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Hospital admissions and mortality due to alcohol in Wales: a guide to definitions and methods

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Purpose and Summary of Document:

This document outlines the definitions of alcohol indicators used in Wales from 2010. These include definitions for person-based and episode-based hospital admissions and mortality due to alcohol.

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Introduction

The definitions used for hospital admissions due to alcohol in Wales have been reviewed. The alcohol-related definition by the Office for National Statistics (ONS) is now only used for mortality indicators and has been replaced with the alcohol-specific definition for admissions. New person-based admission indicators have also been produced following the methodology by the North West Public Health Observatory (NWPHO) used for the *Local alcohol profiles for England (LAPE)*.¹ The following provides both an overview and further details of the definitions in use in Wales including caveats specific to the definitions. Further details of the implementation such as data sources, rate calculation and general caveats are included in the particular data files released.

1 Brief overview of definitions

Definition	Short description
Alcohol-specific hospital admission (person-based)	Individuals admitted to hospital for conditions entirely attributable to alcohol (e.g. alcoholic liver disease). Measures adverse affects of alcohol use in the population by counting each person only once per year. Follows NWPHO method for English (LAPE) indicators. ¹
Alcohol-attributable hospital admissions (person-based)	Individuals admitted to hospital for conditions either entirely or in part attributable to alcohol (using attributable fractions ¹). Measures adverse effects of alcohol use in the population by counting each person only once per year. Follows NWPHO method used for England LAPE indicators. ¹
Alcohol-specific hospital admissions (episode-based)	Hospital admissions for conditions entirely attributable to alcohol (e.g. alcoholic liver disease). Measures burden of alcohol use on hospital services. Expected to be used as indicator in Annual Operating Framework (AOF) in Wales.
Alcohol-attributable hospital admissions (episode-based)	Hospital admissions for conditions either entirely or in part attributable to alcohol (using attributable fractions). ¹ Measures burden of alcohol use on hospital services. Follows method for English National Indicator NI39. ^{1,2}
Alcohol-related hospital admissions (episode-based)	ONS definition no longer used for hospital admissions in Wales (superseded by alcohol-specific hospital admissions). Definition will still be used for mortality.
Alcohol-related mortality	Mortality from underlying cause of death directly linked to alcohol. Causes as defined by ONS. Allows comparison to mortality figures for other UK nations.
Alcohol-attributable mortality	Mortality from underlying cause of death either entirely or in part caused by alcohol. Uses method and attributable fractions published by NWPHO. ¹

2 Definition details for admissions

Definition	Alcohol-specific hospital admission (person-based)
What is being measured?	This indicator measures the number of individuals being adversely affected by alcohol, admitted for conditions entirely attributable to alcohol. Each individual is counted only once per year. The method of extraction and calculation matches the person-based alcohol-specific hospital admissions for England contained in the LAPE indicators. ¹
Selection method	Hospital admissions are selected for all Wales residents with any mention of a diagnosis of an alcohol-specific condition in the spell. Included are inpatients, day cases and maternity, but not A&E. If there is more than one admission in a single year (episode end date) per patient the admission with the earliest episode start date is selected. If there is more than one diagnosis recorded then the diagnosis highest up the diagnosis list (considered most important) is selected.
Specific caveats	This narrow definition of conditions entirely due to alcohol is robust and comparable over time, but is likely to underestimate the overall burden of alcohol use due to the limited number of conditions.

Definition	Alcohol-attributable hospital admission (person-based)
What is being measured?	This indicator measures the number of individuals being adversely affected by alcohol, admitted for conditions entirely and in part attributable to alcohol. Each individual is counted only once per year. The method of extraction and calculation matches the person-based alcohol-attributable hospital admissions for England contained in the LAPE indicators. ¹
Selection method	Hospital admissions are selected for Wales residents with any mention of an alcohol-attributable condition (see NWPHO guidance document ¹) in the spell. Included are inpatients, day cases and maternity, but not A&E. Admissions in patients aged under 16 are only included if the condition is wholly attributable to alcohol, i.e. the attributable fraction is one. Selection is by episode end date. Where there is more than one diagnosis recorded the condition with the largest attributable fraction is chosen. Where there is more than one episode with the same high fraction the earliest episode (using start date) is chosen. Where there is more than one diagnosis with the same fraction within the same episode the diagnosis highest up the diagnosis list (considered most important) is selected.
Specific caveats	This indicator uses attributable fractions calculated for England and, whilst widely used, the indicator could be described as experimental. It is assumed that the fractions equally apply to Wales and regardless of any differences between the Local

	<p>Authorities. Underestimation may occur in areas with higher alcohol consumption and overestimation in areas of lower consumption. Particular care needs to be taken when comparing the indicator over time, as any rise may be due to a rise in one of the conditions included and not necessarily to the proportion due to alcohol. If the alcohol-specific indicator displays a similar trend then this may help confirm a trend in the alcohol-attributable admissions.</p>
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Definition	Alcohol-specific hospital admission (episode-based)
What is being measured?	This indicator measures hospital admissions for alcohol-specific conditions (entirely due to alcohol). It is possible for a single patient to record multiple admissions within the period. Therefore, this indicator aims to measure the burden of alcohol use on hospital services. Due to changes in the methodology (day case coding) releases before November 2010 are not comparable. Whilst this indicator is not part of the LAPE indicators for England, it is expected to be the selected measure for the AOF in Wales.
Selection method	Hospital admissions (admitting episodes) are selected for Wales residents with any mention of a diagnosis of conditions specific to alcohol (using the method for NI39 but only using the conditions entirely attributable to alcohol, see NWPHE guidance document ¹). Included are inpatients, day cases and maternity, but not A&E.
Specific caveats	This narrow definition of conditions entirely due to alcohol is robust and comparable over time, but likely to underestimate the overall burden of alcohol use due to the limited number of conditions.

Definition	Alcohol-attributable hospital admission (episode-based)
What is being measured?	This indicator measures hospital admissions for alcohol-attributable conditions (entirely or in part due to alcohol). It uses the method for the National indicator NI39 for England. ^{1,2} It is possible for a single patient to record multiple admissions within the period. Therefore, this indicator aims to measure the burden of alcohol-attributable harm on hospital services. Due to changes in the methodology (day case coding) releases before November 2010 are not comparable.
Selection method	Hospital admissions (admitting episodes) are selected for Wales residents with any mention of a diagnosis of conditions attributable to alcohol (see methodology guidance ¹). Included are inpatients, day cases and maternity, but not A&E. Admissions in patients aged under 16 are only included if the condition is wholly attributable to alcohol, i.e. the attributable fraction is one. Selection is by episode end date. Where there is more than one code per episode the condition with the largest attributable

	fraction is chosen. Where there is more than one episode with the same high fraction the earliest episode (using start date) is chosen. Where there is more than one diagnosis with the same fraction within the same episode the diagnosis highest up the diagnosis list (considered most important) is selected.
Specific caveats	This indicator, whilst widely used, in England could be described as experimental and uses attributable fractions calculated for England. It is assumed that the fractions equally apply to Wales and regardless of any differences between Local Authorities. Underestimation may occur in areas with higher alcohol consumption and overestimation in areas of lower consumption. Particular care needs to be taken when comparing the indicator over time, as any rise may be due to a rise in one of the conditions included and not necessarily to the proportion due to alcohol. If the alcohol-specific indicator displays a similar trend then this may help confirm a trend in the alcohol-attributable admission.

3 Definition details for mortality

Definition	Alcohol-related mortality
What is being measured?	This indicator measures mortality from causes most directly linked to alcohol as defined by ONS.
Selection method	Deaths are selected for underlying cause of death specified by ONS. ³ These are similar but not identical to causes for the alcohol-specific definition.
Specific caveats	This narrow definition of conditions entirely attributable to alcohol is robust and comparable over time, but likely to underestimate the overall burden of alcohol use due to the limited number of conditions.

Definition	Alcohol-attributable mortality
What is being measured?	This indicator measures mortality from underlying causes either entirely or in part caused by alcohol. It includes the causes of death specified in NPHO methodology using attributable fractions. ¹
Selection method	Deaths are selected for all alcohol-attributable causes of death specified ¹ and attributable fractions are applied.
Specific caveats	Although widely used in England, this indicator could be described as experimental and uses attributable fractions calculated for England. It is assumed that the fractions equally apply to Wales and regardless of any differences between Local Authorities. Underestimation may occur in areas with higher alcohol consumption and overestimation in areas of lower consumption. Particular care needs to be taken when comparing the indicator over time, as any rise may be due to a rise in one of the causes

	included and not necessarily to the proportion due to alcohol. If the alcohol-related mortality indicator displays a similar trend then this may help confirm a trend in alcohol-attributable mortality.
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4 References

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3. Breakwell C et al. Trends in geographical variations in alcohol-related deaths in the United Kingdom, 1991-2004. *Health Stat Q* 2007;(33):6-21. Available at http://www.statistics.gov.uk/downloads/theme_health/hsq33web.pdf [Accessed 25th Nov 2010]