Alcohol and Health in North East England

Introduction

The consumption of alcohol is a complex public health issue. Alcohol plays an important and often positive role in both the culture and economy of the UK and especially the North East. Although the majority of individuals enjoy alcohol safely, alcohol consumption is associated with significant poor health, death, social and economic harm. Accurate information is essential to support appropriate strategy and service development.

Broad definitions of health and alcohol related harm are used in this report. Alcohol related harm has been defined as:

- Harms to health;
- Crime and antisocial behaviour;
- Loss of productivity in the workplace;
- Social harms.

Alcohol related poor health and deaths can be defined in many ways. In this report we use ‘causes regarded as most directly related to alcohol consumption’ as defined by the Office for National Statistics (see Table 1 on page 2).

Since this definition does not include deaths due to causes such as alcohol related road traffic accidents, suicide or violence, it is likely to underestimate the impact of alcohol consumption on the health of the local population.

This report aims to identify routinely available data sources and to describe trends in alcohol related harm in the North East of England.

The report provides an overview of:

- Trends in alcohol consumption;
- Personal expenditure;
- Government spending;
- Alcohol related harm to health; and
- Alcohol related accidents, drug use and crime.

This report should be read in conjunction with an extended report which describes:

- Data sources;
- Data collection processes;
- Advantages and disadvantages of each data source; and
- Gaps in available data.

Summary

- Adults in the North East are more likely to drink heavily than adults in England generally.
- There is a higher prevalence of hazardous or dependent alcohol consumption in the North East than in comparison to England.
- There are higher rates of alcohol related death and poor health in the North East among men and women than in comparison to England.
- There may be fewer alcohol services to meet demand in the North East than in other areas of the country.
- The costs of alcohol consumption and misuse within the North East could be approximately £1 billion per year.
Table 1: ICD 10² coding to identify causes directly related to alcohol

<table>
<thead>
<tr>
<th>ICD 10 code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F10</td>
<td>Mental and behavioural disorders due to use of alcohol</td>
</tr>
<tr>
<td>I42.6</td>
<td>Alcoholic cardiomyopathy</td>
</tr>
<tr>
<td>K70</td>
<td>Alcoholic liver disease</td>
</tr>
<tr>
<td>K73</td>
<td>Chronic hepatitis, not elsewhere classified</td>
</tr>
<tr>
<td>K74</td>
<td>Fibrosis and cirrhosis of the liver</td>
</tr>
<tr>
<td>X45</td>
<td>Accidental poisoning by and exposure to alcohol</td>
</tr>
</tbody>
</table>

**Recommended levels of safe alcohol consumption**

The measurement of alcohol consumption is not always straightforward. It is conventional to convert consumption to “units” equivalent of 10ml of pure alcohol. The Department of Health³ uses the following alcohol consumption definitions; where possible these will be used throughout this report.

Table 2: Department of Health definitions for alcohol consumption

<table>
<thead>
<tr>
<th>Consumption</th>
<th>Safe weekly consumption weekly</th>
<th>Safe consumption on no more than 5 days per week</th>
<th>Binge drinking</th>
<th>Hazardous drinking</th>
<th>Harmful drinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>&lt;21 units</td>
<td>3-4 units</td>
<td>8 units in one day</td>
<td>22-50 units per week</td>
<td>&gt;50 units per week</td>
</tr>
<tr>
<td>Women</td>
<td>&lt;14 units</td>
<td>2-3 units</td>
<td>6 units in one day</td>
<td>15-35 units per week</td>
<td>&gt;35 units per week</td>
</tr>
</tbody>
</table>

**Drinking and driving limits**

In the UK it is illegal to drive with a blood alcohol concentration above 80mg of alcohol per 100ml of blood. If an individual is breath tested at the road side they must have below 35mg of alcohol per 100mg blood to avoid a blood test.

**Commonly used terms**

*Binge Drinking:* The consumption of at least 8 units of alcohol for men or at least 6 for women during one single session (double the daily recommended alcohol consumption limits).

*Risky or Hazardous drinking:* A pattern of consumption which increases the risk of harm i.e., drinking above recommended limits⁵.

*Harmful drinking:* A pattern of consumption that causes damage to health. In contrast to risky or hazardous drinking, harmful drinking requires damage to be already caused⁶.

*Alcohol dependence:* Is a cluster of physiological, behavioural and cognitive phenomena conforming to alcohol dependence syndrome².

The terms alcohol addiction or alcoholism are not used in this report as they do not reflect the full spectrum of alcohol related health and social problems. A commonly used measure for high alcohol consumption is drinking on more than five days a week.
Impact of alcohol consumption

Health and well being

Evidence suggests that consumption of one to two units of alcohol per day is associated with a reduced risk of vascular disease and a reduced total mortality in middle to old age of approximately 33%. Despite these positive findings, alcohol consumption above recommended limits is associated with increased risk of morbidity and mortality. The World Health Organisation’s Global Burden of Disease Study found that alcohol is the third most important risk factor for European ill health and premature death.

Conditions associated with increased alcohol consumption include: cancers (breast, mouth, throat, oesophagus, pharynx, larynx, liver, and upper digestive tract), liver disease, vascular disease (CHD, stroke, hypertension), respiratory disorders, reproductive disorders, accidents, damage to the nervous system and mental health problems.

Binge drinking has been recognised as an especially harmful drinking behaviour. Problems that result from binge drinking depend on the frequency at which it occurs and the length of time it extends over. Other consequences of binge drinking (e.g., violent behaviour, accidents) are affected by the situation in which drinking takes place. Binge drinking is associated with an increased risk of a wide range of health problems including brain damage, alcohol poisoning, damage to the gastrointestinal tract, cardiovascular disease, breast cancer, skeletal muscle damage and accidents, violence and criminal behaviour.

Alcohol consumption has important implications for sexual and reproductive health of both men and women. Alcohol consumption during pregnancy affects foetal development and can result in a range of severities from low birth weight to Foetal Alcohol Syndrome. Additionally, alcohol consumption reduces fertility of women. Importantly, alcohol consumption is associated with increased risky sexual behaviour in young people which can result in unplanned pregnancy and sexually transmitted infections.

The economic costs and benefits of alcohol

Alcohol consumption creates both economic costs and benefits for society. The leisure industry provides employment and tax revenue. In 2005, it was estimated that there were 919,000 individuals employed nationally in pubs, bars and licensed clubs. The total UK drinks market was estimated at £42 billion in 2000, equivalent to 7% of total consumer spending. Additionally, many city redevelopments have partly relied on spending in pubs, bars and restaurants. Despite this there are significant alcohol related costs to society. In Europe, the economic costs of alcohol are estimated to be between 1 to 3% of a country’s Gross Domestic Product.

The costs of alcohol consumption fall to individuals and families, employers, the economy, health and social services, police and the criminal justice system and a range of other parties. Due to this complexity it is methodologically difficult to estimate the true cost of alcohol consumption and studies are likely to underestimate the total costs. Economic analyses have used a variety of methodologies which makes comparison problematic.

A comprehensive assessment of the costs of alcohol consumption and misuse was conducted by The Prime Minister’s Strategy Unit which calculated that the cost of alcohol consumption in England was between £19 to £20 billion per annum. This estimate includes costs to health care, workplace and wider economy and costs of alcohol related and alcohol specific crime. We can extrapolate from this that the costs of alcohol consumption and misuse within the North East could be between £950 million and £1 billion if we divide the cost per person equally. However, the North East has higher levels of harmful and binge drinking than other areas of the country and therefore the costs are likely to be higher than this.
Other studies have attempted to estimate costs specific to different sectors of health care. The Alcohol Needs Assessment Research Project\textsuperscript{18} estimated that annual spending on specialist alcohol treatment in England was £217 million.

Healthcare Resource Group (HRGs) can be used to estimate the cost of hospital inpatient and day case admissions and treatments related to alcohol use. In 2003/04 the cost of treating North East residents admitted with a primary diagnosis of alcohol related disease was approximately £5.6 million. Additional costs where alcohol related disease was a secondary diagnosis were approximately £12.0 million. Rough estimates suggest that additional health care costs are likely to be at least £100 million per annum in the North East\textsuperscript{19}.

**Policy context**

The UK Government identified the need to address alcohol related harm in Saving Lives: Our Healthier Nation\textsuperscript{20} since then the NHS Plan\textsuperscript{21} and Choosing Health\textsuperscript{22} have guided alcohol related work.

During 2004, the Government published the Alcohol Harm Reduction Strategy for England\textsuperscript{2} which aims to ‘prevent any further increase in alcohol-related harms in England’.

The UK Government has reformed the Licensing Act 2003\textsuperscript{23} with the aim of providing:

- More flexible opening hours;
- Measures to tackle alcohol related crime;
- Changes in the identity and accountability of the licensing authority; and
- Strengthened protection for children.

Alcohol related harm reduction work occurs in a context of changing licensing legislation and new regulations regarding the advertising of alcoholic drinks, licensing and enforcement of licensing. Local Authorities are now responsible for licensing of establishments selling alcohol. Importantly, the new licensing law for England and Wales does not consider public health as a goal for licensing. Licensing does not consider the health of customers beyond direct physical safety\textsuperscript{24}.

**Alcohol Harm Reduction Work in the North East**

In 2003, the North East Health Forum agreed to establish a sub-group - the Regional Harm Reduction Partnership - to look at alcohol harm reduction under the chairmanship of the Regional Director of Public Health. This group has members drawn from the NHS, Local Authorities and the Association of North East Councils, users, the police, Government Office for the North East (GONE), the National Treatment Agency, and the licensed trade. The group has developed an action plan in which sharing good practice regionally is a major feature. An information sub group works to gather local information on alcohol use and its consequences in the North East.

The Regional Harm Reduction Partnership links with other regional bodies including the Regional Community Safety Forum and Communities Directorate in GONE. The Communities Directorate is responsible for co-ordinating the community safety partnerships in localities, which have Primary Care Trusts in membership.

Many Community Partnerships and Local Strategic Partnerships have produced strategies and implemented alcohol control measures. Local Authorities have also drawn up strategies as part of their new licensing responsibilities, which came into full effect in November 2005. GONE is mapping these initiatives and will have a summary available by early 2006. There have been two regional alcohol conferences. The first was organised by GONE in 2002 as part of the consultation to inform the National Alcohol Strategy\textsuperscript{3}. The second was organised by the Regional Community Safety Forum in October 2004 and concentrated on the crime and disorder aspects of alcohol misuse. A third conference, planned for February 2006 will focus on health and treatment.
Measures of Alcohol Consumption

European data on alcohol consumption

The World Health Organisation (WHO) identifies alcohol consumption as an important public health issue for Europe. In the WHO European Region, alcohol consumption is estimated to be responsible for approximately 9% of the total burden of disease. The Health for All Database maintained by the WHO provides comparative information on European countries. Among European countries:

- Alcohol consumption per person per year ranges from 0.9-13.3 litres of alcohol (UK 7.5 litres).
- The UK has a small proportion of the population who abstain from alcohol consumption (UK 6%; range 5% to 38%).
- Internationally, women are more likely to abstain than men.
- Binge drinking is more common in men in all countries.
- The level of binge drinking varies, even among countries that have similar overall consumption levels.

UK data on alcohol consumption

The UK is characterised by a high proportion of alcohol consumed outside meal times in comparison to other European countries.

The General Household Survey (GHS) and the Health Survey for England (HSE) are two national surveys that are carried out at regular intervals and include questions relating to alcohol consumption. It is difficult to make direct comparisons between the results of the GHS and HSE as each survey asks slightly different questions; this issue will be discussed further in the extended report. It is important to consider that surveys of alcohol consumption are likely to underestimate the amount of alcohol consumed as individuals tend to under report rather than over report consumption.

Adults

Both the GHS and HSE focus on adults, however they do include young people from the age of 16 years. National trends identified by both the GHS and HSE include the following:

- Respondents in the North East were more likely than respondents in England to drink more than the recommended daily alcohol consumption limits or binge drink.
- Men are more likely than women to exceed the recommended limits for safe alcohol consumption or binge drink.
- Binge drinking is more common in the 16 to 24 year age group than older groups.

Young People aged 16 to 24 years

The GHS and HSE include participants in the age group 16 to 24 years of age. Due to the small numbers surveyed in this age group no regional comparisons can be made. The GHS survey identified that alcohol consumption behaviour of young people is different to that of the older age groups. Figure 1, below, illustrates that young people are least likely to consume alcohol on 5 or more days of the week, but most likely to binge drink. As with other age groups males are more likely to binge drink than females (32% males, 24% females in 2004).
Regional Trends

The GHS found that respondents in the North East had a similar prevalence of alcohol consumption in the last 7 days to those in England as a whole, and were less likely than respondents in any other areas except London to have consumed alcohol on 5 or more days last week. However, the graphs below show that respondents in the North East were more likely to have exceeded the maximum recommended daily consumption, or binge drink, on at least one day the previous week than respondents in England as a whole. Data show that these trends have occurred since at least 1998.

SOURCE: General Household Survey, 2004
Figure 3: Percentage of survey respondents who binge drank, Government Office Regions in England, 2004

The HSE estimates that the North East Region has the lowest proportion of alcohol drinkers who drank less than 2 units in the last week and the highest proportion who binge drank in the last week.

The Department of Health has developed synthetic estimates for binge drinking for all PCTs nationally. Within North East PCTs the prevalence of binge drinking is 20-35% of the population. Synthetic estimates use statistical modelling techniques to estimate the expected prevalence of binge drinking in a particular area, given the social and demographic characteristics.

Local Lifestyle Surveys

Local lifestyle surveys have been conducted over recent years in many of the Primary Care Trusts in the region. Although the surveys provide useful local information, it is important to remember that comparison is not always appropriate and that surveys are not always representative of some groups within the population. Despite this it is interesting to note that there is some agreement in survey results across the region:

- 77-89.5% of adults consume alcohol;
- Males tend to drink more than females;
- 10-12.5% drink alcohol occasionally;
- Between 14% (Derwentside) and 23.5% (South Tyneside) drink alcohol more than 4 times a week;
- Approximately a quarter of respondents binge drink (21.5% to 34%);
- Some surveys identified that younger people are more likely to binge drink than older people.

School aged children

The Smoking, Drinking and Drug use Among Young People in England survey captured information regarding the smoking, drinking and drug use behaviour of 11-15 year olds attending secondary school in England. The survey is not able to provide regional data due to small sample size.
The survey found that in England in 2004:

- In 2004 23% of pupils had consumed alcohol within the last week. This proportion has fluctuated between 20% and 27% since 1988, with no clear trend in recent years.
- Alcohol consumption increased with age. 4% of 11 year olds had drunk alcohol in the last week in comparison to 45% of 15 year olds.
- For the first time the survey found that boys and girls were equally likely to have drunk alcohol during the last week. Previously, boys had been more likely to have drunk alcohol.
- 85% had drunk alcohol on one or two days, while 3% had done so on five or more days. Weekends were the most popular times of the week for drinking alcohol.
- The average weekly consumption among pupils who had consumed alcohol during the last week increased from 5.3 units in 1990 to 10.7 units in 2004. The average units consumed by boys and girls were similar (girls 10.2 units, boys 11.3 units).
- 51% of pupils who had consumed alcohol never bought alcohol, those who did bought alcohol from friends or relatives (17%), off-licences (17%), shops or supermarkets (9%), clubs or discos (6%). Between 1996 and 2000 the proportion purchasing alcohol from off-licences decreased whilst the proportion purchasing from friends and relatives increased.

**Local Surveys**

Local surveys especially those of the Schools Health Education Unit have been conducted in many areas. However, this information is difficult to obtain regionally and therefore has not been included.

**Expenditure on Alcohol**

The Expenditure and Food Survey (2003/4) assessed spending on goods by private households within the UK. Information provided regarding spending on alcohol is important as pricing policies are used to reduce alcohol consumption. The survey does not include spending on alcohol by those who do not live in private households or who are under 16 years.

- Household expenditure on alcoholic drinks consumed at home increased from £2.40 per week in the lowest earning ten percent to £11.50 per week in the highest earning ten percent. This trend was also seen in alcoholic drinks consumed away from home from £2.40 per week in the lowest ten percent to £16.20 per week in the highest ten percent.
- Households in the lowest income group spent 4% of their disposable income per week on alcoholic drinks, tobacco and narcotics whilst the most wealthy group spent 2%.
- Average weekly household expenditure on alcoholic drinks consumed away from home was highest in the North East of England (£10) in comparison to other regions (range £7.20- £10).
- Average weekly household expenditure on alcoholic drinks consumed at home ranged from £6.70 in the North West to £5.20 in Northern Ireland (North East £5.40)
- Those aged between 50-65 years have the highest weekly expenditure on alcohol consumed in the home. Those aged under 30 years have the highest expenditure on alcohol consumed away from home.

**Health Inequalities and alcohol consumption**

Health inequalities are apparent in relation to alcohol consumption and alcohol related morbidity and mortality. Evidence suggests that:

- Males have higher alcohol consumption and binge drink more than females and this is reflected in higher alcohol related morbidity and mortality.
- Younger people tend to binge drink more than older people and have higher admission rates for accidental poisoning or exposure to alcohol. However, older people tend to drink more frequently and there is higher morbidity relating to chronic alcohol related disease in older age groups.
- White ethnic groups tend to have higher alcohol consumption and alcohol related morbidity and mortality than Black and Ethnic Minority populations.
The HSE found that households in the highest earning 20% consumed alcohol on more days per week than the households in the lowest earning 20%. However, those in the lowest group were more likely to binge drink, especially amongst women. The GHS found that those earning the most were more likely to drink alcohol on five or more days last week. With regard to drinking in excess of daily recommended limits or binge drinking the GHS found that there was little difference between socioeconomic groups.

**Morbidity and Alcohol Consumption**

Alcohol consumption above either daily or weekly recommended amounts results in increased risk of alcohol related conditions and increased demand for services.

**Prevalence of alcohol disorders**

The Alcohol Needs Assessment Research Project (ANARP)\(^{17}\) and The National Psychiatric Morbidity Survey (NPMS)\(^{32}\) provide comprehensive assessments of the prevalence of alcohol disorders. The National Psychiatric Morbidity Survey included adults aged 16 to 74 years living in private households in England, Scotland and Wales and gathered information regarding the prevalence of mental health conditions including alcohol misuse\(^*\).

ANARP is a needs assessment project conducted on a national scale. The study assessed the prevalence of alcohol disorders, the level of current service provision and the level of service provision required to meet the needs of individuals with alcohol related disorders.

*Figure 4: Prevalence of hazardous drinking and alcohol dependence in the North East and England,2004*

Figure 4 shows results from the ANARP project which indicate that hazardous drinking may be more prevalent in the North East than in England. Results from NPMS show similar trends. Both studies found that nationally, there was higher prevalence of hazardous drinking and dependence in males, young people and white ethnic groups in comparison to Black and Minority Ethnic Groups.

\(^*\) NPMS defines hazardous drinking as ‘an established pattern of drinking which brings the risk of physical and psychological harm’.
Hospital admissions directly related to alcohol consumption

Figures 5 to 11 analyse hospital admissions for causes directly related to increased alcohol consumption. The data used originates from the Hospital Episode Statistic (HES) database. Causes for admission are coded using the ICD 10 and definition of conditions directly related to alcohol consumption (Table 1).

Comparison between Government Office Regions

The graphs below compare the Directly Standardised Admission Rates in the North East with other Government Office Regions and England.

Figure 5: Directly Age Standardised Rate per 100,000 of admissions due to alcohol related causes, by sex, Government Offices in England, 2001-2004

SOURCE: Hospital Episode Statistics

Figure 5 shows that the North East has a statistically significant higher rate than England and all other regions except the North West.

† Direct Standardisation is a statistical technique that takes into account differences in the age structure which would influence the rate within each population being compared.
‡ Statistical significance means that the result found is unlikely to have occurred due to chance.
Alcoholic liver disease is an important indicator of long term high alcohol consumption. Both males and females in the North East have a higher rate for admission for liver disease than males and females nationally. The North East has significantly higher rates of admission than any other region except the North West.

Figure 6: Directly Age Standardised Rate per 100,000 of admissions due to alcoholic liver disease (K70), chronic hepatitis not elsewhere classified (K73) and fibrosis and cirrhosis of the liver (K74), by sex, Government Offices in England, 2001-2004

Figure 7: Directly Age Standardised Rate per 100,000 of admissions due to accidental poisoning by and exposure to alcohol (X45), by sex, Government Offices in England, 2001-2004
Accidental poisoning by and exposure to alcohol is an indicator of short term high alcohol consumption. Figure 7 shows that North East males and females have a higher rate for admission for accidental poisoning and exposure to alcohol than any other region and more than double the national rate. This pattern can be seen in age specific admission rates and mortality rates (see below) and should be investigated further.

The above graphs indicate that the North East region has a greater proportion of ill health directly relating to alcohol consumption than most other regions in England.

**Comparison between Local Authority areas in the North East**

Figure 8 shows the rate for all admissions due to alcohol related causes by Local Authority. Among men, Gateshead, South Tyneside, Sunderland, Middlesbrough and especially Newcastle upon Tyne have significantly a higher rate than the North East. Among females six Local Authorities have significantly higher rates than the North East however variation is less than among males. Wansbeck has the highest rate.

**Figure 8: Directly Age Standardised Rate per 100,000 of admissions due to alcohol related causes, by sex, Local Authority Districts in the North East, 2001-2004**

![Graph showing rates per 100,000 inhabitants](image)

Local Authority

SOURCE: Hospital Episode Statistics

Figure 9 shows that three Local Authority areas have a statistically significant rate for accidental poisoning and exposure to alcohol higher than the North East as a whole. This means that South Tyneside has a particularly high rate which should be investigated further.
Figure 9: Directly Age Standardised Rate per 100,000 of admissions due to alcoholic poisoning by and exposure to alcohol (X45), by sex, Local Authority Districts in the North East, 2001-2004

SOURCE: Hospital Episode Statistics

Figure 10: Directly Age Standardised Rate per 100,000 of admissions due to alcoholic liver disease (K70), chronic hepatitis not elsewhere classified (K73) and fibrosis and cirrhosis of the liver (K74), by sex, Local Authority Districts in the North East, 2001-2004

SOURCE: Hospital Episode Statistics

Figure 10 shows that generally males have a higher DSR for admission due to liver diseases directly related to alcohol consumption than females. In Newcastle upon Tyne the difference in DSR between males and females is larger than other areas; this appears to be due to an increased rate in the male population. This should be investigated further.
**Age specific hospital admission rates to for alcohol related conditions**

Figure 11 shows the age specific admission rates for conditions directly related to alcohol consumption. Age specific admission rates are higher in males for all conditions. Additionally, age specific rates are higher for all conditions in the North East in comparison to England generally.

**Figure 11: Age sex specific rates per 100,000 for admissions due to alcohol related causes in the North East and England, 2001-2004**

![Graph showing age specific hospital admission rates to for alcohol related conditions](image)

**SOURCE:** Hospital Episode Statistics

The peak age for admission for alcohol related liver diseases among men and women is between 50 and 60 years.

The North East has a significantly higher rate of accidental poisoning and exposure to alcohol in all age groups than England for both males and females. Among men the peak age for admission is between 20 and 30 years, among women it is between 10 and 20 years. This trend should be explored further.

**Accident and Emergency data regarding alcohol**

There are currently no routine data regarding Accident and Emergency attendance or admission for alcohol related causes. A number of local studies have been conducted including in South Tees Hospital and Sunderland Royal Hospital (described below).

Three prospective studies were carried out in Accident and Emergency (A&E), Sunderland Royal Hospital June-November 2005, to describe the demographics of patients presenting as an alcohol-related attendance. These included a 12-day study that reviewed 103 patients; a 24-hour study on a weekend night (17/09/05) of 228 attendances; and a one-week review of 26 admissions on the A&E observation ward.

The studies found that three-quarters of A&E attenders were aged 20-49 years; two-thirds were male and also presented with an alcohol-related injury. On a weekend night, a quarter of patients were adolescent and adult attendances, with the majority attending between 8pm and 4am. Sixty percent of those on admission were identified as hazardous drinkers using the one-minute Paddington Alcohol Test

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5 Hospital Episode Statistics have recently begun recording A&E admissions however data is not yet readily available to analyse.
and all cases of violent injury involved hazardous drinking – either by the attender or by another person.

The studies found that A&E serves as an easy access point for identifying hazardous drinking habits, with the aim of providing ‘brief interventions’ or referring on to community-based alcohol misuse services, for those requiring long-term counselling.

**Mental Health and Alcohol**

Evidence suggests an association between increased alcohol consumption and mental ill health. Alcohol consumption can be a cause of mental ill health, or a resulting factor. Coulthard et al. found that less than 1% of the general population were classified as being moderately or severely dependent on alcohol, this increased to 2% in people with neurotic disorders, 5% among those with phobias and 6% among those with two or more neurotic disorders.

Using estimates of the prevalence of mental health disorders identified by National Psychiatric Morbidity Survey we can extrapolate that at least 6,200 individuals in the North East have a severe mental health disorder in addition to alcohol dependence. This is likely to be an underestimate of prevalence of individuals with both mental health and alcohol problems as the survey involves only those known to mental health services. These individuals are important to consider as they are likely to have complex health and social needs.

Figures 12-14 show rates of admission for mental and behavioural disorders due to alcohol.

**Figure 12: Directly Age Standardised Rates per 100,000 of admissions due to mental and behavioural disorders due to use of alcohol (F10), by sex, Government Offices in England, 2001-2004**

SOURCE: Hospital Episode Statistics

Figure 12 shows that the North East has a higher rate of admission for mental and behavioural disorders due to alcohol than England.
Figure 13: Directly Age Standardised Rates per 100,000 of admissions due to mental and behavioural disorders due to use of alcohol (F10), by sex, Local Authority Districts in the North East, 2001-2004

Source: Hospital Episode Statistics

Figure 13 shows that in all Local Authority (LA) areas, males have a higher rate than females; Newcastle upon Tyne has a larger difference between males and females than other LA. Among males, five LAs have a significantly higher rate of admission than within the North East males. Among females, six LAs have a significantly higher rate of admission than within North East females. Variation is less among females than males.

Figure 14: Age Sex Specific Rates per 100,000 of admissions due to mental and behavioural disorders due to use of alcohol (F10), by sex, in the North East and England, 2001-2004

Source: Hospital Episode Statistics
Figure 14 shows that admissions for both males and females peak in the 40 to 50 year age group. It also indicates that individuals are accessing services at increased rates in the North East and suggests that the North East region has greater need for mental health services related to alcohol use than other areas of the country. This illustrates that it is essential that alcohol services are well linked to mental health services.

**Users of alcohol treatment services**

A survey (unpublished) of members of Regional Alcohol Forum was conducted in 2005 by The Regional Alcohol Forum. This is a network established for people who use alcohol. The number of respondents was small (n=53) but the survey is unique in the information it provides regarding service users.

- 56% of respondents identified themselves as ‘problem drinkers’ and 81% identified themselves as having a past drinking problem.
- Respondents drank spirits or beer/lager, usually purchased, from off-license shops.
- Many had past drug dependency (including heroine, amphetamines, cocaine, benzodiazepines and crack).
- The majority of respondents had previously attended detoxification therapy.

**Mortality and Alcohol Consumption**

Increased alcohol consumption is associated with increased mortality. The North East has a significantly higher Directly Standardised Mortality Rate in males and females in comparison to England. Figure 15 shows that mortality from alcohol related causes has increased nationally between 1997 and 2004, however the increase is greater in the North East.

**Figure 15: Trend in Directly Age Standardised Mortality Rate per 100,000 for alcohol related mortality for the North East and England, 1997-2004**

SOURCE: PHO Mortality Files, ONS; Mid-Year Population Estimates, ONS

NOTE: The discontinuity shown between 2000 and 2001 occurred due to a change in coding in alcohol related mortality due to change in the version of the ICD.
Figure 16: Directly Age Standardised Mortality Rate per 100,000 for alcohol related mortality, by sex, Government Office Regions in England, 2002-2004

SOURCE: PHO Mortality Files, ONS; Mid-Year Population Estimates, ONS

Figure 17: Directly Age Standardised Mortality Rate per 100,000 for alcohol related mortality, by sex, Local Authority Districts in the North East, 2002-2004

SOURCE: PHO Mortality Files, ONS; Mid-Year Population Estimates, ONS

Figure 16 shows that in general males have higher alcohol related mortality than females and that the North East has higher mortality than most other regions. Figure 17 shows that only Newcastle upon Tyne has a statistically significantly higher rate than the North East. Three LAs have a rate significantly below that of the North East: Tynedale, Castle Morpeth and Durham.
Suicide and Alcohol

Evidence suggests an association between alcohol misuse and suicide\textsuperscript{33,34}. However, the measurement of the association between alcohol and suicide is complex and is dependent on the perception of the coroner as to whether the death was planned and whether alcohol was involved. Numbers of suicides and possible suicides are too low to determine trends. Additionally, it is unlikely that current recording methods are sensitive enough to identify all cases in which alcohol is involved.

Following a case control study in Northern Ireland, Foster et al\textsuperscript{35} estimated that the risk of suicide in the presence of current alcohol misuse or dependence was eight times greater than when alcohol problems were not present (odds ratio 8.4, 3.3 – 21.2).

Illicit Drug Use and Alcohol Consumption

The National Drug Treatment Monitoring Service (NDTMS) records the number of individuals in treatment for drug misuse. Drug treatment services are not required by NDTMS to provide information regarding clients with alcohol related problems and therefore the following data are likely to underestimate the proportion who have both drug and alcohol misuse problems. The needs of these individuals are important to consider as they are likely to require health and social care services intensively and be complex to work with.

During 2004/05, there were 9,823 individuals who received drug treatment services within the North East. Approximately 10% of this group had alcohol identified as a secondary problem. The majority of this those with alcohol as a secondary problem were males (73%).

Alcohol related service provision

Individuals with alcohol related disorders may use a range of services provided by many different organisations. Information is only available regarding those services designed for the most severe problems. This section describes trends relating to the provision of services for those who consume alcohol harmfully, hazardously or who have alcohol dependency. The main sources of information regarding alcohol treatment services include the ANARP\textsuperscript{18} and NPMS\textsuperscript{32}.

The ANARP project surveyed alcohol treatment agencies in England, it estimated that approximately 5.7% of the alcohol dependent population gain access to alcohol treatment services each year. Women were 1.7 times more likely to access treatment than men. The study identified that twice as many individuals were referred to alcohol treatment as actually gained access to treatment, however it is unclear why this occurs.

ANARP\textsuperscript{18} found regional variation indicating lowest provision of service within the North East:

- Waiting times were longest within the North East (6.5 weeks in comparison to a national average of 4.6 weeks).
- 1% of alcohol dependent individuals gained access to treatment in the North East in comparison to 8% in the highest region (North West).

The NPMS\textsuperscript{32} asked respondents about their use of medication and treatment, community services, day activity services and about services refused. With regard to individuals who had either hazardous or dependent drinking habits the survey found that:

- Respondents who had a hazardous pattern of drinking were less likely to attend their GP or use community care services than individuals who were alcohol dependent or had no alcohol problem.
- Alcohol dependent respondents were more likely to have refused services than hazardous drinkers or non hazardous drinkers.
Crime and Alcohol Consumption

Alcohol related crime falls into two categories: alcohol offences such as drunkenness or driving with excess alcohol (alcohol defined offences) and offences in which the alcohol is a contributory factor (alcohol related offences). The British Crime Survey found that victims believed that the perpetrator was under the influence of alcohol in 48% of violent incidents and 60% of incidents where the perpetrator was a stranger.

Alcohol related offences are difficult to measure as the involvement of alcohol is not always recorded in the incident. Many offences such as damage to property or assault are not reported to the police. Additionally, different constabulary regions record data in different ways. Data from police figures are therefore likely to be an underestimate of the real relationship between crime and alcohol.

Road Traffic Accidents and Alcohol Consumption

Figures 18 and 19 are produced using STATS19 data, a routine data source that records reports to the police of accidents involving injuries. As STATS19 data rely on the reporting to the police of accidents involving injury, it is likely to have better representation of serious accidents than minor ones. Data show that on average 6.5 people die annually in road traffic accidents involving alcohol in the North East (1994-2004).

Figure 18: Trend in the number of casualties in accidents in which at least one driver has failed or refused a breath test, North East of England, 1994-2004

SOURCE: STATS19

Figure 18 shows that the actual number of accidents involving alcohol every year has changed little over the last 10 years; however, there is likely to have been an increase in cars on the road.
Figure 19: Hourly average number of accidents by day of week and time of day in which at least one driver has failed or refused a breath test, North East of England, 1994-2004

Figure 19 shows that there is a lower number of accidents involving alcohol between 6am and 2pm and there are more accidents involving alcohol during the weekends than week days.

Within the North East there is an average of 161 accidents resulting in injuries that involve alcohol between Friday and Sunday. There are on average 106 accidents resulting in injuries that involve alcohol between Monday and Thursday.

SOURCE: STATS19
Recommendations and Conclusions

A number of recommendations have been collated from the analysis set out in this report. These recommendations should be discussed and taken forward by the Regional Alcohol Harm Reduction Group. The recommendations listed below are relevant to a range of different agencies including Education, NHS, Criminal Justice, Local Authorities, the Leisure Industry, Employers, and many more.

Recommendations in which evidence is clear and action is required

- It is apparent that alcohol consumption is increasing and is higher in the North East than the rest of England. The North East population experiences greater alcohol related harm than other areas of England. Action is needed to reduce alcohol consumption and alcohol related poor health.
- Evidence suggests that despite this high need, treatment services in the North East may be inadequate to meet needs. Action to support the further development of services is needed (see below).
- Young people have a higher prevalence of binge drinking than older people. Action is needed to reduce alcohol consumption and change drinking patterns among younger age groups.
- There is an important need to monitor recent policy changes. The Regional Alcohol Harm Reduction Group should consider how best to carry this out.

Recommendations in which further clarification is needed to inform alcohol work

- Evidence shows high admission rates in Newcastle upon Tyne for liver disease and mental and behavioural disorders due to alcohol especially in males. This should be investigated further and relevant action taken.
- Evidence shows a high admission rate in South Tyneside for accidental alcohol poisoning. This should be investigated further and relevant action taken.
- There is a lack of evidence regarding how alcohol affects attendance at Accident and Emergency services. Further research would be useful in clarifying this.
- There is currently insufficient data available from Primary Care, Ambulance Services and the Criminal Justice System to estimate the full extent of alcohol related harm. Work with these agencies should be undertaken to improve the appropriateness and availability of data to measure alcohol related harm.
- The ANARP report found that alcohol related service provision may be inadequate in the North East. This issue should be investigated further and appropriate action taken to improve services if necessary.

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