

Choosing Health in the South East: **Alcohol**



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Foreword

The South East is a region which enjoys a generally high standard of living and health. Nonetheless, there are significant challenges for the many individuals and organisations with a role to play in promoting the public's health in the region. Alcohol consumption, and its consequences for health and social wellbeing, is one of them. Men and women in the region have relatively high rates of drinking compared to those in many other regions, and the impact of alcohol is widespread: on mortality and ill health, on crime and productivity, on the future health of today's children and young people.

The latest national figures, published just as this report was going to press, show a welcome downturn in drinking levels in 2005, both for moderate and excessive alcohol consumption. The worrying trend of increased binge drinking among young women seems also to have peaked between 1998 and 2002 and appears to be on the way down.

There is no room for complacency, however. Young people still drink considerably more than those in older age groups – in 2005, 42% of young men and 36% of young women aged 16–24 reported drinking more than the recommended daily limit at least once in the last week. Occasional drinking is now the norm for children as young as 15 and 16, and a quarter of this group are frequent drinkers.

This pattern casts a shadow over the future. It is likely that more people in this generation will develop alcohol-related disease, and at a younger age, than their parents' generation – and that more women will be affected by the many health and social problems associated with drinking. Other very recent figures report a doubling of alcohol-related deaths in the last 15 years, and that trend looks set to continue.

In addition to the longer term impact of alcohol on health, there are more immediate and sensational consequences for society in terms of crime and disorder. Well over a million violent incidents every year are associated with alcohol, which fuels over a third of assaults and up to three-quarters of domestic violence. Drink-driving continues to play a significant role in fatalities on the road. The economic costs of alcohol consumption are substantial too, in terms of crime, healthcare and lost productivity in the workplace.

This report explores the trends and patterns in alcohol consumption and its consequences across the South East, and sets out ways of tackling the problem. As well as highlighting the need for greater investment in alcohol treatment services, it describes the important role that public health practitioners have to play, in partnership with local stakeholders, in sharing information, advocating for change and identifying opportunities for joint action to address alcohol misuse through Crime and Disorder Reduction Partnerships, Local Strategic Partnerships and Local Area Agreements. We commend this report to these groups, and to all others involved in tackling the problems of excessive alcohol consumption. Together, they have the power to achieve significant and measurable benefits for their local populations.



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Abbreviations

ABV	Alcohol by volume expressed as a percentage
ACMD	Advisory Council on the Misuse of Drugs
A&E	Accident and Emergency (department)
AF	Attributable Fraction
AMEC	Alcohol Misuse Enforcement Campaign
ANARP	Alcohol Needs Assessment Research Project
BCS	British Crime Survey
BME	Black and Minority Ethnic (groups)
CDRP	Crime and Disorder Reduction Partnership
CPA	Comprehensive Performance Assessment
DA(A)T	Drug and Alcohol Action Team
DALYs	Disability-adjusted life years
DCMS	Department for Culture Media & Sport
DfES	Department of Education and Skills
DfT	Department for Transport
DH	Department of Health
DPH	Director of Public Health
DWP	Department for Work and Pensions
FAS	Fetal Alcohol Syndrome
GHS	General Household Survey
GMS	General Medical Services
GO	Government Office
GP	General Practitioner
HCC	Healthcare Commission
HSE	Health Survey for England
LA	Local Authority
LAA	Local Area Agreement
LDP	Local Delivery Plan (NHS)
LSP	Local Strategic Partnership
MoCAM	Models of Care for Alcohol Misusers
NICE	National Institute of Clinical Excellence
NIMH(E)	National Institute of Mental Health (England)
NOMS	National Offender Management Service
NTA	National Treatment Agency for Substance Misuse
ONS	Office of National Statistics
PCT	Primary Care Trust
PHO	Public Health Observatory
PSA	Public Service Agreement
RDPH	Regional Director of Public Health
RPHG	Regional Public Health Group
SHA	Strategic Health Authority
WHO	World Health Organization

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Definitions

The definitions in this report are based on those used in official surveys, which use government guidelines as benchmarks.

1. Units of alcohol

Most measurements of drinking patterns are based on units of alcohol. A unit is 10ml or 8 grams of pure alcohol (i.e. ethanol). This is equivalent to a half pint of ordinary strength beer, one measure of spirits or a small glass (of 9% strength) wine. The strength of drinks has risen – wine is now often 12% or 13% alcohol by volume (ABV) – and such changes make it more difficult for consumers to calculate the number of units in each drink unless the container specifies the volume of a unit measure. The unit measures for some popular drinks are set out in the table below.

Table 1. Common alcoholic beverages and unit strength.

Drink	Quantity	Units
Wine	125ml glass (9% ABV)	1
	125ml glass (11–12% ABV)	1.5
	175ml glass (11–12% ABV)	2
	75cl bottle (9–10% ABV)	6–7.5
	75cl bottle (11–12% ABV)	8–9
	50ml sherry, port, madeira, Vermouth, martini	1
Lager, beer and cider	330ml bottle (4–5% ABV)	1.5
	440ml can (4–5% ABV)	2
	440ml can (8–9% ABV)	3.5–4
	500ml can (1 pint), (4–5% ABV)	2–2.5
	500ml can (8–9% ABV)	4–4.5
	440ml can low alcohol beer (1.2% ABV)	0.5
Spirits	25ml pub measure (40% ABV)	1
Alcopops	300ml bottle of 'alcopop' (4–6% ABV)	1.3–2
	200ml bottle of 'alcopop' (13.5% ABV)	2.7

Source: Department of Health and Department for Education and Skills (2006)

2. Recommended limits

The Department of Health advises that:

- Men should not drink more than **3–4 units** of alcohol per day;
- Women should not drink more than **2–3 units** of alcohol per day.

Two non-drinking days are recommended after an episode of heavy drinking, and consistent consumption at the upper limit is not advised.

These form the basis of the current government-recommended 'sensible drinking' guidelines which have been developed on the basis of careful consideration of the harmful (and limited beneficial) effects of drinking at different levels.

Earlier guidelines were based on weekly consumption: in 1992 the government recommended that men should consume no more than 21 units a week and women no more than 14 units a week. In 1995 this was amended to reflect patterns of consumption more closely and to address the growing problem of binge-drinking (e.g. individuals consuming all or most of the weekly allowance in one night).

3. Binge-drinking

Binge-drinking is defined as the consumption of **8 or more units** of alcohol for men and **6 or more units** for women during a single session (i.e. double the daily recommended alcohol consumption limits).

4. Hazardous drinking

This is a pattern of heavy alcohol consumption which carries a high risk of future damage to the health of the drinker, but which has not yet resulted in significant physical or psychological harm. The Alcohol Needs Assessment Research Project (ANARP) (Department of Health et al, 2005) defines this as around 22–50 units per week for men, and 15–35 units per week for women.

5. Harmful drinking

This can be defined as heavy alcohol consumption already resulting in physical or mental harm to the user. ANARP defines this as >50 units per week for men and >35 units per week for women. This group does not include drinkers who have developed alcohol dependence.

6. Dependent drinking

Dependent drinking is defined in terms of psychological dependence on alcohol, with an increased desire to consume alcohol and difficulty in controlling its use despite awareness of the potential consequences.

Moderately dependent drinking

Drinkers in this category show moderate levels of alcohol dependence. Moderately dependent drinkers may recognise that they have a problem with drinking, even if this has been acknowledged only reluctantly.

Severely dependent drinking or drinking with complex problems

People in this category may have serious and long-standing problems. In traditional language, they include individuals described as 'chronic alcoholics'.

7. Alcohol-attributable, alcohol specific and alcohol-related

The terms 'alcohol-attributable', 'alcohol-specific' and 'alcohol-related' are not used in a consistent way in published reports which can be misleading. In this report the term 'alcohol-specific' refers to health impacts which are directly related to alcohol. For example, no cases of alcoholic liver disease would be expected to occur in the absence of alcohol.

The term 'alcohol-attributable' is used in this report to encompass a broader definition of conditions which includes both those that are directly related to alcohol and also those where alcohol is causally implicated in some but not all cases of the condition. Where the condition is not directly related to alcohol a population attributable fraction is applied to the number of cases of that condition. For example, studies suggest that the population attributable fraction for cancer of the oesophagus is 0.285, i.e. 28.5% of deaths from cancer of the oesophagus may be directly attributable to alcohol, however 71.5% are related to other causes. The attributable fractions used in these analyses are based on published scientific literature (Hooper et al, 2006).

In relation to crime statistics, 'attributable fractions' calculated by the Prime Minister's Strategy Unit have been applied to the total number of recorded crimes. These AFs were taken from the NEW-ADAM arrestee survey and are based on urine tests of arrestees. As such these AFs estimate the statistical association between alcohol and crime and are different to the disease specific attributable fractions described above (see Hooper et al, 2006 for further detail).

In this report 'alcohol-related' has been used as a more general term which may encompass 'alcohol-attributable' and 'alcohol-specific.'

1. Key points

Alcohol consumption

- Alcohol has become more affordable and accessible over the last 25 years.
- Men and women in the South East have relatively high rates of drinking compared to those in most other regions.
- Men drink more than women and are also more frequent binge drinkers.
- Young people are more likely to exceed the recommended daily limits, and up to 90% of children aged 15–16 drink at least occasionally.
- The latest figures, published as this report was going to press, show a small but encouraging downturn in drinking rates (including binge-drinking) for both men and women, as well as improved knowledge of the Government's daily benchmarks for alcohol consumption.

Health impact

- Excess alcohol consumption can cause cancer, liver disease, circulatory disease, damage to the nervous system and mental health problems. Drinking can also impair reproductive health and is associated with risky sexual behaviour.
- Medical and social problems associated with binge-drinking include brain damage, alcohol poisoning, skeletal muscle damage, accidents, violence and criminal behaviour.
- The annual number of alcohol-related deaths in the UK more than doubled between 1991 and 2005. The gap between the sexes is increasing, and men now account for two-thirds of the total.
- There are 184,000 dependent drinkers in the South East region.
- There were over 3,500 alcohol-attributable deaths in the South East in 2004.
- Alcohol is implicated in almost 17,500 hospital admissions per year in the South East, which represents a lower rate than the national average. The highest rates in the South East are seen in Portsmouth, Thanet and Hastings.
- 17 million working days, costing £6.4 billion, are lost in the UK each year due to alcohol-related sickness absence. Over 4,000 people in the South East claim incapacity benefit or severe disablement allowance due to alcoholism – significantly more than the national average.

Crime and disorder

- Alcohol is associated with many kinds of violent crime and public disorder, and excessive consumption increases the risk of harm to drinkers themselves.
- The South East has a lower rate of alcohol-related crime than the country as a whole, but several local authorities significantly exceed the national average – most notably Portsmouth, Southampton, Reading, Slough and Hastings.
- A model pioneered in Cardiff has shown how the NHS can help tackle community violence by sharing A&E injury data with local Crime and Disorder Reduction Partnerships. Seventeen A&E departments in the South East are adopting this model.

Tackling alcohol misuse

- Public health interventions (including breath-testing of drivers and enforcing restrictions on alcohol sales) are effective in reducing alcohol-related harm.
- Treatment for a variety of alcohol problems has been shown to be cost-effective, but far less is spent on alcohol treatment than on drug treatment.
- The provision of treatment for alcohol dependency is insufficient to meet need in the South East, and currently reaches only 1 in 20 dependent drinkers.

2. Introduction

This report is one in a series produced by the South East Public Health Observatory (SEPHO) and the South East Public Health Group (SEPHG) on current public health challenges which aim to support implementation of the public health White Paper, *Choosing Health* (Department of Health, 2004a). Alcohol use and misuse has also featured prominently in the Chief Medical Officer's Annual Reports, and this report highlights the significant impact that alcohol consumption has on the public's health in the South East region.

The report draws on a wide variety of data sources. In addition to the data presented in the following pages, supporting information can be found on the SEPHO web site, www.sepho.org.uk, and a further range of alcohol-related resources produced by the North West Public Health Observatory can be found on their web site at www.nwph.net/alcohol/lape.

2.1 The impact of alcohol on well-being

Harmful drinking is among the foremost causes of disease, injury, disability, violence (especially domestic violence against women and children), social problems and premature death. It is associated with an increased risk of a wide range of health problems, including brain damage, alcohol poisoning, breast cancer and skeletal muscle damage (Barbor et al, 2003).

Alcohol misuse is also associated with mental ill-health and social problems and has a significant impact on the well-being of individuals, families, communities and society as a whole. Alcohol plays a role in many accidents, acts of violence and other instances of criminal behaviour. Nationally between 780,000 and 1.3 million children are affected by their parents' alcohol misuse (Strategy Unit, 2003). Such children are four times more likely to suffer from a psychiatric disorder by the age of 15 than the national average and are at increased risk of aggressive behaviour, delinquency, hyperactivity and other forms of conduct disorder. There are particular risks associated with drink-driving, alcohol consumption in the workplace or during the working day and drinking during pregnancy.

Alcohol-related problems contribute to social and health inequalities, and reducing harmful drinking is one important element in the broad policy thrust to reduce health inequalities following the recommendations of the Acheson Report (1998).

2.2 Policy context

The White Paper *Choosing Health* recognised the problems associated with alcohol consumption and reinforced the importance of the programme of work set out in the Cabinet Office's *Alcohol Harm Reduction Strategy for England* (2004). This includes improving the professional response to alcohol problems – identifying and treating problem drinking, piloting of screening tools and brief interventions in a variety of settings (such as Accident and Emergency departments, primary care and the criminal justice system) – and working with the drinks industry to reduce binge-drinking through information campaigns and social responsibility schemes for alcohol producers and retailers.

Choosing Health identified Local Strategic Partnerships (LSPs) and Local Area Agreements (LAAs) as vehicles to promote joint working and to make best use of available funding streams in order to improve the public's health. This reflects the commitment outlined in *Shifting the Balance of Power* (Department of Health, 2001) to invest in increased public health capacity to support the local delivery of responsibilities for commissioning and service delivery and the development of partnership working.

Primary Care Trusts (PCTs) are required to develop evidence-based targets to improve health through local partnerships, and to promote health equity by targeting the groups and areas within their patch which have the worst health. The leadership of local Directors of Public Health and their colleagues in the NHS and local government will be critical to the successful delivery of these local targets and of the wider agenda of *Choosing Health*. These key professionals have a pivotal role to play in developing and monitoring effective working relationships within a local area and need to be at the centre of local partnerships and networks.

2.3 The Alcohol Harm Reduction Strategy for England

The government's policy on alcohol and violence is outlined in a number of key publications, the most important of which is the *Alcohol Harm Reduction Strategy for England*, published in March 2004 by the Cabinet Office. The strategy aims to encourage a shift in culture away from 'drinking to get drunk' and towards the more measured approach to alcohol consumption prevalent in some Mediterranean countries. In keeping with the philosophy of *Choosing Health*, the intention is to help people to make healthier choices by improving the information available to them, and thus to facilitate changes in drinking behaviour. The strategy also seeks to reduce alcohol-related crime and disorder and to improve services for victims and witnesses involved in such crimes.

This is the first time a co-ordinated alcohol strategy has been introduced by the government. The Department of Health and the Home Office are jointly responsible for its implementation, working in partnership with other stakeholders both within and outside government. The strategy includes four major streams of work:

i. Improving health and treatment

A communications campaign has been developed by the Department of Health to raise awareness, skills and knowledge about alcohol among health care professionals, and specifically to encourage them to identify alcohol misuse earlier. The Deputy Chief Medical Officer and the Chief Nursing Officer have agreed to act as 'training champions' to raise the profile of alcohol training, and a series of training modules have been developed for health professionals.

ii. Education and communication

The government's previous line on 'sensible drinking' has been reviewed and has been replaced by a new message which aims to be simpler to understand and more relevant to drinkers' day-to-day experiences. It is expected that the new information for consumers, which includes specific health promotion messages about binge-drinking, will be adopted and promoted by all stakeholders.

Following an Ofcom consultation in 2004, significant changes have been introduced which restrict the advertising of alcoholic drinks on television.

The Department for Education and Skills (DfES) is responsible for ensuring that schoolchildren are educated about the risks of alcohol as part of the broader drive to tackle drug misuse. Education about alcohol can be delivered most effectively as part of Personal, Social Health and Citizenship Education (PSHCE) and within the overall context of drug education, since the attitudes and skills which enable young people to make informed choices are similar for both. Drug and alcohol education is also included in the science curriculum at Key Stages 2, 3 and 4.

iii. Tackling crime and disorder

In 2004, all Primary Care Trusts (PCTs) in England became responsible authorities in their local Crime and Disorder Reduction Partnerships (CDRPs). This has helped to ensure that PCTs and other NHS bodies play an active role in tackling crime and creating strong and vibrant local communities. The Department of Health and the Home Office issued joint guidance to PCTs in 2004 which set out ways in which they could get involved with CDRPs and gave examples of successful joint working initiatives.

The NHS also contributed to the Home Office Alcohol Misuse Enforcement Campaign (AMEC) (Home Office, 2006a), which ran during 2004, 2005 and 2006. It targeted under-age alcohol sales and alcohol-related violence. Data on injuries attributable to alcohol was collected by A&E departments during the campaign.

The Licensing Act 2003 (Office of Public Sector Information, 2003) sets four key objectives for alcohol licensing:

- preventing crime and disorder;
- preventing public nuisance;
- public safety¹;
- prevention of harm to children.

The impact of the changes to the licensing regime is being monitored by the Home Office.

¹Public safety' refers here only to the physical safety of customers (protection from fire, accidental injury, etc.) and does not extend to wider public health concerns associated with alcohol consumption.

iv. Working with the alcohol industry

The Department of Health and the Home Office are working with the alcohol industry at all levels (including those involved with the manufacture, distribution, marketing and retailing of alcoholic drinks) to ensure that responsible drinking is promoted and the 'sensible limits' message is heard.

Other new developments encompassed in the *Alcohol Harm Reduction Strategy* include:

- **Alcohol Needs Assessment Research Project (ANARP)** This aims to provide, for the first time, a national picture of the level of need for alcohol treatment and the availability of provision. This is designed to support the commissioning of local services for alcohol treatment and rehabilitation and will provide a starting point for changes in practice recommended in the strategy document (Department of Health et al, 2005).
- **Models of Care for Alcohol Misusers (MoCAM)** This is produced by the Department of Health and the National Treatment Agency (NTA) (2006) and provides a framework for the commissioning and provision of treatment for hazardous, harmful and dependent drinkers, including people with mental illness, homeless people and drug users who also misuse alcohol.
- **Review of the Effectiveness of Treatment for Alcohol Problems** This was published by the NTA (Raistrick et al, 2006) alongside MoCAM and sets out important research findings to assist commissioners in setting priorities for investment in alcohol services. It focuses on the ways in which a variety of organisations can develop interventions to help address harm associated with alcohol use.
- **Pathways to Problems** This was published by the Advisory Council on the Misuse of Drugs in 2006 and made recommendations to the Government on addressing the hazardous use of tobacco, alcohol and other drugs by young people in the UK. Among its recommendations were working to reduce overall alcohol consumption and reassessing the role of schools in preventing the misuse of drugs (including alcohol).

3. Alcohol Consumption

Levels of alcohol consumption in both individuals and populations are influenced by a wide range of social, cultural and economic factors. Affordability is an important determinant, but differences in the amount of alcohol people consume, as well as the way in which it is drunk, are mediated by a complex set of cultural influences.

In addition to presenting national and regional differences in alcohol consumption levels, this chapter also explores the impact of age and sex differences on drinking patterns in South East England. It looks in particular at the problem of binge-drinking.

3.1 National differences in alcohol consumption

The amount of alcohol consumed in the UK is comparable to that in many other European countries. In 2003, the average amount of alcohol consumed by individuals in the UK was 9.6 litres (of pure alcohol¹) per annum (Table 3.1). This figure compares relatively favourably with countries such as Ireland and Germany, but is substantially higher than the level reported in Italy.

Trends in consumption levels are of particular concern, however; alcohol consumption is increasing much more rapidly in the UK than in many other countries. Current consumption levels in France and the UK are broadly similar; but this conceals a very different pattern over time: between 1980 and 2003 the average amount consumed in France fell by 37%, while in the UK it rose by 31%. Consumption rates have also fallen in Germany, Italy and Spain; only Ireland has experienced a rise similar to that seen in the UK.

Table 3.1: Average alcohol consumption per person (litres of pure alcohol) and percentage change in total alcohol consumption, 1970 to 2003

	Average alcohol consumption per person, per year				Percentage change		
	2000	2001	2002	2003	1970–2003	1980–2003	2002–2003
France	10.5	10.5	10.3	9.3	-42.7	-37.4	-10.1
Germany	10.5	10.4	10.4	10.2	-0.5	-10.8	-2.2
Ireland	10.7	10.8	10.8	10.8	+83.6	+47.1	0.0
Italy	7.7	7.4	7.4	6.9	-49.8	-46.7	-6.8
Spain	9.8	9.8	9.6	10.0	-13.8	-26.7	+3.9
UK	8.4	9.1	9.6	9.6	+80.1	+31.5	+0.1

Source: World Advertising Research Center (2005)

The way in which alcohol is consumed also differs between countries. In Mediterranean countries such as Italy and Spain, regular daily drinking (often with meals) tends to be more common than in northern Europe. However, the quantity consumed in each session tends to be higher in countries such as the UK (Health Development Agency, 2004a).

3.2 Gender differences in alcohol consumption

The General Household Survey (GHS) (Office for National Statistics, 2004a) and the Health Survey for England (HSE) (Department of Health, 2006) are two annual national surveys which obtain a range of information from a sample of the population across England about a wide range of social, economic and lifestyle factors, including drinking patterns. These surveys are useful in comparing behaviour and risk factors in different parts of the country and sections of the population.

Men tend to consume more alcohol than women and are considerably more likely to drink excessively (Alcohol Concern, 2005). In 2004, 74% of men and 59% of women aged over 16 reported drinking alcohol on at least one day in the previous week. Men also tend to drink more frequently than women: 24% of men drank on five or more days during the previous week, compared to just 13% of women.

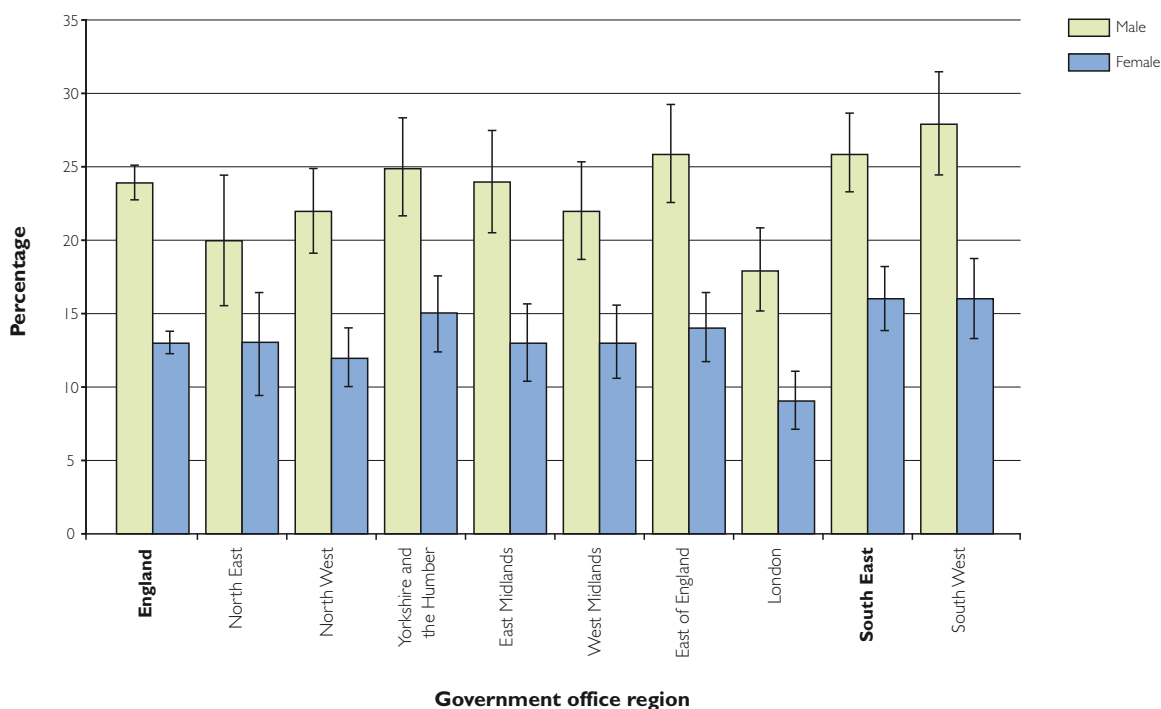
¹One unit of alcohol is equivalent to 8gms or 10ml (1cl) of pure alcohol.

According to the GHS, the proportion of men (26%) and women (16%) in the South East region who report drinking on five or more days in the last week is higher than in most other regions and is above the average for England (Figure 3.1). The 'whiskers' on the chart represent 95% confidence intervals, which are wide because of the relatively small sample size used in the survey. Overlaps in the confidence intervals mean that the differences between the South East and England as a whole are not statistically significant (i.e. they could be due to chance variation), but frequency of drinking among both men and women in the South East is significantly higher than for London region.

Figure 3.1:

Percentage of adults drinking on five or more days in the last week by gender and region, England, 2004, with 95% confidence limits.

Source: General Household Survey. Office for National Statistics (2004a)

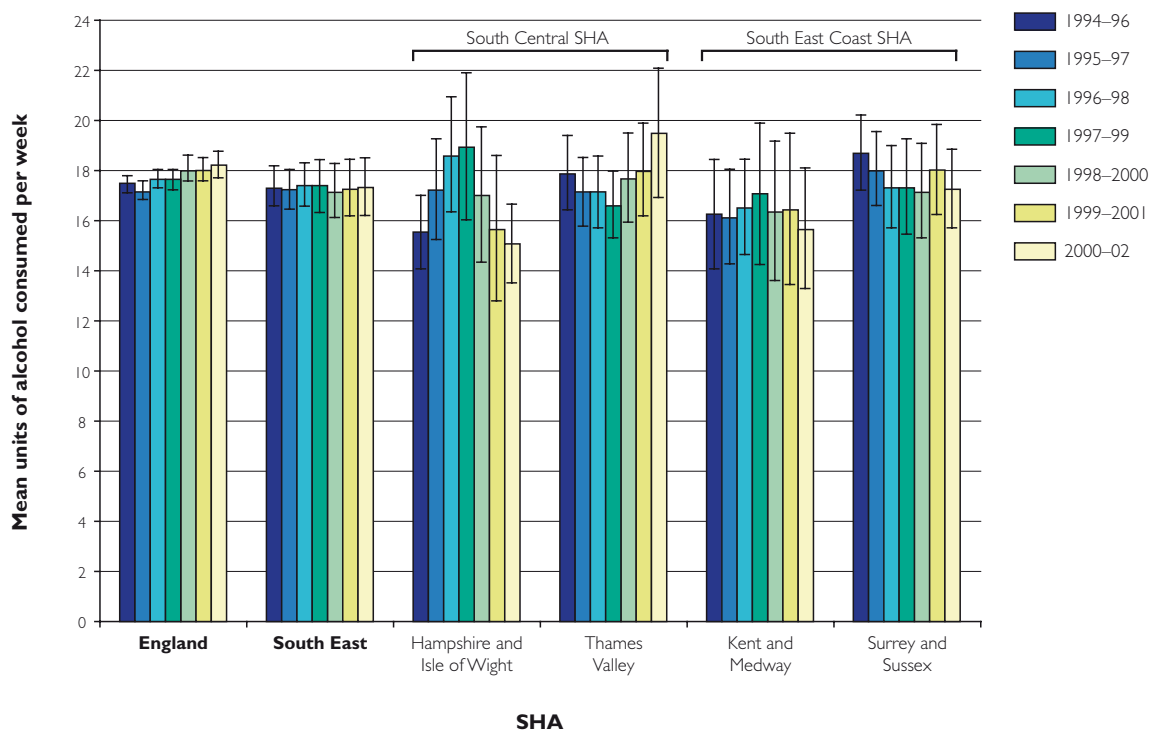


The average amount of alcohol consumed by men in the South East has remained broadly the same over the last decade (Figure 3.2). Some differences are apparent between the four sub-regions (old Strategic Health Authorities) in the South East – consumption levels appear to be lower in Kent and Medway than in Surrey and Sussex, for example – but none of these differences are statistically significant.

Figure 3.2:

Trends in mean weekly alcohol consumption for men by sub-region, South East England, 1994 to 2002.

Source: Health Survey for England. Department of Health (2004b)

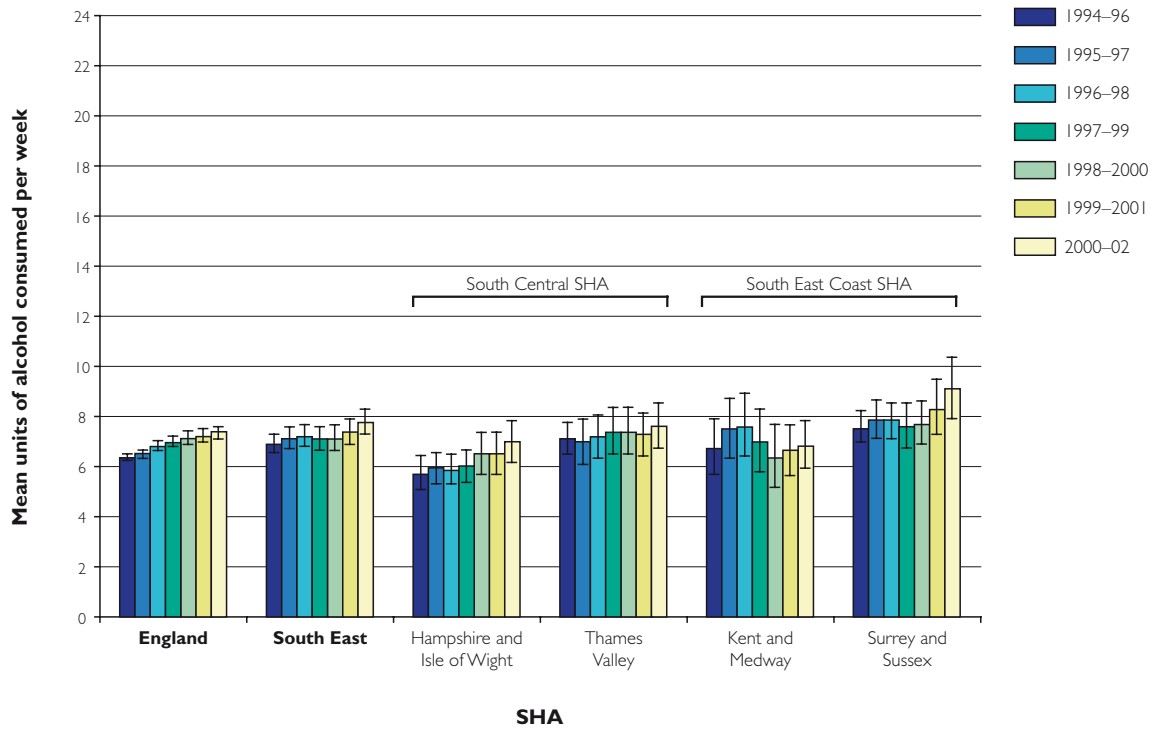


Women in the region drink on average less than half the amount of alcohol consumed by men, but the HSE suggests that women's consumption levels are steadily rising both in the South East region and across England as a whole (Figure 3.3). Again, the relatively small sample size means that the year on year increases are not statistically significant, although over the whole time period covered by this graph a significant increase is clearly seen at national level (and borderline significance at regional level). As with men, there are some differences within the region, with Surrey and Sussex once again appearing to have higher consumption levels.

Figure 3.3:

Trends in mean weekly alcohol consumption for women by sub-region, South East England, 1994 to 2002.

Source: Health Survey for England. Department of Health (2004b)

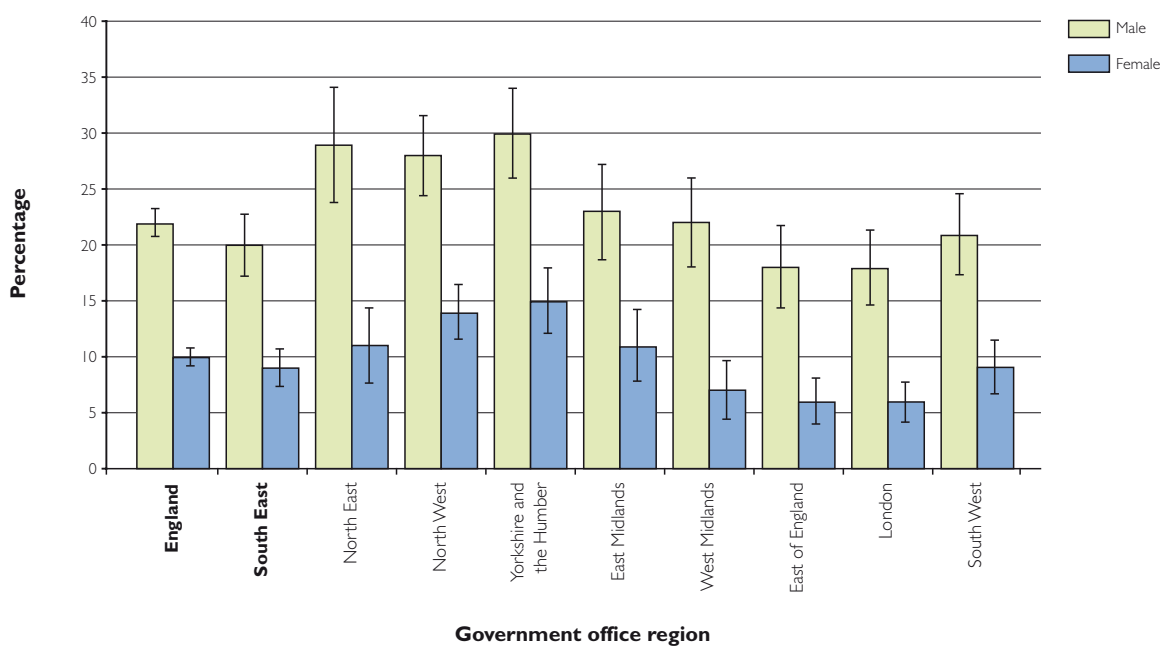


These gender differences in drinking patterns are mirrored in the extent of binge-drinking among men and women. Binge-drinking – where the amount consumed in one session is eight or more alcohol units on one occasion for a man and six or more units on a single occasion for a women – is associated with a range of health and social problems, and according to the General Household Survey, typifies the drinking habits of 22% of men and 10% of women in England (Figure 3.4). There are regional differences in binge-drinking levels. The South East has lower rates than several other regions, especially for men, but higher rates than London.

Figure 3.4:

Percentage of adults binge-drinking (more than 8 units of alcohol (men) and 6 units of alcohol (women) on at least one day in the last week, England and Wales 2004.

Source: General Household Survey. Office for National Statistics (2004a)



3.3 Age differences in alcohol consumption

Alcohol consumption patterns vary considerably with age. The total volume of alcohol consumed tends to fall with age, but older age groups drink more regularly than younger age groups.

Recent evidence suggests that 1.9 million young people aged 16 to 24 – more than a quarter of this age group – drink more than twice the recommended daily alcohol limit at least once a week (Advisory Council on the Misuse of Drugs, 2006).

Compared with older age groups, a higher proportion of young people aged 16-24 regularly binge-drink (more than 8 units of alcohol in one day for men, and more than 6 units of alcohol in one day for women). Results from the General Household Survey (Office for National Statistics, 2004a) suggest that although binge-drinking does appear to be declining among young adults, it is more common among young men than young women. However, twice as many young women aged 16-24 binge-drink than those in the 25-44 age group, and four times more than the proportion of 45-64 year olds (figures 3.5 and 3.6).

Figure 3.5:

Percentage of men binge-drinking (more than 8 units of alcohol) on at least one day in the last week, England and Wales, 1998 to 2004.

Source: General Household Survey Office for National Statistics (2004a)

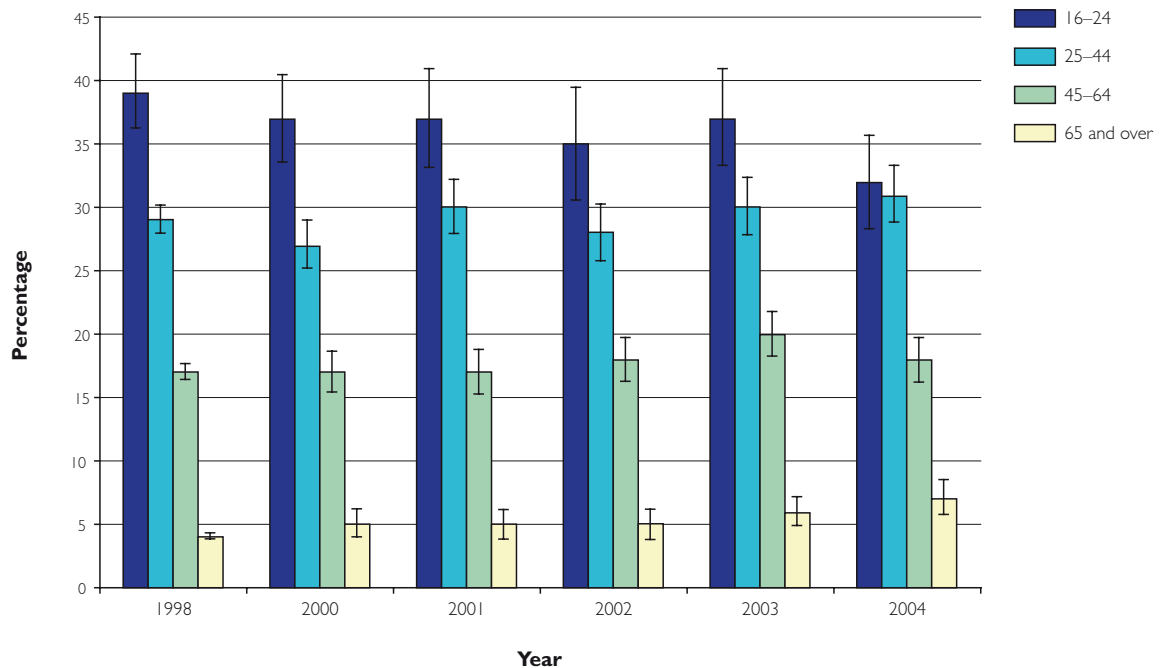
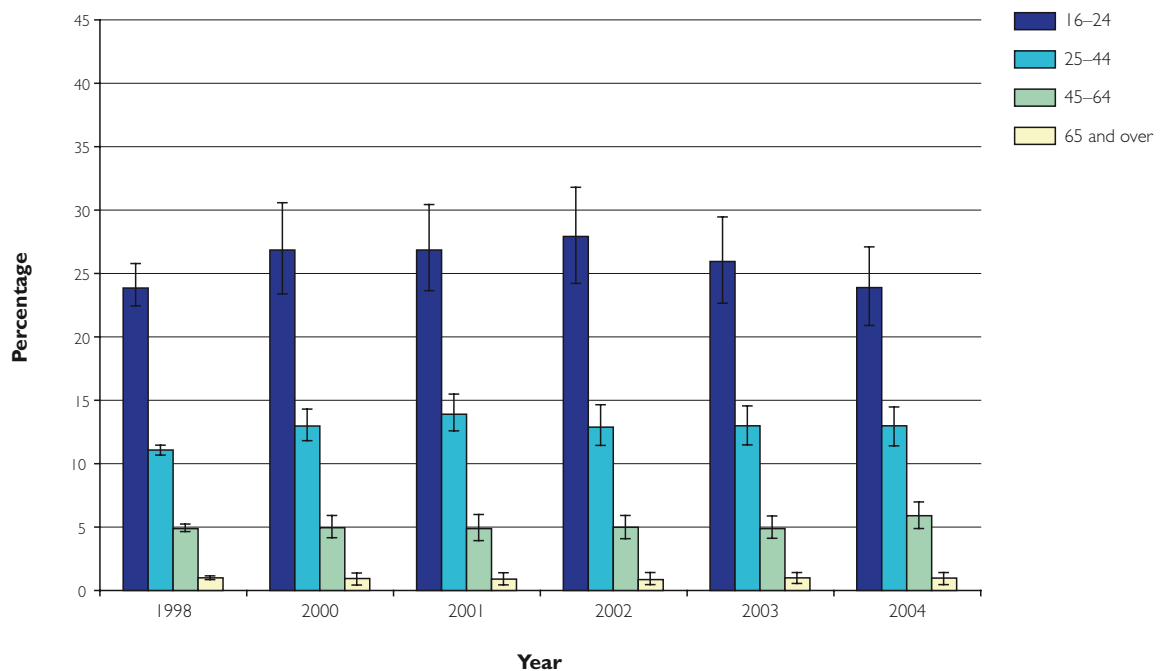


Figure 3.6:

Percentage of women binge-drinking (more than 6 units of alcohol) on at least one day in the last week, England and Wales, 1998 to 2004.

Source: General Household Survey Office for National Statistics (2004a)



Alcohol consumption by children is a particular problem in the UK. A review of the health of children and young people in England by the Office for National Statistics (2004b) revealed that the proportion of 11 to 15 year olds who reported drinking alcohol in the last week increased from 21% in 1990 to 24% in 2000. Boys are more likely than girls to have drunk in the last week, and average weekly consumption levels are also higher for boys (11.6 units) than for girls (9.1 units). However, while boys' levels of alcohol consumption appear to have stabilised in recent years, consumption is still rising among girls.

Binge-drinking is common among children and young people in the UK. A review by Anderson and Baumberg (2006) reported that more than a quarter of 15 to 16 year olds had taken part in three or more binge-drinking sessions in the previous month. The UK has some of the highest levels of excessive drinking among young people in Europe: over three-quarters of 15 to 16 year olds report having been drunk at least once in the last year and 29% stated they had been drunk 20 times or more.

Recent research undertaken in North West England suggests that nearly nine out of ten schoolchildren aged 15 and 16 drink alcohol at least occasionally (Bellis et al, 2006). This survey also revealed that 38% of this age group regularly binge drink, 24% are frequent drinkers, and that half drink in public places (in other words, bars, clubs, streets and parks). The survey also revealed that the drinking habits of these young people was strongly related to the amount of disposable income they had: increasing amounts of money meant they were more likely to be binge and/or frequent drinkers. Another survey reported that, of a sample of 16 to 17 year olds, 59% had attempted to purchase alcohol from pubs and bars and 47% had attempted to do so from shops in the past 12 months and most had been successful at least once (Matthews et al, 2006).

3.4 The affordability of alcohol

One of the key determinants of alcohol consumption levels is affordability, and the cost of alcohol relative to household income has fallen in recent years. Although the price of alcohol increased by 22% more than general prices between 1980 and 2005, disposable income has almost doubled over the same period. As a result, the affordability of alcohol is estimated to have risen by 62% (Information Centre, 2006b). Thus, although expenditure on alcohol as a proportion of household expenditure has fallen from 7.9% in 1950 to 5.5% in 2005, this reflects an increase in the amount of alcohol purchased. The volume consumed at home (expressed in terms of litres of pure alcohol) is estimated to have increased from 9.4 litres per household per year in 1993–4 to 11.7 litres in 2004–5.

A recent EU report (Anderson and Baumberg, 2006) estimates that using taxation to raise the price of alcohol by just 10% within the EU's 15 wealthiest member states would save 9,000 lives within a year, as well as generate €1.3bn (roughly £8.9 billion) in excise duty. Reducing consumption through the mechanism of price can have a significant impact on health – and is in keeping with a history of legal regulation of alcohol, which includes drink driving legislation and licensing laws.

4. Health Impact

4.1 Alcohol and health

According to the latest figures from National Statistics, the annual number of alcohol-related deaths in the UK more than doubled between 1991 and 2005, from 4,144 to 8,386. The gap between the sexes has widened in recent years too: men now account for two-thirds of the total number of deaths, and death rates are more than twice as high for males (17.9 deaths per 100,000 population) than females (8.3 deaths per 100,000) (Office for National Statistics, 2006a).

Excessive alcohol consumption is associated with over 60 different physical and mental health problems (Rehm et al, 2003). The World Health Organization (2002) estimates that alcohol is responsible for 4% of the total global burden of disease, a figure only slightly lower than that associated with either smoking or high blood pressure. There is a complex relationship between levels of consumption of alcohol and the health and social outcomes for individuals and communities (Figure 4.1). This reflects the different ways in which alcohol can cause harm:

- through its *toxic effects* on the body's physiology and organ systems, leading to chronic diseases such as cirrhosis of the liver, heart disease and cancer;
- through the *effects of intoxication*, which can precipitate accidents and violence;
- through the *chronic effects of alcohol dependence*, which can cause serious social and psychological problems.

Figure 4.1:
Relationship between alcohol consumption and its impact on health and social well being
Source: Babor et al (2003)

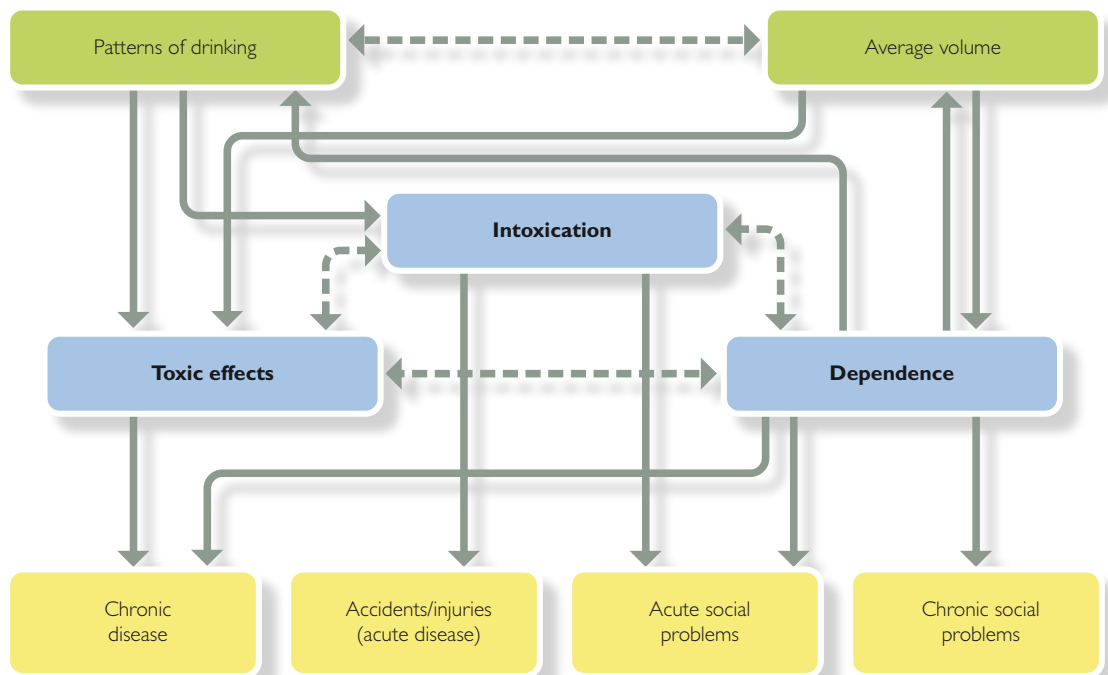


Table 4.1 summarises the most significant diseases and types of injury associated with alcohol consumption, and provides, for each, estimates of the proportion of the worldwide burden of disease attributable to alcohol. (Negative figures indicate conditions for which alcohol has a protective effect.)

Table 4.1 Diseases and categories of injury related to alcohol, and burden of disease attributable to alcohol worldwide.

	Men	Women	Population as a whole
Malignant neoplasms			
Cancers of the mouth and oropharynx	22%	9%	19%
Oesophageal cancer	37%	15%	29%
Liver cancer	30%	13%	25%
Breast cancer	n/a	7%	7%
Neuropsychiatric disorders			
Unipolar depressive disorders	3%	1%	2%
Epilepsy	23%	12%	18%
Alcohol use disorders: alcohol dependence and harmful use	100%	100%	100%
Circulatory disease			
Ischaemic heart disease	4%	-1%	2%
Haemorrhagic stroke	18%	1%	10%
Ischaemic stroke	3%	-6%	-1%
Gastrointestinal diseases			
Cirrhosis of the liver	39%	18%	32%
Unintentional injury			
Motor vehicle accidents	25%	8%	20%
Drownings	12%	6%	10%
Falls	9%	3%	7%
Poisonings	23%	9%	18%
Intentional injury			
Self-inflicted injuries	15%	5%	11%
Homicide	26%	16%	24%

Source: Room et al (2005)

For several of these conditions there is evidence of a dose-response relationship – i.e. increasing levels of alcohol consumption leads to increasing risk of the disease. This has been demonstrated, for example, for many of the cancers associated with drinking alcohol, including cancers of the mouth and oropharynx, liver, breast, digestive system and pancreas (Room et al, 2005).

Research cited in the latest Department for Education and Skills (DfES) teenage pregnancy strategy (2006) suggests that teenagers of both sexes who regularly smoke, drink and experiment with drugs are more likely to start having sex before the age of 16. Another study reported in the same document found that 20% of white young women reported 'going further' sexually than they intended because they were intoxicated (Department for Education and Skills, 2006). Together with other studies which have found that contraception is less likely to be used under the influence of alcohol, this makes up a picture of alcohol contributing to risky sexual behaviour in young people, including unwanted sex, unintended pregnancy and the risk of sexually transmitted diseases – all of which are (like binge-drinking in young people) worryingly common in the UK. Other problems associated with drinking for young people include potential effects on physical and mental health and poor school performance.

4.2 Vulnerable groups

Although the health and social consequences of alcohol consumption can affect people from all sections of society, some groups are at particular risk. These include:

- **Children:** The children of parents with alcohol problems are at increased risk of developing emotional and psychological problems, and are more likely to display anti-social behaviour and to under-achieve at school (Strategy Unit, 2003).
- **Pregnant women:** Drinking while pregnant may cause miscarriage, and the risk rises with increasing levels of consumption. Women with a clearly identifiable alcohol problem also risk giving birth to babies with Foetal Alcohol Syndrome (FAS), which affects between 0.4 and 2.1 per 1,000 live births (Strategy Unit, 2003).
- **The homeless:** Alcohol dependence is an important cause of homelessness, which exacerbates the health and social problems associated with alcohol. Research suggests that up to 50% of rough sleepers are dependent on alcohol (Strategy Unit, 2003). Co-morbidity (the coexistence of mental health problems and alcohol dependence) is another important factor influencing the pattern of alcohol consumption among the homeless and the problems it causes.
- **Offenders:** There is a complex relationship between criminal behaviour and the use of alcohol. Some criminal offences such as drink driving and assault are directly linked to alcohol consumption, and research has suggested that approximately two-thirds of male and one-third of female prisoners have problems with alcohol. In fact, offenders are likely to have a range of problems that exacerbate their alcohol use. Problem alcohol use also plays a major role in re-offending and features highly in the case-loads of probation staff (Strategy Unit, 2003). Home Office research on domestic violence offenders has shown that nearly three-quarters had consumed alcohol prior to the offence (Gilchrist et al, 2003).
- **People with mental health problems:** Alcohol is often consumed to help people relax and be sociable, but many people drink in order to cope with feelings of stress, anxiety and depression – and individuals with high levels of alcohol consumption are particularly susceptible to mental health problems (Cornah, 2006). The association between deliberate self-harm and problem drinking is well established. It is estimated that between 16 to 41% of suicides are attributable to alcohol (Strategy Unit, 2003) and as many as 70% of men consume alcohol before killing themselves (Cornah, 2006).
- **Ethnic groups:** Contrary to the pattern for many other conditions, people from white ethnic groups have higher alcohol-related morbidity and mortality (reflecting higher levels of alcohol consumption) than those from Black and minority ethnic groups (Department of Health, 2004b).

4.3 Alcohol-related deaths

As well as increasing the risk of developing a wide range of diseases, there is a wealth of medical and epidemiological research to show that problem alcohol use – particularly excessive consumption and binge-drinking – is associated with an increased risk of death. This includes deaths due to stroke, liver disease, a range of cancers, injuries from falls and road traffic accidents (Room et al, 2005).

Nationally, 5.8% of deaths in men and 4.4% of deaths in women can be attributed to alcohol (NWPHO, 2006 and ONS). Approximately 4,000 people die each year as a result of an acute alcohol-related incident, and estimates suggest that between 11,300 and 17,900 people die each year due to alcohol-related chronic diseases (Strategy Unit, 2003). In the South East region, there were a total of 3,563 alcohol-attributable deaths in 2004, of which 55% were among men and 45% among women (Table 4.2). Stroke accounted for the largest number of deaths (647) in which alcohol was a contributory factor in 2004. The next largest causes of alcohol-attributable mortality were alcoholic liver disease, cancer of the digestive organs, cancer of the oesophagus, and pneumonia and influenza.

Table 4.2 Estimated number and proportion of deaths attributable to alcohol, by cause and by gender, South East England, 2004

Underlying cause of death	Males		Females		Population as a whole
	Percentage of deaths attributable to alcohol (AF*)	Total number of alcohol-related deaths	Percentage of deaths attributable to alcohol (AF*)	Total number of alcohol-related deaths	Total number of alcohol-related deaths
Stroke	8.1	240	8.1	407	647
Alcoholic liver disease	100	325	100	153	478
Cancer of other digestive organs	20.0	229	20.0	211	440
Cancer of the oesophagus	28.5	185	28.5	94	279
Pneumonia and influenza	5.0	97	5.0	155	252
Road accidents	30.5	136	35.3	37	173
Intentional self-harm	16.4	132	25.3	20	152
Chronic hepatitis, fibrosis and cirrhosis of liver	52.0	67	50.3	70	137
Stomach cancer	20.0	79	20.0	43	122
Fall injuries	24.6	53	26.8	48	101
Lip cancer	50.0	56	50.0	42	98
Ischaemic heart disease	0.5	36	0.5	31	67
Event of undetermined intent	16.4	53	25.3	14	67
Breast cancer	3.5	0	1.8	62	62
Mental and behavioural disorders due to use of alcohol	100	42	100	19	61
Cancer of the liver and intrahepatic bile ducts	23.5	29	18.8	29	58
Gastric ulcer	10.0	24	10.0	32	55
Other causes		184		132	316
All attributable causes		1,967		1,596	3,563

Sources: Public Health Mortality files. Office for National Statistics (2006b); Hooper et al (2006). See appendix for explanation of methodology.

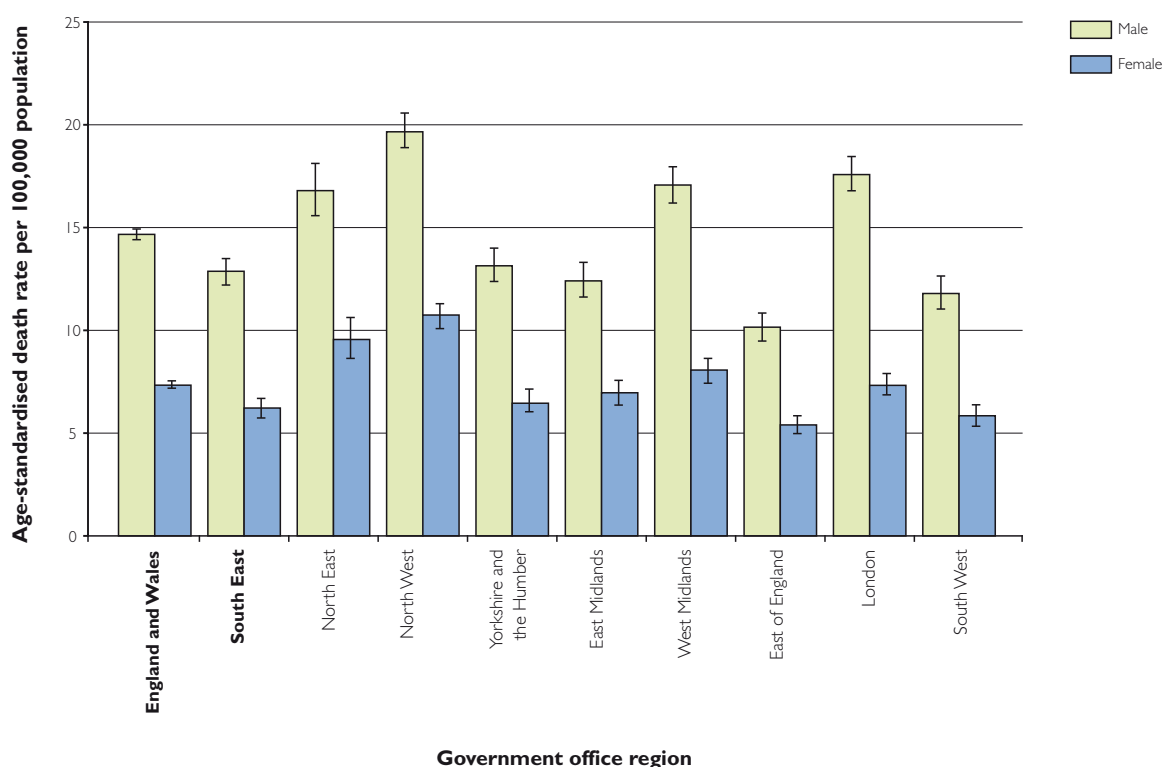
*AF – Attributable Fraction

The alcohol-specific mortality rate (deaths that are caused directly by alcohol), for both men and women in the South East is significantly below the England and Wales average (Figure 4.2). Only the East of England and the South West have lower rates than the South East, and four other regions (North West, London, West Midlands and North East) have significantly higher rates than the South East for both men and women.

Figure 4.2:

Alcohol-specific mortality rates by gender and region, England, 2001–2003. See appendix for explanation of methodology.

Source: *Alcohol-related deaths in England and Wales, 2001 to 2003*. Office for National Statistics, (2003).

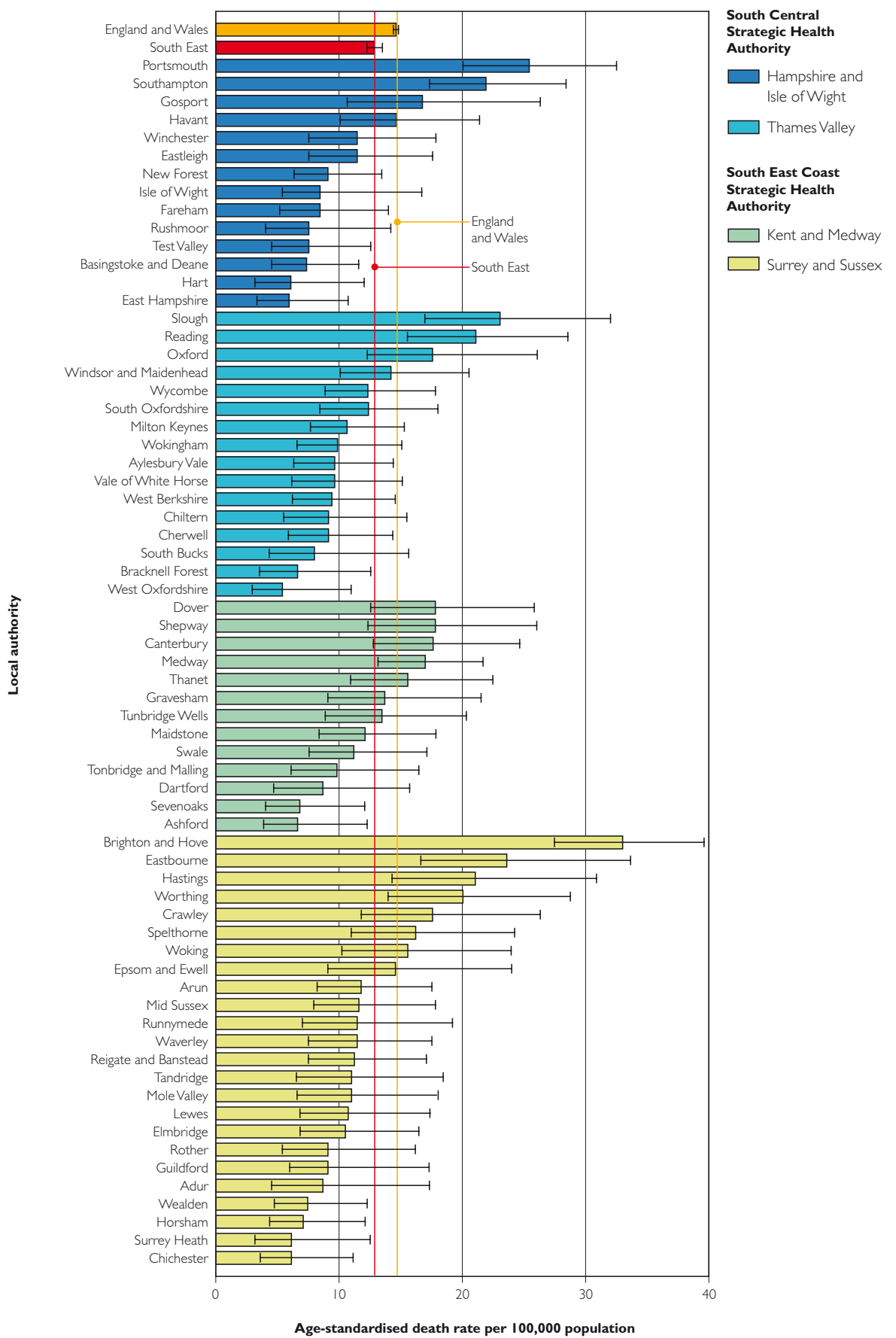


Within the South East region, there is marked variation in alcohol-specific mortality rates for men (Figure 4.3). Six local authority areas – Brighton and Hove, Portsmouth, Eastbourne, Slough, Southampton and Reading – have rates significantly higher than the national average, while a number fall significantly below both the national and regional average. There is a three-fold difference between those at the highest end of the distribution and those at the lowest end (such as West Oxfordshire, East Hampshire and Chichester).

Figure 4.3:

Alcohol-specific mortality rates for men by local authority, South East England, 2001 to 2003 combined. See appendix for explanation of methodology.

Source: *Alcohol-related deaths in England and Wales, 2001 to 2003.* Office for National Statistics, (2003).

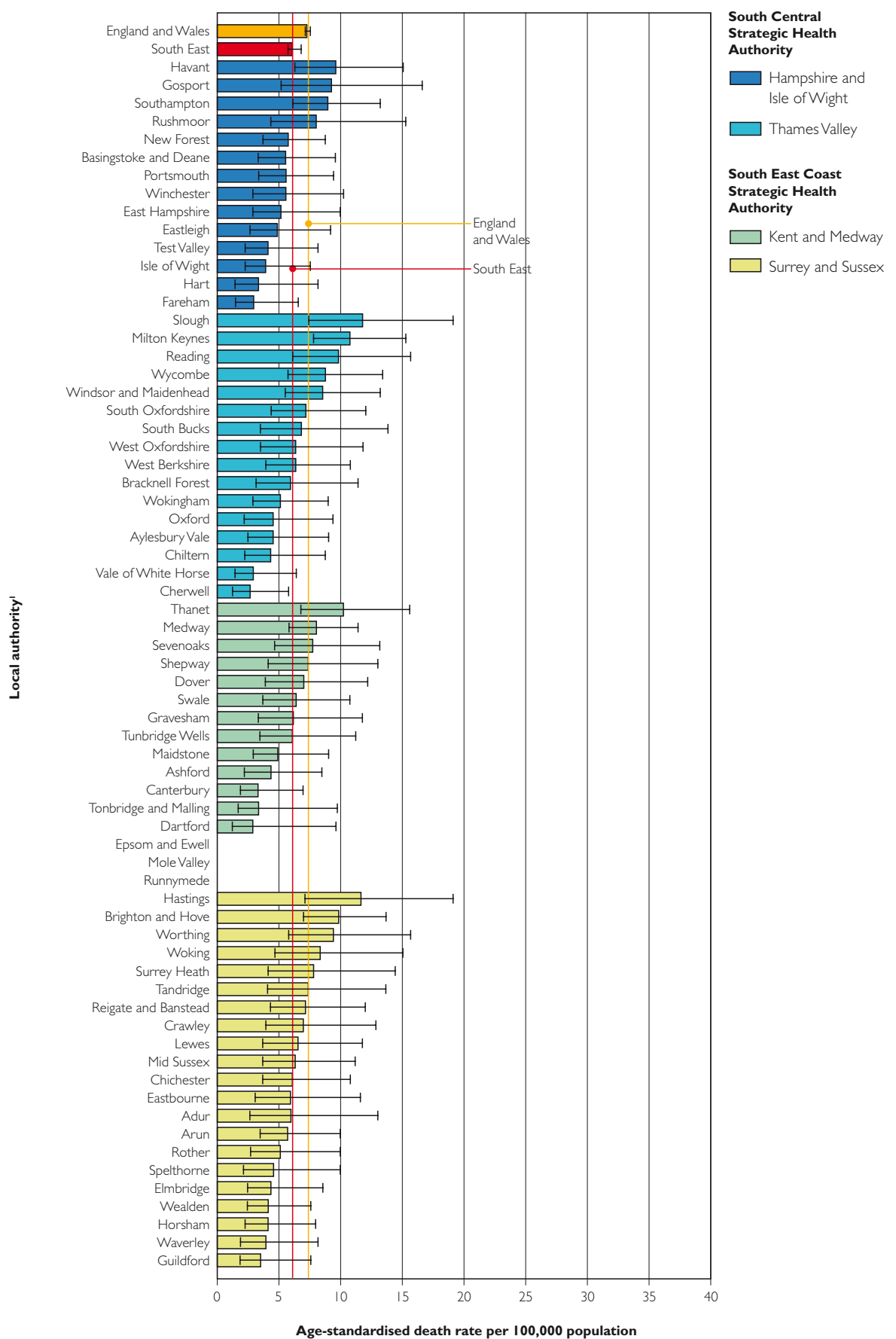


The variation in mortality rates among women is less pronounced, and only one area – Milton Keynes – has a rate significantly higher than the national average (Figure 4.4). One possible explanation for this difference between the sexes is that alcohol-specific deaths among women are not as strongly influenced by patterns of deprivation as they are for men.

Figure 4.4:

Alcohol-specific mortality rates for women by local authority, South East England, 2001 to 2003 combined. See appendix for explanation of methodology.

Source: *Alcohol-related deaths in England and Wales, 2001 to 2003*. Office for National Statistics, (2003).



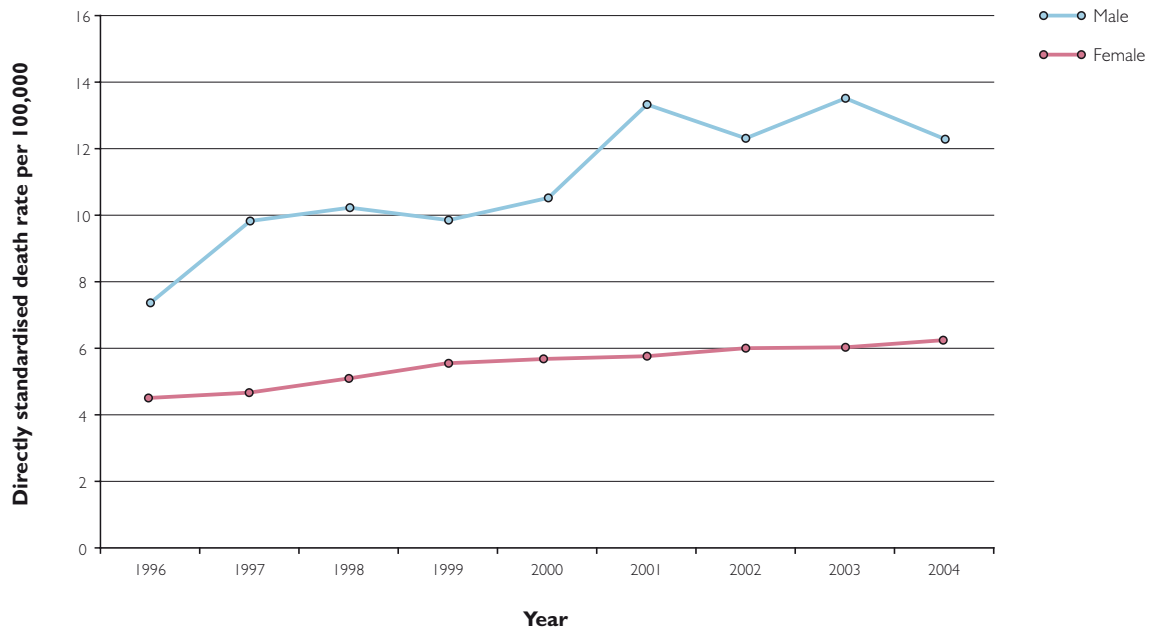
¹Some local authorities have been excluded from this figure because the number of deaths was very small. National guidelines restrict the publication of such small numbers for reasons of confidentiality.

Figure 4.5 illustrates trends in alcohol-specific death rates in the South East region between 1996 and 2004. A substantial increase has been seen among men over this time period, although the rate appears to have stabilised in recent years. Among women the increase has been much less pronounced, and the rate has changed relatively little since 1999.

Figure 4.5:

Trends in alcohol-specific mortality rates by gender, South East England, 1996 to 2004

Source: Public Health Mortality Files. Office for National Statistics (2006b)



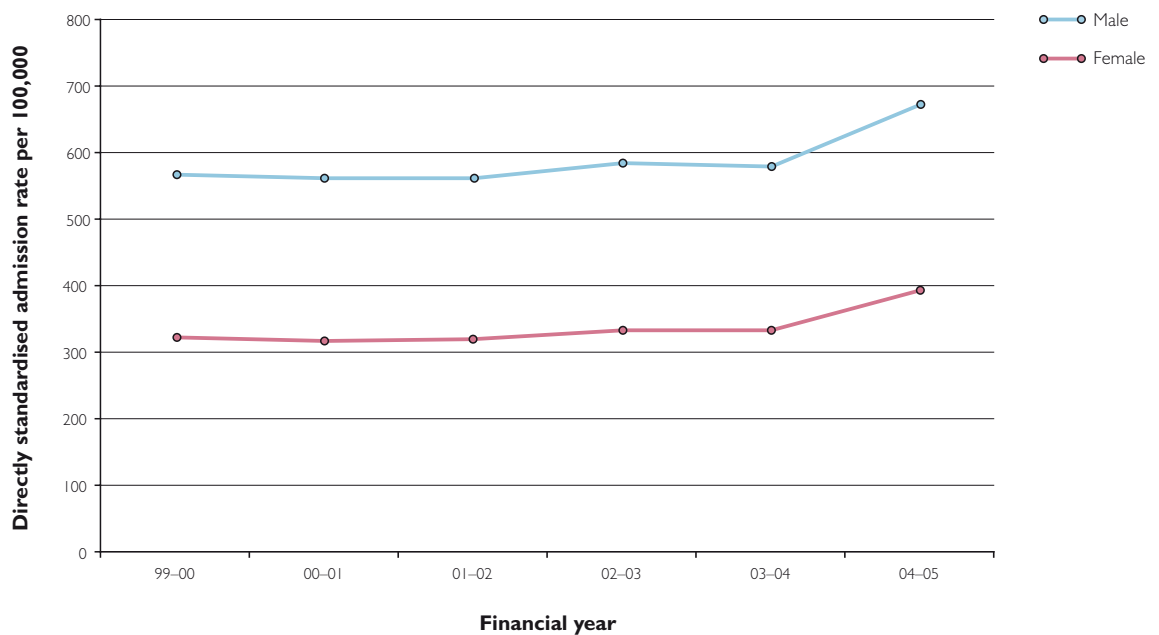
4.4 Alcohol-related hospital admissions

The impact of problem alcohol use on the health and well-being of the population of South East England can also be measured by looking at hospital admission rates for alcohol-attributable conditions. The pattern is similar to that for mortality, with men having higher alcohol-attributable admission rates than women (Figure 4.6). Admission rates for both sexes have remained relatively stable in recent years; only in 2004–5 was there an increase apparent.

Figure 4.6:

Trends in alcohol-attributable hospital admission rates by gender, South East England, 1999–2000 to 2004–5

Source: Hospital Episode Statistics. Information Centre (2006a) for 1999–2000 to 2004–5



A spell-based analysis² of hospital admissions over the four year period between 1998–9 and 2002–3, showed there was an average of 17,490 hospital admissions per year in the South East for which alcohol was mentioned on the hospital record as a contributory factor. This figure corresponds to an admission rate of 135.9 per 100,000 persons, which is 42% lower than the England average of 235.6 admissions per 100,000 (Goldacre et al, 2005).

There are significant geographical differences in these admission rates across the South East (Figure 4.7). The highest rate over the five year period 1998–9 to 2002–3 was seen in Hastings, which had an admission rate over five times higher than Windsor and Maidenhead. The distribution of admission rates is strongly associated with the pattern of deprivation across the region ($R^2=0.63$).

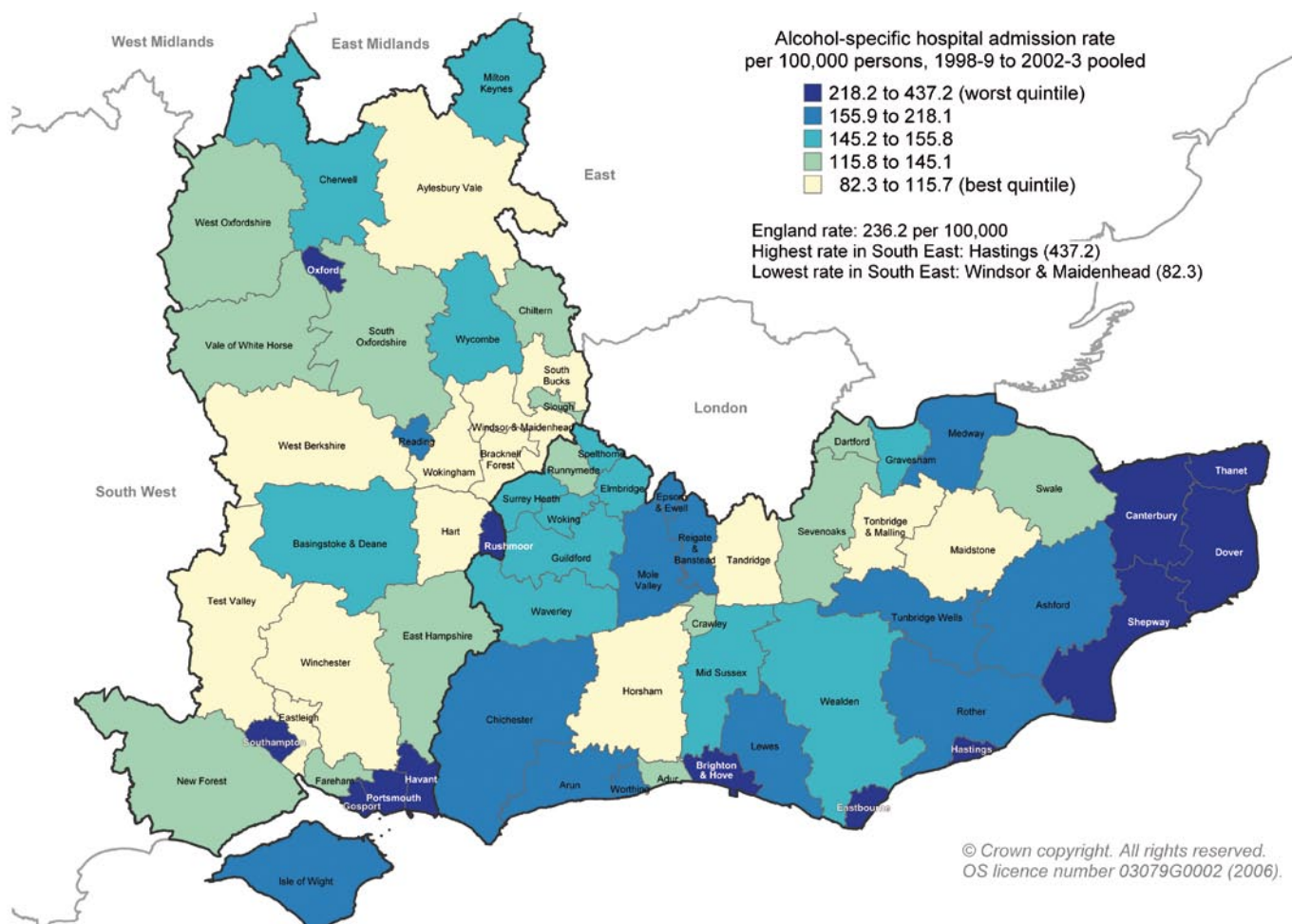


Figure 4.7:

Alcohol-specific hospital admission rate by local authority, South East England, 1998–9 to 2002–3

Source: Goldacre et al, 2005

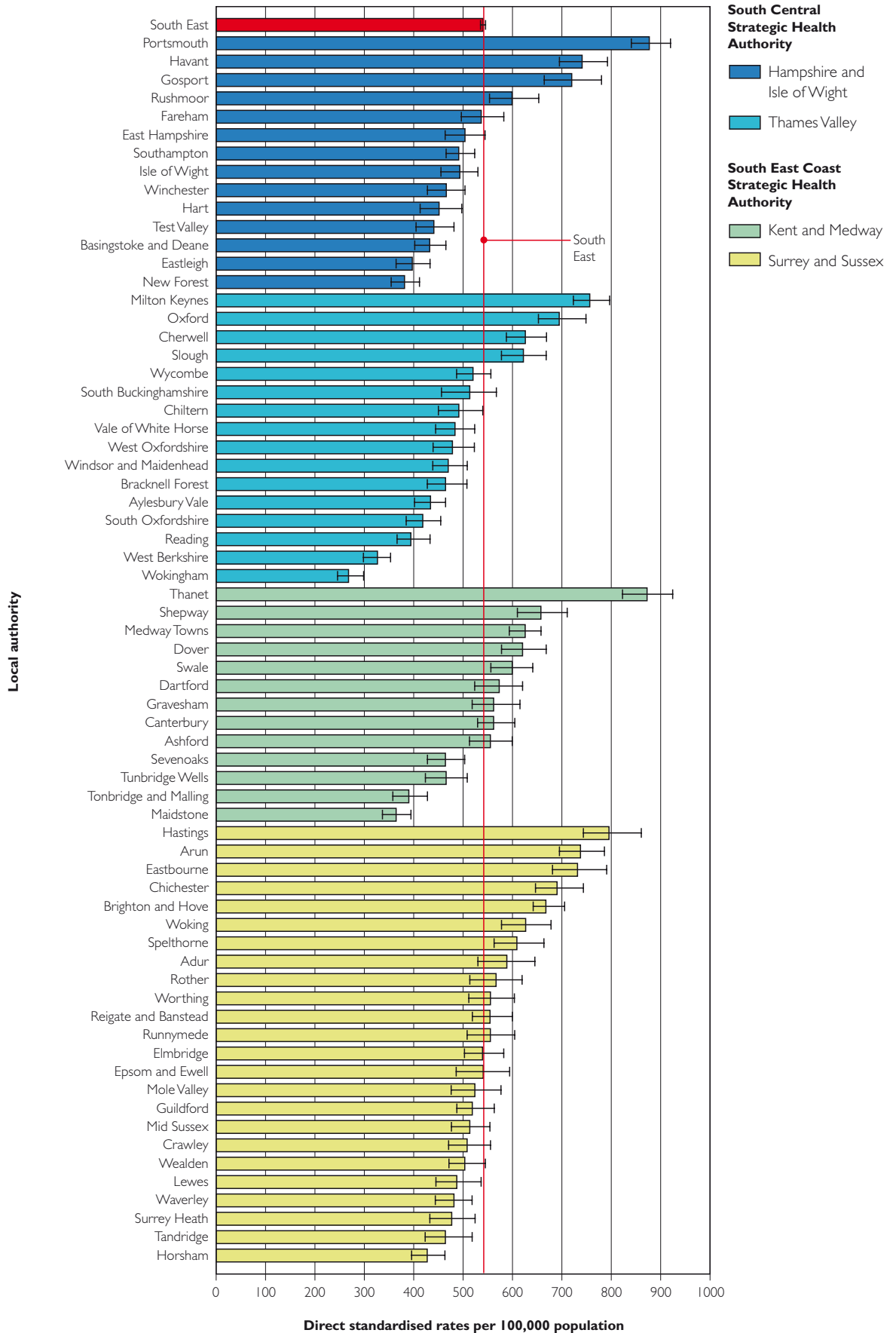
²This figure shows spell-based admission rates. A spell is a hospital admission, representing a period of continuous time spent in a hospital from admission to discharge. A person admitted several times for the same diagnosis is counted as many times as he or she is admitted. The data come from the linked Hospital Episodes Statistics database (Information Centre, 2006a) and are expressed as an average annual rate for each local authority.

More recent data based on hospital admission rates for alcohol-attributable conditions (for 2004–5) show that 20 local authority areas have a person-based (a person admitted several times is only counted once) admission rate significantly higher than the average for the South East (Figure 4.8). Both Portsmouth and Thanet have rates more than 60% above the regional average.

Figure 4.8:

Alcohol-attributable hospital admission rate for all persons by local authority, South East England, 2004–5.

Source: Hospital Episode Statistics. Information Centre (2006a)



4.5 Alcohol and the workforce

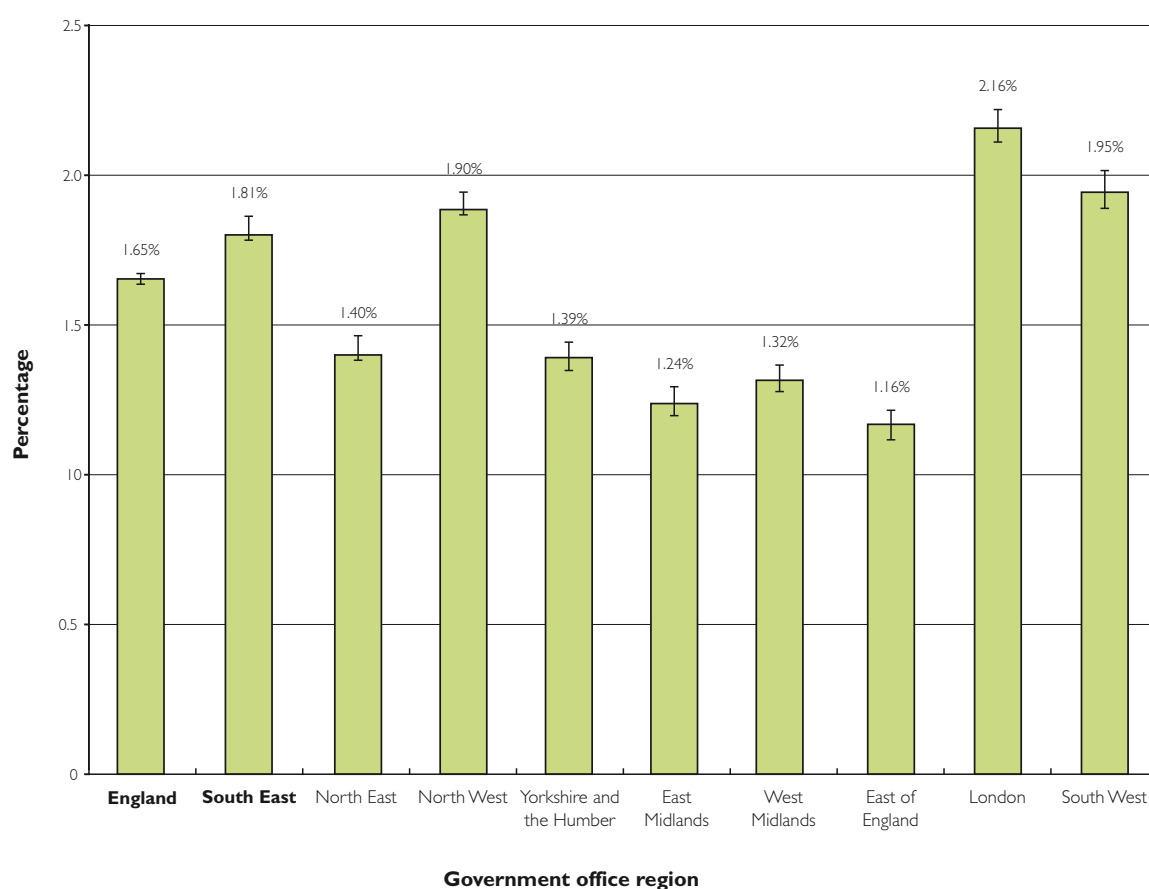
The impact of alcohol consumption on the economy is significant. This manifests itself in a number of ways: premature death of people in the economically active age bands; early retirement and unemployment as a result of poor health; reduced productivity; accidents at work; and increased sickness absence. The Strategy Unit (2003) estimates that 17 million working days are lost each year due to alcohol-related sickness absence, costing the country £6.4 billion per annum.

One measure of the impact of ill-health on the workforce is the proportion of those of working age who are incapacitated and receiving welfare benefits. In May 2005, approximately 4,400 (1.8%) of the 239,100 people in the South East claiming incapacity benefit or severe disablement allowance had a diagnosis of alcoholism (although it is important to note that the diagnosis used is narrow and will not capture all those incapacitated in part by their drinking). This figure is significantly above the national average and is the fourth highest of the nine regions in England (Figure 4.9).

Figure 4.9:

Percentage of incapacity benefit and severe disablement allowance claimants with a main diagnosis of alcoholism by region, England, May 2005.

Source: Iyer et al (2006) (citing the Department for Work and Pensions, 2005).



Alcohol Concern (2006) have identified the main costs to the economy of alcohol-related ill-health as:

- **Absenteeism:** This costs the economy an estimated £2 billion a year and has been shown to have a strong relationship with excessive drinking.
- **Performance and productivity:** Productivity is affected by an employee under-performing due to being under the influence of alcohol or having a hangover from drinking the previous evening. It may take longer than one day to recover from a heavy binge-drinking session, and an employee may experience fatigue, depression or anxiety during this time. This can have a wider effect on workplace morale as colleagues may resent or feel they must 'cover up' for another employee with a drinking problem.
- **Accidents:** Alcohol can impair concentration, judgement and co-ordination and is estimated to be a contributory factor in 20 to 25 per cent of all workplace accidents.
- **Loss of staff and recruitment costs:** These occur when employers need to replace experienced and trained staff due to alcohol-related ill-health. It is usually more effective to retain existing staff, if possible, by supporting them in dealing with their problems, than to incur the cost of recruiting and training new staff. The experience and skills lost when staff leave is difficult to quantify.

Some occupations have a higher risk of alcohol-related ill-health than others. This is illustrated in Table 4.3, which presents proportional mortality ratios (PMR) for high risk occupations in men and women. A ratio over the national average of 100 is worse than expected. For example, a PMR of 110 is 10% higher than expected, and a PMR of 200 is 100% higher than expected (i.e. double the expected rate).

Table 4.3: Proportional mortality ratios from alcohol-related causes for selected occupations, England, 1979 to 1990 combined

Job group	Cause of death		
	Liver cirrhosis	Liver cancer	Falls on stairs
MEN			
Publicans and bar staff	383	184	194
Doctors	341	286	197
Seafarers	265	154	132
Lawyers	233	324	79
Literary and artistic occupations	198	155	118
Armed Forces	182	118	183
Fishing and related workers	172	120	153
Caterers	171	194	125
Cooks and kitchen porters	140	254	169
WOMEN			
Literary and artistic occupations	215	129	166
Publicans and bar staff	378	94	173
Hairdressers	211	85	145

Source: Alcohol Concern, 2006 (citing Office of Population Censuses and Surveys, 1995. Occupational Health Decennial Supplement)

Publicans and bar staff have mortality ratios from liver cirrhosis which are nearly four times higher than expected. Male doctors and lawyers also have very high mortality ratios for both cirrhosis and cancer of the liver. Among women, hairdressers and those employed in literary and artistic occupations have more than double the number of expected deaths from cirrhosis.

5. Crime and disorder

Excessive alcohol consumption has a significant impact on violent and antisocial behaviour; including drink-driving, domestic violence, interpersonal violence and instances of public disorder. It can also lead to unintentional injuries, especially to those who engage in binge-drinking. This chapter reviews the relationship between alcohol and crime and disorder, focussing particularly on the costs to the individual and society of problem drinking.

5.1 Alcohol and violent behaviour

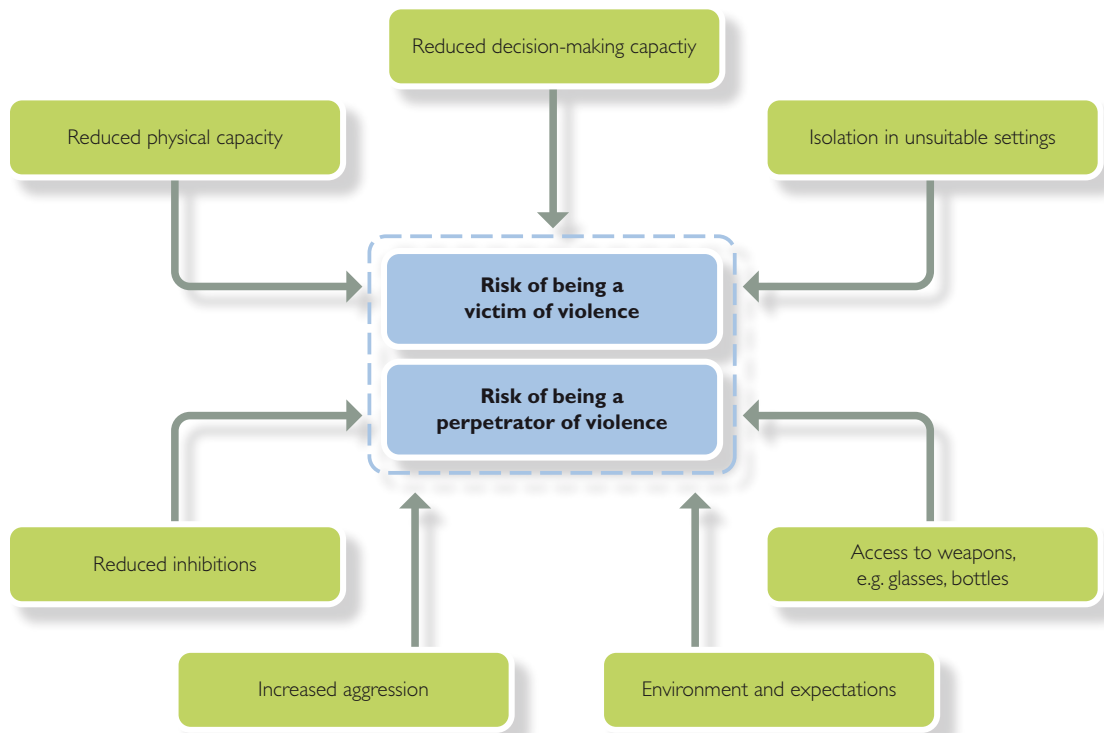
Nationally, there are 1.2 million instances of alcohol-related violence per year; 80,000 arrests for drunkenness and disorder and 530 deaths in road traffic accidents caused by drink-driving. It is estimated that 37% of all assaults are linked to alcohol, and that 360,000 people are victims of alcohol-related domestic violence every year (Strategy Unit, 2003).

Figure 5.1 illustrates the ways in which alcohol intoxication increases the risk of involvement in violence, both for victims and for perpetrators.

Figure 5.1:

Alcohol and the risk of violent behaviour.

Source: Sheehan, D. (2006) (based on Bellis, M., Hughes, K. & Hughes, S., 2005)



According to the British Crime Survey for 2005/06 (Home Office, 2006b), 44% of victims of violence believed that the offender or offenders were under the influence of alcohol at the time of the incident (Walker et al, 2006). The figure varies with the type of offence: 54% for 'stranger violence'; 46% for domestic violence; 44% for 'acquaintance violence' and 21% for muggings.

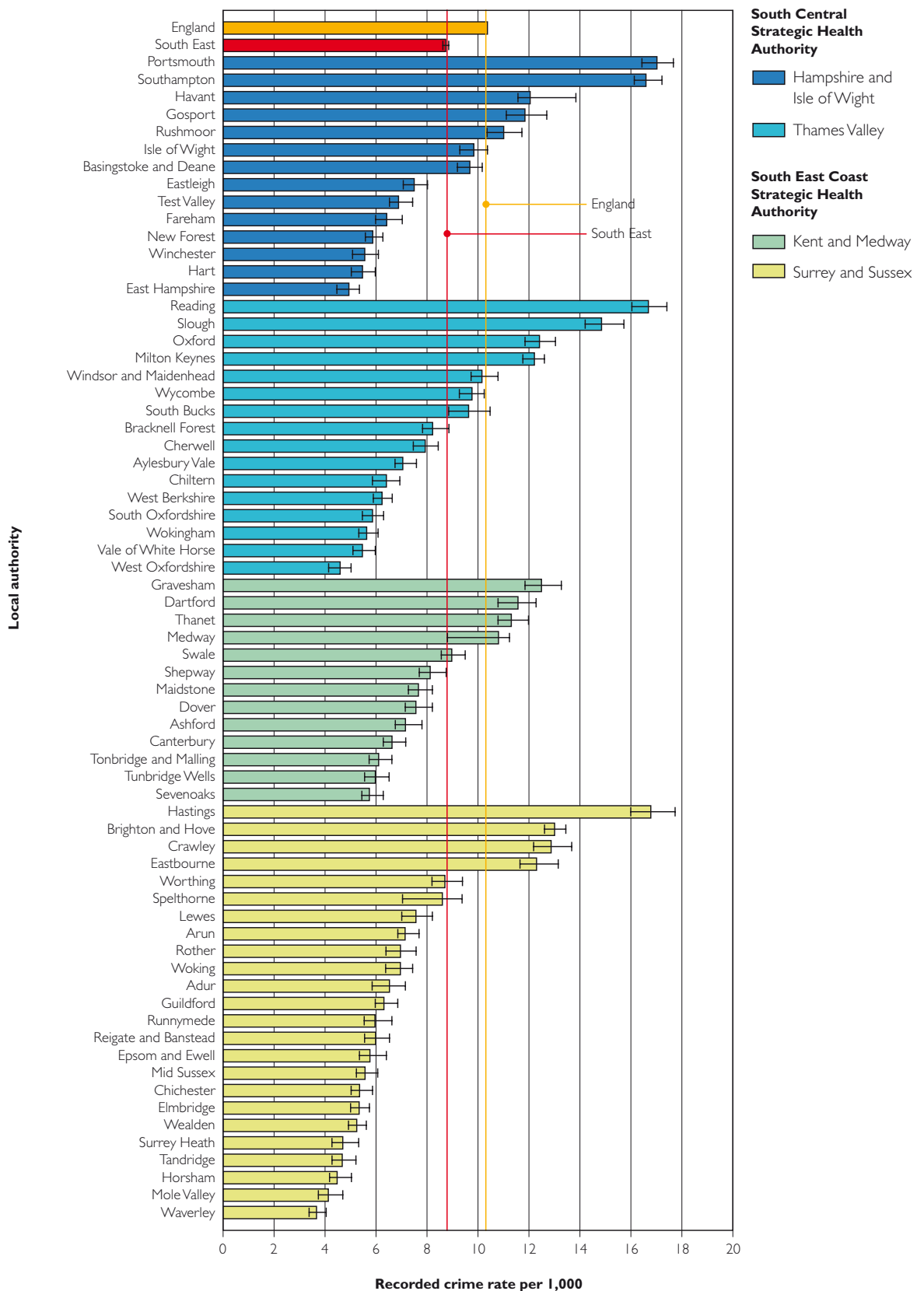
5.2 Alcohol and crime

Figure 5.2 illustrates the substantial variation in overall rates of crime attributable to alcohol across local authorities in the South East.

Figure 5.2:

Recorded crime attributable to alcohol, expressed as recorded incidents of crime per 1,000 population for local authority areas in the South East region, 2005–2006.

Source: North West Public Health Observatory (2006)

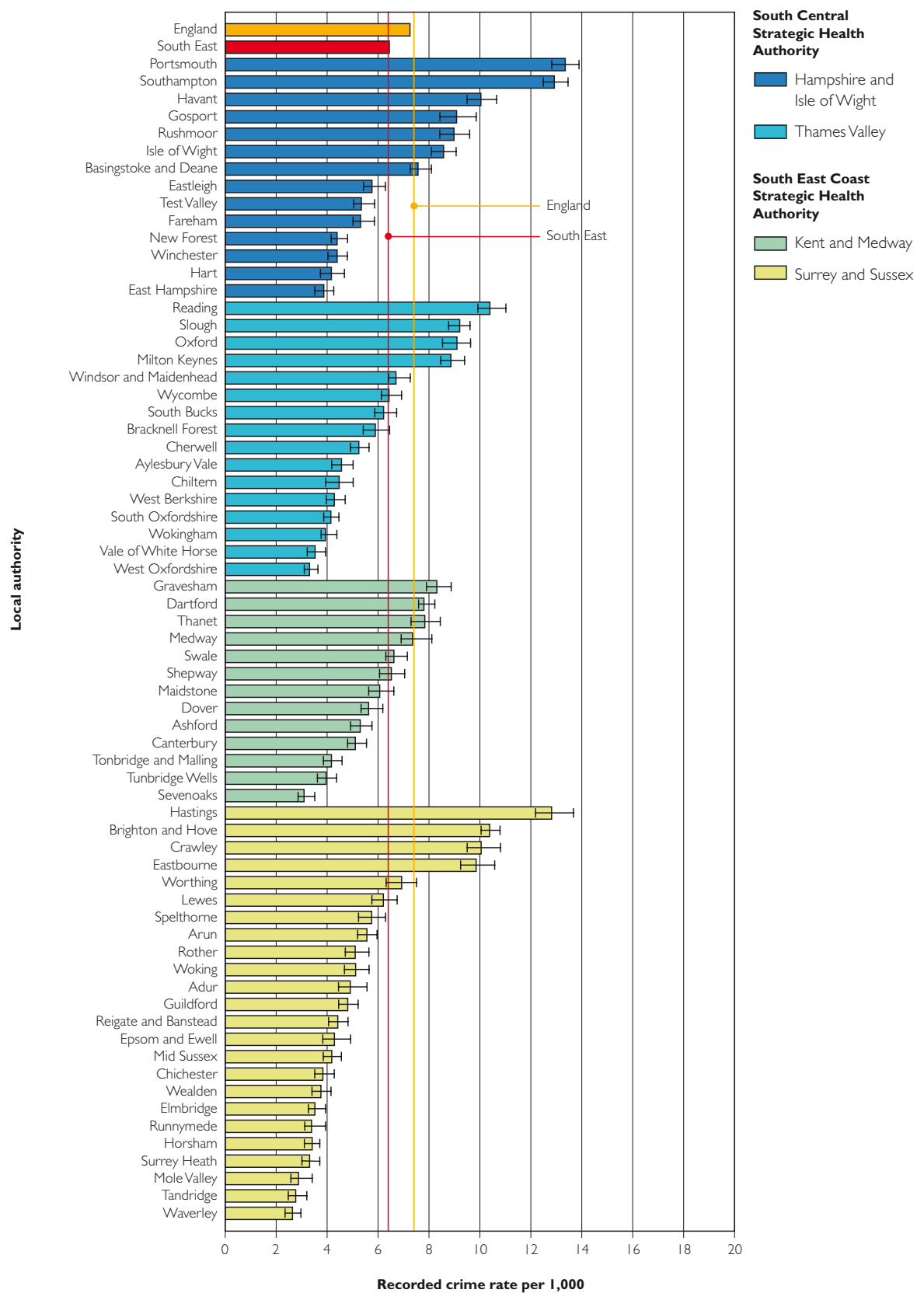


The rate of alcohol-related crime for the South East region is lower than that for England as a whole. Within the region, Hastings, Reading, Portsmouth and Southampton have the highest rates of crime, and a number of other local authority areas are also above the regional and national averages. The lowest rates are seen in West Oxfordshire, Mole Valley and Waverley, with a substantial number of other local authorities falling below the average.

The pattern of alcohol-related crime rates corresponds closely to the pattern of deprivation scores for local authorities in the South East (such as the Indices of Deprivation (Noble et al, 2004)).

Figure 5.3 illustrates the variation across the South East in alcohol-related violent crime. The pattern is very similar to that for overall crime rates.

Figure 5.3:
Violent crime attributable to alcohol expressed as recorded incidents per 1,000 population for local authority areas in the South East region, 2005–2006.
Source: North West Public Health Observatory (2006)



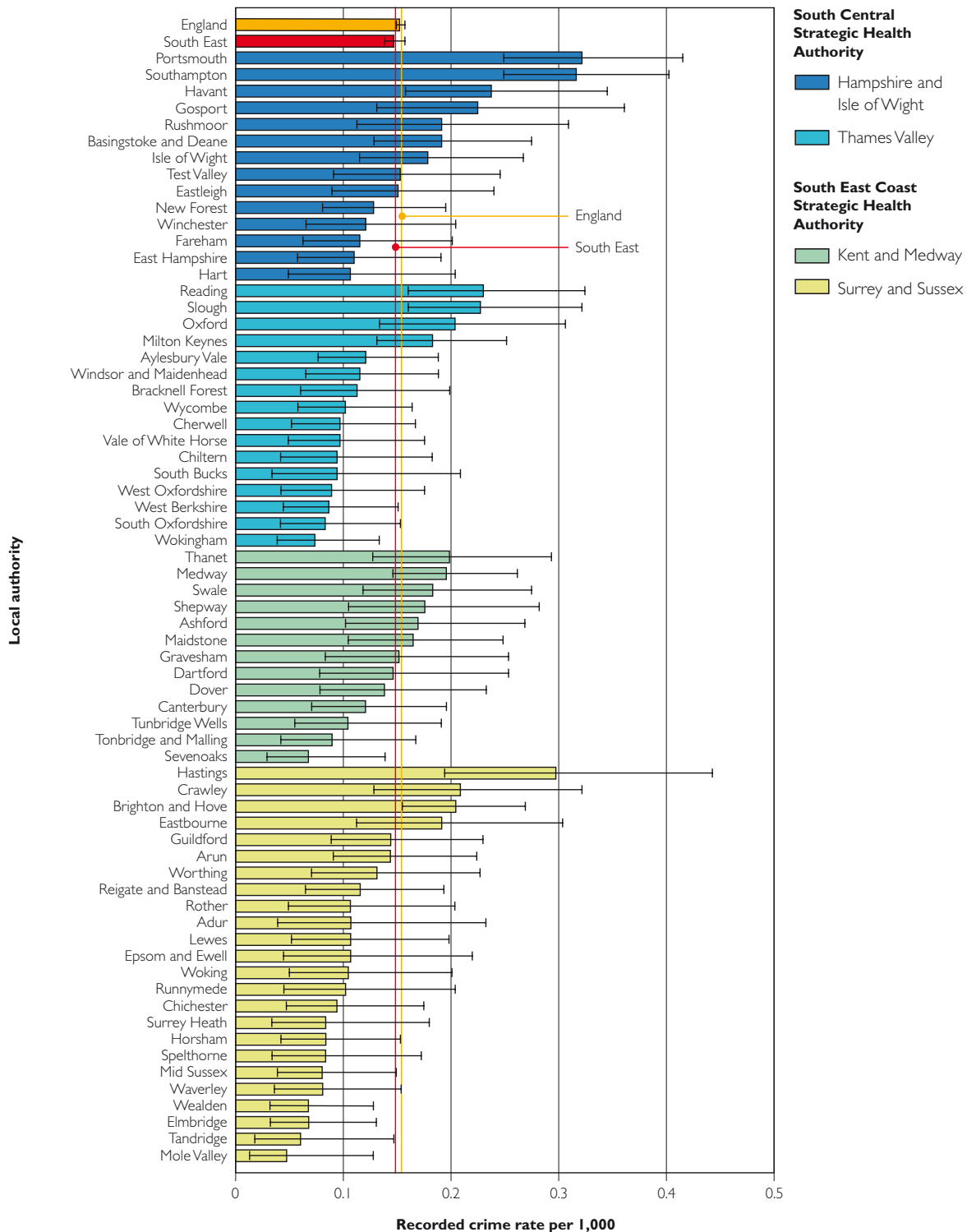
Evidence from a study in Cardiff indicates that, although more than half of those arrested for alcohol-related crime are first-time offenders, a substantial minority are repeat offenders: around one in five have four or more previous convictions. Victims and perpetrators often share similar profiles and often both have been drinking before an incident (Maguire and Nettleton, 2003).

5.3 Alcohol and sexual crime

Data from the British Crime Survey suggest that one in ten women have been sexually victimised at some point in their adult life (Myhill and Allen, 2002). Alcohol often plays a part in sexual crimes. There is evidence that many perpetrators have drunk alcohol immediately beforehand and/or have longer term drinking problems (Finney, 2004 citing Grubin and Gunn, 1990), and toxicological evidence from cases in which sexual assault has allegedly been facilitated by 'drugging' the victim, reveals that alcohol is also the most common substance used for this purpose. Alcohol was involved in 46% of assaults in one study of 1,014 cases – more than so-called 'date rape' drugs such as Rohypnol® and other benzodiazepines (Scott-Ham and Burton, 2005).

Figure 5.4 shows the variation in rates of alcohol-related sexual crime across the South East. Again, the pattern is similar to that for other types of crime.

Figure 5.4: Sexual Offences attributable to alcohol expressed as recorded incidents per 1,000 population for local authority areas in the South East region, 2005–2006.
Source: North West Public Health Observatory (2006)



5.4 Alcohol and domestic violence

Domestic or partner violence is a significant problem. Almost one in four women are estimated to have been assaulted by a partner during their adult life and two women are killed each week in England and Wales by a current or former partner (Dingwall, 2005). There is no evidence that alcohol alone causes domestic violence, but there is evidence that where violence exists, alcohol is often present too.

Estimates of the prevalence of domestic violence are available from several sources, including the British Crime Survey (BCS), recorded crime figures for alcohol-related violent crime and a variety of academic studies including unpublished data from service providers. Obtaining accurate figures is problematic given that domestic violence by its nature usually takes place 'behind closed doors' and is often not reported to the police – partly because of the stigma and shame attached to it. The involvement of alcohol further complicates the picture.

According to the most recent data available from the BCS, victims of domestic violence reported that 46% of perpetrators were under the influence of alcohol at the time of the assault. Other research suggests a higher figure: Gilchrist et al (2003) reported that 73% of domestic violence offenders had been drinking at the time of the offence.

As with sexual crime, alcohol consumption by the victim also plays a role in domestic violence. There has been much debate about whether drinking increases the risk of victimisation, or whether alcohol is used as a means of coping with a violent partner. However, there is evidence that the risk of becoming a victim of domestic violence rises with increasing alcohol consumption (Galvani, 2005).

5.5 Alcohol consumption and public disorder

Disorderly behaviour in public places, especially at night, is often related to alcohol. The impact this has on the local environment and community – and the workload of the police – can be assessed from data on the serving of Penalty Notices for Disorder (PNDs) (Home Office, 2005). The number of PNDs served for alcohol-related and other offences varies between different police authorities, and may in part reflect the different approaches adopted by these forces. Table 5.1 illustrates the variation across the South East and compares this with figures for England and Wales as a whole. In terms of the proportion of PNDs which are served for alcohol-related offences, the rate in the South East is higher than the national average.

Table 5.1 Penalty Notices for Disorder (PNDs) by police authority, all ages, 2004

Police authority Area	Total number of PNDs issued	Number of alcohol-related PNDs issued	Alcohol-related PNDs as a percentage of the total (95% confidence intervals in brackets)
Hampshire	2,116	1,179	55.7% (52.6–59.0%)
Kent	767	547	71.3% (65.6–77.5%)
Surrey	203	106	52.2% (43.1–63.1%)
Sussex	1,509	1,109	73.5% (69.3–78.0%)
Thames Valley	1,038	407	39.2% (35.6–43.2%)
South East	5,633	3,348	59.4% (57.4–61.4%)
England as a whole	61,260	28,679	46.8% (46.3–47.3%)

Source: Penalty notices for disorder statistics. Home Office (2005)

5.6 Drink-driving

The number of people killed or seriously injured through drink-driving decreased significantly between 1980 and the early 1990s, but the downward trend has not continued since then (Robinson and Campbell, 2006). Drink-driving is still a contributory factor in 5% of all road accidents (Robinson and Campbell, 2006) and 17% of road deaths¹ (Strategy Unit, 2003). Breath testing drivers is one way of deterring drink-driving and reducing its impact on death and serious injury from road accidents. Statistics on breath testing for the five police forces in the South East for the years 2003 and 2004 are illustrated in Figure 5.5. The graph

¹A recent EU report considered that as many as 1 in 3 road fatalities across the EU are due to alcohol (Anderson and Baumberg, 2006).

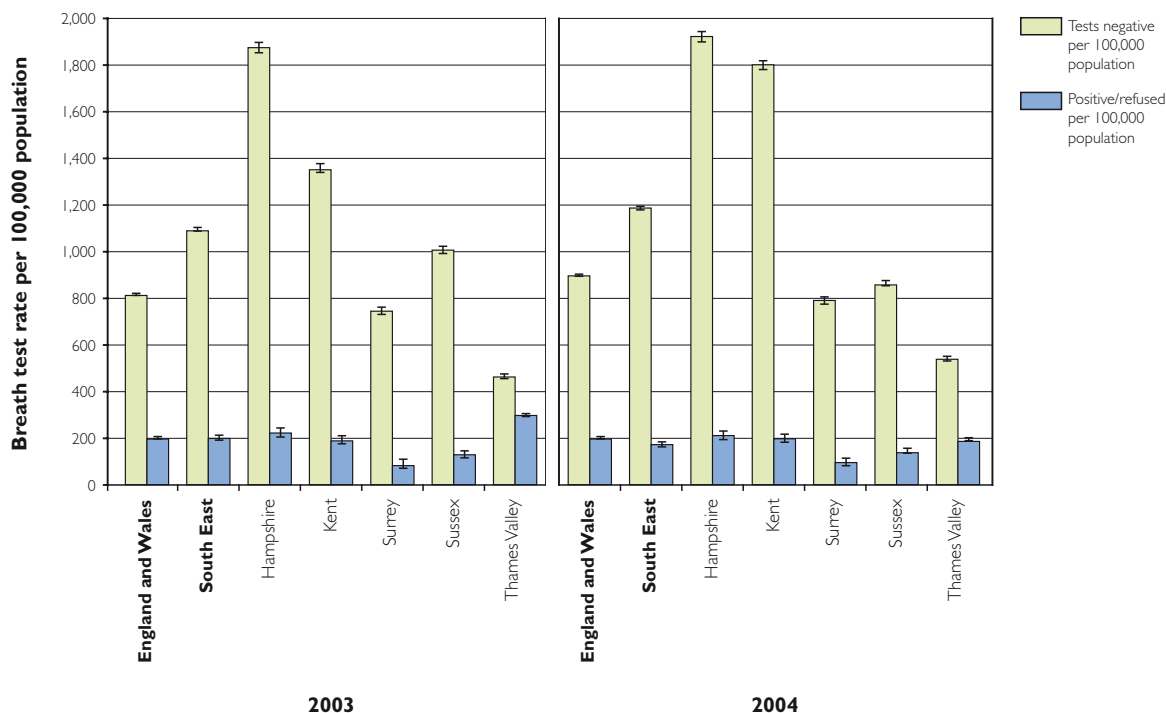
shows the rates of negative breath tests per 100,000 population and the rates for positive and refused tests combined (referred to in the next paragraph as 'positive tests', for the sake of simplicity).

It is evident from Figure 5.5 that the number of *positive* tests varies less than the *total* number of breath tests conducted. For instance, far more breath tests were conducted per 100,000 population in the South East region than in the country as a whole, but roughly the same number of positive tests resulted from this. At the level of police force areas, both Hampshire and Kent have very high rates of breath testing but their rate of positive tests is similar to the national average. Surrey's low rate of testing is associated with a lower 'hit rate' for positive tests, but Thames Valley has the lowest breath testing rate of all and among the highest rate of positive tests. This raises questions about the effectiveness of increasing the rate of breath testing above a certain threshold, and about the targeting of testing. Further work would be helpful to explore this issue, which has potentially important implications for the efficient use of police resources.

Figure 5.5:

Drink-driving data, showing rates of negative breath tests and of positive or refused breath tests per 100,000 population, by police force area in the South East, 2003 and 2004. Whiskers represent 95% confidence intervals.

Source: Fiti et al (2005) and Fiti and Murray (2006)



5.7 Alcohol-related disorder and the NHS

Alcohol-related crime and disorder are thought to cost up to £7.3 billion a year, and the NHS bears an additional 1.7 billion in related cost. Violence or accidents fuelled by alcohol are responsible for around a third of attendances at accident and emergency departments (up to 70% at night) and for 150,000 hospital admissions per annum (Strategy Unit, 2003).

The Cardiff Violence Prevention Group has produced considerable evidence of the way in which injury data from accident and emergency (A&E) departments can be used to prevent community violence (Shepherd, 2001b; Warburton and Shepherd, 2004 & 2006). Collecting detailed information from patients attending A&E with alcohol-related injuries has significantly improved the data available about many forms of community violence and has reduced violent assaults in the city. Many assaults are not reported to police (as many as 50% in some studies), but the Cardiff model has significantly improved reporting.

Anonymised A&E data are shared with the local Crime and Disorder Reduction Partnership (CDRP) and used to influence decisions about how a range of resources are deployed. These include targeted policing and wider issues such as the way in which streets are managed: pedestrianisation, door staff training, taxi marshalling, positioning of closed circuit television cameras, dispersal of mobile fast food retailers and obvious measures to reduce injury such as using plastic beakers and bottles in preference to glass. The result has been a significant reduction in assaults despite an increase of premises in the city over the same period (Warburton and Shepherd, 2006). The Cardiff model is being introduced in 17 accident and emergency departments in the South East, which are now working more closely with their local CDRPs to reduce the level of community violence.

Box 5.1 How injury data from accident and emergency departments can be used to reduce community violence

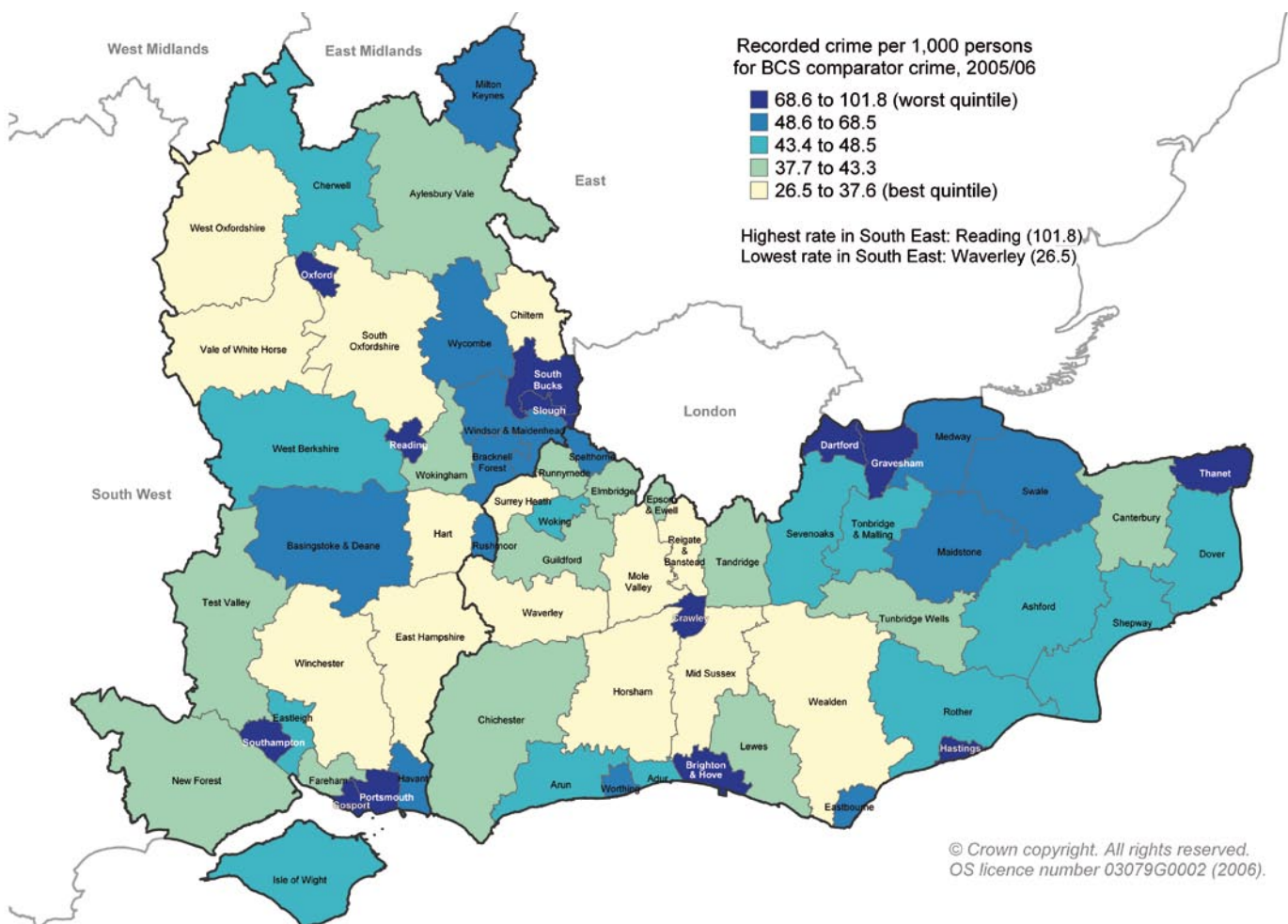
- Provides a measure of serious violence that is independent of police information (which is often incomplete and inaccurate)
- Recording injuries treated in A&E has the potential to provide complete coverage of serious community violence
- Detailed local information about crimes – e.g. location, time, weapon, type of incident, relationship with attacker – can help shape the police response
- Offers a new performance indicator of policing at police force level
- Can supply outcome information on the injured victim, which is currently missing from police reports
- Provides a set of measures which are compatible with other data sources such as the British Crime Survey

Figure 5.6:

Mapping of recorded crime in the South East (rates per 1,000 population 2004/05).

Source: The British Crime Survey, Home Office (2006b)

The 67 CDRPs in the South East cover areas with widely varying crime rates (Figure 5.6) and are charged with partnership working to tackle a range of criminal behaviour. The NHS is an important partner in this work. Public health professionals have a valuable role to play in data analysis and health impact assessment, and in co-ordinating and leading local strategic partnerships and local area agreements. PCTs can make a significant contribution to local understanding of the level, pattern and severity of community violence by sharing data (Shepherd, 2001a) (alongside other agencies such as the police, fire service and ambulance service).



BCS Comparator Crime includes: Acquisitive crime: domestic burglary; vehicle crime; robbery; bicycle theft; theft from a person. Violence: more serious wounding; less serious wounding; common assault. Criminal damage: criminal damage dwelling; criminal damage non-dwelling; criminal damage vehicle; other criminal damage

6. Tackling alcohol misuse

This section describes the range of services available for addressing alcohol problems, and summarises the evidence about which approaches are effective in preventing alcohol-related harm and reducing the risk of violent behaviour associated with alcohol consumption. It aims to support the commissioning of effective interventions which will have a positive impact on population health. Much of the information is derived from the *Alcohol Harm Reduction Strategy*, from the National Institute for Clinical Excellence (NICE) evidence base, and from World Health Organization (WHO) summaries of individual and population-based interventions (Babor et al, 2003).

6.1 Alcohol services

Since the mid-1980s the government has provided advice on sensible drinking to help people make responsible choices about when and how much to drink.

Screening individuals and offering brief interventions in a wide range of settings can help to improve the identification of alcohol problems and promote access to treatment.

- **Alcohol screening** is used to identify individuals who are drinking above sensible levels, and can be undertaken in many settings – for example in primary care or during a mental health assessment. For screening to be effective it needs to be targeted at individuals whose drinking may be causing problems.
- **Brief intervention** is a term for advice and information about alcohol which can be provided within a short interval – often as little as 5–10 minutes, although they may sometimes extend to a few sessions of motivational interviewing or counselling. Brief interventions are well suited to many different settings where individuals with alcohol problems may present. There is evidence that drinkers may reduce their consumption by as much as 20% as a result of a brief intervention (Strategy Unit, 2003).

Both of these can usefully be offered at a number of points of access to the NHS:

- Primary care – GP surgeries, health clinics, etc.;
- Accident and emergency (A&E) departments in hospitals – a significant proportion of admissions, especially on Friday and Saturday nights, are alcohol-related;
- Hospitals – both in-patient and out-patient services see many patients who present with alcohol-related problems;
- Mental health care services – up to a third of mental health service users have substance misuse problems;
- Antenatal clinics – drinking during pregnancy is hazardous to the fetus so identifying alcohol use among expectant mothers is particularly important.

In addition, both screening and brief interventions are well suited to a range of criminal justice venues and can help to make the most of opportunities for contact with those who are in difficulty as a result of their alcohol consumption.

The health service supports people with more serious alcohol problems by funding the provision of alcohol treatment at more than 470 local agencies in England, at a cost of around £95 million per annum. Four different kinds of treatment should normally be available:

- **Community structured counselling**, which includes motivational therapy, coping/social skills training, behavioural self-control training, and marital/family therapy.
- **Community detoxification**, which is usually based in the home, with the support of a GP, nurse or alcohol treatment worker.
- **Specialised residential services** for clients who are either not suitable or unable to receive community-based treatment.
- **Self-help groups** such as Alcoholics Anonymous.

Models of Care (Department of Health and the National Treatment Agency, 2006) reviews the appropriateness and effectiveness of different types of alcohol treatment to inform those responsible for commissioning and providing local services.

Commissioners should consider developing integrated care pathways for the most vulnerable drinkers, including those with drug problems and/or mental illness, the homeless and young people who misuse alcohol.

6.2 Effectiveness of interventions

The effectiveness of treatment in reducing alcohol consumption and alcohol-related harm is determined by many factors, including individual need and motivation, and the type and suitability of treatment. Evidence of the effectiveness of different kinds of interventions is summarised in Table 6.1.

Table 6.1: The effectiveness of interventions for alcohol problems

<p>Measures at population level</p> <ul style="list-style-type: none"> • The availability and price of alcohol are directly correlated with levels of consumption; • Alcohol exclusion zones are effective in deterring drinkers and reducing disorder; • Drink-driving laws can reduce alcohol-related crash fatalities. The legal blood alcohol concentration limit in the UK is 80mg alcohol/100ml blood: reducing this to 50mg/100ml, the European average, would reduce fatalities and injuries further and has been advocated by the Advisory Council on the Misuse of Drugs (ACMD) (2006) for drivers under 25 years; • Random breath testing and sobriety checkpoints are effective drink-driving countermeasures; • Enforcing the law on the minimum legal age for purchasing alcohol reduces hazardous drinking. It is effective even with minimal enforcement, but stronger enforcement of the law substantially increases its effectiveness (Babor et al, 2003).
<p>Brief interventions</p> <ul style="list-style-type: none"> • Brief interventions for heavy drinkers are effective in moderating drinking; • Multi-contact brief interventions can reduce net weekly drinking; • Extended brief interventions in primary healthcare settings decrease alcohol intake in women; • Extended brief interventions in primary healthcare are effective for men and women for hazardous consumption; • Cognitive behavioural interventions by nurse practitioners reduce consumption; • Brief interventions delivered by healthcare professionals in opportunistic (i.e. non-treatment) settings are effective; • Self-help manuals are effective in reducing at-risk and harmful drinking, especially for those seeking help or identified via screening; • Increasing GPs' engagement in screening and providing advice about hazardous and harmful consumption is effective; • Work-based training programmes that address employees' alcohol problems and explore interventions such as screening and counselling are known to be effective (Health Development Agency, 2004b).
<p>School-based alcohol education programmes</p> <ul style="list-style-type: none"> • Reviews of such approaches suggest that they can have a modest effect on alcohol consumption; • Efforts to increase self-esteem, mental health and the general well-being of young people are likely to have a greater impact on alcohol consumption and alcohol-related problems.

6.3 Cost-effectiveness

Alcohol treatments are highly cost-effective in comparison with other health care interventions, and there is a good economic case for investing in both brief interventions for hazardous drinkers and more intensive interventions for dependent drinkers. Recent studies suggest that alcohol treatment has both short-term and long-term financial benefits. Initial analysis from the UK Alcohol Treatment Trial (UKATT) study suggests that for every £1 spent on alcohol treatment, the public sector saves £6 (UKATT Research Team, 2005).

6.4 Provision, access and need

Although alcohol treatment services can play a significant role in helping dependent drinkers and reducing the harm associated with problem drinking, individuals often have difficulty in accessing treatment (Turning Point, 2003). Alcohol problems are not always identified and appropriate treatment or referral is not always offered.

At a population level, the provision of treatment does not match need. Around 1 in 15 people are dependent on alcohol in the country as a whole, compared to 1 in 50 who are dependent on drugs. However, the national budget for alcohol services is £95 million, a fraction of the £573 million spent on drug services in 2005/06. This disparity in funding is clearly reflected in levels of provision, which were captured by the Alcohol Needs Assessment Research Project (ANARP) in 2004 (Department of Health et al, 2005).

The gap between provision and need for alcohol services in the South East region is summarised in Box 6.1.

Box 6.1 Estimates of the numbers of dependent drinkers and the need for alcohol services in the South East

According to the Alcohol Needs Assessment Research Project (ANARP) 2004 the South East has 184,000 dependent drinkers, of whom:

- 22,000 (around 12%) have been referred to treatment services
- 9,000 (around 5%) have been assessed by treatment services

In other words, approximately 1 in 20 people in need of alcohol services actually received them.

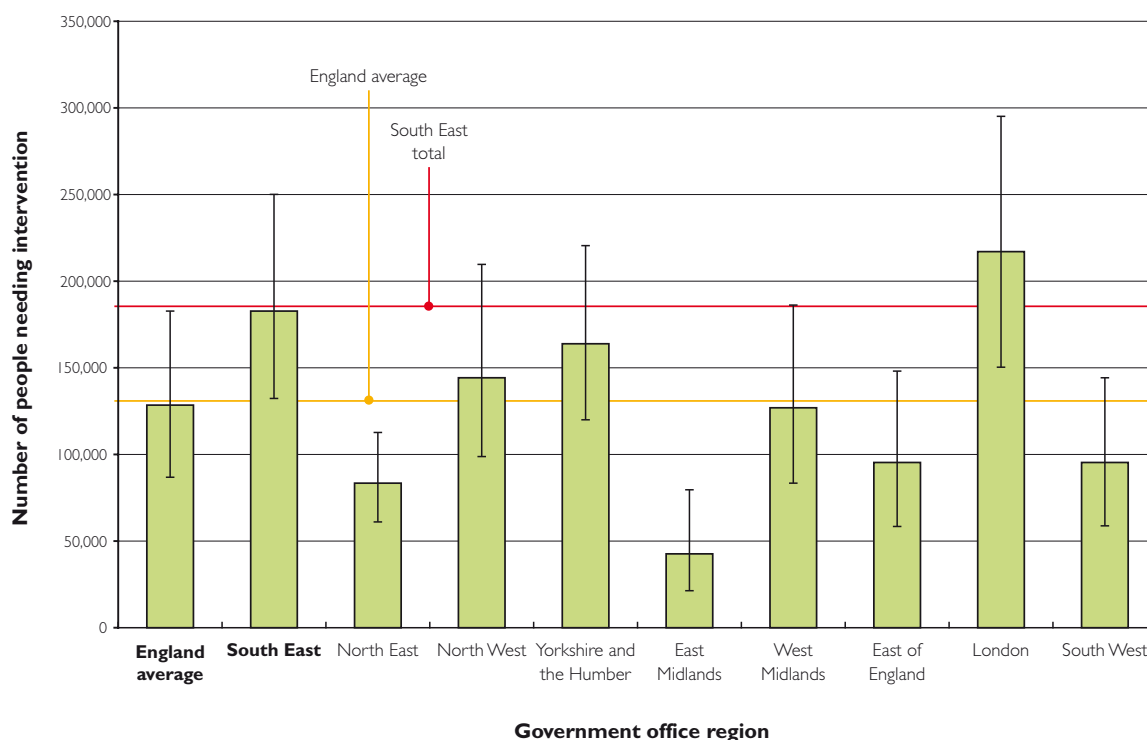
If the South East were to provide a minimal level of access (10%) they would serve 18,000 dependent drinkers, a good level of access (20%) would serve 36,000 dependent drinkers.

The level of need in the South East region for interventions to address dependent drinking is second only to London, and is significantly above the England average (Figure 6.1).

Figure 6.1:

Estimated need for alcohol intervention for alcohol dependence. Number of persons per English region, 2004. Whiskers represent 95% confidence intervals.

Source: Singleton et al (2001) and General Household Survey. Office for National Statistics (2004a)

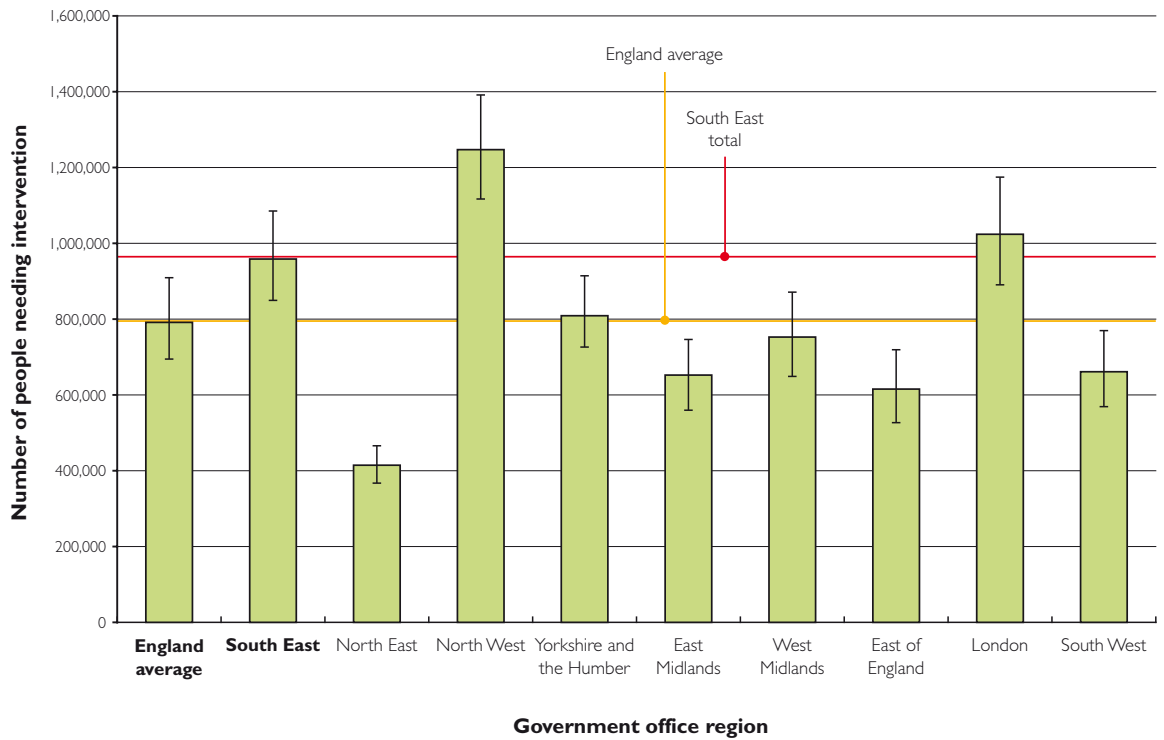


The level of need for interventions to address *hazardous* or *harmful* drinking in the South East is the third highest among regions in England, and is again significantly higher than the national average (Figure 6.2).

Figure 6.2:

Estimated need for alcohol intervention for hazardous or harmful drinking. Number of persons per English region, 2004. Whiskers represent 95% confidence intervals.

Source: General Household Survey. Office for National Statistics (2004a), using AUDIT criteria

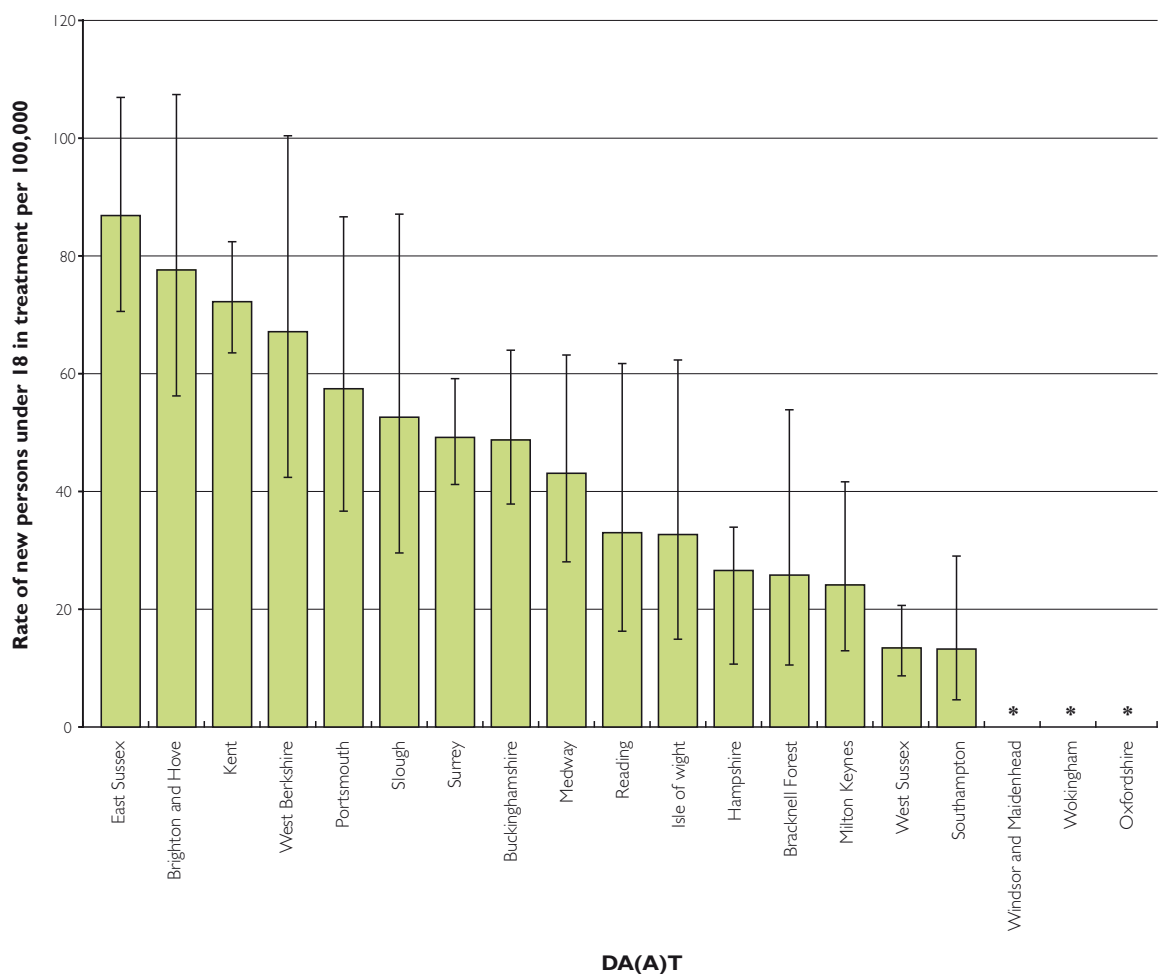


Data from the National Drug Treatment Monitoring System (National Treatment Agency, 2006) can be used to illustrate differences in the provision of alcohol services in different Drug and Alcohol Action Team (DA(A)T) areas. Figure 6.3 shows the number of young people entering alcohol treatment in each DA(A)T area in the South East region.

Figure 6.3:

Rate of new clients under 18 years in treatment for alcohol misuse, by DA(A)T area in the South East, 2005–06 financial year. Crude rates per 100,000 with 95% confidence intervals.

Source: National Drug Treatment Management Service. National Treatment Agency (2006).



*Rates based on numbers less than five cannot be disclosed for reasons of confidentiality.

There are clearly considerable differences between DA(A)T areas, and especially between those at the highest and lowest ends of the range. Despite relatively wide confidence intervals, East Sussex, Brighton and Hove, and Kent have significantly higher rates of young people in treatment than many other DA(A)T areas, while Oxfordshire and Wokingham have significantly lower rates than most other areas. These figures represent rates by area of residence, and are therefore not distorted by treatment centres in one DA(A)T area catering for clients from other areas.

Areas with higher rates of young people in treatment may have a higher prevalence of problem drinking among young people. Alternatively, they may have better service provision which matches local need more closely. Since these data refer to young people and are based on DA(A)T areas rather than local authorities, direct comparison with other figures earlier in this report is not straightforward. A rough assessment shows some consistency with higher rates of other outcome measures, suggesting that a higher prevalence of drinking may play a part. This may not always be the case however; West Berkshire for example has a relatively low hospital admission rate (figure 4.8), but a relatively high treatment rate as shown in figure 6.3. Other factors which may influence rates of young people in treatment for alcohol services include the accessibility of services and the focus of local services, which may be more geared to drug treatment than alcohol.

7. Recommendations

7.1 Binge-drinking in young people should be tackled

Effective strategies to reduce binge-drinking in young people need to be developed and implemented in the region. Bellis et al (2006) suggest that sensible drinking messages should be relayed to teenagers by parents acting as supervisors and positive role models.

Wider education/prevention measures such as local action to tackle under-age sales and improved 'night time' management – such as door staff training and alcohol free zones etc. can all help to tackle binge-drinking.

7.2 Workplace alcohol policies should be implemented

The Health and Safety Executive (HSE) (2006) recommends that employers have an alcohol policy in place which discourages alcohol misuse and supports employees who are dependent on alcohol as they try to recover. The costs to industry of alcohol-related illness is significant and public health professionals have an important leadership role in supporting employers to address this issue through local partnership structures such as Local Strategic Partnerships (LSPs) and Local Area Agreements (LAAs).

7.3 High risk and vulnerable groups should be targeted

Commissioners need to pay particular attention to the needs of vulnerable groups for whom accessing services and support is particularly challenging. In particular, individuals with mental health problems, offenders (both in custody and in the community) and homeless people need to feature more prominently in local alcohol and health strategies. Providers of alcohol services should also link with a broad range of other services that address the needs of vulnerable groups, including victims and perpetrators of domestic violence.

7.4 Additional treatment services should be commissioned

NHS commissioners should look to reduce the current gap between availability and need for treatment for alcohol services. This is a challenging recommendation given the background of financial restraint in the NHS, but the level of service provision for dependent and hazardous/harmful drinking lags well behind provision for drug use and there is a compelling case for targeted investment in alcohol services.

7.5 Public health professionals should work together with local partners to tackle crime and disorder

There is much evidence to support the effectiveness of a public health approach to preventing community violence and reducing inequalities related to alcohol use. Opportunities for partnership working provided by LAAs and local Crime and Disorder Reduction Partnerships (CDRPs) should be seized upon, and public health professionals should encourage the sharing of NHS injury data and population-based information to help map the problem and target interventions.

Data sources and methodology

Alcohol-attributable deaths by condition for the South East

These were calculated in accordance with the methodology published by the North West Public Health Observatory (NWPHO) (Hooper et al, 2006). See Table 4.2.

The term 'alcohol-attributable deaths' is defined here as the estimated number of extra deaths from a particular condition caused by the use of alcohol. This is calculated by applying the 'attributable fraction' for each condition. For a disease caused specifically by the abuse of alcohol – for example, alcoholic liver disease (ICD-10 code K70) – the attributable fraction will be 1.00, i.e. 100% of deaths will be counted as attributable to alcohol. For malignant neoplasm of the lip (ICD-10 code C00), however, the attributable fraction is 0.5; that is, it is estimated that 50% of deaths from this condition would not have occurred without alcohol. The attributable fraction is based on the relative risk (RR) associated with exposure to alcohol derived from epidemiological studies. NWPHO has published a list of conditions and accidents with associated attributable fractions, based on a review of current research (Hooper et al, 2006).

In order to arrive at an estimate of the number of deaths caused by alcohol, SEPHO applied these attributable fractions to the ICD-10 disease codes recorded for the Underlying Cause of Death field in the ONS mortality dataset. These were then summed for each condition, by gender, to produce aggregated numbers of deaths for the South East.

Where SEPHO has carried out its own calculations, it has followed the methodology of NWPHO as described above with one exception. NWPHO applied the same average attributable fraction to male and female deaths in order to maintain continuity with previous work, whereas it was decided to apply the male and female fractions specifically to their appropriate gender for this SEPHO report. As a result there will not be an exact match with the work carried out by NWPHO.

Deaths from alcohol-specific conditions

The term 'alcohol-specific' deaths (sometimes referred to as alcohol-related) is defined as those deaths directly caused by alcohol consumption. The definition uses the following ICD-10 codes as published by the ONS (ONS 2003):

- Mental and behavioural disorders due to use of alcohol: ICD-10 F10
- Alcoholic cardiomyopathy: ICD-10 I42.6
- Alcoholic liver disease: ICD-10 K70
- Chronic hepatitis, not elsewhere classified: ICD-10 K73
- Fibrosis and cirrhosis of liver: ICD-10 K74
- Accidental poisoning by and exposure to alcohol: ICD-10 X45

Hospital admission rates for alcohol-attributable conditions

These were calculated in accordance with the methodology published by the North West Public Health Observatory (NWPHO) in August 2006 (Hooper et al, 2006), see Figures 4.6 and 4.8.

The term 'alcohol-attributable hospital admissions' is defined here as the estimated number of extra admissions for a particular condition caused by the use of alcohol, and is calculated by applying the 'attributable fraction' for that condition (see alcohol-attributable deaths above).

An extract of all first finished consultant episodes (FFCE) for financial years 1999/00 to 2004/05 was obtained from the national hospital episode statistics database (Information Centre, 2006a). The extract was limited to residents of the South East region. A filter was applied to extract those patients resident in the South East Region where any mention of an ICD-10 code for an alcohol-attributable condition was included in one of the potential diagnostic positions (up to 14 in the most recent years). In accordance with the methods applied by NWPHO, a relevant attributable fraction was applied to the specific ICD-10 code (see above).

Having assigned the relevant attributable fraction to each of these ICD-10 codes, the largest fraction only was selected for each first finished consultant episode (many attendances had more than one of the listed ICD-10 codes amongst their diagnoses). Episodes relating to the same individual were then linked by applying the unique HESID field and grouped together and the single largest attributable fraction per person in that financial year was identified – transforming the data from a count of episodes to a best estimate of persons.

Tables aggregated by year, age-group, and sex were generated and used to calculate the directly age- and sex-standardised rates of person-based admissions per 100,000 population with time trends.

Spell-based hospital admission rates for alcohol-specific conditions

These are based on the count of hospital spells, and apply the directly alcohol-specific ICD-10 diagnosis codes as used by the ONS, as given above.

Glossary

Alcohol Needs Assessment Research Project (ANARP) – This first alcohol needs assessment in England conducted on a national scale. It was commissioned by the Department of Health, and was jointly conducted by St Georges, University of London, Kable Ltd and MORI Social Research Institute. Its main focus was to measure the gap between the demand for and, provision of, specialist alcohol treatment services in England at a national and regional level. The research consisted of eight related projects that were conducted in parallel over a period of six months between September 2004 and February 2005.

Crime & Disorder Reduction Partnership (CDRP) – The Crime and Disorder Act 1998 established statutory Crime and Disorder Reduction Partnerships (CDRPs) which enshrined in law the idea that crime reduction is not the responsibility of just one agency, such as the police, but is a partnership responsibility. Crime and Disorder in the South East is tackled through the 76 CDRPs spanning district and upper tier authorities. They are made up of a combination of police, local authorities and other organisations and businesses who have banded together to develop and implement strategies for tackling crime and disorder on a local level. The Police Reform Act 2002 amended the Crime and Disorder Act 1998 to add police authorities, fire authorities and Primary Care Trusts to the statutory CDRP.

Local Area Agreement (LAA) – An LAA is a three year agreement, based on local Sustainable Community Strategies, that sets out the priorities for a local area. The primary objective is to deliver genuinely sustainable communities through better outcomes for local people. LAAs also have the secondary objectives of: improving central and local government relations; enhancing efficiency strengthening partnerships working; and offering a framework within which local authorities can enhance their community leadership role.

Local Strategic Partnerships (LSP) – An LSP is a single, non-statutory, multi-agency body, which matches local authority boundaries, and aims to bring together, at a local level, the different parts of the public, private, community and voluntary sectors. LSPs are key to tackling deep seated, multi-faceted problems, requiring a range of responses from different bodies. Local partners working through a LSP will be expected to take many of the major decisions about priorities for their local area. Lack of joint working at local level has been one of the key reasons for lack of progress in delivering sustainable economic, social and physical regeneration, or improved public services, that meets the needs of local people. A combination of organisations, and the community, working co-operatively as part of an LSP is seen as having a far greater chance of success.

Alcohol-attributable, alcohol-specific and alcohol-related – The terms ‘alcohol-attributable’, ‘alcohol-specific’ and ‘alcohol-related’ are not used in a consistent way in published reports which can be misleading. In this report the term ‘alcohol-specific’ refers to health impacts which are directly related to alcohol. For example, no cases of alcoholic liver disease would be expected to occur in the absence of alcohol.

The term ‘alcohol-attributable’ is used in this report to encompass a broader definition of conditions which includes both those that are directly related to alcohol and also those where alcohol is causally implicated in some but not all cases of the condition. Where the condition is not directly related to alcohol a population attributable fraction is applied to the number of cases of that condition. For example, studies suggest that the population attributable fraction for cancer of the oesophagus is 0.285, i.e. 28.5% of deaths from cancer of the oesophagus may be directly attributable to alcohol, however 71.5% are related to other causes. The attributable fractions used in these analyses are based on published scientific literature (Hooper et al, 2006).

In relation to crime statistics, ‘attributable fractions’ calculated by the Prime Minister’s Strategy Unit have been applied to the total number of recorded crimes. These AFs were taken from the NEW-ADAM arrestee survey and are based on urine tests of arrestees. As such these AFs estimate the statistical association between alcohol and crime and are different to the disease specific attributable fractions described above (see Hooper et al, 2006 for further detail).

In this report ‘alcohol-related’ has been used as a more general term which may encompass ‘alcohol-attributable’ and ‘alcohol-specific.’

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Reader information

Document purpose	For action, to support delivery of the Alcohol Harm Reduction Strategy for England within the context of the White Paper <i>Choosing Health: making healthy choices easier</i> , published in November 2004.
Title	Choosing Health in the South East: Alcohol
Published by	South East Public Health Observatory
Author	David Sheehan
Editor	Rachel Crowther
Statistical analysis	Isobel Perry, Jo Watson, Liz Rolfe, Steve Morgan
Steering group	National Treatment Agency, Government Office of the South East, Strategic Health Authorities and Primary Care Trusts in the South East
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Target audience	All those concerned with tackling problem alcohol use within the South East at regional and local level, in local government and the NHS, including Crime and Disorder Reduction Partnerships, local strategic partnerships, Drug and Alcohol Action Teams, alcohol treatment agencies, problem alcohol users and their carers.
Description	One in a series of <i>Choosing Health</i> reports by SEPHO on lifestyle factors and their impact on health.
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