alcohol Related Brain Damage (ARBD)

Excessive drinking over a period of years may lead to a condition known as Alcohol Related Brain Damage. This condition can cause problems with memory, learning and other cognitive skills.

Admissions with a diagnosis of Alcohol Related Brain Damage are comparatively low: the stay rate has shown a steady increase since 1997/98 in the general acute setting from 12.3 per 100,000 population to 17.1 per 100,000 population in 2016/17. Psychiatric hospital stays which include a diagnosis of Alcohol Related Brain Damage are also low compared with the other alcohol-related psychiatric diagnoses and have shown reductions in the rate of stays from 6.4 in 1998/99 to 3.0 in 2006/07. Since then stay rates have been fairly consistent around 3.0.

Toxic effect of alcohol

Admissions to general acute hospitals with a diagnosis of toxic effect of alcohol are low: the rate of stays in 2016/17 was 47.1 stays per 100,000 population. However, this is the only condition where activity is consistently higher for females compared to males. There were 50.2 stays per 100,000 females and 43.9 stays per 100,000 males.
Glossary

Admissions
This term is used as a generic description of various measures of hospital activity which cover stays, patients and new patients.

Alcohol-related diagnosis
This refers to conditions known to be a direct consequence of alcohol consumption. Codes used in the analyses are provided in Appendix A1.

Continuous Inpatient Stay (CIS or Stay)
Refers to a continuous period of health care in a hospital setting from initial admission to discharge. This may include a number of ‘episodes’ recorded back-to-back for the same patient. Each stay is initiated by a referral (including re-referral) or admission and is ended by a discharge from hospital.

Deprivation
The Scottish Index of Multiple Deprivation (SIMD) is used to calculate deprivation rates. SIMD has 38 indicators in 7 domains (income, employment, housing, health, education, skills and training, geographical access and crime), which have been combined into an overall index calculated for each datazone. Rates are reported by deciles with 1 being most deprived and 10 least deprived. Deciles divide the population into ten equal proportions so that 10% of the population falls into each decile. SIMD 2009 has been applied for years 2007/08 to 2009/10 and SIMD 2012 has from the year 2010/11 to 2011/12 and SIMD2016 from 2012/13 onwards.

Datazone
The data zone is the key small-area statistical geography in Scotland. The data-zone geography covers the whole of Scotland and nests within local authority boundaries. Data zones are groups of Census output areas and have populations of between 500 and 1,000 household residents. Where possible, they have been made to respect physical boundaries and natural communities. They have a regular shape and, as far as possible, contain households with similar social characteristics.

EASR
European Age-sex Standardised Rate. For more information see Appendix A1.

ICD
International Classification of Diseases and Related Health Problems 10th revision is used to classify hospital admissions and deaths from 1996 onwards. Before this the International Classification of Diseases and Related Health Problems 9th revision (ICD-9) was used.

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.

New Patient
An individual admitted to hospital as an inpatient within a given time period (e.g. financial year) who was found not to have another inpatient admission for the same condition within the preceding ten years.

Provisional data
An indication that the data is provisional means that returns from hospitals are not yet complete and the final figure may be different to that reported once all returns are received.
## List of Tables

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<td>1981/82-2016/17</td>
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Further Information can be found on the ISD website.

If you would like further information on hospital activity relating to alcohol-related conditions, please contact the ISD Health & Social Care Drug and Alcohol Team at nss.isdsubstancemisuse@nhs.net.

The next update of this publication will be in November 2018.

Rate this publication

Please provide feedback on this publication to help us improve our services.
Appendices

A1 – Background Information

Data sources

The hospital activity data included in this publication are sourced from routinely collected national datasets.

- SMR01 (Scottish Morbidity Records 01) is the source for general acute inpatient and day case hospital activity for specialties other than mental health, maternity, neonatal and geriatric long-stay.
- SMR04 (Scottish Morbidity Records 04) is the source for psychiatric inpatient and day case hospital activity.

Analysis combining SMR01 and SMR04 activity is presented for mental and behavioural conditions associated with the use of alcohol to enable a better estimate of the total hospital activity and can be viewed in the associated excel workbook and dashboard.

General acute inpatients and day cases – SMR01

SMR01 is an episode based patient record relating to all inpatient and day cases discharged from acute medical, i.e. specialties other than mental health, maternity, neonatal and geriatric long stay specialties in NHS Scotland. A record is generated for each inpatient and day case episode, of which there are about 1,200,000 each year. Attendances at Accident and Emergency that do not result in an admission to hospital are not included. Each individual patient may have more than one stay and hence the number of people discharged within a year will be less than the total number of stays. The SMR01 basic data set encompasses patient identification and demographic information, episode management information and general clinical information. On the SMR01 form up to six separate diagnoses can be recorded for discharge episode record. A diagnosis in the first position is regarded as the main diagnosis. A diagnosis ‘in any position’ refers to the occurrence of a diagnosis in any of the six positions (including main and supplementary).

Mental health inpatient and day cases – SMR04

The second data source is information derived from the Mental Health Inpatient and Day Case return (SMR04), which collects episode level data at the point of both admission and discharge on patients who are receiving care in mental health specialties. In this publication these records are referred to as ‘psychiatric stays’. On the SMR04 form up to six separate diagnoses can be recorded on both the admission and the discharge parts of the record. Diagnosis on discharge may differ from diagnosis on admission. A diagnosis in the first position is regarded as the main diagnosis. A diagnosis ‘in any position’ refers to the occurrence of a diagnosis in any of the six positions (including main and supplementary).
Analytical definitions

Stay

For this report, a hospital stay (also described as a continuous inpatient stay or CIS), is defined as an unbroken period of time that a patient spends as an inpatient or day case. During a stay a patient may have numerous episodes as they change consultant, significant facility, speciality and/or hospital. Stays are counted at the point of discharge, when all diagnostic information regarding the full stay is available. Therefore a ‘stay’ and a ‘discharge’ are equivalent in this report. However, the demographic information (age, gender, SIMD decile, NHS Board or local authority of residence) is taken from the first episode of the stay, thus most closely corresponding to the circumstances of the patient at the point of entering the hospital.

Patient

Where numbers of patients are reported, this refers to the number of unique individuals treated within the financial year. Patients are counted only once in the financial year in which they have an alcohol-related stay, even though the same patient may be admitted to hospital several times in a year.

New Patient

New patients are defined as patients who have not been previously admitted to hospital with an alcohol diagnosis within the last 10 years. If a patient has several alcohol-related stays over a number of years, this patient will be counted only in the year of the first alcohol-related hospital stay within a 10 year period.

When figures are broken down by geographical area or age the numbers in some categories can be very small. In these cases both differences between categories and trends over time should be interpreted with caution because they may be misleading.

Clinical codes for alcohol-related conditions

Alcohol misuse is recorded using the International Classification of Diseases. In 1997, ISD moved from using the 9th revision to the 10th revision. The change introduced a number of new alcohol-related codes. However, mapping of codes from the ninth revision to the tenth revision is not exact and therefore the longer trends (back to 1981/82) are only used for reporting on ‘all’ alcohol codes combined, and time trends for individual alcohol-related conditions start in 1997/98. The following codes were used in the analysis presented in this report:
# Diagnostic (ICD10) codes used for reporting alcohol-related stays in Scottish hospitals

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<th>Description</th>
<th>Sub-Condition</th>
<th>Description</th>
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<td>Mental and behavioural disorders due to the use of alcohol</td>
<td>F10.0</td>
<td>Acute intoxication</td>
</tr>
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<td></td>
<td></td>
<td>F10.1</td>
<td>Harmful use</td>
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<td></td>
<td></td>
<td>F10.2</td>
<td>Dependence syndrome</td>
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<td></td>
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<td>F10.3</td>
<td>Withdrawal state</td>
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<td>F10.4</td>
<td>Withdrawal state with delirium</td>
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<td></td>
<td>F10.8, F10.9</td>
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<td>K70</td>
<td>Alcoholic Liver Disease</td>
<td>K70.0</td>
<td>Alcoholic fatty liver</td>
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<td>Alcoholic Hepatitis</td>
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<td>K70.2, K70.3</td>
<td>Alcoholic liver disease: cirrhosis</td>
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<td></td>
<td>K70.4</td>
<td>Alcoholic hepatic failure</td>
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<td>K70.9</td>
<td>Alcoholic Liver Disease, unspecified</td>
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<tr>
<td></td>
<td>Alcohol related brain damage (ARED)</td>
<td>E51.2</td>
<td>Wernicke Encephalopathy</td>
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<td></td>
<td></td>
<td>F10.5, F10.7</td>
<td>Psychotic &amp; amnestic conditions</td>
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<td></td>
<td>G31.2</td>
<td>Degeneration of nervous system due to alcohol</td>
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<td>Alcohol-induced pancreatitis</td>
<td>K85.2</td>
<td>Alcohol-induced acute pancreatitis</td>
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<td>K85.3</td>
<td>Alcohol-induced chronic pancreatitis</td>
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<td>Toxic effect of alcohol</td>
<td>T51.0</td>
<td>Ethanol</td>
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<td>T51.1</td>
<td>Methanol</td>
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<td>M2.8</td>
<td>Alcoholic Cardiomyopathy</td>
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<td>K28.2</td>
<td>Alcoholic gastritis</td>
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<td>E24.4</td>
<td>Alcohol-induced pseudo-Cushing syndrome</td>
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<td>E51.2</td>
<td>Wernicke Encephalopathy</td>
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<td>G31.2</td>
<td>Degeneration of nervous system due to alcohol</td>
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<tr>
<td>G62.1</td>
<td>Alcoholic polyneuropathy</td>
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<td>G72.1</td>
<td>Alcoholic myopathy</td>
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<td>O35.4</td>
<td>Maternal care for (suspected) damage to fetus from alcohol</td>
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<td>P04.3</td>
<td>Fetus and newborn affected by maternal use of alcohol</td>
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<td>Q88.0</td>
<td>Fetal alcohol syndrome (dysmorphic)</td>
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<td>R70.0</td>
<td>Finding of alcohol in blood</td>
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<tr>
<td>X45</td>
<td>Accidental poisoning by and exposure to alcohol</td>
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<tr>
<td>X55</td>
<td>Intentional self-poisoning by and exposure to alcohol</td>
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<tr>
<td>Y15</td>
<td>Poisoning by and exposure to alcohol, undetermined intent</td>
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<tr>
<td>Y57.3</td>
<td>Alcohol deterrents</td>
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<td>Y90</td>
<td>Evidence of alcohol involvement determined by blood alcohol level</td>
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<tr>
<td>Y91</td>
<td>Evidence of alcohol involvement determined by level of intoxication</td>
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<td>Z50.2</td>
<td>Alcohol rehabilitation</td>
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<td>Z71.4</td>
<td>Alcohol abuse counselling and surveillance</td>
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<td>Z72.1</td>
<td>Alcohol use</td>
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Data Quality and Completeness

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 webpage http://www.isdscotland.org/Products-and-Services/Data-Quality/Methodology/.

Information on SMR data completeness can be found on the Hospital records Data webpage http://www.isdscotland.org/products-and-Services/Data-Support-and-Monitoring/SMR-Completeness/, while information on the timeliness of SMR data submissions can be found on the SMR Timeliness webpage http://www.isdscotland.org/products-and-Services/Data-Support-and-Monitoring/SMR-Timeliness/.

Note of Revisions

The Health & Social Care Team aims to continually improve the interpretation of the data and therefore analysis methods are reviewed and sometimes updated. Analysis programs may be modified occasionally to reflect process changes and improvements. This year’s publication includes no revisions.
## A2 – Publication Metadata (including revisions details)

<table>
<thead>
<tr>
<th>Metadata Indicator</th>
<th>Description</th>
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<tbody>
<tr>
<td>Publication title</td>
<td>Alcohol-related Hospital Statistics Scotland 2016/17</td>
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<tr>
<td>Description</td>
<td>Publication reporting on general acute and psychiatric hospital stays with diagnosis of an alcohol related condition. These data are presented at a national level and also broken down by demographic characteristics and local geographies.</td>
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<tr>
<td>Theme</td>
<td>Health and Social Care</td>
</tr>
<tr>
<td>Topic</td>
<td>Alcohol Misuse</td>
</tr>
<tr>
<td>Format</td>
<td>PDF report with Excel tables and online Tableau dashboard</td>
</tr>
<tr>
<td>Data source(s)</td>
<td>• SMR01 (Scottish Morbidity Records 01) is the source for general acute inpatient and day case hospital activity for specialties other than mental health, maternity, neonatal and geriatric long-stay.</td>
</tr>
<tr>
<td></td>
<td>• SMR04 (Scottish Morbidity Records 04) is the source for psychiatric inpatient and day case hospital activity.</td>
</tr>
<tr>
<td>Date that data are acquired</td>
<td>September 2017                                                                隈 SKIPellites</td>
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<tr>
<td>Release date</td>
<td>Tuesday 21st November 2017</td>
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<tr>
<td>Frequency</td>
<td>Annual</td>
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<tr>
<td>Timeframe of data and timeliness</td>
<td>General acute hospital (SMR01): National summary figures for period 01/04/1981 to 31/03/2017. Detailed breakdowns for period 01/04/1997 to 31/03/2017.</td>
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<tr>
<td></td>
<td>Psychiatric hospital (SMR04) 01/04/1997 to 31/03/2016.</td>
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<tr>
<td>Continuity of data</td>
<td>See background information</td>
</tr>
<tr>
<td>Revisions statement</td>
<td>All data are revised annually to reflect any changes to analysis and to ensure the most complete information is presented. Data for the most recent financial year are labelled as provisional and may be subject to change in forthcoming publications. Minor revisions of this nature are often due to incomplete data returns at the time of previous publication.</td>
</tr>
<tr>
<td>Revisions relevant to this publication</td>
<td>Population files have been updated from previous publications to use NRS mid-year population estimates 2012-2014 corrected in August 2016. The latest SIMD 2016 rankings have been used and applied to figures from 2012 onwards. Alcohol Related Brain Damage has been included in the publication for the first time.</td>
</tr>
<tr>
<td>Concepts and definitions</td>
<td>See Glossary See Hospital Care: Background Information</td>
</tr>
<tr>
<td>Topic</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Relevance and key uses of the statistics</td>
<td>Relevant to understanding Alcohol misuse in Scotland. Statistics will be used for policy making and service planning.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Quality checks are conducted by ISD. Figures are compared to previously published data and expected trends.</td>
</tr>
<tr>
<td>Completeness</td>
<td>Details of data submission issues are available on the <a href="http://www.isdscotland.org/Health-Topics/Hospital-Care/">SMR completeness webpage</a></td>
</tr>
<tr>
<td>Comparability</td>
<td>NHS Digital publish figures on hospital admissions in <a href="http://www.isdscotland.org/Health-Topics/Hospital-Care/">Statistics on Alcohol – England 2017</a> but these should not be directly compared with published data from Scotland.</td>
</tr>
<tr>
<td>Accessibility</td>
<td>It is the policy of ISD Scotland to make its web sites and products accessible according to <a href="http://www.isdscotland.org/Health-Topics/Hospital-Care/">published guidelines</a></td>
</tr>
<tr>
<td>Coherence and clarity</td>
<td>The report is available as a PDF file with dashboard content.</td>
</tr>
<tr>
<td>Value type and unit of measurement</td>
<td>Rates are per 100,000 population, standardised for age and gender to the 2013 European Standard Population.</td>
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<tr>
<td>Disclosure</td>
<td>The <a href="http://www.isdscotland.org/Health-Topics/Hospital-Care/">ISD Statistical Disclosure Protocol</a> is followed.</td>
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<tr>
<td>Official Statistics designation</td>
<td>National Statistic</td>
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<tr>
<td>UK Statistics Authority Assessment</td>
<td>Completed assessment by UK Statistics Authority report published 4 April 2012</td>
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<tr>
<td>Last published</td>
<td>25 October 2016</td>
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<tr>
<td>Next published</td>
<td>November 2018</td>
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<tr>
<td>Date of first publication</td>
<td>1998</td>
</tr>
<tr>
<td>Help email</td>
<td><a href="mailto:richard.lawder@nhs.net">richard.lawder@nhs.net</a></td>
</tr>
<tr>
<td>Date form completed</td>
<td>12 October 2017</td>
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</tbody>
</table>
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.