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Introduction

This publication provides figures on 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 2017/18 and psychiatric hospital admissions from 1997/98 to 2017/18. Only psychiatric hospital data have been updated in this release to include 2017/18 figures. General acute hospital data were last updated in the 20 November 2018 release.

Using this publication

Data accompanying this report are published in an interactive Tableau electronic dashboard, designed to allow users to visualise figures included in the 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. Information from these two settings are from two data sources, both of which are included in this report (see data sources Appendix A1).

This publication reports three 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 and a person could potentially have more than one stay in 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 had an alcohol-related admission that have not had an alcohol-related admission in the past 10 years (see Glossary for additional detail).

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European Age-sex Standardised Rates (EASR)

This publication includes rates of activity presented as European Age-sex Standardised Rates (EASR) calculated using the 2013 European Standard Population. 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.
Main Points

• In 2017/18 there were 35,499 alcohol-related hospital admissions (stays) in general acute hospitals in Scotland. These relate to 23,494 Scottish residents who had at least one admission to hospital with an alcohol-related condition. Of these people, around half (11,566) 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 2017/18 the alcohol-related stay rate per 100,000 population in general acute hospitals was 668.3, a 2.5% decrease compared to the previous year (685.4). There has been a general decline in alcohol-related stays since 2007/08.

• In 2017/18, there were 2,654 alcohol-related stays in psychiatric hospitals (50.2 per 100,000 population), a 4.2% decrease from the previous year (52.4 per 100,000 population).

• The 2017/18 stay rate in general acute hospitals for alcohol liver disease (139.8 stays per 100,000 population) is similar to the previous year 2016/17 (140.1 per 100,000 population). The 2016/17 rate equals the highest recorded since 1997/98.

• In 2017/18, there were seven times as many people (per 100,000 population) admitted to general acute hospitals from the most deprived areas compared to the least deprived areas. In the psychiatric setting, nearly thirteen times as many people (per 100,000 population) were admitted from the most deprived areas compared to the least deprived areas.
Results and Commentary

Overall hospital admissions

In 2017/18, 93% of the alcohol-related admissions in Scotland were to general acute hospitals and 7% to psychiatric hospitals.

The European Age-Sex Standardised Rate (EASR) for alcohol-related general acute hospital stays was 668.3 stays per 100,000 population in 2017/18. This was 2.5% lower than the previous year, an absolute decrease of 17 stays per 100,000 population.

The European Age-Sex Standardised Rate for alcohol-related psychiatric hospital stays was 50.2 stays per 100,000 population in 2017/18. This was a 4.2% decrease in comparison to 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.

In 2017/18 there were 35,499 alcohol-related hospital admissions (stays) in general acute hospitals in Scotland. These 35,499 stays, are attributed to 23,494 Scottish residents who had at least one admission to hospital with an alcohol-related condition. Of these people, around half (11,566) 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.

National trends from 1981/82 to 2017/18

The rate of alcohol-related hospital stays and patients consistently increased from 1981/82 to a peak in 2007/08 and reduced thereafter. In 2017/18, the rate of hospital stays and patients has been at its lowest since 2007/08 (Figure 1).
Despite a 22% reduction (an absolute decrease of 187.1 stays per 100,000 population) between 2007/08 and 2017/18, the 2017/18 rate of stays per 100,000 population remains substantially (4.3 times) higher than it was in 1981/82. In 2017/18 over three times as many people were admitted to hospital at least once for an alcohol-related condition compared to 1981/82. 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 2017/18.

In 1991/92 (the first year such figures can be calculated) over two thirds (69%) of patients with an alcohol-related hospital admission were classified as new patients (patients who had not been admitted to hospital for an alcohol-related condition in the previous 10 years). In 2017/18 just under half (49%) of the patients admitted to hospital for an alcohol-related condition were classified as new patients.

**Gender and Age**

Alcohol-related hospital admissions are 2.6 times more common in males compared to females. The rate of hospital stays in 2017/18 was 962.9 per 100,000 population for males compared to 373.8 per 100,000 population for females. Males accounted for 71% of alcohol-related hospital stays in 2017/18.

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 23% for males and 19% for females (Figure 2).
Alcohol-related admission rates in general acute hospitals increase with age, tailing off in those aged 65 years and over for males and 55 and over for females (Figure 3).

In 2017/18, the highest rate of stays in general acute hospitals for males was 1,631.0 per 100,000 population in the 55-64 year age group. The highest rate for females was in a slightly younger age group; 628.7 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 generally increased in the majority age groups for both males and females to a peak around 2007/08. Thereafter a general reduction was observed to the current year (2017/18) with the exception of the 55-64 and 65 and over age groups for females whose rates in 2017/18 were slightly higher than in 2007/08 (Figure 4).

The size of the reduction in the rate of alcohol related general acute hospital stays is not equal across the different age bands. The largest percentage reduction in the rate of hospital stays was in those aged less than 25 years for both males and females where rates have decreased by over 50% for males and by nearly 50% for females since 2007/08.

For males, over the time period 1997/98 to 2017/18, the age groups with the highest rate of alcohol-related general acute hospital stays are the 55-64 age group and the 45-54 age group. The 65 and over age group has over the time period become the third largest age group for alcohol-related general acute hospital stays replacing the 35-44 age group.

For females, over the time period 1997/98 to 2017/18, the age group with the highest rate of alcohol-related general acute hospital stays is the 45-54 age group. The 55-64 age group has replaced the 35-44 age group as the age group with the second highest rate of alcohol-related general acute hospital stays (Figure 4).
Figure 4: Alcohol-related hospital stay rates\textsuperscript{1} by gender and age for general acute hospitals, Scotland, financial years 1997/98 to 2017/18\textsuperscript{p}

Psychiatric hospital admissions

This publication reports on trends from financial year 1997/98 up to the end of financial year 2017/18.

Alcohol-related admissions to psychiatric hospitals make up the minority of all alcohol-related admissions, around one in six of all psychiatric hospitalisations have at least one alcohol-related diagnosis.\textsuperscript{2}

National trends from 1997/98 to 2017/18

Alcohol-related hospital admissions to psychiatric hospitals have decreased since 1997/98 (Figure 5). The age and sex adjusted rate of stays fell by 51\% between 1997/98 and 2017/18, from 103.0 to 50.2 stays per 100,000 population. This may not necessarily reflect falls in the prevalence of alcohol related problems. Over the same time period a 40\% reduction has 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.

The average number of admissions per patient within the psychiatric setting was 1.3 in 1997/98 compared to 1.1 in 2017/18. Over the same time period the average number of admissions per patient in general acute hospitals was 1.3 in 1997/98 compared to 1.5 in 2017/18.

\textsuperscript{1} European age sex standardised rates (EASR).
\textsuperscript{p} Provisional

\textsuperscript{2} Psychiatric Inpatient Activity
http://www.isdscotland.org/Health-Topics/Mental-Health/Publications/index.asp#2252
Figure 5: Alcohol-related hospitalisation rates\(^1\) for psychiatric hospitals, Scotland, financial years 1997/98 to 2017/18\(^p\)

\[\text{Figure 5: Alcohol-related hospitalisation rates}^{1}\text{ for psychiatric hospitals, Scotland, financial years 1997/98 to 2017/18}^{p}\]

\(^1\) European age sex standardised rates (EASR).

\(^p\) Provisional

**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 2017/18 was 70.0 per 100,000 population for males, which is over twice the rate for females (30.4 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.\(^2\)

Taking into account age group and gender, the highest rates of alcohol-related stays within psychiatric hospitals were for males and females aged 35-44 (Figure 6).

Alcohol-related psychiatric hospital stay rates per 100,000 population have generally decreased over the time period 1997/98 to 2017/18, with the largest percentage decreases for males and females aged 15-24 (74% and 62% respectively). From Figure 6 it can be seen there has been some fluctuation over the years. In recent years the stay rate for females aged 65 and over has had small increases for the last four years. The stay rates for males 65 and over has also seen increases and is at a level similar to 2011/12.
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 NHS Boards in Scotland.

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1 European age sex standardised rates (EASR).

P Provisional
The decreasing trend in Alcohol-related acute hospital stay rates per 100,000 population observed in Scotland overall were generally repeated within local areas, although these often showed 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 with the exception of NHS Lanarkshire, which has seen a 3% increase over this time period.

In 2017/18 NHS Greater Glasgow & Clyde and NHS Lanarkshire had the highest admission rates in general acute hospital settings (980.8 EASR per 100,000 population and 812.1 EASR per 100,000 population respectively), while for psychiatric hospital settings NHS Ayrshire & Arran and NHS Tayside had the highest admission rates (91.3 EASR per 100,000 population and 85.7 EASR per 100,000 population respectively). In 2017/18, the highest general acute hospital stay rate in NHS Greater Glasgow and Clyde was more than double the lowest rate in NHS Dumfries and Galloway (409.0 EASR per 1000,000 population).
Over the time period 1997/98 to 2017/18 the rate of psychiatric alcohol-related stays has decreased for all NHS Boards. The decrease has ranged from 19% (NHS Dumfries & Galloway) to 100% (NHS Shetland). NHS Ayrshire & Arran had the highest alcohol-related stay rate in psychiatric hospitals in both 1997/98 and 2017/18 (158.3 and 90.1 respectively), the stay rate has reduced by 43% between the two years.

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 across each of the deprivation deciles since 2007/08. Prior to 2007/08, alcohol-related admissions to general acute hospitals had been increasing. Alcohol-related admissions to psychiatric hospitals have been in decline since 1997/98.

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.
In 2017/18, in the general acute setting, there were just over eight times as many stays (per 100,000 population) and just over seven 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 more pronounced, in 2017/18 the stay rates as well as patient rates in the most deprived areas of Scotland were nearly thirteen times higher than those in the least deprived areas.

Over time the increases and subsequent reductions in alcohol-related stays in the general acute setting 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.

**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 2017/18, 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 consistently been above 90% since 1997/98.

A smaller proportion of alcohol-related admissions to psychiatric hospitals were emergencies. In 2017/18, within the psychiatric hospital setting, nearly 44% 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 including 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 for alcohol-related hospital admissions are those associated with alcoholic liver disease, followed by toxic effects of alcohol.

Figure 9 shows the inpatient stay rates for all alcohol 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 code in any of the diagnostic code positions.

Figure 9: Alcohol-related hospital stay rates in general acute hospitals by diagnosis group, Scotland, Financial years 1997/98 to 2017/18

1 European age sex standardised rates (EASR) – Rates calculated using general acute hospital activity only. 

P Provisional
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 hospital 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 hospital setting stays with diagnosis of alcohol dependence are the most common, followed by harmful use, then psychotic and amnesic disorders.

Figure 10 shows how the rate of stays, in general acute hospitals, for specific conditions within mental and behavioural disorders due to the use of alcohol, have compared over the time period 1997/98 to 2017/18.

Figure 10: Mental and behavioural disorders due to use of alcohol stay rates\(^1\) in general acute hospitals by specific diagnosis code, Scotland, Financial years 1997/98 to 2017/18\(^P\)

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.

Acute 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

\(^1\) European age sex standardised rates (EASR) – Rates calculated using general acute hospital activity only.

\(^P\) Provisional
(Figure 10). 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 in the reduction in admissions for 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 generally increased in the general acute setting from 1997/98 (30.5) to 2016/17 (125.2). The stay rate for 2017/18 (124.9) is at a similar level to 2016/17 (Figure 10). Psychiatric hospital stays which include a diagnosis of withdrawal state are low and have had a 77% decrease in the stay rate per 100,000 population over the time period 1997/98 (3.9) to 2017/18 (0.9). There has been some fluctuation in the stay rate over this time period with the lowest stay rate in 2015/16 (0.6).

**Alcohol dependence**

Inpatient stay rates for alcohol dependence have remained comparatively low since 1997/98. Stay rates for general acute hospitals have tended to fluctuate but have shown a slight decrease in recent years. Psychiatric hospitals have seen a steady decline in inpatient stay rates for alcohol dependence. Despite the comparatively low rate in 2017/18, 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 the time period from 1997/98 to 2017/18, admissions with a diagnosis of alcoholic liver disease have not shown the same pronounced increase then continued decrease that has been seen for all alcohol-related conditions combined (Figures 9 and 11). Figure 9 shows that the rate of hospital stays for all alcoholic liver disease are low compared to other alcohol related problems. Alcoholic liver disease stay rate increased from 1997/98 (83.2) to 2007/08 (140.1) then decreased until 2012/13 (123.3). Since then the stay rate has increased steadily to 140.1 in 2016/17 and is a similar level (139.8) in 2017/18, these rates are similar to the stay rate in 2007/08 (140.1).

In 2017/18 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 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 both 2016/17 and 2017/18. Since 2007/08 the average number of stays per patient, for patients with a diagnosis of cirrhosis, has increased slightly from 1.5 stays to 1.8 stays per patient.

Since 2007/08 general acute stays due to the diagnosis of an unspecified alcoholic liver disease have reduced. This may be linked to the 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.

The rate per 100,000 population for new patients having admissions with a diagnosis of alcoholic liver disease in a general acute hospital decreased from 22.2 in 2007/08 to 18.5 in 2011/12, this rate increased to 20.7 in 2016/17 with the 2017/18 rate (20.5) being of a similar level.

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1 European age sex standardised rates (EASR).
2 Provisional
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 increased since 1997/98 in the general acute setting from 12.3 per 100,000 population to 17.0 per 100,000 population in 2016/17 and has remained at this level in 2017/18. Psychiatric hospital stays rates which include a diagnosis of Alcohol Related Brain Damage are low and ranged from a high of 6.4 in 1998/99 to a low of 2.7 in both 2012/13 and 2016/17. In 2017/18, the stay rate was 3.2, a small increase from the previous year.

Toxic effect of alcohol

Admissions to general acute hospitals with a diagnosis of toxic effect of alcohol are low: the rate of stays in 2017/18 was 45.0 stays per 100,000 population, the lowest rate to date. This is the only alcohol related condition where activity is consistently higher for females compared to males. There were 47.3 stays per 100,000 females and 42.6 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, SIMD 2012 for the years 2010/11 to 2011/12 and SIMD2016 from 2012/13 onwards.

Datazone The datazone is the key small-area statistical geography in Scotland. The datazone geography covers the whole of Scotland and nests within local authority boundaries. Datazones 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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Contact

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Further Information

Further information can be found on the ISD website. For related topics, please visit the drugs and alcohol pages.

For additional 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 full release of this publication will be in November 2019.

Rate this publication

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

Appendix 1 – 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, deprivation 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>Sub-Condition</th>
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<td>Acute intoxication</td>
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<td>F10.2</td>
<td>Dependence syndrome</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>F10.5, F10.6, F10.7</td>
<td>Psychotic &amp; amnestic conditions</td>
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<td>F10.8, F10.9</td>
<td>Unspecified &amp; other conditions</td>
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<td>K70</td>
<td>Alcoholic Liver Disease</td>
<td>K70.0</td>
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<td>K70.1</td>
<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>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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<td></td>
<td>Alcohol related brain damage (ARSD)</td>
<td>E51.2</td>
<td>Wernicke encephalopathy</td>
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<td>F10.6, F10.7</td>
<td>Psychotic &amp; amnestic conditions</td>
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<td>G31.2</td>
<td>Degeneration of nervous system due to alcohol</td>
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<td>Alcohol-induced pancreatitis</td>
<td>K58.2</td>
<td>Alcohol-induced acute pancreatitis</td>
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<td>K58.6</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>T51.9</td>
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<td>I42.6</td>
<td>Alcoholic Cardiomyopathy</td>
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<td>K29.2</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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<tr>
<td>G31.2</td>
<td>Degeneration of nervous system due to alcohol</td>
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<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>Q35.4</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>Q86.0</td>
<td>Fetal alcohol syndrome (dysmorphic)</td>
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<td>R78.0</td>
<td>Finding of alcohol in blood</td>
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<td>X45</td>
<td>Accidental poisoning by and exposure to alcohol</td>
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<tr>
<td>X65</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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<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>Z80.2</td>
<td>Alcohol rehabilitation</td>
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<td>Z71.4</td>
<td>Alcohol abuse counselling and surveillance</td>
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<tr>
<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/](http://www.isdscotland.org/Products-and-Services/Data-Quality/Methodology/).

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.
# Appendix 2 – Publication Metadata

<table>
<thead>
<tr>
<th>Metadata Indicator</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>Publication title</strong></td>
<td>Alcohol-related Hospital Statistics Scotland 2017/18</td>
</tr>
<tr>
<td><strong>Description</strong></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><strong>Theme</strong></td>
<td>Health and Social Care</td>
</tr>
<tr>
<td><strong>Topic</strong></td>
<td>Alcohol Misuse</td>
</tr>
<tr>
<td><strong>Format</strong></td>
<td>PDF report with Excel tables and online Tableau dashboard</td>
</tr>
</tbody>
</table>
| **Data source(s)**      | • 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. |
| **Date that data are acquired** | September 2018                                                          |
| **Release date**        | First Published: Tuesday 20th November 2018 Updated: 26 February 2019 (Reason: Inclusion of alcohol-related psychiatric hospital activity data for financial year 2017/18) |
| **Frequency**           | Annual                                                                     |
| **Timeframe of data and timeliness** | General acute hospital (SMR01): National summary figures for period 01/04/1981 to 31/03/2018. Detailed breakdowns for period 01/04/1997 to 31/03/2018.  
<pre><code>                       | Psychiatric hospital (SMR04) 01/04/1997 to 31/03/2018.                     |
</code></pre>
<p>| <strong>Continuity of data</strong>  | See <a href="#">background information</a>                                            |
| <strong>Revisions statement</strong> | 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. |
| <strong>Revisions relevant to this publication</strong> | No revisions.                                                             |
| <strong>Concepts and definitions</strong> | See <a href="#">Glossary</a>                                                        |
|                         | See Hospital Care: Background Information                                  |</p>
<table>
<thead>
<tr>
<th><strong>Relevance and key uses of the statistics</strong></th>
<th>Relevant to understanding Alcohol misuse in Scotland. Statistics will be used for policy making and service planning.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accuracy</strong></td>
<td>Quality checks are conducted by ISD. Figures are compared to previously published data and expected trends.</td>
</tr>
<tr>
<td><strong>Completeness</strong></td>
<td>Details of data submission issues are available on the SMR completeness webpage</td>
</tr>
<tr>
<td><strong>Comparability</strong></td>
<td>NHS Digital publish figures on hospital admissions in Statistics on Alcohol – England 2018 but these should not be directly compared with published data from Scotland.</td>
</tr>
<tr>
<td><strong>Accessibility</strong></td>
<td>It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines.</td>
</tr>
<tr>
<td><strong>Coherence and clarity</strong></td>
<td>The report is available as a PDF file with dashboard content.</td>
</tr>
<tr>
<td><strong>Value type and unit of measurement</strong></td>
<td>Rates are per 100,000 population, standardised for age and gender to the 2013 European Standard Population.</td>
</tr>
<tr>
<td><strong>Disclosure</strong></td>
<td>The ISD Statistical Disclosure Protocol is followed.</td>
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<tr>
<td><strong>Official Statistics designation</strong></td>
<td>National Statistic</td>
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<tr>
<td><strong>UK Statistics Authority Assessment</strong></td>
<td>Completed assessment by UK Statistics Authority report published 4 April 2012</td>
</tr>
<tr>
<td><strong>Last published</strong></td>
<td>20 November 2018</td>
</tr>
<tr>
<td><strong>Next published</strong></td>
<td>The next full release of this publication will be in November 2019.</td>
</tr>
<tr>
<td><strong>Date of first publication</strong></td>
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<tr>
<td><strong>Help email</strong></td>
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<td><strong>Date form completed</strong></td>
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</table>
Appendix 3 – Early access details

Pre-Release Access

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

Standard Pre-Release Access:

Scottish Government Health Department
NHS Board Chief Executives
NHS Board Communication leads
Appendix 4 – ISD and Official Statistics

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

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

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

**Mission:** Better Information, Better Decisions, Better Health

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

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

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

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

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