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# ALCOHOL'S HARMS TO OTHERS:

the harms from other  
people's alcohol  
consumption in Wales

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# Executive Summary

Internationally, there is growing recognition of the harms that an individual's alcohol consumption can cause to those around them (referred to as alcohol's harms to others). Consequently, research into this issue has started to emerge highlighting the nature, extent and costs of alcohol's harms to others across various populations.

In the UK and Ireland, some studies on alcohol's harms to others have been implemented, and routine data sources and surveys also provide a picture of certain harms (e.g. alcohol-related violence). Developing understanding of alcohol's harms to others in Wales is important to ensure that the true impact of alcohol on the public's health is identified and appropriate policy and practice to prevent such harms is implemented. In 2015 the Public Health Institute, Liverpool John Moores University, in collaboration with Public Health Wales, undertook the first study on alcohol's harms to others across Wales. The cross-sectional telephone survey included 1,071 adults (aged 18 years and older) and aimed to provide an initial understanding of alcohol's harms to others in Wales. Focusing on 19 categories of harm, the survey explored their nature, extent and frequency, as well as the relationship between the person experiencing the harm and those causing the harm.

The pilot study found that an estimated 59.7% of adults aged 18 years and older in Wales had experienced at least one harm from someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 1,460,151 people aged 18 years and older (Table a / Section 2.1). The types of harms experienced varied. The most common harms experienced from someone else's alcohol consumption in the last 12 months included: feeling anxious at a social occasion; being kept awake due to noise or disruption;

having a serious argument; being let down; feeling threatened; and suffering emotional neglect (Table a / Section 2.2). The risk of experiencing any harm in the past 12 months was higher in younger age groups. The risks of experiencing individual harms also varied by socio-demographic factors. Over two fifths (43.7%) of adults had experienced at least one *more severe harm*<sup>1</sup> in the last 12 months. There were significant differences in experience of more severe harms by socio-demographic factors. For instance, experience of more severe harms was significantly higher amongst those living in the most deprived areas. Full details of the study methodology (Appendix 1) and results (Section 2) are contained within this report, with summaries of the prevalence and risk factors associated with suffering any harm, and each of the individual harms, presented as infographics (Section 2.6).

This study provides an initial overview of experience of alcohol's harms to others amongst adults in Wales. Whilst further research is needed, the prevalence of alcohol's harms to others identified should act as a catalyst for policymakers, practitioners and the public, to both consider and work towards addressing the wide ranging effects of alcohol use. Drinkers do not just hurt themselves, but also frequently affect the lives of others. These costs are often omitted when examining the negative impacts of alcohol on society, but they are likely to be substantial. Including alcohol's harms to others in assessments of the burden of alcohol

1 All harms were considered as being more severe except six harms (emotional neglect, felt anxious, let down, serious argument, disrupted sleep and drank to cope) when they were experienced less than once a month.

is crucial to understanding its broad impact, and ensuring that policies, regulations and interventions seek to prevent the harmful effects of alcohol to both the drinker and those who may be affected by their drinking. Whilst preventing alcohol's harms to others is inevitably a complex task, across Wales numerous policies and work programmes are in place already that can help tackle such harms, such as the Working Together to Reduce Harm: The Substance Misuse Strategy for Wales 2008-2018 and Violence against Women, Domestic Abuse and Sexual Violence (Wales) Act 2015.

Information from this survey will be combined with data from all of the UK nations and Ireland to provide a comprehensive report on alcohol's harms to others. However, we already know that the citizens of all these nations are adversely affected by alcohol's harms to others, and there are strong reasons for public health agencies to work together to identify the best ways to reduce both their prevalence and impacts on the people who suffer harms from alcohol through no fault of their own.

**Table a: Frequency, proportion (%) and crude rate (per 1,000 population) of adults (aged 18 years and older) in Wales experiencing harms from other people's alcohol consumption at least once in the last 12 months, by harm type**

Harm*	Population adjusted figures**		
	Estimated Frequency	%	Rate per 1,000 population
Serious argument	497,161	20.3	203
Physically threatened	433,392	17.7	177
Emotional neglect	423,097	17.3	173
Physically assaulted	135,704	5.5	55
Accidentally injured	159,369	6.5	65
Drink driving	64,214	2.6	26
Sexual harm	42,953	1.8	18
Felt anxious	714,498	29.2	292
Property damage	264,268	10.8	108
Spending issue	203,898	8.3	83
Concern for child	131,337	5.4	54
Care burden	152,217	6.2	62
Let down	471,033	19.2	192
Disrupted sleep	709,530	29.0	290
Drank to cope	152,035	6.2	62
Ended contact	378,632	15.5	155
Moved residence	84,574	3.5	35
Police contact	264,775	10.8	108
Other harm	390,490	16.0	160
Any harm	1,460,151	59.7	597

\* See Table 1 for a description of each harm category. \*\* Data were weighted to represent the age, gender and deprivation of the general population, using 2013 population estimates.

# Alcohol's Harm to Others (H2O) in Wales

Alcohol's harms to others are the harms caused to an individual as a result of another person's alcohol consumption.



## 59.7%

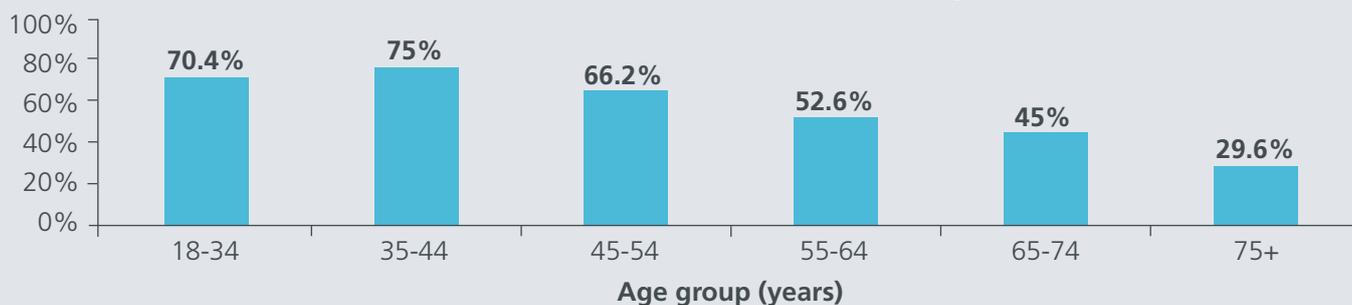
of adults in Wales were estimated to have experienced at least one harm from someone else's drinking in the last 12 months, equating to over 1.4 million Welsh adults<sup>a</sup>.

### Harms suffered by individuals in the last 12 months due to other people's drinking:

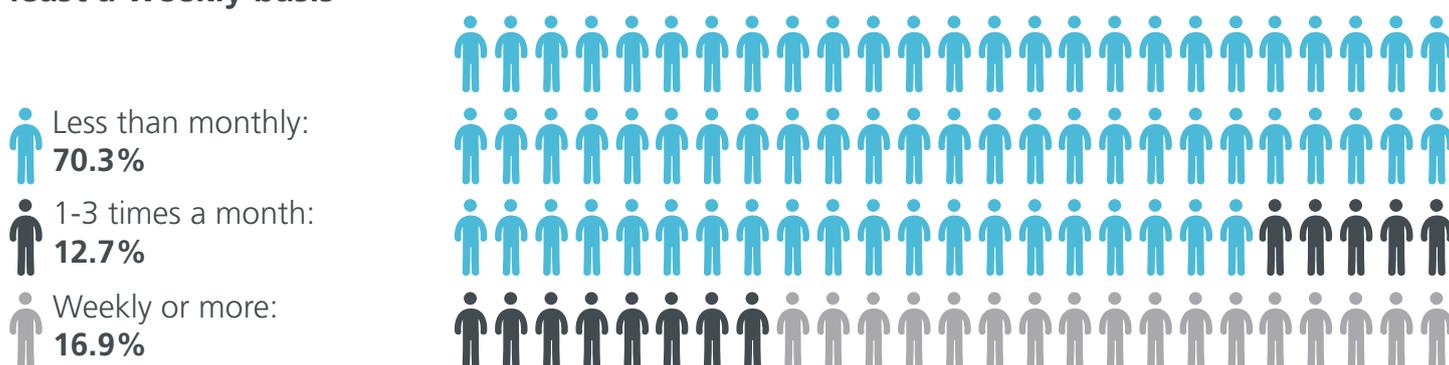
 <p>Had to contact police <b>10.8%</b></p>	 <p>Had property damaged <b>10.8%</b></p>	 <p>Been physically assaulted <b>5.5%</b></p>
 <p>Felt physically threatened <b>17.7%</b></p>	 <p>Been accidentally injured <b>6.5%</b></p>	 <p>Been concerned about harm to a child <b>5.4%</b></p>
 <p>Money spent on alcohol that would have been spent elsewhere <b>8.3%</b></p>	 <p>Cared for someone with a long term condition caused by alcohol <b>6.2%</b></p>	 <p>Been emotionally hurt or neglected <b>17.3%</b></p>
 <p>Felt anxious <b>29.2%</b></p>	 <p>Ended contact with someone <b>15.5%</b></p>	 <p>Felt let down <b>19.2%</b></p>
 <p>Had a serious argument <b>20.3%</b></p>	 <p>Felt forced or pressured into sex or something sexual <b>1.8%</b></p>	 <p>Personally drank alcohol to cope <b>6.2%</b></p>
 <p>Moved residence <b>3.5%</b></p>	 <p>Had sleep disrupted <b>29.0%</b></p>	 <p>Been put at risk when someone was drink driving <b>2.6%</b></p>

<sup>a</sup> Based on 2013 population adjusted prevalence in adults aged 18 years and older in Wales.

## Individuals in younger age groups were more likely to report experiencing harms from other people's drinking



Of those experiencing any harm in the last 12 months, 16.9% reported doing so on at least a weekly basis<sup>b</sup>.



### Alcohol Fuelled Argument

Regular binge drinkers<sup>c</sup> were more likely to have serious arguments which they believed were due to other people's drinking.



### Drink Alcohol to Cope

People who drank alcohol to cope with problems caused by another person's drinking were more likely to be regular binge drinkers<sup>d</sup>.



Most often, those causing the harm were known to those experiencing the harm<sup>b</sup>:



**20.3%**  
were friends



**19.9%**  
were family members  
outside the household



**19%**  
were cohabiting partners

<sup>b</sup> Average values across 18 types of harm explored in the study. Unadjusted figures.

<sup>c</sup> Drank six or more alcoholic drinks on one occasion at least monthly in the last 12 months.

<sup>d</sup> The relationship between personal alcohol consumption and experiencing harms from others' drinking is likely to vary by harm type. For example, binge drinking was associated with increased risks of the harm drinking to cope but this could be because individuals' binge drinking is a result of (not a cause of) drinking to cope with the consequences of another person's alcohol consumption.

# 1. Introduction

Internationally, alcohol is estimated to result in approximately 3.3 million deaths each year, which arise from over 200 diseases and injury related conditions that are wholly or partly caused by alcohol [1,2]. Until recently, research on the burden of alcohol has focused predominantly on the harms experienced by drinkers themselves. However, there is growing recognition of the harms that an individual's alcohol consumption can place on those around them including family members, friends, co-workers and strangers [2-7]. Thus, research into this area has started to develop.

In 2008, a national study was undertaken in Australia exploring alcohol's harms to others [4], with similar research subsequently implemented in countries including the United States, New Zealand, Scotland and Ireland [5,6,8,9]. Collectively, these studies highlight the type, extent and costs of harms from other people's alcohol consumption, and the importance of considering such harms when developing both policy and practice. The World Health Organization's global strategy to reduce the harmful use of alcohol highlights the need to focus attention on reducing harm to people other than the drinker [10].

Building on this evidence, to improve understanding of alcohol's harms to others across Wales and also the UK<sup>2</sup>, in 2015 the Public Health Institute, Liverpool John Moores University (LJMU), and Public Health Wales undertook the first survey of alcohol's harms to others across Wales. The survey aimed to:

- Understand the nature and extent of alcohol's harms to others across the Welsh population; and,
- Identify relationships between alcohol's harms to others and individual, household and community level factors.

Such information is vital to informing the Welsh government, and local partners' policies and

prevention activities that aim to address the public health consequences of alcohol consumption.

## What are alcohol's harms to others?

Alcohol's harms to others are the harms caused to a person as a result of another person's alcohol consumption [11].

## The harms from alcohol experienced by people other than the drinker can vary widely in type, frequency and severity.

Such harms include alcohol-related violence and aggression (e.g. nightlife violence [12]); neglect, abuse or exploitation (e.g. children [11]); criminal behaviour (e.g. property damage [13]); unintentional injury (e.g. road traffic crashes [14]); and even foetal alcohol spectrum disorder [15]. Furthermore, individuals can experience harm to their mental health and well-being [16]. For instance, existing research outlines how people live in fear of assault as a result of other people's drinking, and even suffer disturbance to sleep [4].

<sup>2</sup> Across the UK and Ireland, public health agencies are working together to collate evidence on alcohol's harms to others. This includes the collation of existing data on alcohol's harms to others as well as the implementation of alcohol's harms to others population surveys (reported on in this report for Wales) across some countries.

## What do we know about alcohol's harms to others?

Internationally, research studies on alcohol's harms to others are starting to emerge [3-9,11,16]. Whilst differences in study methodology (e.g. the number and type of harms considered, and the populations surveyed) mean that it is difficult to compare between studies, they do demonstrate the high prevalence of alcohol's harms to others across various populations. For example, the 2015 Global Drug Survey, an online survey targeted towards drug users, found that over the past 12 months more than 40% of respondents suffered at least one aggressive harm (physical, verbal or sexual assault) and 60% reported any harm caused by someone else's drinking [7]. A study carried out in the USA also indicated that 53% of the population have experienced one or more of six types of harms from someone else's drinking over their life course [9]. In Australia, a national survey identified that 70% of individuals experienced harms from a stranger's drinking in the past year, and 30% from someone close to them [4]. Often, experiences of harm are not a one-off occurrence. In a follow-up to the Australian study, 65% of those experiencing alcohol's harm to others in 2008 also reported experiencing such harms in 2011 [3].

In recent years, a number of studies have been conducted within the UK and Ireland exploring alcohol's harms to others. A survey in Scotland found that just over half (51%) of respondents reported at least one of 16 harms from other people's drinking, whilst a study in the North West of England found 79% of respondents reported at least one of 20 harms in the last 12 months [11]. In Ireland, a national study found that overall 28% had experienced alcohol's harms to others in the last 12 months, and 10% had experienced alcohol's harms to others specifically in the workplace [6]. One in ten (10%) also reported at least one harm to children under their responsibility [6]. Further, routine data sources and other research studies often demonstrate the extent of specific harms.

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## The Crime Survey for England and Wales estimated that in 2013/14 just over half (53%) of all violence was perpetrated by someone who was under the influence of alcohol [17].

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Further, the Welsh Adverse Childhood Experiences (ACEs) survey estimated that 14% of adults aged 18-59 years grew up in a household where a parent abused alcohol [18].

Existing research outlines that experience of alcohol's harms to others can vary by socio-demographics (e.g. age and gender [4,5,7,11,19-21]). In various studies, those in younger age groups have been identified as suffering more harm as a result of others' drinking compared to older age groups [4,5,7,20,21]. Relationships between gender and experience of alcohol's harms to others, including variations in experience of specific harms, have also been found across several studies [5,7,19-21]. Studies have shown that experience of certain harms can vary by social class or area deprivation [11,19]. Personal alcohol consumption has also been associated with an increased risk of experiencing alcohol's harms to others [7,20].

## The impacts and costs associated with alcohol's harms to others

Evidence indicates that the impacts of alcohol's harms to others are substantive. Within the European Union, in 2004 an estimated 5,564 men and 2,146 women (aged 15-64 years) died as a result of other people's drinking [22]. Yet for every death many more will suffer other negative effects. For example, in Australia, in one year 367 people died due to others' drinking, 14,000 individuals were hospitalised and an estimated 10.5 million individuals suffered some negative effects on their health and wellbeing (e.g. being kept awake [23]).

In the UK the negative consequences of alcohol are estimated to cost society £21 billion annually [24]. Whilst this estimate includes various costs such as healthcare, crime and disorder, and workplace related costs, relatively little information on broader harms to others has been available for the UK population, resulting in a likely underestimate of the overall economic burden from alcohol-related harms. For example, a New Zealand survey on harms to others found that increased exposure to heavy drinkers was associated with lower levels of both personal well-being and health status [8]. Harms caused by alcohol to others can also have impacts across generations. Alcohol problems in the home environment are associated with increased risks of physical and verbal abuse of children, exposure to domestic violence and child neglect as well as the breakdown of marriages and mental health issues in parents [18,25]. Such factors are part of a suite of ACEs that not only have immediate detrimental impacts on a child's health but are also linked with poorer school performance, substance use and violence in adolescence and, in the longer term, the premature development of chronic diseases (e.g. cancers, heart disease) and early death [18,25].

## Alcohol's harms to others survey for Wales

This exploratory cross-sectional telephone survey included 1,071 individuals (compliance rate, 16.8%) and covered 19 categories of harm (Table 1), exploring their extent and frequency, as well as the relationship between the person experiencing the harm and those causing the harm. In addition, the survey gathered information on a range of individual, household and community characteristics, to identify key risk and protective factors relating to experiencing harms as a result of other people's alcohol consumption. These included: age; gender; area deprivation level and type (i.e. rural/urban); relationship status; employment status; education level; households with/without children; and regular binge drinking (i.e. drink 6+ alcoholic drinks on one occasion at least monthly). Full details of the methods used to implement the survey can be found in Appendix 1.

**Table 1: Alcohol's harms to others**

Harm	Question: in last 12 months*	More severe harm if experienced
 Serious argument	Because of someone else's drinking have you had a serious argument that did NOT include physical violence	At least monthly
 Physically threatened	Because of someone else's drinking have you felt physically threatened	At any frequency
 Emotional neglect	Because of someone else's drinking have you been emotionally hurt or neglected	At least monthly
 Physically assaulted	Because of someone else's drinking have you been physically hurt due to them assaulting you or acting violently	At any frequency
 Accidentally injured	Because of someone else's drinking have you been physically hurt due to them accidentally injuring you (e.g. falling on you)	At any frequency
 Drink driving	Have you been put at risk in the car when someone was driving after drinking	At any frequency

Harm	Question: in last 12 months*	More severe harm if experienced
 Sexual harm	Because of someone else's drinking have you felt forced or pressured into sex, or something sexual	At any frequency
 Felt anxious	Because of someone else's drinking have you felt uncomfortable or anxious at a social occasion	At least monthly
 Property damage	Because of someone else's drinking has someone broken or damaged something that mattered to you	At any frequency
 Spending issue	Because of someone else's drinking has money that would have improved your quality of life been spent on their alcohol-related purchases	At any frequency
 Concern for child	Because of someone else's drinking have you been genuinely concerned that they may cause harm to your or someone else's children	At any frequency
 Care burden	Have you had to spend your personal time caring for a person with a long term health condition or disability that resulted from their current or previous drinking	At any frequency
 Let down	Have you been let down by someone due to them failing to do something that you were counting on them to do because of their drinking	At least monthly
 Disrupted sleep	Because of someone else's drinking have you been kept awake due to noise or disruption	At least monthly
 Drank to cope	Because of someone else's drinking have you drunk alcohol yourself in order to cope with the problems caused by their drinking	At least monthly
 Ended contact	Have you had to stop seeing or being in contact with someone because of their drinking	At any frequency
 Moved residence	Because of someone else's drinking have you had to move out of your usual place of residence and stay somewhere else	At any frequency
 Police contact	Because of someone else's drinking have you had to contact the police	At any frequency
 Any harm	Any harm identified in the last 12 months	NA
Other harm	Have you been affected by someone else's drinking in any other way	NA
Any more severe harm	Any more severe harm identified in the last 12 months	NA

\* Harm identified if participant answered yes to the question.

# 2. Overall findings

This section presents key findings from the survey with further data tables provided in Appendix 2. Findings are presented for all harms and more severe harms only<sup>3</sup>. Findings are also presented in harm category summaries (i.e. infographics) at the end of this section. Where possible, figures presented in this report have been weighted to reflect the Welsh population using mid-2013 population estimates [26] (i.e. population adjusted figures).

## 2.1 Prevalence of harms from other people's alcohol consumption

An estimated 59.7% of adults aged 18 years and older had experienced at least one harm from someone else's drinking in the last 12 months (i.e. 597 adults per 1,000 population; Appendix 2, Table ii).

In bivariate analyses, the prevalence of experiencing any type of harm was significantly higher among (Appendix 2, Tables iii, v, vi and vii):

- Younger age groups (18-34 years, 70.4%; 35-44 years, 75.0%; with proportions then decreasing with age to 29.6% of those aged 75 years and older;  $p < 0.001$  [population adjusted figures]) (Figure 1).
- Those in employment (55.0%, compared with 46.5% of those unemployed;  $p < 0.01$  [unadjusted figures]).
- Those with higher levels of education (degree level or higher, 55.1% with proportions then decreasing with decreasing level of education to 38.9% of those with no formal qualifications;  $p < 0.05$  [unadjusted figures]).

- Regular binge drinkers<sup>4</sup> (62.4%, compared with 47.8% of non-regular binge drinkers;  $p < 0.01$  [unadjusted figures]).
- Those with children living in their household (57.5%, compared with 47.0% of those without children living in the household;  $p < 0.01$  [unadjusted figures]).

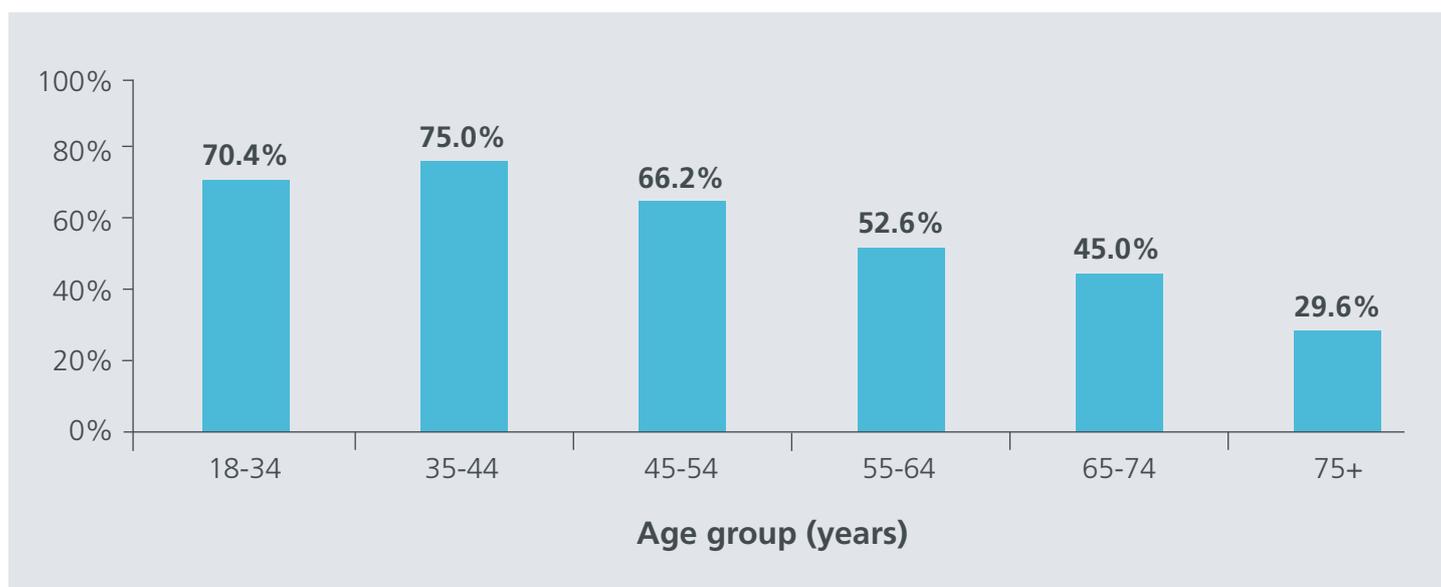
No significant differences were observed between gender, relationship status, or area deprivation level or type (i.e. urban/rural) (Appendix 2, Tables iii, iv and vi).

After controlling for socio-demographics and other confounding factors, only age group was significantly associated with experiencing any harm, with the highest levels reported in those under the age of 55 years and the lowest in those aged 75 years and older (Appendix 2, Table viii).

3 All harms were considered as being more severe except six harms (emotional neglect, serious argument, felt anxious, let down, disrupted sleep and drank to cope) when they were experienced less than once a month.

4 Drank six or more alcoholic drinks on one occasion at least monthly in the past 12 months.

**Figure 1: Proportion (%) of adults in Wales experiencing harms from other people's alcohol consumption at least once in the last 12 months, by age group (population adjusted figures)**

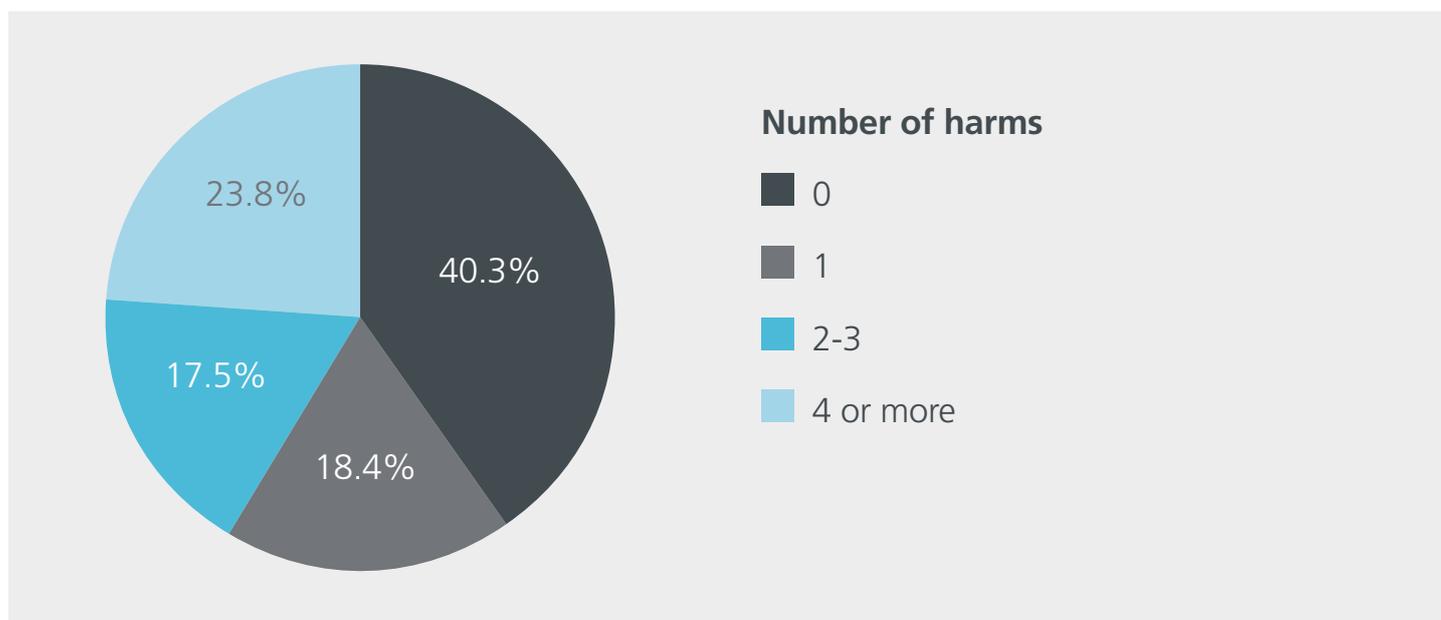


## 2.2 Number of harms experienced from other people's alcohol consumption

An estimated 40.3% of adults in Wales had experienced zero harms in the last 12 months, 18.4% had experienced one harm, 17.5% 2-3 harms and 23.8% harms in four or more measured categories (Figure 2 / Appendix 2, Table ix [population adjusted figures]). There were significant differences in the number of harms experienced in the last 12 months by socio-demographic factors, for example:

- Age group: 25.0% of those aged 35-44 years experienced zero harms and 41.5% harms in four or more measured categories, compared with 70.4% and 3.5% respectively among those aged 75 plus ( $p < 0.001$ ; [population adjusted figures]).
- Relationship status: 41.4% of those who were single experienced zero harms and 22.8% harms in four or more measured categories, compared with 55.6% and 14.8% respectively among those who were widowed/separated/divorced ( $p < 0.05$ ; [unadjusted figures]).
- Employment status: 45.0% of those in employment experienced zero harms and 18.1% harms in four or more measured categories, compared to 53.5% and 14.5% respectively among those unemployed ( $p < 0.05$ ; [unadjusted figures]).
- Education status: 61.1% of those with no formal qualifications experienced zero harms and 12.4% harms in four or more measured categories, compared to 44.9% and 19.6% respectively among those with a degree or higher level qualification ( $p < 0.01$ ; [unadjusted figures]).
- Households with children: 53.0% of those living in households with no children experienced zero harms and 14.7% harms in four or more measured categories, compared to 42.5% and 20.3% respectively among those living in households with children ( $p < 0.05$ ; [unadjusted figures]).
- Binge drinking: 37.6% of those who regularly binge drink experienced zero harms and 24.2% harms in four or more measured categories, compared to 52.2% and 14.7% respectively among those who do not regularly binge drink ( $p < 0.01$ ; [unadjusted figures]).

**Figure 2: Estimated roportion (%) of adults in Wales experiencing harms from other people’s alcohol consumption in the last 12 months, by number of harms experienced (population adjusted figures)**



## 2.3 Types of harms experienced from other people’s alcohol consumption

### Individual harms

The proportion of adults experiencing each harm type in the last 12 months is presented in Table 2. The most common harms experienced were: feeling anxious (29.2%); disrupted sleep (29.0%); serious argument (20.3%); and being let down (19.2%). After taking into account the effects of socio-demographic and other confounding factors, variables independently associated with experiencing each type of harm were identified (Appendix 2, Table viii)<sup>5</sup>. These were:

- **Serious argument:** age group and binge drinking – with the highest levels reported in those under the age of 55 years and those who regularly binge drink.
- **Physically threatened:** age group and gender – with the highest levels reported in those under the age of 55 years and males.

- **Emotional neglect:** age group, and area type and deprivation level – with the highest levels reported in those under the age of 55 years, and living in rural and mid-level deprivation areas.
- **Physically assaulted:** age group – with the highest levels reported in those under the age of 35 years.
- **Accidentally injured:** age group – with the highest levels reported in those under the age of 35 years.
- **Felt anxious:** age group – with the highest levels reported in those under the age of 55 years.
- **Property damage:** age group – with the highest levels reported in those under the age of 35 years.
- **Spending issue:** age group and relationship status – with the highest levels reported in those under the age of 55 years and single.
- **Concern for child:** living in a household with/without children – with the highest levels reported in those living in households with children.

<sup>5</sup> In multi-variate analyses, no variables were found to be associated with police contact, care burden or drink driving.

- **Let down:** age group – with the highest levels reported in those under the age of 55 years.
- **Disrupted sleep:** age group and area type – with the highest levels reported in those under the age of 75 years and living in an urban area.
- **Drank to cope:** personal alcohol consumption – with the highest levels reported in those who regularly binge drink<sup>6</sup>.
- **Ended contact:** age group – with the highest levels reported in those aged 45-54 years.

**Table 2: Estimated proportion (%) of adults in Wales experiencing harms from other people’s alcohol consumption at least once in the last 12 months, by harm type (population adjusted figures)\***

	<b>Felt anxious:</b> (More severe 5.8%)	<b>29.2%</b>		<b>Accidentally injured:</b>	<b>6.5%</b>
	<b>Disrupted sleep:</b> (More severe 13.7%)	<b>29.0%</b>		<b>Care burden:</b>	<b>6.2%</b>
	<b>Serious argument:</b>	<b>20.3%</b>		<b>Drank to cope:</b> (More severe 3.0%)	<b>6.2%</b>
	<b>Let down:</b> (More severe 9.0%)	<b>19.2%</b>		<b>Physically assaulted:</b>	<b>5.5%</b>
	<b>Physically threatened:</b>	<b>17.7%</b>		<b>Concern for child:</b>	<b>5.4%</b>
	<b>Emotional neglect:</b> (More severe 8.0%)	<b>17.3%</b>		<b>Moved residence:</b>	<b>3.5%</b>
	<b>Ended contact:</b>	<b>15.5%</b>		<b>Drink driving:</b>	<b>2.6%</b>
	<b>Police contact:</b>	<b>10.8%</b>		<b>Sexual harm:</b>	<b>1.8%</b>
	<b>Property damage:</b>	<b>10.8%</b>		<b>Other harms:</b>	<b>16.0%</b>
	<b>Spending issue:</b>	<b>8.3%</b>		<b>Any harms:</b>	<b>59.7%</b>

<sup>6</sup> The relationship between personal alcohol consumption and experiencing harms from others’ drinking is likely to vary by harm type. For example, binge drinking was associated with increased risks of the harm drinking to cope but this could be because individuals’ binge drinking is a result of (not a cause of) drinking to cope with the consequences of another person’s alcohol consumption.

\* See Table 1 for definition of each harm type and more severe harms.

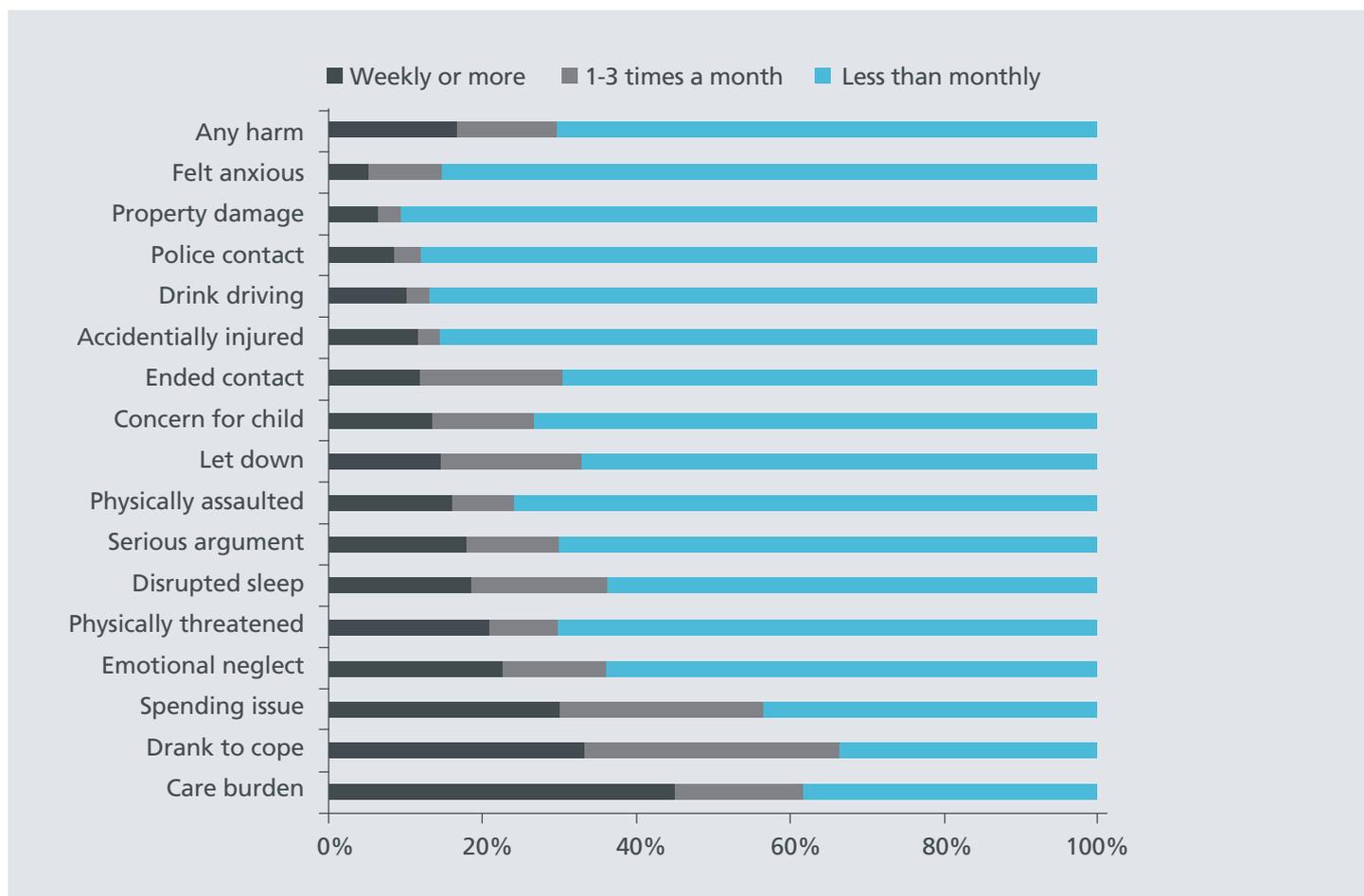
## 2.4 Frequency of exposure to harms from other people's alcohol consumption<sup>7</sup>

The harm with the highest rate of re-occurrence at an individual level was having to spend personal time caring for a person with a long term health condition or disability that resulted from that person's current or previous drinking (Figure 3). Over four in ten (45.2%) of those experiencing this harm had done so on at least a weekly basis during the last 12 months, with a third (33.3%) experiencing it on a daily or almost daily basis.

At least a fifth of those experiencing the following harms had done so on at least a weekly basis:

- Personally drank alcohol in order to cope with the problems caused by someone else's drinking (33.3% on at least a weekly basis);
- Had money that would have improved their quality of life spent on another's alcohol-related purchases (30.0% on at least a weekly basis);
- Been emotionally neglected (22.9% on at least a weekly basis); and,
- Felt physically threatened (20.8% on at least a weekly basis).

**Figure 3: Frequency of experiencing any harm and each individual harm from other people's alcohol consumption in the last 12 months (unadjusted figures)\***



\* See Table 1 for full description of each harm type.

7 Unadjusted figures.

## 2.5 Relationship between those causing and experiencing harms<sup>8</sup>

Most often, those causing harms to others due to their alcohol consumption were: family members not living in the same household; friends; partners living in the same household; or strangers. For example (see Figure 4):

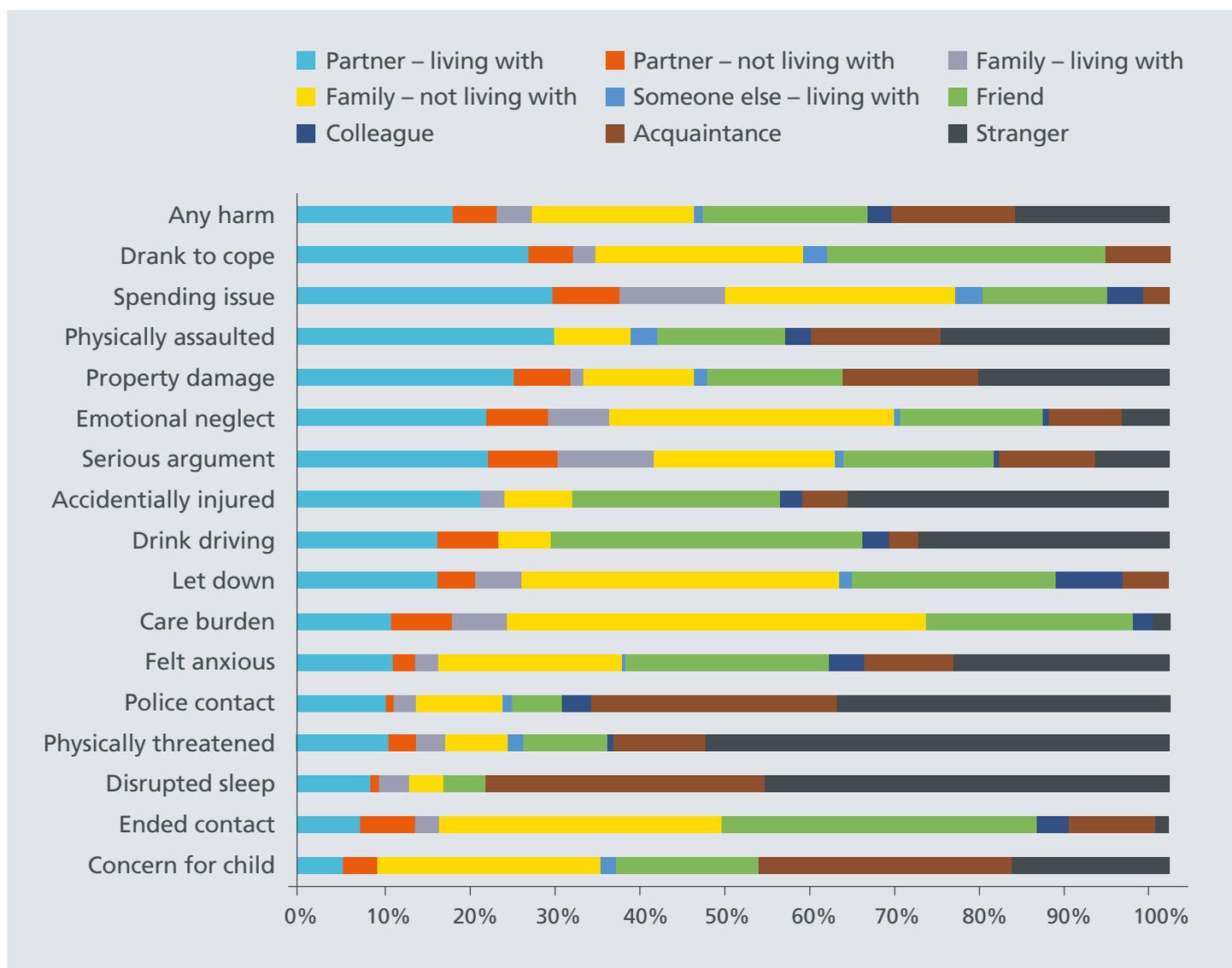
- A family member not living in the same household was most commonly reported as the person causing the following harms: emotional neglect; care burden; and let down.

- A friend was most commonly reported as the person causing the following harms: any harms; drink driving; drank to cope; and ended contact.

- A partner living in the same household was most commonly reported as the person causing the following harms: serious argument; physically assaulted; property damage; and spending issue.

- A stranger was most commonly reported as the person causing the following harms: physically threatened; accidentally injured; felt anxious; disrupted sleep; and police contact.

**Figure 4: Relationship between the person causing the harm and those experiencing the harm in the last 12 months, for any harm and each individual harm (unadjusted figures)**



<sup>8</sup> Unadjusted figures.

## 2.6 Alcohol's harm to others infographics

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The following section provides an infographic summary for each of the harm categories<sup>9</sup> including information on estimated harm prevalence and frequency, demographics of those experiencing the harm, and the relationships between those causing and experiencing the harm.

Further, it provides information on the individual, household and area characteristics that were independently associated with each harm, once all other factors were controlled for.

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<sup>9</sup> Excluding sexual harm and moved residence due to low numbers.

# Any harm

Experienced any type of harm due to someone else's drinking



Overall prevalence in the adult population in the last year: **59.7%**

## Summary

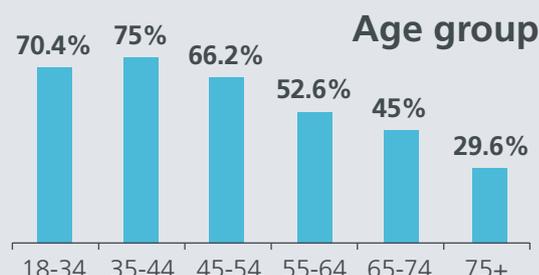
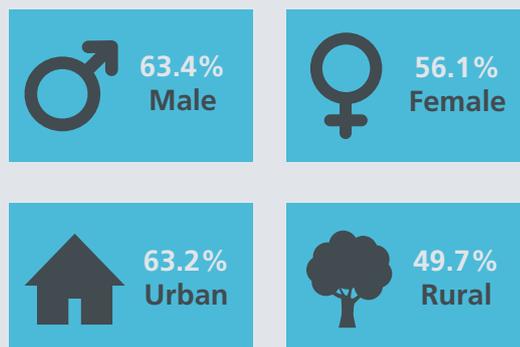
Six in ten (59.7%) adults in Wales have experienced harms due to someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 1,460,151 people aged 18 years and older.

After controlling for socio-demographics and other confounding factors, age group was significantly associated with experiencing any harm, with the highest levels reported in those aged 18 to 54 years and the lowest in those aged 75 years and older.

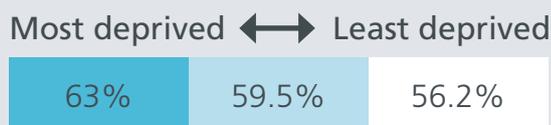
Of those experiencing any harms, 16.9% experienced them once a week or more often. Those that caused the harms were most commonly reported to be:

- A friend (20.3%);
- A family member living in a different household (19.9%);
- A stranger (19.3%); and/or,
- A partner living in the same household (19%).

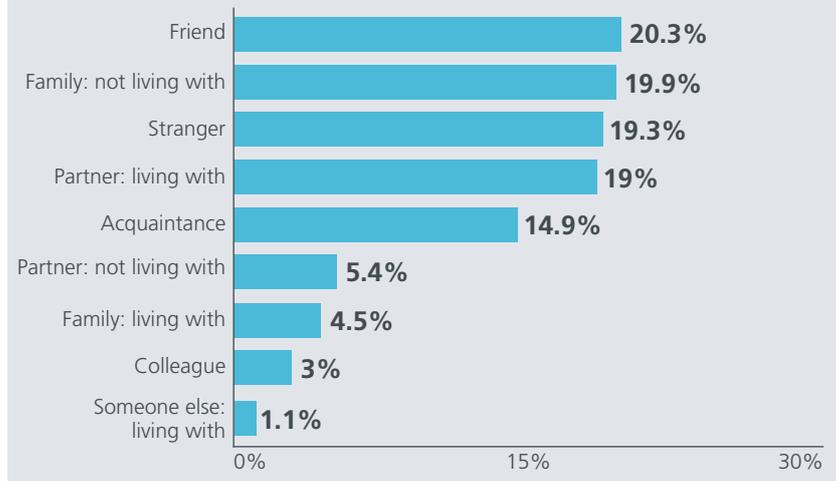
## Overall prevalence within groups



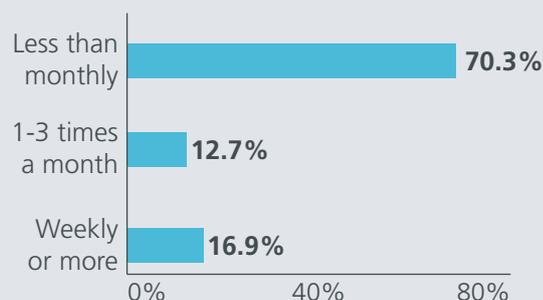
## Area deprivation



## Relationship to drinker causing the harm\*



## Frequency of experiencing the harm\*



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

\* Average values across 18 harms (i.e. excluding other harms).

# Serious argument

Involved in a serious argument (that did not include physical violence) due to someone else's drinking



Overall prevalence in the adult population in the last year: **20.3%**

## Summary

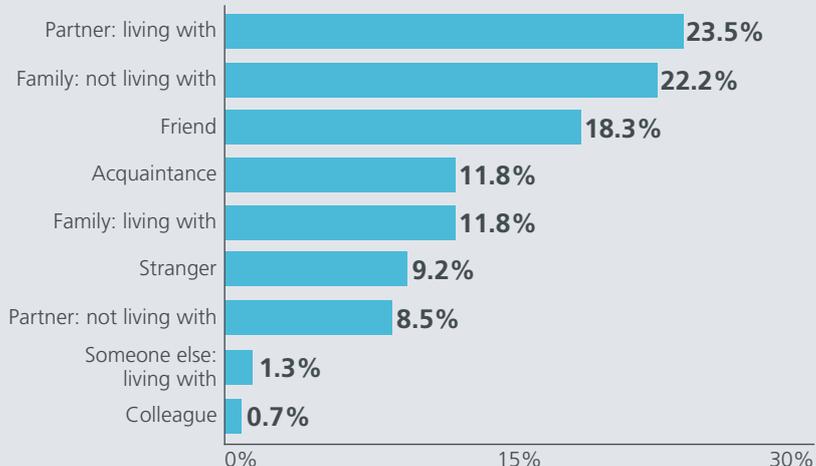
**One in five (20.3%) adults in Wales have been involved in a serious argument (that did not include physical violence) due to someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 497,161 people aged 18 years and older.**

After controlling for socio-demographics and other confounding factors, age group and personal alcohol consumption were significantly associated with experiencing an argument, with the highest levels reported in: those aged 18 to 54 years; and those who regularly binge drink.

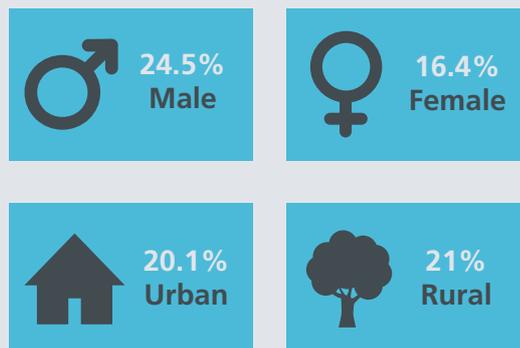
Of those experiencing this harm, nearly one in five (18%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- A partner living in the same household (23.5%);
- A family member living in a different household (22.2%); and/or,
- A friend (18.3%).

### Relationship to drinker causing the harm



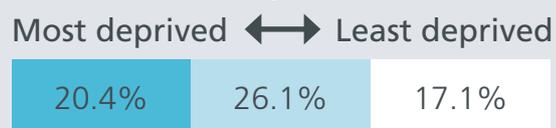
### Overall prevalence within groups



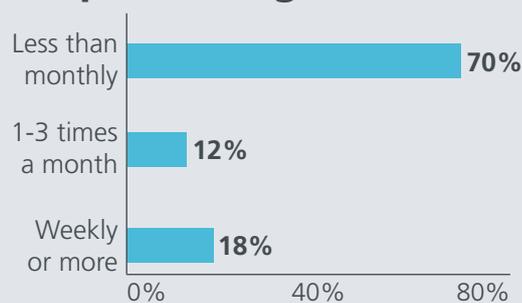
### Age group



### Area deprivation



### Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Physically threatened

Felt physically threatened due to someone else's drinking



Overall prevalence in the adult population in the last year: **17.7%**

## Summary

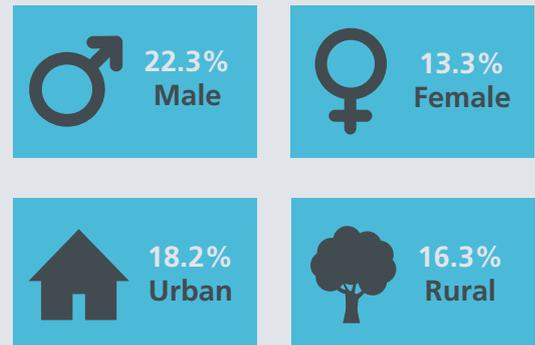
**Just under one in five (17.7%) adults in Wales have felt physically threatened due to someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 433,392 people aged 18 years and older.**

After controlling for socio-demographics and other confounding factors, age group and gender were significantly associated with feeling physically threatened, with the highest levels reported in: those aged 18 to 54 years; and males.

Of those experiencing this harm, over one in five (**20.8%**) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- A stranger (55%).

## Overall prevalence within groups

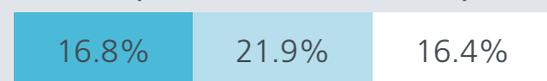


## Age group

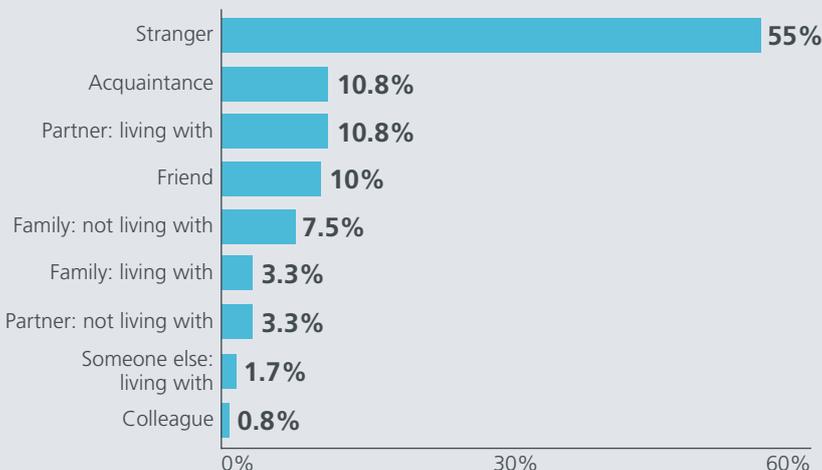


## Area deprivation

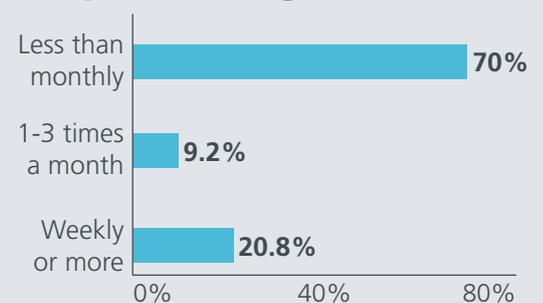
Most deprived ↔ Least deprived



## Relationship to drinker causing the harm



## Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Emotional neglect

Felt emotionally hurt or neglected due to someone else's drinking



Overall prevalence in the adult population in the last year: **17.3%**

## Summary

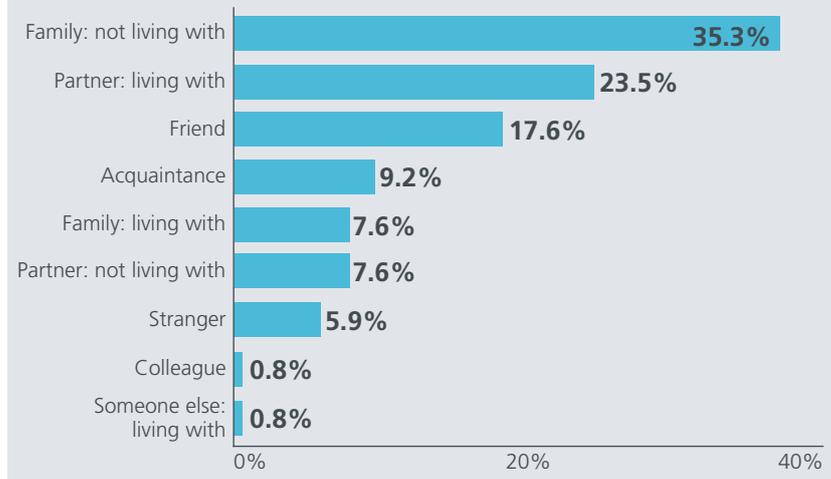
**Just under one in five (17.3%) adults in Wales have felt emotionally hurt or neglected due to someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 423,097 people aged 18 years and older.**

After controlling for socio-demographics and other confounding factors, age group, area type and area deprivation were significantly associated with feeling emotionally hurt or neglected, with the highest levels reported in those: aged 18 to 54 years; living in rural areas; and living in areas of mid-level deprivation.

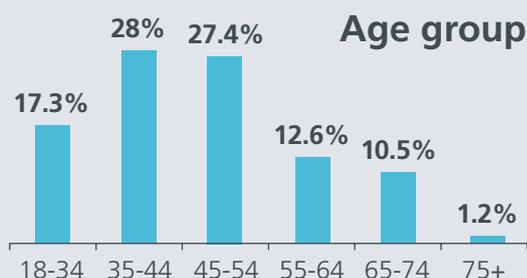
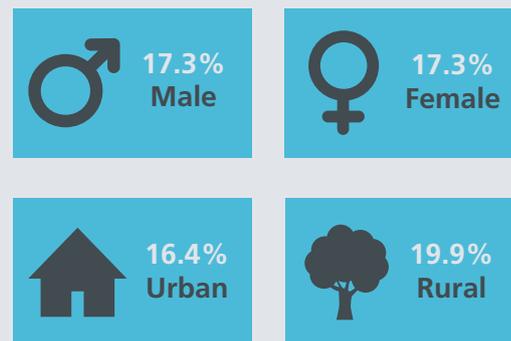
Of those experiencing this harm, over one in five (22.9%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- A family member living in a different household (35.3%);
- A partner living in the same household (23.5%); and/or,
- A friend (17.6%).

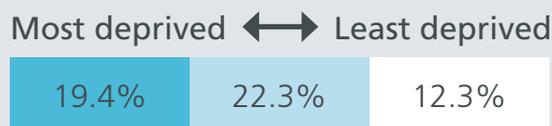
### Relationship to drinker causing the harm



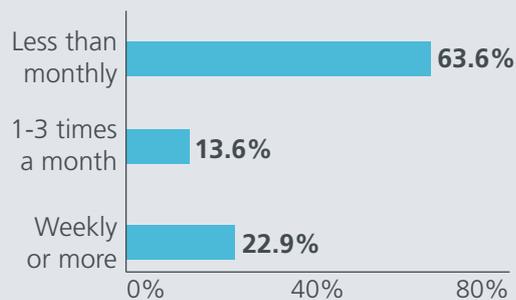
### Overall prevalence within groups



### Area deprivation



### Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Physically assaulted

Been physically assaulted due to someone else's drinking



Overall prevalence in the adult population in the last year: **5.5%**

## Summary

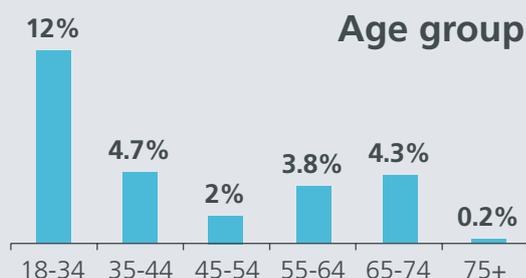
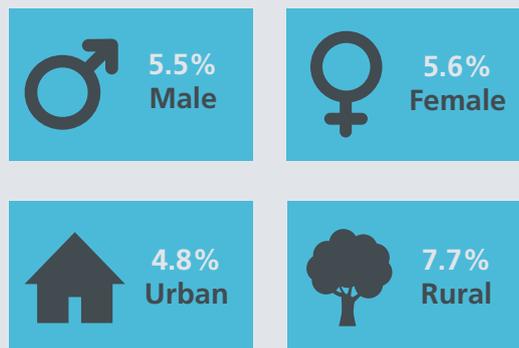
**One in 18 (5.5%) adults in Wales have been physically assaulted due to someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 135,704 people aged 18 years and older.**

After controlling for socio-demographics and other confounding factors, only age group was significantly associated with having been physically assaulted, with the highest levels reported in those aged 18 to 34 years.

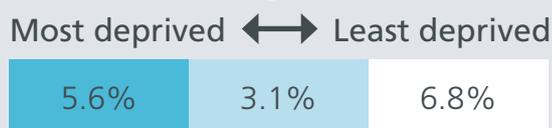
Of those experiencing this harm, over one in 10 (15.2%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- A partner living in the same household (30.3%);
- A stranger (27.3%);
- An acquaintance (15.2%); and/or,
- A friend (15.2%).

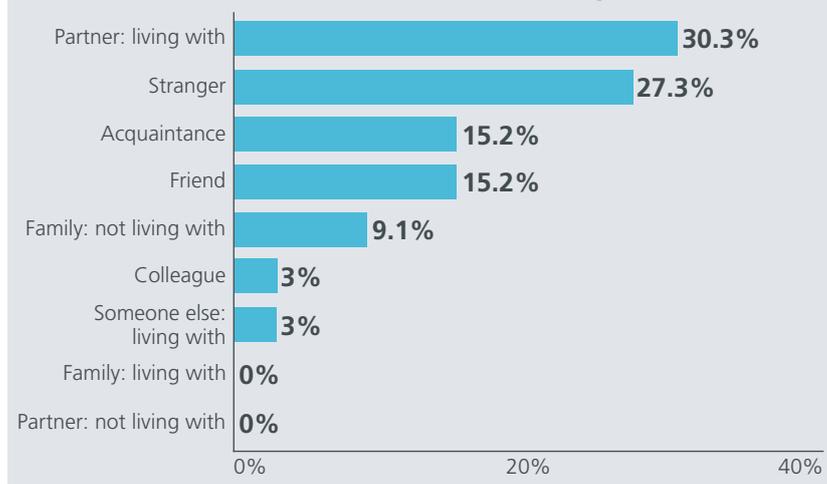
## Overall prevalence within groups



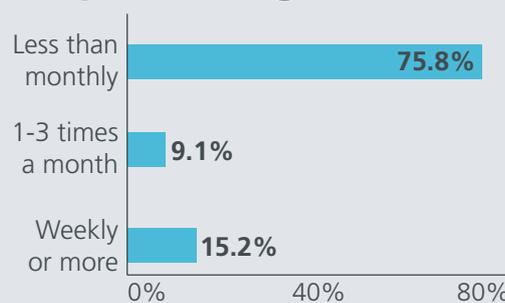
## Area deprivation



## Relationship to drinker causing the harm



## Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Accidentally injured

Been physically hurt or injured accidentally due to someone else's drinking



Overall prevalence in the adult population in the last year: **6.5%**

## Summary

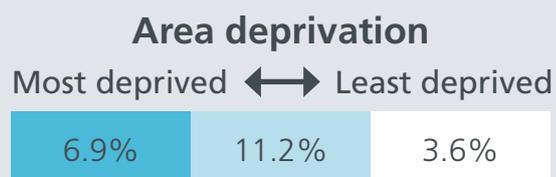
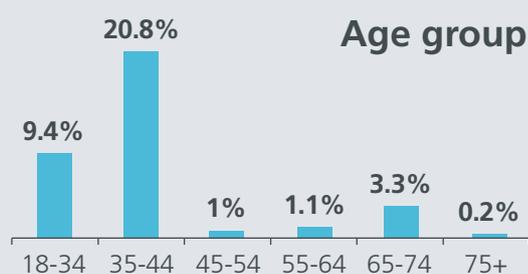
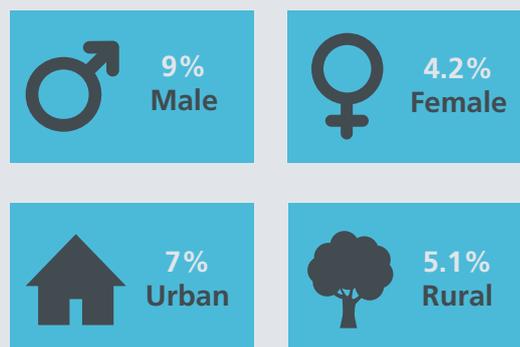
Just over one in 15 (6.5%) adults in Wales have been physically hurt or injured accidentally due to someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 159,369 people aged 18 years and older.

After controlling for socio-demographics and other confounding factors, only age group was significantly associated with having been physically hurt or injured accidentally, with the highest levels reported in those aged 18 to 34 years.

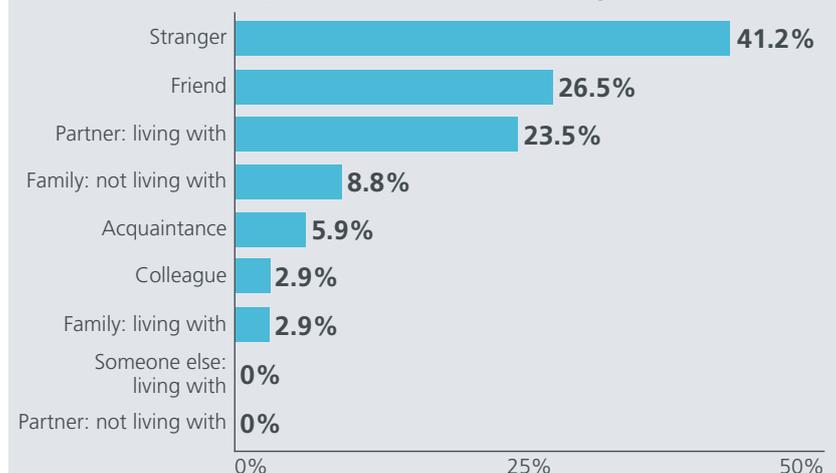
Of those experiencing this harm, over one in nine (11.8%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- A stranger (41.2%);
- A friend (26.5%); and/or,
- A partner living in the same household (23.5%).

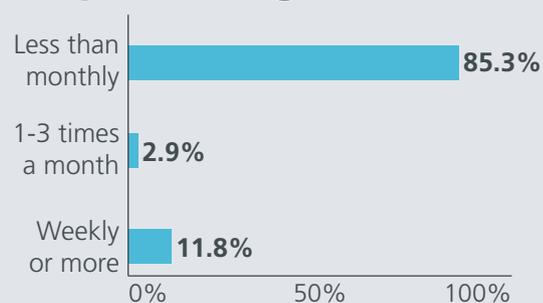
## Overall prevalence within groups



## Relationship to drinker causing the harm



## Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Drink driving

Been put at risk in a car due to someone else's drinking



Overall prevalence in the adult population in the last year: **2.6%**

## Summary

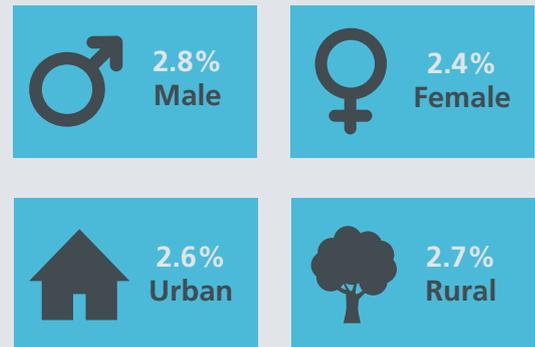
**One in forty (2.6%) adults in Wales have been put at risk in a car due to someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 64,214 people aged 18 years and older.**

No significant differences in experience of this harm were seen between individual, household or area characteristics.

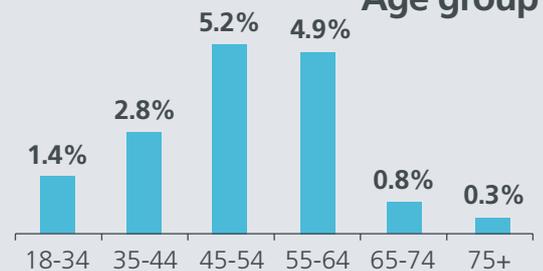
Of those experiencing this harm, one in ten (10%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- A friend (36.7%);
- A stranger (30%); and/or,
- A partner living in the same household (16.7%).

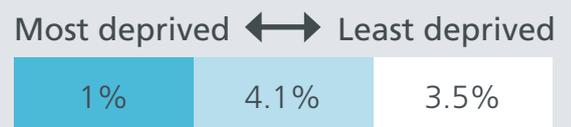
## Overall prevalence within groups



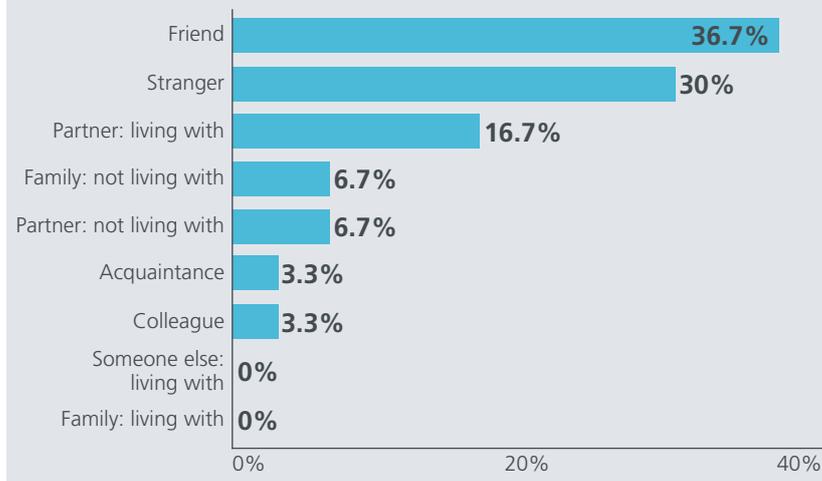
## Age group



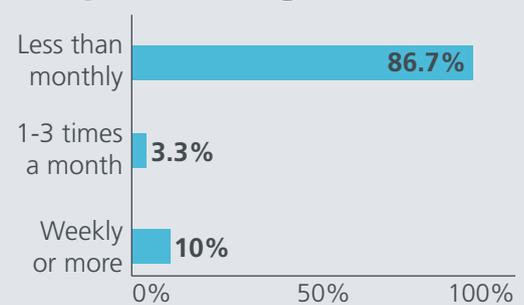
## Area deprivation



## Relationship to drinker causing the harm



## Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Felt anxious

Felt uncomfortable or anxious at a social occasion due to someone else's drinking



Overall prevalence in the adult population in the last year: **29.2%**

## Summary

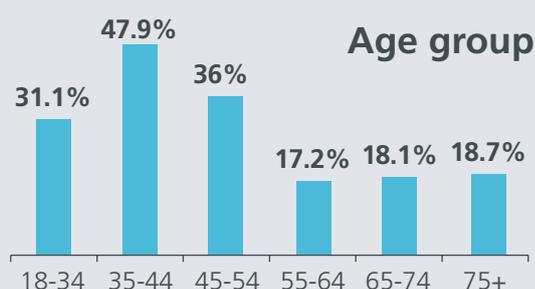
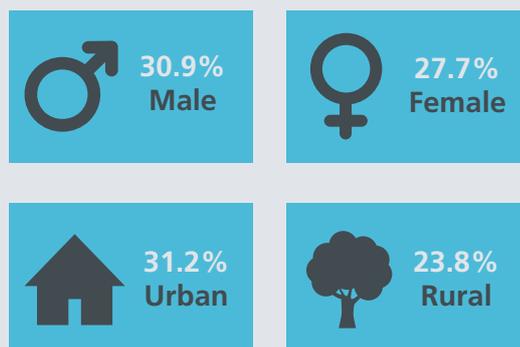
Nearly three in ten (29.2%) adults in Wales have felt uncomfortable or anxious at a social occasion due to someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 714,498 people aged 18 years and older.

After controlling for socio-demographics and other confounding factors, only age group was significantly associated with feeling uncomfortable or anxious at a social situation, with the highest levels reported in those aged 18 to 54 years.

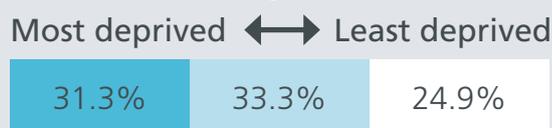
Of those experiencing this harm, over one in 20 (5.4%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- A stranger (26.7%);
- A friend (25.1%); and/or,
- A family member living in a different household (22.6%).

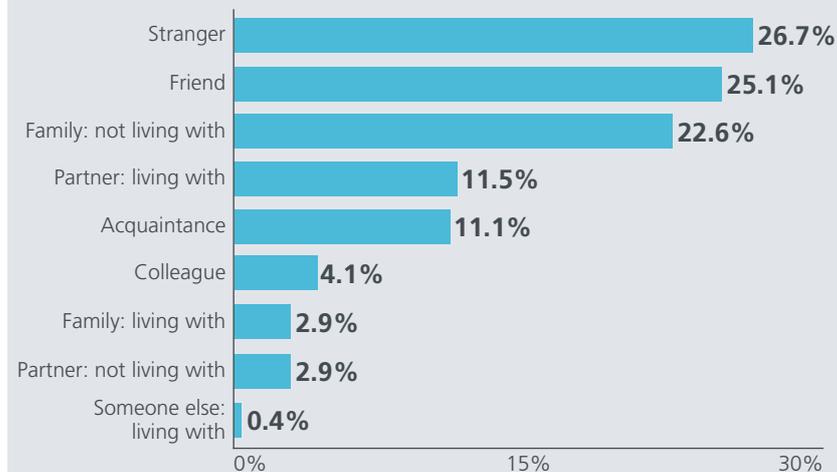
## Overall prevalence within groups



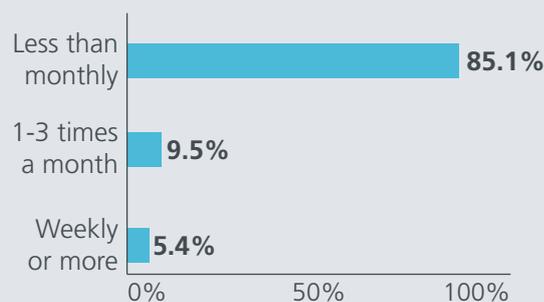
## Area deprivation



## Relationship to drinker causing the harm



## Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Property damage

Had something that mattered broken or damaged due to someone else's drinking



Overall prevalence in the adult population in the last year: **10.8%**

## Summary

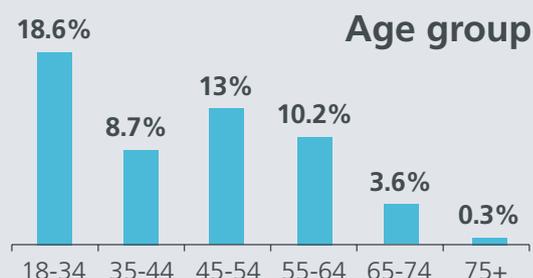
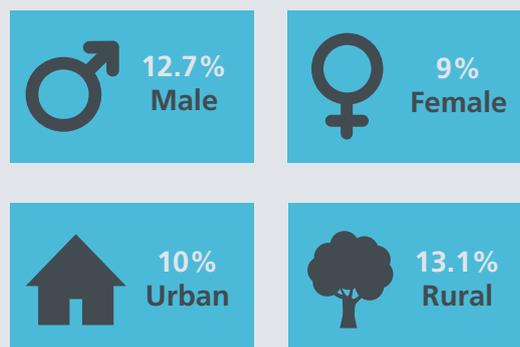
**One in ten (10.8%) adults in Wales have had something that mattered to them broken or damaged due to someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 264,268 people aged 18 years and older.**

After controlling for socio-demographics and other confounding factors, only age group was independently associated with having had something that mattered broken or damaged, with the highest levels reported in those who were aged 18-34 years.

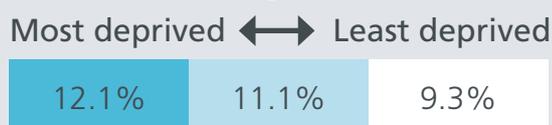
Of those experiencing this harm, over one in 15 (6.5%) experienced it weekly or more often. Those that caused the harms were most commonly reported to be:

- A partner living in the same household (25.8%);
- A stranger (22.6%);
- An acquaintance (16.1%); and/or,
- A friend (16.1%).

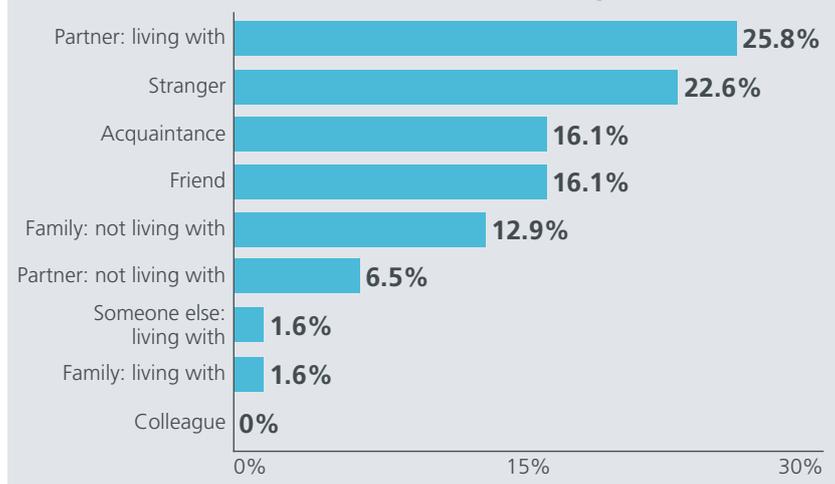
## Overall prevalence within groups



## Area deprivation



## Relationship to drinker causing the harm



## Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Spending issue

Had money that would have improved their quality of life spent on another's alcohol-related purchases



Overall prevalence in the adult population in the last year: **8.3%**

## Summary

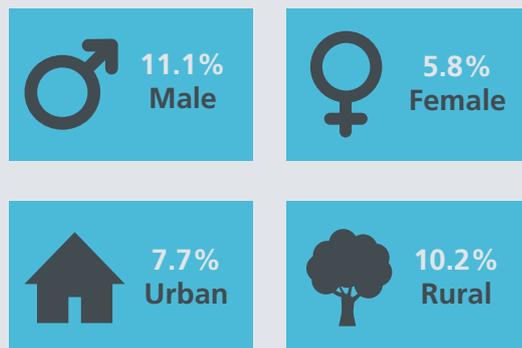
**Over one in 12 (8.3%) adults in Wales have had money that would have improved their quality of life spent on another's alcohol-related purchases in the last 12 months. Nationally, this is estimated to be equivalent to 203,898 people aged 18 years and older.**

After controlling for socio-demographics and other confounding factors, only age group and relationship status were independently associated with having had money that would have improved their quality of life spent on another's alcohol-related purchases, with the highest levels reported in those who were: aged 18 to 54 years; and single.

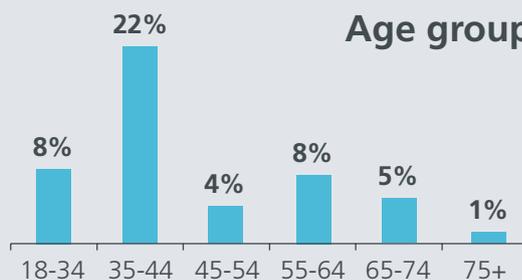
Of those experiencing this harm, three in ten (30%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- A partner living in the same household (31.1%); and/or,
- A family member living in a different household (27.9%).

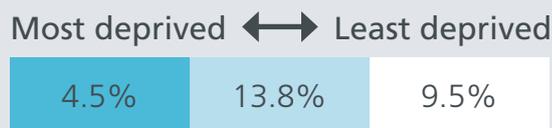
## Overall prevalence within groups



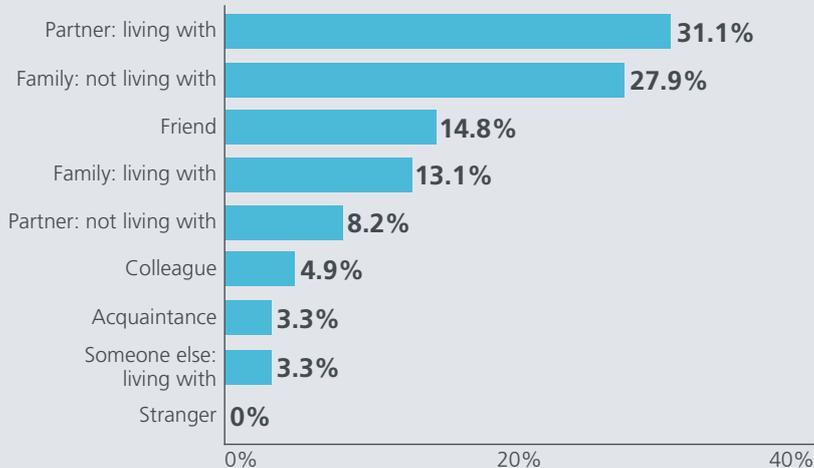
## Age group



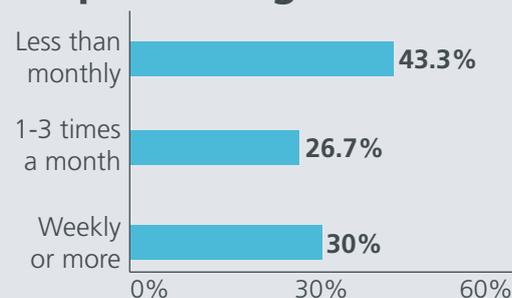
## Area deprivation



## Relationship to drinker causing the harm



## Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Concern for child

Genuinely concerned about harm to children due to someone else's drinking



Overall prevalence in the adult population in the last year: **5.4%**

## Summary

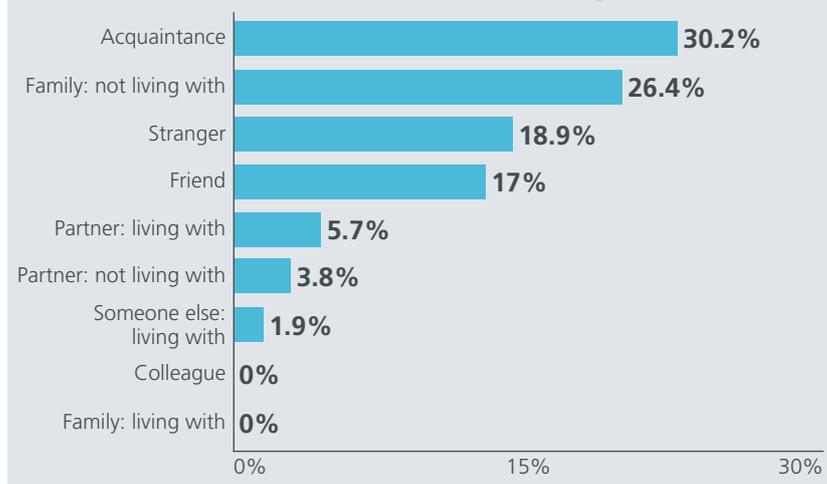
**One in twenty (5.4%) adults in Wales have been genuinely concerned about harms being caused to their or another's child/children due to someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 131,337 people aged 18 years and older.**

After controlling for socio-demographics and other confounding factors, only living in a household with children was significantly associated with having been genuinely concerned about harms being caused to their or another's child/children.

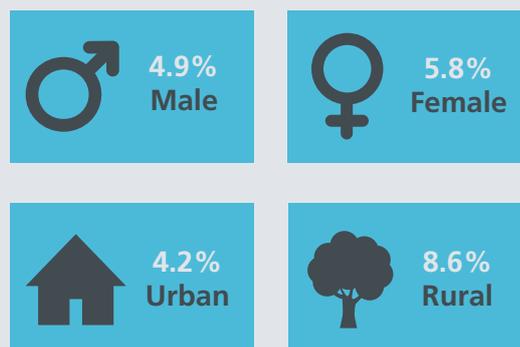
Of those experiencing this harm, over one in ten (13.5%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- An acquaintance (30.2%);
- A family member living in a different household (26.4%);
- A stranger (18.9%); and/or,
- A friend (17%).

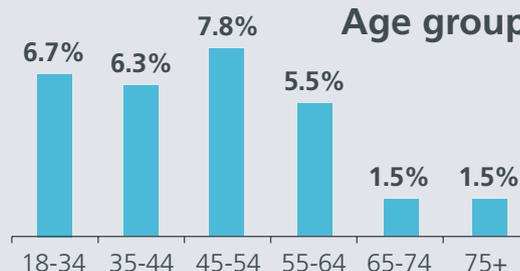
### Relationship to drinker causing the harm



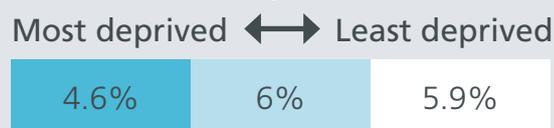
### Overall prevalence within groups



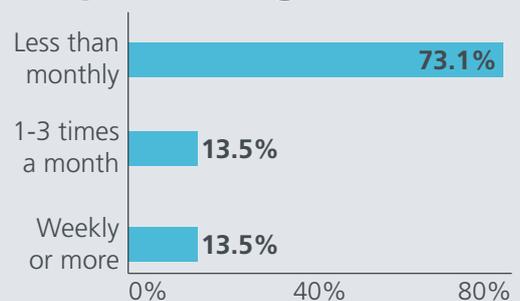
### Age group



### Area deprivation



### Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Care burden

Spent personal time caring for a person with a long term health condition or disability that resulted from their current or previous drinking



Overall prevalence in the adult population in the last year: **6.2%**

## Summary

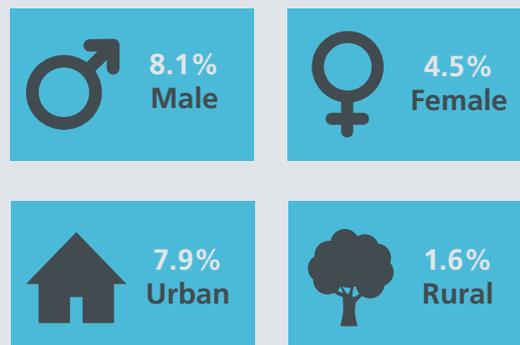
Just over one in 17 (6.2%) adults in Wales have had to spend personal time caring for a person with a long term health condition or disability that resulted from their current or previous drinking in the last 12 months. Nationally, this is estimated to be equivalent to 152,217 people aged 18 years and older.

No significant differences in experience of this harm were seen between individual, household or area characteristics.

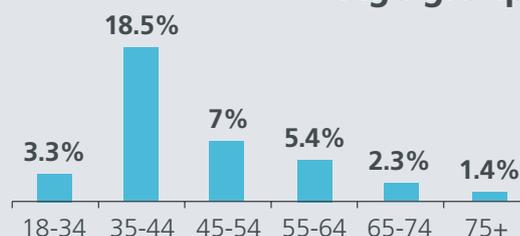
Of those experiencing this harm, nearly half (45.2%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- A family member living in a different household (52.4%); and/or,
- A friend (26.2%).

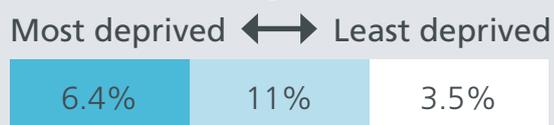
## Overall prevalence within groups



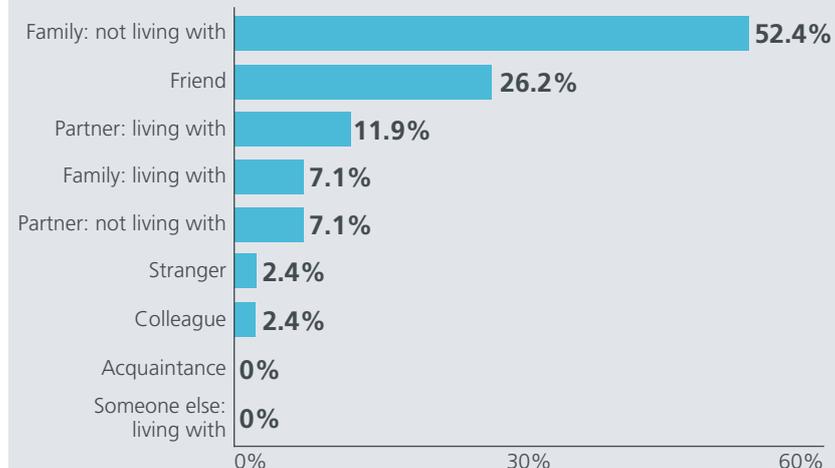
## Age group



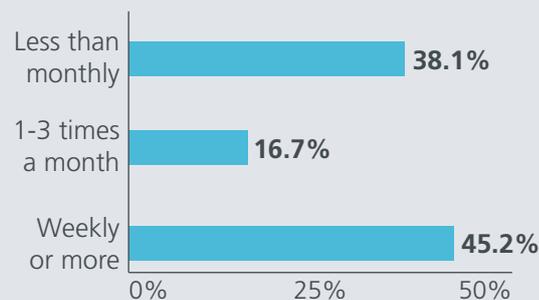
## Area deprivation



## Relationship to drinker causing the harm



## Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Let down



Let down by someone due to them failing to do something that you were counting on them to do because of their drinking

Overall prevalence in the adult population in the last year: **19.2%**

## Summary

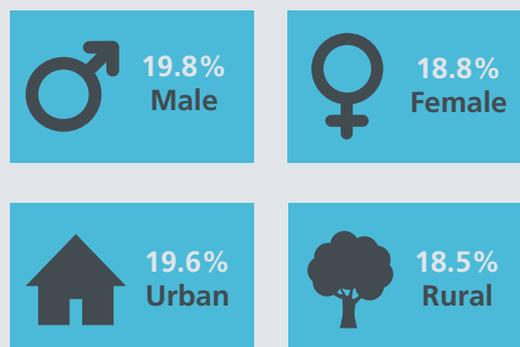
**Just under one in five (19.2%) adults in Wales have been let down by someone due to them failing to do something that they were counting on them to do because of their drinking in the last 12 months. Nationally, this is estimated to be equivalent to 471,033 people aged 18 years and older.**

After controlling for socio-demographics and other confounding factors, only age group was independently associated with being let down, with the highest levels reported in those aged 18 to 54 years.

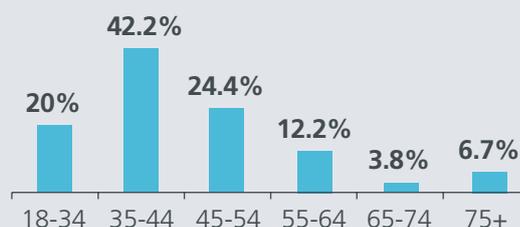
Of those experiencing this harm, over one in ten (14.7%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- A family member living in a different household (37%); and/or,
- A friend (23.7%).

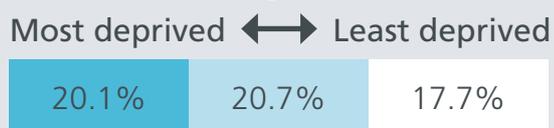
### Overall prevalence within groups



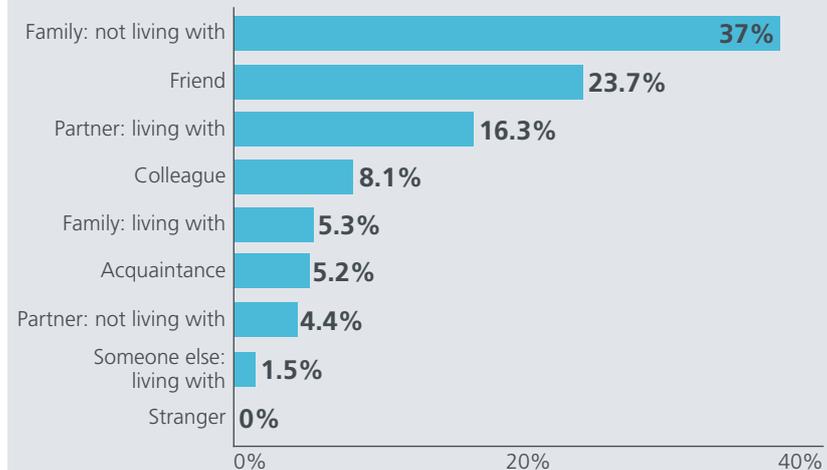
### Age group



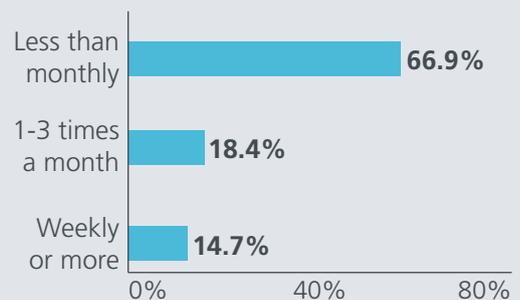
### Area deprivation



### Relationship to drinker causing the harm



### Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Disrupted sleep

Kept awake due to noise or disruption because of someone else's drinking



Overall prevalence in the adult population in the last year: **29%**

## Summary

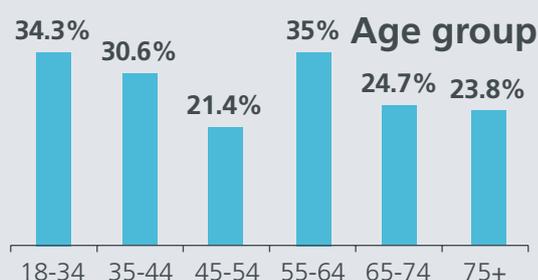
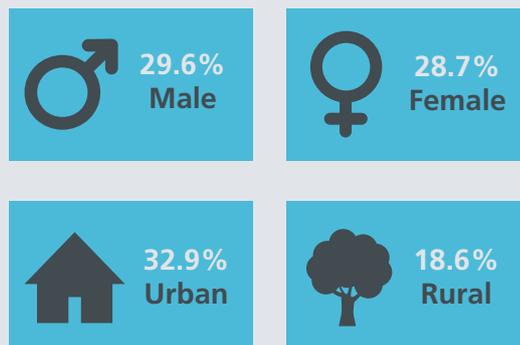
**Just under three in ten (29%) adults in Wales have been kept awake due to noise or disruption due to someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 709,530 people aged 18 years and older.**

After controlling for socio-demographics and other confounding factors, only age group and area type (i.e. urban/rural) were independently associated with having been kept awake due to noise or disruption, with the highest levels reported in those: aged under 75 years; and living in an urban area.

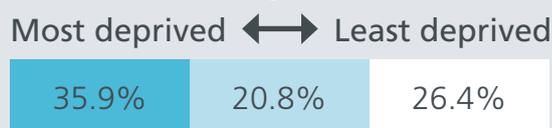
Of those experiencing this harm, just under one in five (18.6%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- A stranger (49.2%); and/or,
- An acquaintance (34.2%).

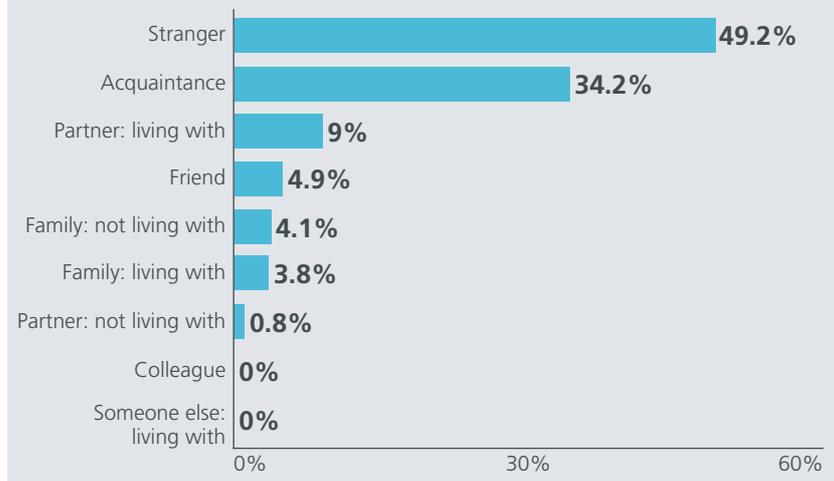
## Overall prevalence within groups



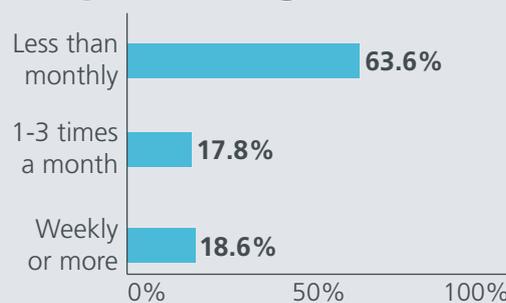
## Area deprivation



## Relationship to drinker causing the harm



## Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Drank to cope

Drank alcohol to cope with problems caused by someone else's drinking



Overall prevalence in the adult population in the last year: **6.2%**

## Summary

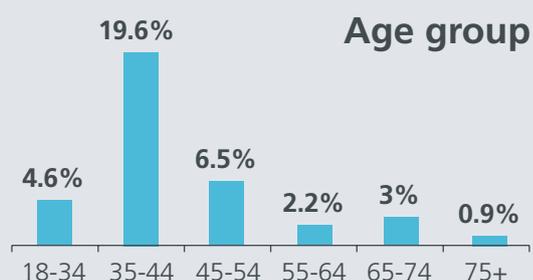
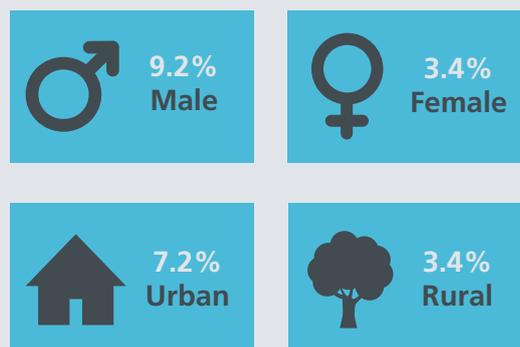
**Just over one in 17 (6.2%) adults in Wales have drank alcohol to cope with problems caused by someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 152,035 people aged 18 years and older.**

After controlling for socio-demographics and other confounding factors, only personal alcohol consumption was significantly associated with having drank alcohol to cope with problems, with the highest levels reported in those who regularly binge drink.

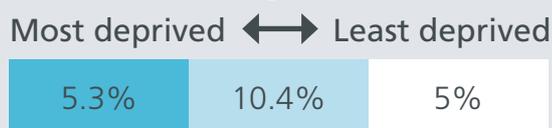
Of those experiencing this harm, a third (33.3%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

- A friend (40%);
- A partner living in the same household (33.3%); and/or,
- A family member living in a different household (30%).

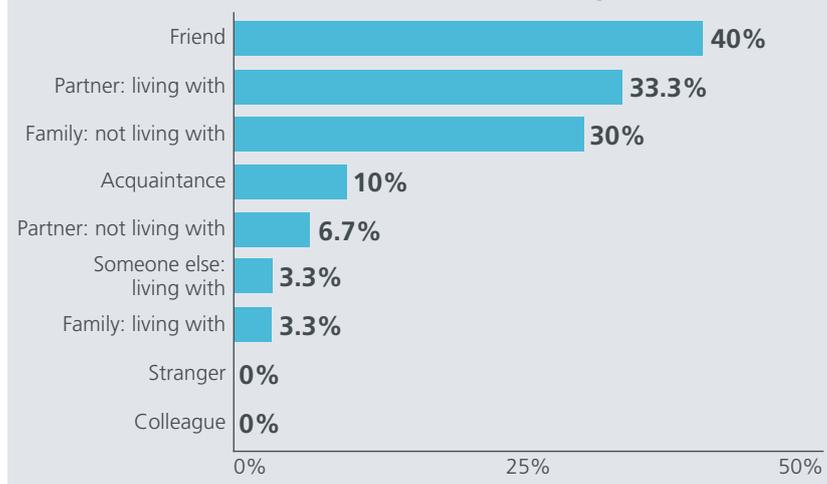
## Overall prevalence within groups



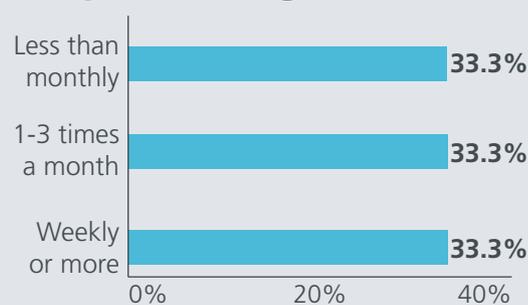
## Area deprivation



## Relationship to drinker causing the harm



## Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Ended contact

Had to stop seeing or being in contact with someone due to their drinking



Overall prevalence in the adult population in the last year: **15.5%**

## Summary

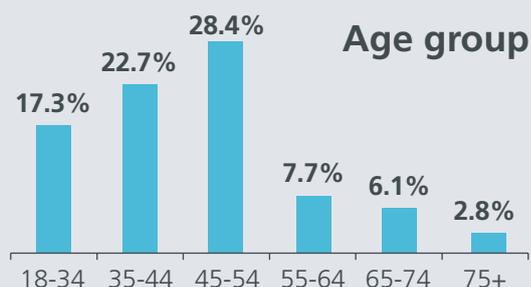
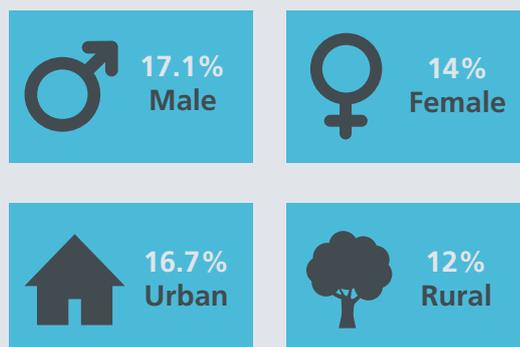
**Under one in six (15.5%) adults in Wales have had to stop seeing or being in contact with someone due to their drinking in the last 12 months. Nationally, this is estimated to be equivalent to 378,632 people aged 18 years and older.**

After controlling for socio-demographics and other confounding factors, only age group was independently associated with having had to stop seeing or being in contact with someone, with the highest levels reported in those aged 45-54 years.

Of those experiencing this harm, one in eight (11.9%) experienced it once a week or more often. Those that caused the harms were most commonly reported to be:

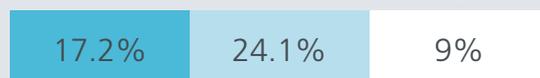
- A friend (38.8%); and/or,
- A family member living in a different household (35%).

## Overall prevalence within groups

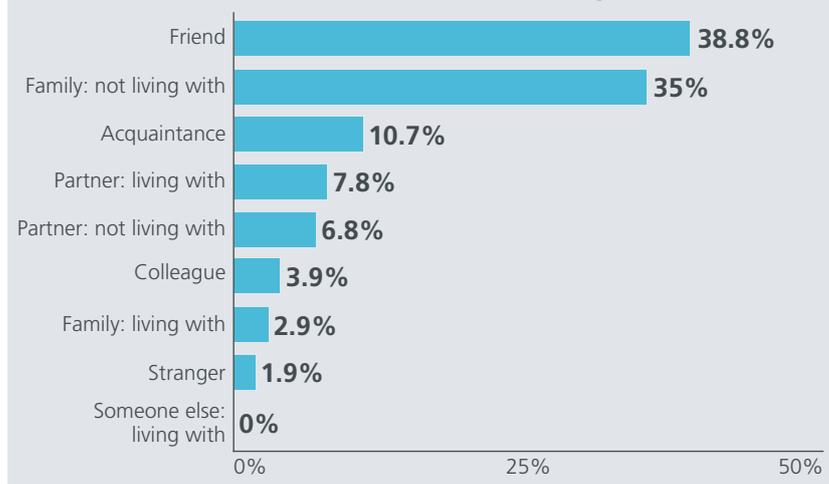


## Area deprivation

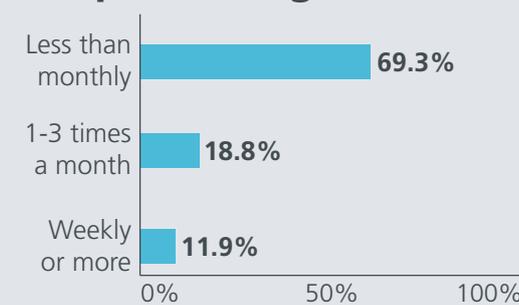
Most deprived ← → Least deprived



## Relationship to drinker causing the harm



## Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# Police contact

Contacted the police due to someone else's drinking



Overall prevalence in the adult population in the last year: **10.8%**

## Summary

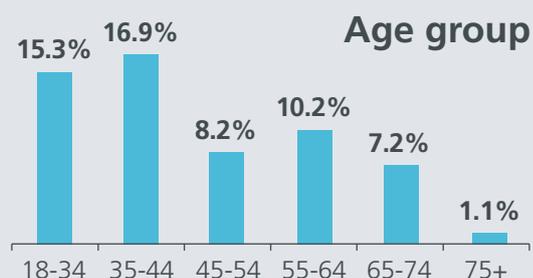
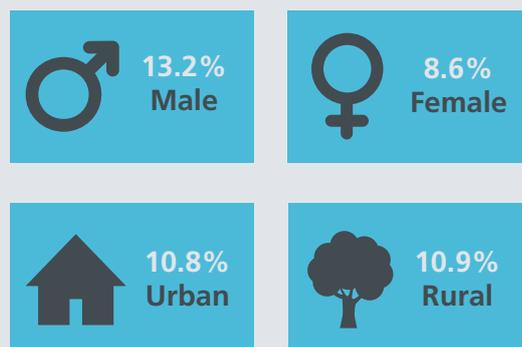
**One in ten (10.8%) adults in Wales have had to contact the police due to someone else's drinking in the last 12 months. Nationally, this is estimated to be equivalent to 264,775 people aged 18 years and older.**

No significant differences in experience of this harm were seen between individual, household or area characteristics.

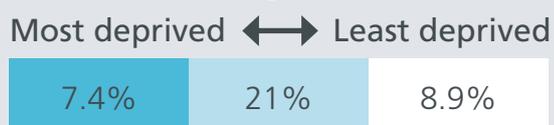
Of those experiencing this harm, nearly one in ten (8.6%) experienced it weekly or more often. Those that caused the harms were most commonly reported to be:

- A stranger (41%); and/or,
- An acquaintance (30.1%).

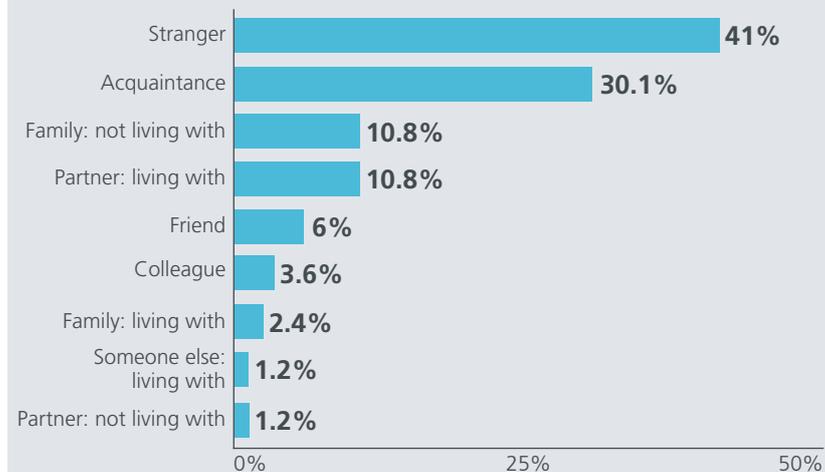
## Overall prevalence within groups



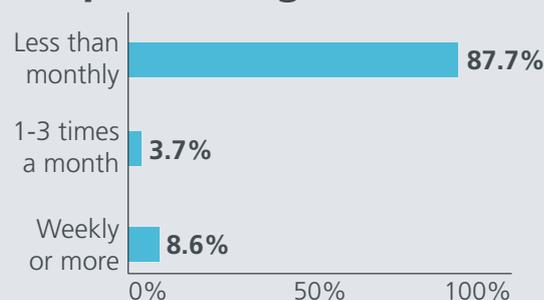
## Area deprivation



## Relationship to drinker causing the harm



## Frequency of experiencing the harm



All figures presented are adjusted to the 2013 Welsh population estimates, excluding frequency of experiencing the harm and relationship to the drinker causing the harm. See Glossary for definitions of all terms.

# 3. Summary and conclusions

Alcohol's harms to others are a vital factor when considering the relative benefits and harms caused by alcohol. Information on this must be an essential part of local, national and international policy making [2].

The findings from this survey have provided an initial understanding of the nature and extent of harms experienced by the Welsh population as a result of someone else's alcohol consumption. Similar to studies conducted elsewhere in the UK and Ireland [5,6,11], the study found a high prevalence of alcohol's harms to others in Wales, with an estimated 59.7% of adults having suffered at least one harm in the last 12 months. Recognition and consideration of these harms is important to truly understand, address and protect people from such harms. Government, local authorities and other key stakeholders in Wales have already committed to a range of national policies and programmes which aim to directly or indirectly prevent the harms caused from alcohol use, many of which include alcohol's harms to others (Box 1). Findings from this survey can support the future implementation of such policies and programmes, as well as informing future policy and practice.

**The most common harms experienced from another person's alcohol use included: feeling anxious; having disrupted sleep; having a serious argument; being let down; feeling threatened; and suffering emotional neglect.**

**Whilst some of these harms may appear minor, experiencing them has the potential to impact on a person's health and well-being.**

For example, disturbed sleep, even for one night, has been shown to affect a person's mood and attention abilities [27]. Equally, other harms that were experienced by fewer adults have the potential to have a huge impact on the individual and beyond (e.g. households; public services). For instance, findings from the survey suggest that as many as 5% of adults in Wales have been concerned that their or another's child (living in their or another person's house) may be harmed because of someone else's drinking in the last 12 months. Experience of adversity in childhood, including living in a household where alcohol is misused, has been shown to be associated with a range of health harming behaviours in later life, including the development of problem alcohol use [18,25]. Thus, considering alcohol's harms to others when delivering interventions at the individual level is key, especially when an alcohol problem may be part of a household. To truly understand the burden that alcohol's harms to others place on the public's health, the broader short and long-term impacts need to be explored and considered further.

Similar to studies conducted elsewhere, the risks of experiencing alcohol's harms to others in Wales varied among population groups. Thus, the risk of experiencing any harm in the past 12 months was higher in younger age groups. (i.e. aged 18 to 54 years).

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**Younger age groups have consistently been shown to be at risk of alcohol's harms to others across a number of studies [4,5,7,20,21] and thus preventing such harms in young people should be a priority.**

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However, consideration needs to be given to the types of harms that young people disproportionately experience. For example, in this study, the 18-34 age group was significantly more at risk of experiencing accidental injury and physical assault (with the odds of experiencing either harm 11.5 and 8.2 times higher than those aged 75 years and older). Younger people may be more at risk of harms due to various reasons such as living in and/or frequenting areas where exposure to alcohol's harms to others may be more likely to occur (e.g. nightlife settings [21]) or increased personal risky alcohol consumption [22].

The study also identified factors independently associated with specific harms from other people's drinking. Thus, compared to those who did not regularly binge drink, regular binge drinkers were over six times more likely to be drinking to cope with the problems caused by another's alcohol consumption, and twice as likely to be in a serious argument in the last 12 months. Further, those living in an urban rather than rural area were nearly one and a half times more likely to be kept awake in the last 12 months.

Such varied associations illustrate the complex nature of alcohol's harms to others. Further, individuals may experience more than one harm. Thus, in Wales two in five (41%) adults had experienced more than one harm from another's drinking, with nearly a quarter (24%) experiencing harms in four or more measured categories. Understanding how alcohol's harms to others may cluster [11], and the short and long term impacts of harms, including experiencing more than one harm, is important to tackling the complex nature of alcohol's harms to others and developing effective prevention activity.

The study did not collect specific information on participants' perceptions of harm severity, or the impact of the harm on the individual (e.g. time, financial costs), other people or public services (e.g. health and criminal justice). We did however group harms into more severe or not, based on harm types and frequency of experience. Over two fifths (43.7%) of adults had experienced at least one more severe harm in the last 12 months. Critically, experience of more severe harms was significantly higher amongst those living in the most deprived areas. Studies identifying the burden and costs of alcohol's harms to others have been conducted elsewhere and have suggested that such costs can be quite substantial (e.g. Australia [23]). Further exploration of the impacts of alcohol's harms to others in Wales would allow a greater understanding of the individual and societal costs associated with such harms, inequalities in experiencing harms, and support the development and implementation of interventions.

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**Understanding the relationship between alcohol's harms to others and health and well-being across different societal groups is an important consideration for future research [8].**

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Whilst further research is needed, this survey clearly shows that alcohol's harms to others are relatively common, and affect to differing extents more than half the adult population of Wales every year. Some people are affected by alcohol's harms to others on a weekly basis and the harms they suffer may quite often remain hidden.

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## Identifying the nature, extent and frequency of alcohol's harms to others is vital for providing a better understanding of the impact of alcohol on society.

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Further, identifying relationships with socio-demographic and other confounding factors is key to targeting prevention activity. For example, people who binge drink regularly were at greater risk of suffering a serious argument in the last 12 months and there is a need to raise public awareness of this. Minimum Unit Pricing (MUP) of alcohol should help reduce levels of alcohol consumption, especially in the heaviest drinkers and this is a measure that would be expected to reduce alcohol's harms to others [28]. Wales is currently progressing plans to introduce MUP [29].

Information from this survey will be combined with data from all of the UK nations and Ireland to provide a comprehensive assessment of alcohol's harms to others. However, we know already that the citizens of all these nations are adversely affected by alcohol's harms to others [5,6,11,17], and there are strong reasons for public health agencies to work together to identify the best ways to reduce both their prevalence and impacts on the people who suffer harms from alcohol through no fault of their own.

## Conclusion

The prevalence of alcohol's harms to others in Wales should act as a catalyst for policymakers, practitioners and the public, to both consider and work towards addressing the wide ranging effects of alcohol use. Drinkers do not just hurt themselves, but also frequently affect the lives of others, and this needs to be taken into account when considering regulation and legislation concerning alcohol. These costs are often omitted when examining the negative impacts of alcohol on society, but they are likely to be substantial. Including alcohol's harms to others in assessments of the burden of alcohol is crucial to understanding its broad impact and ensuring that policies, regulations and interventions aim to prevent the harmful effects of alcohol, to both the drinker and those who may be affected by their drinking. Whilst preventing alcohol's harms to others is inevitably a complex task, across Wales numerous policies and interventions are in place already that can help tackle such harms. However, it is important that Wales works towards obtaining a critical balance between individuals' rights to consume alcohol and the responsibilities of governments to protect individuals from the harms drinkers may cause to others. Policies such as the Well-being of Future Generations (Wales) Act 2015 [33] provide the opportunity in Wales to work collectively and strategically across organisations, to reduce alcohol use and harms associated with it in the future.

## Box 1: Action to prevent alcohol's harms to others in Wales

- Working Together to Reduce Harm: The Substance Misuse Strategy for Wales 2008-2018 [30] is the Welsh Government's 10 year strategy to address substance use. It sets out the harm reduction agenda for the Welsh Government and partners, and recognises the need for investment in the prevention of alcohol use. It has an emphasis on increasing awareness of the harms of alcohol amongst the Welsh population and a commitment to both prevention and treatment of substance use.
- Welsh Government are directly tackling the prevalent issue of alcohol use and related harms through national policies, such as the Draft Public Health (Minimum Price for Alcohol) Bill [29]. There is compelling evidence in Wales that a Minimum Unit Price on alcohol would lead to significant reductions in harmful alcohol use [28]. This targeted measure would impact on the heaviest drinkers and at-risk groups, which would in turn reduce the harms experienced by others from someone else's alcohol consumption.
- The Chief Medical Officer in Wales has demonstrated support for the latest proposed guidelines on alcohol use [31] which aim to enable the public to make informed choices about the levels of alcohol consumed over a weekly period. If established, these guidelines will contribute towards reducing the levels of harmful alcohol use in the UK and thus reduce the negative effects of harms experienced as a result of other people's drinking.
- In collaboration with the Welsh Government, Public Health Wales are developing a framework for managing the night time economy in Wales [32], which aims to develop local plans and strategies to address drug and alcohol-related crime and disorder in towns and cities, specifically to:
  - Protect individuals and communities by creating a safe and healthy environment;
  - Tackle availability of both alcohol and drugs by the enforcement of licensing regulations; and,
  - Confront anti-social behaviour, crime and the fear of crime, including sexual assault, and harassment and modern slavery in the context of the night time economy.
- The Well-being of Future Generations (Wales) Act (2015) [33] aims to improve the social, economic, environmental and cultural well-being of Wales, whilst ensuring the health and well-being of future generations is secured. The Act has put in place seven well-being goals which provide an opportunity for collaborative working across Wales to reduce the harms experienced from alcohol use.
- Public Health Wales' Strategic Plan 2015-2018 [34] has prioritised adopting and implementing a multi-agency systems approach to achieving improvements in the public's health, which includes targeting risky behaviours such as alcohol consumption. The Plan also outlines how Public Health Wales will work collaboratively using a systems approach to tackle ACEs [18]. Further, as part of a united approach to improving health, Public Health Wales are working in collaboration with the South Wales Police and Crime Commissioner to target early intervention and prevention through a memorandum of understanding [35]. This commits both organisations to support people and communities by:
  - Working together on holistic solutions to tackle the underlying causes behind criminal activity and ill health, including mental health issues, substance misuse and difficult childhoods; and,
  - Working together to support individuals, families and communities who have been or may be affected by criminal activity and recognising that both the criminal activity and ill health of individuals can impact the quality of life of those around them.
- In collaboration with various partners, Public Health Wales have implemented the 'Have a Word' [36] campaign, which aims to motivate and support professionals and practitioners across the health, social, criminal and third sectors in the delivery of alcohol brief interventions.

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# Appendix 1: Methods

## Sample design, selection and participant recruitment

A cross sectional survey of adults (aged 18 years and older) resident in Wales was implemented during June to September 2015. The survey was undertaken by an in-house telephone research team based at the Public Health Institute (PHI), Liverpool John Moores University (LJMU). PHI operates a dialler system that uses purchased (from a commercial provider) landline telephone numbers and a call algorithm to ensure that phone numbers are selected randomly and called a minimum of seven times over different days/times of day to increase the likelihood of making contact. The dialler filters out all no answers, busy tones and wrong numbers as well as approximately 80% of answer machines, with calls being transferred to the telephone researcher when answered in person. 22,000 randomly selected landline numbers from across Wales were requested for potential inclusion in the study. The survey was conducted each week from Monday to Friday, between the hours of 9.30am and 8pm. Call centre researchers completed an initial screening, which involved introducing themselves to the respondent and asking if they were aged 18 years and older and resided in the household. If they were, the respondent was invited to participate in the survey (following a detailed script – see ethics section). If not, they were asked whether there was anyone else available in the household who was a resident aged 18 years and older, and would like to take part in the survey, and if so, the script was repeated with the next available respondent.

## Questionnaire

To explore the harms from other people's alcohol consumption, a bespoke survey was developed by the research team drawing on similar studies conducted elsewhere. The survey aimed to explore the prevalence of harms from other people's alcohol consumption based on 19 categories of harm (Table 1), the relationship (e.g. partner) to those causing the harms, and the frequency of harms experienced, over the last 12 months. Further, it captured participant demographics (i.e. age, gender, relationship status, employment status, ethnic group, education, children living in the household) and personal alcohol consumption. The estimated duration of the survey was 15 minutes.

## Response rate, compliance and sample characteristics

A target sample size of 1,000 responses was set<sup>10</sup>. No answers, call back requests, and answer machines were called until a respondent provided either a yes (n =1,080) or no (n =5,307) answer to survey participation, or the study end date was reached. Nine respondents were excluded as they provided no information on harms, leaving a final sample of 1,071 (response rate, 16.8%). Sample characteristics are outlined in Table i.

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<sup>10</sup> The sample size calculator estimated a minimum sample size of 664 (based on a 5% margin of error, 99% confidence interval, a population size of 3,082,412 and a 50% distribution rate). (<http://www.raosoft.com/samplesize.html>).

## Informed consent and ethical approval

Informed consent for involvement in the study was sought at point of contact. The interviewer provided a clear and concise overview of the study rationale and methodology. It was made clear that participation was entirely voluntary and that participants were free to withdraw from the study at any time during the interview without giving any reason. It was also emphasised that all of the results will be anonymous and kept confidential. As the telephone survey methodology does not provide address information to researchers, it was not possible for a pre-participation letter to be sent out, or for a participant information sheet to be provided to individuals. To address this, the opening script clearly explained the purpose of the survey, its voluntary, confidential and anonymous nature, and what it would entail. Further, participants were provided with a web address providing full details of the study and relevant support agencies, which could also be read out to the participant verbally during the call if requested. If the respondent did not wish to take part in the survey, or there was no-one in the household within the age range, they were advised that their number would be removed from the system and they would not be called again. Interviews could be conducted in English or Welsh: no participants opted to conduct the survey in Welsh. Prior to commencement of the study, ethical approval was obtained from LJMU Research Ethics Committee and NHS Research Permissions were obtained from the Public Health Wales Research and Development Office.

## Data collection, cleaning and analysis

A selection of interviews were quality checked on a weekly basis. Data were collected in an Access database and transferred to the Statistical Package for Social Science (SPSS) v21 for data cleaning, coding and analyses. Where relevant, to ensure findings represent the Welsh population, prior to analyses data were weighted to represent the age, gender and deprivation of the general population<sup>11</sup>, using 2013 population estimates [26]. Analyses utilised chi squared to examine differences in experience of any harms and individual<sup>12</sup> harms between socio-demographic categories. Binary logistic regression techniques (using the backward conditional method) were then used to examine the association between all explanatory variables<sup>13</sup> and outcome variables (any harm and each individual harm). Findings represent an association only and do not imply causation by itself. Further, whilst we have been able to adjust for socio-demographic variables there may be unmeasured confounders that have not been accounted for in this analysis. All statistical tests were based on unweighted data.

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11 Weighting corrects for demographic differences between a sample and the population it intends to represent. It aims to reduce bias in estimates produced from a dataset that can be introduced through non response or sampling procedures.

12 Sub-analyses were not conducted on two harms (sexual harm and moved residence) due to low numbers (i.e.  $n < 30$ ).

13 Age group; gender; area deprivation; area type (i.e. rural/urban); relationship status; employment status; education status; household's with/without children; and personal alcohol consumption.

## Study limitations

Although telephone numbers were randomly selected for inclusion in the study, we did not attempt to generate a representative sample of the Welsh population, but instead used national mid-2013 population estimates to weight responses to the Welsh population based on age, gender and area deprivation [26]. The participation response rate was 16.8%. Similar telephone surveys have had varying response rates (e.g. England, 23.3% [37]; New Zealand, 64% [8]). Where possible, analyses presented are of weighted data to reflect the Welsh population (i.e. analyses covering age, gender, and area type and deprivation level).

Analyses of frequency of harms experienced and the relationship between the person causing the harm and experiencing the harm are based on unweighted data as, at this level, we could not reasonably adjust to population levels. Similar to other telephone survey studies it is likely that our study has missed certain parts of the population who do not have access to (e.g. homeless people, those who are incarcerated) or often use (e.g. young people) landline telephones. Further, similar to other studies, our study was limited by recall capacity and thus there was the potential to omit some experiences of alcohol's harms to others. The majority of all individuals who completed the survey did complete all harms to others questions.

**Table i: Sample characteristics**

		n	%
Age group (years)	18-34	147	13.7
	35-44	155	14.5
	45-54	176	16.4
	55-64	220	20.5
	65-74	222	20.7
	75+	151	14.1
Gender*	Female	656	61.5
	Male	411	38.5
Urban/rural classification <sup>†</sup>	Urban	552	61.7
	Rural	343	38.3
Relationship status <sup>‡</sup>	Married	537	53.1
	Co-habiting	124	12.3
	Widowed/separated/divorced	189	18.7
	Single	162	16.0
Ethnicity <sup>§</sup>	White	988	97.2
	Other	28	2.8
Employed <sup>l</sup>	Yes	453	44.5
Children living in household	Yes	301	28.1

\* Gender was not recorded for four participants. † Urban/rural classification could not be assigned to 176 participants. ‡ Relationship status was not recorded for 59 participants. § Ethnicity was not recorded for 59 participants. <sup>l</sup>Employment status was not recorded for 54 participants.

# Appendix 2: Data tables

**Table ii: Number, proportion (%) and crude rate (per 1,000 population) of individuals experiencing harms from other people’s alcohol consumption at least once in the last 12 months, by harm type**

Harm*	Sample data			Population adjusted data**		
	n	%	Rate/1,000	n	%	Rate/1,000
Serious argument	153	14.3	142.9	497161	20.3	203
Physically threatened	120	11.2	112.0	433392	17.7	177
Emotional neglect	119	11.1	111.1	423097	17.3	173
Physically assaulted	33	3.1	30.8	135704	5.5	55
Accidentally injured	34	3.2	31.7	159369	6.5	65
Drink driving	30	2.8	28.0	64214	2.6	26
Sexual harm	10	0.9	9.3	42953	1.8	18
Felt anxious	244	22.8	227.8	714498	29.2	292
Property damage	62	5.8	57.9	264268	10.8	108
Spending issue	61	5.7	57.0	203898	8.3	83
Concern for child	53	4.9	49.5	131337	5.4	54
Care burden	42	3.9	39.2	152217	6.2	62
Let down	136	12.7	127.0	471033	19.2	192
Disrupted sleep	266	24.8	248.4	709530	29.0	290
Drank to cope	31	2.9	28.9	152035	6.2	62
Ended contact	103	9.6	96.2	378632	15.5	155
Moved residence	16	1.5	14.9	84574	3.5	35
Police contact	83	7.7	77.5	264775	10.8	108
Other harm	124	11.6	115.8	390490	16.0	160
Any harm	535	50.0	499.5	1460151	59.7	597

\* See table 1 for a description of each harm category. \*\* Data were weighted to represent the age, gender and deprivation of the general population, using 2013 population estimates [26].

**Table iii: Proportion (%) of adults in Wales experiencing harms from other people's alcohol consumption at least once in the last 12 months, by harm type, age group and gender\***

Harm**	Age group (years)							Gender		
	18-34	35-44	45-54	55-64	65-74	75+	p***	Female	Male	p***
Serious argument	26.7%	36.1%	25.2%	12.0%	8.6%	1.2%	<0.001	16.4%	24.5%	ns
Physically threatened	30.5%	27.2%	16.9%	6.8%	8.1%	1.4%	<0.001	13.3%	22.3%	ns
Emotional neglect	17.3%	28.0%	27.4%	12.6%	10.5%	1.2%	<0.01	17.3%	17.3%	<0.05
Physically assaulted	12.0%	4.7%	2.0%	3.8%	4.3%	0.2%	<0.01	5.6%	5.5%	ns
Accidentally injured	9.4%	20.8%	1.0%	1.1%	3.3%	0.2%	<0.001	4.2%	9.0%	ns
Drink driving	1.4%	2.8%	5.2%	4.9%	0.8%	0.3%	ns	2.4%	2.8%	ns
Felt anxious	31.1%	47.9%	36.0%	17.2%	18.1%	18.7%	<0.001	27.7%	30.9%	ns
Property damage	18.6%	8.7%	13.0%	10.2%	3.6%	0.3%	<0.01	9.0%	12.7%	ns
Spending issue	8.4%	22.0%	4.3%	8.0%	4.8%	0.6%	ns	5.8%	11.1%	ns
Concern for child	6.7%	6.3%	7.8%	5.5%	1.5%	1.5%	ns	5.8%	4.9%	ns
Care burden	3.3%	18.5%	7.0%	5.4%	2.3%	1.4%	ns	4.5%	8.1%	ns
Let down	20.0%	42.2%	24.4%	12.2%	3.8%	6.7%	<0.001	18.8%	19.8%	ns
Disrupted sleep	34.3%	30.6%	21.4%	35.0%	24.7%	23.8%	<0.001	28.7%	29.6%	ns
Drank to cope	4.6%	19.6%	6.5%	2.2%	3.0%	0.9%	<0.05	3.4%	9.2%	ns
Ended contact	17.3%	22.7%	28.4%	7.7%	6.1%	2.8%	<0.001	14.0%	17.1%	ns
Police contact	15.3%	16.9%	8.2%	10.2%	7.2%	1.1%	ns	8.6%	13.2%	ns
Other harm	21.8%	25.8%	13.7%	12.1%	11.5%	2.6%	ns	14.7%	17.3%	ns
Any harm	70.4%	75.0%	66.2%	52.6%	45.0%	29.6%	<0.001	56.1%	63.4%	ns

\* Population adjusted figures. \*\* See table 1 for a description of each harm category.

\*\*\* Statistical tests are based on unweighted data. ns = not significant.

**Table iv: Proportion (%) of adults in Wales experiencing harms from other people’s alcohol consumption at least once in the last 12 months, by harm type, area deprivation level and area type\***

Harm**	Age group (years)				Gender		
	1 (most deprived)	2	3 (least deprived)	p***	Urban	Rural	p***
Serious argument	20.4%	26.1%	17.1%	ns	20.1%	21.0%	ns
Physically threatened	16.8%	21.9%	16.4%	ns	18.2%	16.3%	ns
Emotional neglect	19.4%	22.3%	12.3%	<0.05	16.4%	19.9%	ns
Physically assaulted	5.6%	3.1%	6.8%	ns	4.8%	7.7%	ns
Accidentally injured	6.9%	11.2%	3.6%	ns	7.0%	5.1%	ns
Drink driving	1.0%	4.1%	3.5%	ns	2.6%	2.7%	ns
Felt anxious	31.3%	33.3%	24.9%	ns	31.2%	23.8%	ns
Property damage	12.1%	11.1%	9.3%	<0.01	10.0%	13.1%	ns
Spending issue	4.5%	13.8%	9.5%	ns	7.7%	10.2%	ns
Concern for child	4.6%	6.0%	5.9%	ns	4.2%	8.6%	ns
Care burden	6.4%	11.0%	3.5%	ns	7.9%	1.6%	ns
Let down	20.1%	20.7%	17.7%	ns	19.6%	18.5%	ns
Disrupted sleep	35.9%	20.8%	26.4%	<0.05	32.9%	18.6%	<0.05
Drank to cope	5.3%	10.4%	5.0%	ns	7.2%	3.4%	ns
Ended contact	17.2%	24.1%	9.0%	<0.01	16.7%	12.0%	ns
Police contact	7.4%	21.0%	8.9%	<0.05	10.8%	10.9%	ns
Other harm	16.0%	19.8%	13.8%	ns	15.4%	17.5%	ns
Any harm	63.0%	59.5%	56.2%	ns	63.2%	49.7%	ns

\* Population adjusted figures. \*\* See table 1 for a description of each harm category.

\*\*\* Statistical tests are based on unweighted data. ns = not significant.

**Table v: Proportion (%) of survey participants experiencing harms from other people's alcohol consumption at least once in the last 12 months, by harm type, education level and employment status\***

Harm**	Education level						Employment status		
	Degree level or higher	A level/ BTEC	GCSE/ O level	Other qualifications	No formal qualifications	P***	Unemployed	Employed ****	P***
Serious argument	16.5%	13.5%	11.5%	8.5%	13.3%	ns	12.2%	16.3%	ns
Physically threatened	14.6%	11.7%	7.9%	8.5%	5.3%	<0.05	9.9%	12.8%	ns
Emotional neglect	13.0%	12.0%	9.4%	4.3%	8.8%	ns	11.5%	10.8%	ns
Physically assaulted	2.8%	3.5%	3.6%	2.1%	3.5%	ns	3.5%	2.6%	ns
Accidentally injured	2.5%	3.8%	4.3%	2.1%	1.8%	ns	2.3%	4.2%	ns
Drink driving	3.0%	3.8%	1.4%	0.0%	2.7%	ns	2.5%	3.3%	ns
Felt anxious	30.7%	21.6%	13.7%	10.6%	19.5%	<0.001	21.1%	24.9%	ns
Property damage	6.6%	6.7%	4.3%	2.1%	4.4%	ns	4.8%	7.1%	ns
Spending issue	6.4%	6.1%	3.6%	0.0%	5.3%	ns	5.2%	6.2%	ns
Concern for child	6.4%	6.1%	2.2%	4.3%	2.7%	ns	4.4%	6.0%	ns
Care burden	3.6%	4.4%	5.0%	0.0%	2.7%	ns	3.7%	3.8%	ns
Let down	16.3%	12.4%	8.6%	4.3%	8.8%	<0.05	10.7%	15.1%	<0.05
Disrupted sleep	26.2%	26.3%	20.9%	21.3%	23.9%	ns	24.2%	26.4%	ns
Drank to cope	2.5%	4.4%	1.4%	0.0%	4.4%	ns	2.7%	3.5%	ns
Ended contact	12.4%	8.2%	7.9%	10.6%	7.1%	ns	9.6%	9.8%	ns
Police contact	10.2%	7.9%	7.2%	4.3%	4.4%	ns	7.1%	9.1%	ns
Other harm	13.8%	11.7%	10.1%	8.5%	8.8%	ns	10.8%	13.2%	ns
Any harm	55.1%	51.8%	44.6%	42.6%	38.9%	<0.05	46.5%	55.0%	<0.01

\* Unadjusted figures. \*\*See table 1 for a description of each harm category. \*\*\* Statistical tests are based on unweighted data. \*\*\*\* Full-time, part-time or self-employed. ns = not significant.

**Table vi: Proportion (%) of survey participants experiencing harms from other people’s alcohol consumption at least once in the last 12 months, by harm type, relationship status and children living in the household\***

Harm**	Relationship status					Children living in the household		
	Married	Cohabiting	Widowed/ separated/ divorced	Single	P***	None	1 or more	P***
Serious argument	11.9%	15.3%	14.3%	19.8%	ns	12.9%	17.9%	<0.05
Physically threatened	9.1%	15.3%	7.4%	19.1%	<0.01	9.0%	16.9%	<0.001
Emotional neglect	10.8%	12.1%	12.2%	11.1%	ns	9.8%	14.6%	<0.05
Physically assaulted	1.9%	5.6%	3.7%	4.3%	ns	2.3%	5.0%	<0.05
Accidentally injured	2.6%	3.2%	1.6%	6.8%	<0.05	2.1%	6.0%	<0.01
Drink driving	2.6%	4.1%	2.1%	3.7%	ns	2.3%	4.0%	ns
Felt anxious	20.9%	25.0%	21.7%	29.8%	ns	21.7%	25.9%	ns
Property damage	4.8%	7.3%	5.3%	8.1%	ns	5.1%	7.6%	ns
Spending issue	4.5%	7.3%	7.9%	5.6%	ns	5.2%	7.0%	ns
Concern for child	4.5%	8.9%	4.2%	5.6%	ns	3.9%	7.6%	<0.05
Care burden	3.2%	2.4%	4.8%	5.6%	ns	3.9%	4.0%	ns
Let down	11.6%	15.4%	11.1%	15.6%	ns	10.3%	19.1%	<0.001
Disrupted sleep	23.7%	31.7%	21.8%	29.2%	ns	23.6%	28.5%	ns
Drank to cope	2.2%	2.4%	2.1%	6.8%	<0.05	2.1%	5.0%	<0.05
Ended contact	8.8%	6.5%	9.5%	15.4%	<0.05	8.6%	12.4%	ns
Police contact	7.1%	11.5%	6.9%	9.3%	ns	7.0%	9.7%	ns
Other harm	9.3%	16.9%	11.6%	17.3%	<0.05	11.6%	11.6%	ns
Any harm	49.2%	53.2%	44.4%	58.6%	ns	47.0%	57.5%	<0.01

\* Unadjusted figures. \*\*See table 1 for a description of each harm category.

\*\*\* Statistical tests are based on unweighted data. ns = not significant.

**Table vii: Proportion (%) of survey participants experiencing harms from other people's alcohol consumption at least once in the last 12 months, by harm type and personal alcohol consumption\***

Harm**	Regular binge drinking***		
	No	Yes	p****
Serious argument	12.3%	26.1%	<0.001
Physically threatened	10.2%	17.2%	<0.05
Emotional neglect	10.9%	12.7%	ns
Physically assaulted	2.7%	5.1%	ns
Accidentally injured	2.3%	7.6%	<0.001
Drink driving	2.8%	3.8%	ns
Sexual harm	0.6%	3.2%	<0.01
Felt anxious	21.6%	28.7%	ns
Property damage	5.2%	8.3%	ns
Spending issue	5.0%	9.6%	<0.05
Concern for child	4.9%	6.4%	ns
Care burden	3.8%	5.1%	ns
Let down	11.4%	19.1%	<0.01
Disrupted sleep	24.2%	28.7%	ns
Drank to cope	1.7%	9.6%	<0.001
Ended contact	9.2%	12.1%	ns
Moved residence	1.3%	2.5%	ns
Police contact	7.7%	8.3%	ns
Other harm	11.7%	12.1%	ns
Any harm	47.8%	62.4%	<0.01

\* Unadjusted figures. \*\* See table 1 for a description of each harm category.

\*\*\* Drank six or more alcoholic drinks on one occasion at least monthly in the past 12 months.

\*\*\*\* Statistical tests are based on unweighted data. ns = not significant.

**Table viii: Significant\* variables (and adjusted odds ratios) from binary logistic regressions of adults in Wales experiencing harms from other people’s alcohol consumption at least once in the last 12 months**

Harm**	Age group	Gender	Regular binge drinking***	Children at home	Area type	Relationship status	Area deprivation level****
Serious argument	18-34 (3.87), 35-44 (4.09), 45-54 (3.23)		Yes (2.02)				
Physically threatened	18-34 (8.76), 35-44 (6.90), 45-54 (4.19)	Male (1.58)					
Emotional neglect	18-34 (5.05), 35-44 (5.69), 45-54 (3.91)				Urban (0.61)		
Physically assaulted	18-34 (8.15)						Mid-level (1.11)
Accidentally injured	18-34 (11.52)						
Felt anxious	18-34 (2.73), 35-44 (2.44), 45-54 (2.48)						
Property damage	18-34 (6.23)						
Spending issue	18-34 (8.76), 35-44 (5.86), 45-54 (7.51)					Single (2.83)	
Concern for child				Yes (1.92)			
Let down	18-34 (3.44), 35-44 (5.13), 45-54 (3.14)						
Kept awake	18-34 (3.40), 35-44 (3.73), 45-54 (2.94), 55-64 (2.37), 65-74 (2.12)				Urban (1.47)		
Drank to cope			Yes (6.84)				
Ended contact	45-54 (2.42)						
Any harm	18-34 (4.14), 35-44 (3.91), 45-54 (3.83), 55-64 (1.82), 65-74 (1.80)						

\* Statistical tests are based on unweighted data. Only significant categories within variables are displayed.  
 \*\* See table 1 for a description of each harm category. \*\*\* Drank six or more alcoholic drinks on one occasion at least monthly in the last 12 months \*\*\*\* Three categories: 1 = most deprived; 2 = mid-level deprivation; 3 = least deprived. Reference categories: age group = 75 plus; gender = female; regular binge drinking = no; children at home = no; area type = rural; relationship status = single; area deprivation level = 3 (least deprived).

**Table ix: Number and proportion (%) of adults in Wales experiencing harms from other people's alcohol consumption in the last 12 months, by number of harms experienced (population adjusted figures)**

Number of harms experienced	n	%
0	987103	40.3%
1	449494	18.4%
2-3	428736	17.5%
4 or more	581921	23.8%

# Appendix 3:

## Glossary of terms

### **Adjusted odds ratio (AOR)**

A measure of the association between a predictor variable and the outcome variable. It represents the odds that the outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure when other confounding variables have been adjusted for.

### **Alcohol's harms to others**

The harms caused to a person, or group of people, as a result of another person's alcohol consumption.

### **Chi square test**

A measure used to determine whether there is a significant association between two categorical variables from a single population.

### **Confounders**

A confounding variable is associated with the outcome variable, but not an intermediate variable in the causal pathway between predictor and outcome.

### **Cross-sectional survey**

A type of observational study that involves the analysis of data collected from a population, or a representative subset, at one specific point in time.

### **Deprivation**

The Welsh Index of Multiple Deprivation (WIMD) provides an overall measure of deprivation (based on seven domains: income, employment, health and disability, education skills and training, barriers to housing and other services, crime and living environment) experienced by people living in an area. The WIMD is calculated for every LSOA in Wales. To assign LSOAs to deprivation tertiles, the LSOAs were sorted from the most to least deprived and divided into the three equal deprivation categories.

### **Households with children**

All households including one or more children aged 17 years and under.

### **Individuals in employment**

Individuals who are employed on a full-time or part-time basis, or are self-employed.

### **Logistic regression**

A technique to assess the impact of a set of predictors on a binary categorical dependent variable.

### **Lower super output area (LSOA)**

LSOAs are a geographical hierarchy which have been automatically generated to be as consistent in population size as possible, with a minimum population of 1000 and a mean of 1500.

<b>Regular binge-drinking</b>	Drinking six or more alcoholic drinks on one occasion at least monthly in the last 12 months.
<b>Relationships</b>	<p>Partner - living with: <i>someone you were in a relationship with (e.g. wife/ husband, partner) who you lived with</i></p> <p>Partner – not living with: <i>someone you were in a relationship with (e.g. wife/husband, partner) who you did not live with</i></p> <p>Family member – living with: <i>another family member you lived with</i></p> <p>Family member – not living with: <i>a family member you did not live with</i></p> <p>Someone else – living with: <i>someone else you lived with</i></p> <p>Friend: <i>a friend</i></p> <p>Acquaintance: <i>someone else you know</i></p> <p>Colleague: <i>a work colleague</i></p> <p>Stranger: <i>a stranger</i></p>
<b>Severe harms</b>	<p>The survey explored 19 types of harm from someone else’s drinking. Some harms* were considered less severe when experienced less than once a month, and were therefore categorised as a non-severe harm when experienced at this frequency.</p> <p>* <i>Emotional neglect, social anxiety, let down, disrupted sleep and drank to cope.</i></p>
<b>Socio-demographics</b>	Properties of the research sample regarding e.g. age, gender, ethnicity and deprivation tertile.
<b>SPSS</b>	IBM Statistical Package for the Social Sciences (SPSS) Statistical Analysis Software, version 21 was used for the data analysis within this report.
<b>Urban-Rural Categorisation</b>	Categorises a range of statistical and administrative units on the basis of physical settlement and related characteristics.



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