

Scottish Needs Assessment Programme

Health Promotion Network

Alcohol Misuse

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EXECUTIVE SUMMARY

This report examines the impact of the harmful use of alcohol and the services that are currently in place to prevent and treat this problem and makes recommendations with regard to the future purchasing of these services.

For alcohol misuse, a simple classification based on units of alcohol drunk per week is described:

Category I excessive drinking without problems or dependence

Category II excessive drinking with occurrence of problems but without established dependence

Category III excessive drinking with problems and dependence

The per capita consumption of absolute alcohol has risen (inversely with the real price of alcohol) in the last 30 years in the United Kingdom from 4.4 litres to 7.2 litres in 1991. This is not high compared to other similar industrialised countries, but alcohol-related problems in Scotland are related to how people drink on the occasions they do drink.

Care needs to be taken in interpreting alcohol-related disease data because of differences in recording of data, and accessibility and availability of services.

Prevalence data suggest that in Scotland 460 000 men and 150 000 women drink more than the recommended limits. Deaths from cirrhosis and chronic liver disease (an indicator of alcohol problems) have remained steady with rates of 15.5 per 100 000 population in 1977-79 and 15.3 in 1989-91.

SMR1 data show an increase in alcohol-related discharges from 64.0 per 100 000 population in 1980-82 to 95.9 in 1989-91.

SMR4 data show a decrease in alcohol-related admissions from 112.1 per 100 000 population in 1977-79 to 101.6 in 1989-91 which may indicate a move away from treating these patients as inpatients.

A reduction in alcohol misuse problems requires a decrease in the per capita alcohol consumption and a decrease in those drinking more than the recommended limits (by increasing the real price of alcohol, curbing advertising, encouraging health education and local community action), and appropriate and effective treatment for those who have alcohol-related problems or are alcohol dependent.

The principle of treatment is of providing appropriate interventions for patients from simple advice, counselling and treatment in primary care, to intensive community, outpatient and inpatient care provided by specialist psychiatric services. Failure to provide appropriate interventions for a patient is a form of cost-ineffectiveness.

Most patients with alcohol-related problems can be dealt with in primary care, and the treatment (including detoxification) by psychiatric services should be outpatient or community based although some patients will need inpatient treatment. Community Addiction Teams or Substance Misuse Integration Teams may be cost-effective in mobilising services but are not a low cost option. Services such as rehabilitation hostels and associated day programmes, and AA and Al-Anon have not been rigorously evaluated but may be of benefit to some patients.

RECOMMENDATIONS

1 Prevention

- i Consumption of alcohol should be restricted by increasing tax on alcohol, restricting alcohol promotion and enforcing anti-drinking and driving policies. This relates primarily to central Government but agencies involved in alcohol-related health problems have an advocacy role to promote these policies.
- ii Health promotion activities such as by departments of health promotion should have adequate resources, be planned and evaluated as part of wider health promotion and be integrated with the work of other agencies such as social work or voluntary bodies. This work should include mass-media and community-based programmes both of which have "agenda setting" roles.

2 Service Provision

- i The aim is to provide the full range of appropriate facilities and care for those with alcohol problems with the focus on primary care.
- ii Health services for alcohol misuse should be planned and integrated with social and non-statutory services.
- iii There should not be excessive specialised or expensive NHS or non-NHS detoxification facilities. The aim is to support detoxification in primary care, the outpatient setting, and by domestic detoxification services.

a Primary Care

- i Primary care staff have a key role in the prevention, screening, treatment and referral of problem drinkers. This is reinforced by the new regulations governing health promotion activities by GPs.
- ii There should be appropriate training programmes (which are adequately resourced) for primary care staff to recognise and deal with problem drinking.

b NHS General Non-psychiatric Services

- i Screening of patients in the inpatient, outpatient, Accident and Emergency and antenatal departments should be undertaken and opportunities taken to give advice or more intensive therapy.
- ii There should be appropriate training of general health staff to recognise alcohol misuse in the general National Health Service setting.
- iii Purchasers should ensure that screening and training are included in contract setting with providers.

c NHS Psychiatric Services

- i A comprehensive psychiatric service should have a Community Addiction Team (CAT) or Misuse Integration Team (SMIT).
- ii There should be access to a limited number of inpatient beds in psychiatry to deal with complicated cases and severe withdrawal problems.
- iii These elements should be included in contract setting with providers.

3 Non-statutory Sector

- i Services provided by the non-statutory sector need to be part of health need assessment of health boards. This includes AA, Al Anon, alcohol counselling services, local Councils on Alcohol, half-way houses, and facilities for homeless drinkers.

4 Research Priorities

- i The effectiveness and cost-effectiveness of liaison teams.
- ii Long term health needs of severely dependent alcohol misusers.
- iii Service-related and needs-oriented prevalence studies within health belief contexts.
- iv Better information on costs of alcohol misuse and the cost-effectiveness and cost-benefit of prevention and treatment strategies.
- v Provision of alcohol services by the private health care sector.

1 INTRODUCTION

The Report on Alcohol Misuse by Edwards and Unnithan (1992) commissioned for the NHS Management Executive has been used as a framework for this Health Needs Assessment. All the tables referred to in the text can be found in Appendix 3.

1.1 Statement of problem

Alcohol misuse presents a difficult health needs assessment issue. Precise measures of alcohol intake and frequency of drinking are not readily available. Furthermore, there are clear benefits as well as disadvantages attached to the use of alcohol. However, alcohol is a dangerous drug and its misuse has extensive implications for health and social services and for society. What is clear is that the more alcohol that is consumed, the greater the risk for many alcohol-related diseases. In addition the link between alcohol intake and mortality from cirrhosis (a marker of population alcohol damage) is generally accepted.

This SNAP report examines the health impact of the harmful use of alcohol and the services which are currently in place across Scotland to prevent and treat this problem. In the light of the effectiveness and cost-effectiveness literature, recommendations are made with regard to future purchasing patterns.

In addition, given that alcohol misuse impinges on all areas of society and that there is an established link between alcohol consumption and alcohol-related disease, the report also addresses some of the wider issues related to the *health needs* within the population.

1.2 Definition

Alcohol misuse may be defined as the "personal use of alcohol such as to threaten or damage the health or social adjustment of the user or those persons directly affected by his or her drinking" (Edwards and Unnithan 1992). The definition incorporates awareness of drinking over safe limits, alcohol-related problems, and alcohol dependence.

The potential harm to physical and psychological health from drinking alcohol includes: raised blood pressure; coronary heart disease and stroke; dyspepsia and upper gastrointestinal disease; cirrhosis and other liver diseases; cancer of the upper GI and respiratory tracts; reduced fertility in men and women; damage to the foetus; weight problems; sexual problems; anxiety, depression and attempted and successful suicide; insomnia; accidents; hangovers, withdrawal fits and delirium tremens; dementia; and misuse of other drugs.

The social problems related to alcohol include: family problems and divorce; criminal damage, burglary and theft; child abuse and neglect; work and financial difficulties; violence; and drinking and driving.

Ambitious national targets have been set in relation to alcohol misuse - "a 20% reduction between 1986 and 2000 in the proportion of men and women drinking more than 21 and 14 units of alcohol per week respectively" (Scottish Office, 1992).

However, to reduce the burden of alcohol misuse there needs to be:

- i) A decrease in the overall alcohol consumption by the population.
- ii) A decrease in the consumption by those who drink more than the recommended limits.
- iii) Appropriate, effective and cost-effective treatment of people with alcohol-related problems or who are alcohol dependent.

1.3 Classification

Various classifications of alcohol misuse have been described. The general health risk from alcohol is part of a spectrum with no clear cut-off points at which drinking alcohol becomes more dangerous. However, guidelines for alcohol drinking suggest men drinking more than 21 units or women drinking more than 14 units per week are at risk of increasing health problems (Royal College of General Practitioners 1986). One unit of alcohol contains 8g of alcohol and is equivalent to ½ pint of ordinary beer, lager or cider, or one glass of table wine, or one single measure of spirits. The guidelines for drinking per week for men (with limits for women in brackets) are: "Sensible" 0-21 units (0-14 units); "Warning" 22-50 units (15-35 units); and "Dangerous" 51+ units (35+ units).

Edwards and Unnithan suggest a pragmatic three-point classification which they argue reflects current medical and scientific knowledge and which takes into account the presentation of people with alcohol misuse problems to health services.

Category I excessive drinking without occurrence of problems or dependence (assumed weekly intake of 22-35 units - males, 15-25 units - females)

Category II excessive drinking with occurrence of problems but without established dependence (assumed weekly intake of 35-50 units - males, 26-35 units - females).

Category III excessive drinking with problems and dependence (assumed weekly intake of 51+ units - males, 36+ units - females).

In some cases there may be a need to consider other classifications which cut across the three categories in key groups such as women, ethnic minorities, younger or older drinkers, handicapped people, the homeless, and people with multiple substance problems.

2 EPIDEMIOLOGICAL OVERVIEW

2.1 Prevalence Of Drinking

UK Consumption Of Alcohol

The best indicator to monitor drinking behaviour is alcohol consumption per head. Within the United Kingdom, consumption fell from World War I until about 1950, since when it has risen steadily apart from a small fall in the 1980s (Faculty of Community Medicine 1989). The increase in consumption is associated with increasing disposable income and a drop in the real cost of alcohol.

Alcohol consumption data from HM Customs and the OPCS (Jacobson 1991) show that the number of litres of absolute alcohol drunk per capita has risen from 4.4 in 1960 to 7.2 in 1991 (Table 1). The corresponding figures for the population aged 15 years and over is an increase from 5.7 to 8.9 litres. The proportion of the alcohol drunk in the form of beer has decreased while that in the form of cider, wine and spirit has increased.

Internationally, the United Kingdom's per capita consumption of alcohol (7.3 litres of absolute alcohol for 1989) is lower than other countries such as France (13.2 litres) and similar to others such as Canada (7.8 litres) (Brewers' Society 1991). However there is some evidence that alcohol-related problems are a chronic feature of Scotland and may be related to how people drink - for example, less frequently but more heavily on the occasions they do drink (Plant 1992).

Prevalence of excessive drinking within Scotland

Data from the General Household Survey (GHS) provide population estimates of drinking behaviour.

The proportion of both men and women in Scotland drinking more than the recommended weekly maxima (22 units or more for males and 15 units or more for females) is less than the British figures (Tables 2a and 2b). From 1986 to 1990, the proportions of males and females in Scotland drinking more than the recommended limits have remained constant but the proportion of males drinking more than 50 units decreased from 7% to 4%. However, given the relatively small sample sizes, these figures should be interpreted with caution.

Using 1991 population census data, the GHS figures can be used to provide an estimate of the prevalence of excessive drinking within Scotland (Tables 3a and 3b). This data suggests that 24% of males aged over 16 years (about 460 000 people) drink more than the recommended 21 units per week. This compares to 7% (or about 150 000 people) of women drinking more than the recommended 14 units per week.

2.2 Alcohol-related crime

The Home Office Crime Review for Scotland includes data on two alcohol-related offences - Drunkenness and Drunk driving. There will be other crimes which are related to alcohol misuse and it has been reported that 75% of Breaches of the Peace in Scotland are alcohol-related (Jeffs and Saunders 1983). In addition, not all alcohol-related crimes will be recorded or proceeded with. Nonetheless, the number of persons proceeded against for all crimes and offences decreased by 28% from 264 844 in 1980 to 190 333; the decrease for drunkenness was 81% from 14 459 to 2814; and for drunk driving the decrease was 31% from 12 779 to 8830. This

reduction may be a reflection of a change in policing policy, for example an increase in the use of cautions or in the classification of offences. There may also be regional variations in the definitions of drunkenness.

2.3 Alcohol-related disease

As indicated above, alcohol has been shown to be a risk factor for a wide range of diseases. This overview will focus on those most closely related to alcohol misuse as listed in Appendix I. Care should be taken when interpreting regional variations in alcohol-related disease data, both at a national level between Scotland and England and locally between Health Boards, because of possible differences in recording practices (Kemp and Carstairs 1987).

UK Mortality Data

Cirrhosis deaths and deaths by chronic liver disease are a useful indicator of the prevalence of alcohol problems. The data from England and Wales suggest that there is considerable variation in prevalence rates ranging from 4.5 for Wessex to 10.6 for North West Thames (rates per 100 000 adults over 15 years). The suggestion is that Regions with higher prevalence rates have more large, urban conurbations (Edwards and Unnithan 1992).

Scottish Mortality Data

Tables 4 to 7 show mortality data for alcohol-related and cirrhosis diagnoses. In Scotland, the numbers of all deaths related to these diagnoses have remained constant over the period 1977-91, as have deaths which were caused by chronic liver disease or cirrhosis (ICD 571). Within this group the numbers reporting alcohol as a cause (ICD 571.0 - 571.3) have risen (Table 4). The mean crude rates for the periods 1977-79 and 1989-91 reflect this (Table 5).

Table 6 shows deaths relating to the diagnoses for 1991, and the numbers are very small for some Health Boards. However, for the mainland Health Boards the rates vary as follows: 13.9 to 31.0 per 100 000 for all alcohol diagnoses; 8.1 to 22.9 per 100 000 for ICD 571; 3.5 to 9.4 per 100 000 for ICD 571.0 - 571.4.

Table 7 shows deaths and rates by age and sex for 1991. The rates for all ages for all diagnoses are 79% higher for males than females (29.0 compared to 16.2 per 100 000). The rates for ICD 571 are 55% higher for males than females (18.6 compared to 12.0 per 100 000), and for ICD 571.0 - 571.4 are just over twice as high for males than females (8.9 compared to 4.4 per 100 000).

SMR1 Data

Tables 8 to 11 show SMR1 (non-obstetric, non-psychiatric hospital discharge) data for alcohol-related and cirrhosis diagnoses. In Scotland, the numbers of all discharges related to these diagnoses have increased over the period 1980-92, as have discharges for chronic liver disease or cirrhosis (ICD 571) and the discharges reporting alcohol as a cause (ICD 571.0-571.3) have risen (Table 8). The mean crude rates for the periods 1980-82 and 1990-92 reflect this increase (Table 9).

Table 10 shows discharges for the three diagnostic groups for 1992. Comparison of the mainland Health Boards show that the rates vary: from 56.3 to 133.7 per 100 000 for all alcohol diagnoses; from 25.4 to 57.0 per 100 000 for ICD 571; and from 9.5 to 36.0 per 100 000 for ICD 571.0 - 571.3.

Table 11 shows discharges and rates by age and sex for 1991. The rate for all ages for all diagnoses is more than twice as high for males than females (147.9 compared

to 71.4 per 100 000). The rates for ICD 571 are 9.7% higher for males than females (45.5 compared to 35.8 per 100 000), and for ICD 571.0 - 571.3 are just over twice as high for males than females (34.5 compared to 17.2 per 100 000).

SMR4 Data for Scotland

Tables 12 to 15 show SMR4 (psychiatric admission) data for alcohol-related diagnoses. In Scotland, the numbers of all admissions related to these diagnoses have fallen over the period 1977-92 from about 5700 to around 5000 per year. This is largely the result of a decrease in admissions for ICD 303 (alcohol dependence syndrome) from 5100 to 3800 per year.

There have been increases for the same period in ICD 291 (alcoholic psychoses) admissions from about 400 to 500 per year and in ICD 305.0 (non-dependent abuse of alcohol) from 170 to around 700 per year (Table 12). The mean crude rates for the periods 1977-79 and 1990-92 reflect this (Table 13). This appears to confirm a trend away from admitting people with alcohol problems to psychiatric inpatient facilities.

Table 14 shows SMR4 admissions for 1992. The rates for the mainland Health Boards vary from: 43.2 to 162.7 per 100 000 for all alcohol diagnoses; 0.7 to 14.6 per 100 000 for ICD 291; 34.1 to 128.7 per 100 000 for ICD 303; 0.5 to 66.1 per 100 000 for ICD 305.0. Whether these are real or apparent differences need to be examined further but there are likely to be differences in diagnostic labelling between Health Boards. In addition there are likely to be differences similar to regional variations in England in inpatient admission rates reflecting, in part, local variations in the balance of inpatient and outpatient service provision (Latcham et al 1984).

Table 15 shows admission numbers and rates by age and sex for 1991. The admission rates for all ages for all diagnoses are 165% higher for males than females (131.7 compared to 49.6 per 100 000). The rates for ICD 291 are 155% higher for males than females (12.5 compared to 4.9 per 100 000), for ICD 303 are 175% higher for males than females (101.6 compared to 37.0 per 100 000), and for ICD 305.0 are 132% higher for males than females (17.6 compared to 7.6 per 100 000).

3 INTERVENTIONS FOR ALCOHOL MISUSE

Given the pervasiveness of alcohol misuse as a health and social problem, it is not surprising that many different disciplines are currently involved in service provision.

The interventions currently available can be categorised into:

- a) Health Promotion
- b) Generic Social Services
- c) Primary Health Care
- d) NHS Non-specialist Services
- e) NHS Specialist Services
- f) The Penal Service

3.1 Health Promotion

Health promotion encompasses the three overlapping areas of health education, health protection and disease prevention.

Health promotion activities can take place at a national level with, for example, government directed increases in the relative price of alcohol and legislation for more information on alcohol products (such as alcohol content, health warnings and "safe units"). Such activities involve the education of both public and policy makers.

Other preventive services available include:

- 1) Health Board Departments of Health Promotion which support local activities in health education/promotion by training, research, resource development, public awareness, networking and liaison, and strategy development.

There are a number of key groups and settings for health promotion activities such as young people, women, and middle-aged men; schools, workplaces, licensed premises and the community.

Community action may be directed at the prevention or amelioration of alcohol misuse or specific types of alcohol-related problems such as police activity against under-age drinking or reviewing licensing provisions (Tether and Robinson 1986).

These activities take place in parallel with mass media campaigns organised at a national level.

- 2) Local organisations including the Community Health Councils may be important in distributing materials and advising clients or relatives of available services.

3.2 Generic Social Services

Both statutory and non-statutory social services are available to deal with drinking problems. The role of the statutory services in England was summarised as dealing with drinking as a complication of the primary reason for referral such as child abuse (Thornton and Holding 1990). Most departments do not see referral of a single person with drinking problems as appropriate, but some social work departments have specialist workers for alcohol.

The non-statutory sector (including the private sector) provides important services for alcohol misusers and their relatives and friends. The fellowship of Alcoholics Anonymous (AA) began to be active in Britain just over 50 years ago, largely as a result of a lack of response to alcohol problems from the medical profession. Later, voluntary services began to provide counselling to problem drinkers and their "significant others". These Councils on Alcohol are funded by mixed sources including Health Boards, Social Work Departments, voluntary donations and the Alcohol Industry. Volunteers provide counselling of a fairly high standard and the Councils now receive referrals from a variety of sources, including GPs, District nurses, and Social Work departments.

Other services include Al-Anon, Al-ateen, the churches, and half-way houses. Self-referral to these services is more common than to National Health Service alcohol health care. Some employers now operate alcohol employment policies whereby employees may engage in counselling during working hours, without threat to job security. In addition, these services will often come across alcohol misuse among groups such as the homeless or young people.

3.3 Primary Health Care

Primary health care is a key setting to prevent alcohol misuse (Jacobson et al 1991) as over 75% of patients see their GP in any year, with over 95% of a practice population being seen over five years. Hence GPs and other members of the primary care team encounter many manifestations of alcohol misuse, although not all of these are always recognised.

GPs and other primary care staff thus have a central role in screening, treatment and referral (Royal College of General Practitioners 1986).

The new GP contract requires that enquiry into drinking should be made of all new patients and encourages the setting up of clinics in the practice setting. In addition, the new GP contract for health promotion includes action and advice on alcohol drinking as a risk factor for stroke (Better Living, Better Life 1993).

3.4 NHS General Non-psychiatric services

The National Health Service encounters alcohol misuse by patients in a variety of ways but alcohol misuse may not be recognised or the knowledge not acted upon. Responses include a hospital-wide system to act on the knowledge obtained from screening patients admitted for non-psychiatric reasons. This includes both antenatal care and attendance at accident and emergency departments.

3.5 NHS General Psychiatric Services

It is estimated that only 25% of patients with alcohol dependence are referred to psychiatric services (Glass 1988), but all psychiatric illness may co-exist with and be complicated by alcohol misuse (Edwards 1984) - for example, schizophrenia, depression, dementia, drug misuse.

3.6 NHS Specialist Psychiatric Services

The 1960s and 70s saw the establishment of specialist consultant-led services for alcohol problems, usually in Psychiatric hospitals. Known as Alcohol Treatment Units (ATUs), these services provided long (usually six week) inpatient treatment courses. However, more recently there has been a shift in emphasis from inpatient to outpatient care. The ATUs of the 1960s have developed into Alcohol Problem Clinics which now generally provide Day Clinics and outpatient treatment for an average of two weeks.

The range of specialist psychiatric services for alcohol misusers now includes: inpatient, outpatient and domestic detoxification (Stockwell et al 1990); outpatient treatment with behavioural and relapse prevention methods; inpatient treatment; liaison with and referral to other statutory and non-statutory services such as AA and rehabilitation hostels.

Community Alcohol Teams (CATs) liaise with many disciplines involved in alcohol misuse (Shaw 1978). CATs have become better established in England, but Community Addiction Teams, as they are known in Scotland, have been established in Falkirk and Paisley. Although line-managed by the National Health Service in England, the CAT in Paisley is managed by the Renfrew Council on Alcohol.

Substance Misuse Integration Teams (SMIT) have developed from the CAT concept and provide liaison work across substances (alcohol, tobacco, illicit drugs, benzodiazepines). Community Drug Teams are similarly concerned with polysubstance abuse.

3.7 The Penal Service

As outlined above, alcohol misuse frequently leads to court appearances. Diversion schemes allow for people to receive alcohol (and other drug) education instead of incarceration when people are not considered a danger to the public.

3.8 Trends and future developments

As the focus has moved from alcoholism to problem drinking, it is now widely recognised that psychiatry plays a more limited role in treating problem drinkers than previously envisaged.

With the current interest in efficient use of resources, hospital-based alcohol treatment is likely to be offered only to those who can most benefit from it. Consequently, there has been a marked increase in the provision of private/independent alcohol treatment, often provided by medical and psychology staff either currently or formerly of the National Health Service. Further research is required on the type and level of use of the private treatment currently provided.

With the advent of Community Care, it is a happy coincidence that emphasis can now be placed on the community as a more realistic and more cost-effective place for responding to alcohol problems. Community Psychiatric Nurses (CPNs) have an important role to play in responding to the needs not only of problem drinkers themselves, but also of their "significant others". Unfortunately, the likely decrease in National Health Service provision of alcohol health care may tend to refocus attention on alcoholism rather than drink problems or problem drinking.

Over the years the alcohol industry has always been keen to provide assistance to the small group of drinkers who fell prey to the disease of alcoholism, although this view of alcoholism as a disease that afflicts only a minority of the population is not held by many workers in the field. The industry, chiefly through the Portman

Group, funds various kinds of activity on the prevention and treatment fronts.

One result of this is a lack of research activity around issues relating to licensed premises. An important (although potentially expensive) area for research is the amount of alcohol sold on premises to people who are already intoxicated. Although it is illegal for a publican or bar server to serve an intoxicated person with alcohol, the number of convictions remains at almost zero, despite the probable frequency of the offence.

Alcohol problems are inseparable from other "consummatory behaviours" and the polydrug element is known to be spreading beyond the high correlation of heavy drinking with heavy tobacco smoking. Polysubstance abuse where the use of alcohol with, for example, drugs like the benzodiazepines is likely to become an area of great importance.

An intersectoral approach to alcohol problems is necessary with an emphasis on integration and liaison between services. Liaison teams, such as CATs and SMITs, need to be flexible in structure and service provision in order to respond most effectively to the changing scene. These teams work best if they are an integral part of the specialised psychiatric services. They should be multidisciplinary, and appropriately managed, led and trained to provide a clearly defined task of facilitating existing services. Within the Penal System, the issue of the rehabilitation of people who receive non-custodial and custodial services needs to be further developed (Baldwin 1989).

Given the regular research finding that the majority of problem drinkers and their "significant others" think of their GP as the first port of call for help, general practice is an important area for development in regard to alcohol education in its widest sense. The recent developments introduced with the new GP contract should assist in the consistency of assessing, recording and monitoring the drinking habits of patients. They should also assist in the aim of informing all patients about safe limits and advising them accordingly, including appropriate referral and accessing support services.

4 EFFECTIVENESS AND COST-EFFECTIVENESS OF INTERVENTIONS

Edwards and Unnithan summarise their review of prevention and treatment initiatives to alcohol misuse (Appendix II). Interventions to prevent and treat drinking problems have been researched and reviewed extensively. The conclusion is that patients with drinking problems require services tailored to the individual. The principle should be of providing appropriate interventions, both within and outwith the National Health Service, with an emphasis on meeting the individual needs of the patients and the use of low cost services which have been shown to be effective (Godfrey and Maynard 1993, Effective Health Care No 7 - Brief Interventions and alcohol use 1993).

4.1 Health Promotion

At a national level, there is evidence of alcohol consumption varying inversely with the relative price of alcohol and that alcohol consumption is linked directly to alcohol misuse. A real increase in the price of alcohol of 5% above the general rate of inflation would reduce alcohol consumption significantly (Godfrey and Maynard 1992). Such an increase would also reduce alcohol-related health and social problems. Alcohol pricing is, therefore, a key public health issue, although Godfrey and Maynard thought the 5% increase would probably be unacceptable to many people.

Advertising, at national and local level, can be important in informing both individuals and policy makers - for example, employers, local authorities. It can act to raise public awareness and place alcohol on the agenda. Coupled with information on the availability of services, it may be useful in stimulating earlier self-referral and "help-seeking". However "use of what is there" has not been researched but pragmatically would appear to be effective.

Research on the effectiveness of health education alone has shown mixed results (Grant 1989), although Bagnall (1989) did find evidence of the effectiveness on alcohol-related knowledge and attitudes of a low cost alcohol package for 13 year olds. The effectiveness of health education can be improved by combining mass media campaigns with other measures, by involving the local community and, by addressing several types of behaviour rather than single problems (Grant 1989). This is the approach adopted by the Health Education Board for Scotland (HEBS), tackling issues, including alcohol, in terms of key settings and key groups. Health Boards should focus health promotion activities along these lines.

In 1989, £158.9m was spent on advertising alcohol products. With additional expenditure on a range of sponsorships, total expenditure per year is estimated at £200m - far in excess of the expenditure on health education advertising. Restrictions on alcohol advertising are thought likely to have only a modest effect on consumption. However, the concept of a levy on alcohol advertising and sponsorship at 10% would realise significant new funds for health promotion (Godfrey and Maynard 1992). This type of funding is practised in Scandinavian countries.

There are other cost-effective prevention schemes which need to be put into practice including, for example, random breath tests (RBTs). However, while international studies of RBTs suggest their effectiveness in changing behaviour, the indications are that RBTs are still not favoured by the Government.

4.2 Treatment

a) Category I Alcohol Misusers (Misuse Without Problems Or Dependence)

Advice given by GPs is effective in reducing alcohol consumption in this group. A recent review (Anderson 1993) confirms the effectiveness of GP interventions suggesting that 5-10 minutes of advice can lead to a 25 - 35% decrease in alcohol consumption six months or one year later.

Anderson (1990) judged the advantages of primary care as being its generally low cost, accessibility to the community, health staff who have credibility and the lack of stigma which sometimes arises when being treated by specialist services. The disadvantages include the likelihood that most problems are unrecognised, pessimism about prevention and treatment and uncertainty about local services.

The provision of GP advice on drinking and safe limits is effective, cost-effective and can be provided at low cost.

b) Category II And Category III Alcohol Misusers

The key point is that the treatment needs to be tailored to the patient in terms of setting, type, intensity and duration of help. The range of options are as follows.

i) Advice

Advice alone may be effective, even in people with significant drinking problems. In 50-60% of alcohol dependent patients there is a significant improvement over 12 months after treatment contact whatever its intensity. Chick and his colleagues (1988) demonstrated the efficacy of counselling given by a nurse on a general hospital ward to patients with drinking problems.

ii) Intensive Treatment (Including Inpatient and Outpatient Care)

Evidence from clinical trials suggests that brief interventions are as effective as more expensive specialist treatments. The treatment "norm" should therefore be that of less intensive treatment. This may be regarded as a "therapeutic experiment" with more intensive treatment offered if required. There may be a need for more intensive treatment for some specific patient groups such as the heavily alcohol dependent, the homeless, or those who present a suicide risk.

The intensity of the treatment also relates to the issue of outpatient or inpatient care. Inpatient care should not be the first choice in treatment of alcohol dependence but will sometimes be required.

Liaison teams (CATs or SMITs) are not low cost resources but may be cost-effective in mobilising primary and secondary services.

iii) Detoxification

In the past, alcohol withdrawal presented a significant hazard. Mortality associated with delirium tremens was about 10% with additional risk from alcohol withdrawal fits and status epilepticus. The risk of death from these causes is now zero (in competent hands), a therapeutic advance which deserves greater recognition.

Today, most moderate levels of dependence may be handled by the GP, often with a Community Liaison Team. Detoxification may also take place in the outpatient setting or, through domestic detoxification services such as that provided in Forth Valley Health Board which is run chiefly by CPNs and has been well evaluated. However, there is still a need for some patients to undergo withdrawal in a sheltered environment with minimal medical care, although such an approach would be inappropriate for severely dependent cases.

Inpatient detoxification is not cost-effective as a routine treatment but may be in clinically indicated cases.

iv) Rehabilitation Hostels And Associated Day Programmes

The evidence for these services has not been rigorously evaluated. However, they do provide services of a kind not available elsewhere - particularly to disadvantaged groups. The evidence suggests that 20% of their clients achieve good long-term adjustment.

Furthermore in the absence of such facilities, these individuals would be using other less appropriate and more expensive services. These services are, therefore, more cost-effective than alternatives such as long stays in psychiatric hospitals.

v) AA And Al-Anon

The evidence for these services have not be rigorously evaluated. In particular, there are no satisfactory controlled trials on their effectiveness. The self-selection of clients to take up these services makes a pragmatic assessment difficult. Nonetheless encouragement from professionals can increase attendance from 10% to 40% in the short term and treatment policies which encourage attendance are thought likely to have some benefit.

4.3 Conclusions

Godfrey and Maynard (1989) considered the cost-effectiveness of the above interventions and concluded:

- i) Failure to provide appropriate treatment for the different types of alcohol misuse is a form of cost-ineffectiveness.
- ii) Simple advice may be beneficial. Inpatient counselling and outpatient care are also cost-effective.
- iii) An inpatient-orientated approach is not cost-effective for most patients, but will be cost-effective for complicated cases.

5 MEASURES OF OUTCOME

The outcomes of interventions can be divided as follows:

1 Levels of consumption (and alcohol-related knowledge and attitudes)

- per capita consumption of alcohol
- increase in market share of no/low alcohol products
- drinking more than safe levels*
- average weekly consumption*
- alcohol-related knowledge and attitudes - for example, units, recommended limits

* population and individual data

2 Impact on health status

- decrease in alcohol-related mortality
- data capability to monitor and evaluate the impact of alcohol misuse on health status eg motor accidents, other accidental injury, interpersonal aggression, sexual assault, vandalism and property damage, pregnancy outcomes.

3 Service initiatives

- Provision of alcohol-related training
- Alcohol at work policies
- Policies for alcohol misuse in social work departments
- Alcohol-related disorder a priority for police

6 REFERENCES

- Anderson P. Management of drinking problems. WHO Regional Publications, European Series No 32, Copenhagen, 1990.
- Anderson P. Effectiveness of general practice interventions for alcohol patients with harmful alcohol consumption. *British Journal of General Practice*, 1993; 43: 386-9.
- Bagnall G. Education as a solution: the need for care, modesty and realism. In: Anderson D. *Drinking to your health*. Social Affairs Unit, London, 1989.
- Baldwin S, Wilson M, Lancaster A, Allsop D, McGowan T, McMurrin M, Hodge J. *Ending offending 2: alcohol education course for young offenders in secure settings*. Scottish Council on Alcohol, Glasgow, 1989.
- Better living, better life. Knowledge House Ltd, Henley-on-Thames, 1993
- Brewers' Society. *Statistical Handbook*. Brewers' Society, London, 1991.
- Chick J, Lloyds G, Crombie E. Counselling problem drinkers in medical wards: a controlled study. *British Medical Journal*, 1985; 290: 965-7.
- Edwards G. Alcoholism and psychiatric illness. In: McIntyre G (Ed). *The treatment of drinking problems*. Grant McIntyre, London and New York, 1984.
- Edwards G and Unnithan S. *Epidemiologically based needs assessment - report 7 Alcohol Misuse (provisional version)*. NHS Management Executive, London, August 1992.
- Effective Health Care Bulletin No 7 - Brief interventions and alcohol use. University of Leeds, Leeds, 1993.
- Faculty of Community Medicine (now Faculty of Public Health Medicine). *Preventing the harm related to alcohol use. Guidelines for Health Promotion No 20*. FCM, London, April 1989.
- General Household Survey 1988. Office of Population and Census Survey, London, 1990.
- Glass IB, Jackson P. Maudsley Hospital survey: prevalence of alcohol problems on other psychiatric disorders in a hospital population. *British Journal of Addiction*, 1988; 83: 1105-9.
- Godfrey C, Maynard A. *A health strategy for alcohol: setting targets and choosing policies*. Centre for Health Economics, University of York, 1992.
- Grant M. Controlling alcohol abuse. In: Robinson A, Maynard A, Chester R (Eds). *Controlling legal addictions*. Macmillan, Houndmills, 1989.
- Jacobson B, Smith A, Whitehead M. *The nation's health*. King's Fund, London, 1991.
- Jeffs BWS, Saunders WM. Minimising alcohol related offences by enforcement of the existing licensing legislation. *British Journal of Addiction*, 1983; 78: 67-77.
- Kemp I, Carstairs V. The reliability of death certificate data as a measure of the level of alcohol problems. *Community Medicine*, 1987; 9: 146-51.

Latcham R, Kreitman N, Plant MA et al. Regional variations in British alcohol morbidity rates: a myth uncovered? *British medical Journal*, 1984; 289: 1341-3.

Plant M. Alcohol, drugs and illicit drug use in Scotland. In: Plant M, Ritson B, Robertson R (ed). *Alcohol and drugs*. Edinburgh University Press, Edinburgh, 1992.

Royal College of General Practitioners. *Alcohol - a balanced view*. RCGP, London, 1986.

Shaw S, Cartwright A, Spratley T, Harwin J. *Responding to the problem drinker*. Croom Helm, London, 1978.

Stockwell T, Bolt E, Milner I, Pugh P, Young I. Home detoxification for problem drinkers: acceptability to clients, relatives, general practitioners and outcome after 60 days. *British journal of Addiction*, 1990; 85: 61-70.

Scottish Office, *Scotland's health - a challenge to us all*: HMSO, Edinburgh, 1992

Tether P, Robinson D. *Preventing alcohol problems*. Tavistock, London, 1986.

Thornton L, Holding A. *Alcohol misuse: a study of social work practice*. Social Services Inspectorate (Department of Health), London, 1990.



APPENDIX 1



List of ICD 9 Codes used in analyses

**Tables 4-7 (Mortality Data)
relevant diagnosis chosen if main or secondary cause of death**

291	Alcoholic psychoses
303	Alcoholic dependence syndrome
305.0	Non-dependent use of alcohol
425.5	Alcoholic cardiomyopathy
571.0 - 571.3	Chronic liver disease and cirrhosis (alcohol reported as a cause)
571.4 - 571.9	Chronic liver disease and cirrhosis (alcohol not specifically reported as a cause)
980.0	Ethyl alcohol poisoning

**Tables 8-11 (SMR1 Data)
principal diagnosis**

291	Alcoholic psychoses
303	Alcoholic dependence syndrome
305.0	Non-dependent use of alcohol
425.5	Alcoholic cardiomyopathy
571.0 - 571.3	Chronic liver disease and cirrhosis (alcohol reported as a cause)
571.4 - 571.9	Chronic liver disease and cirrhosis (alcohol not specifically reported as a cause)
980.0	Ethyl alcohol poisoning

**Tables 12-15 (SMR4 Data - psychiatric admissions)
diagnosis in any position**

291	Alcoholic psychoses
303	Alcoholic dependence syndrome
305.0	Non-dependent use of alcohol

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APPENDIX 2

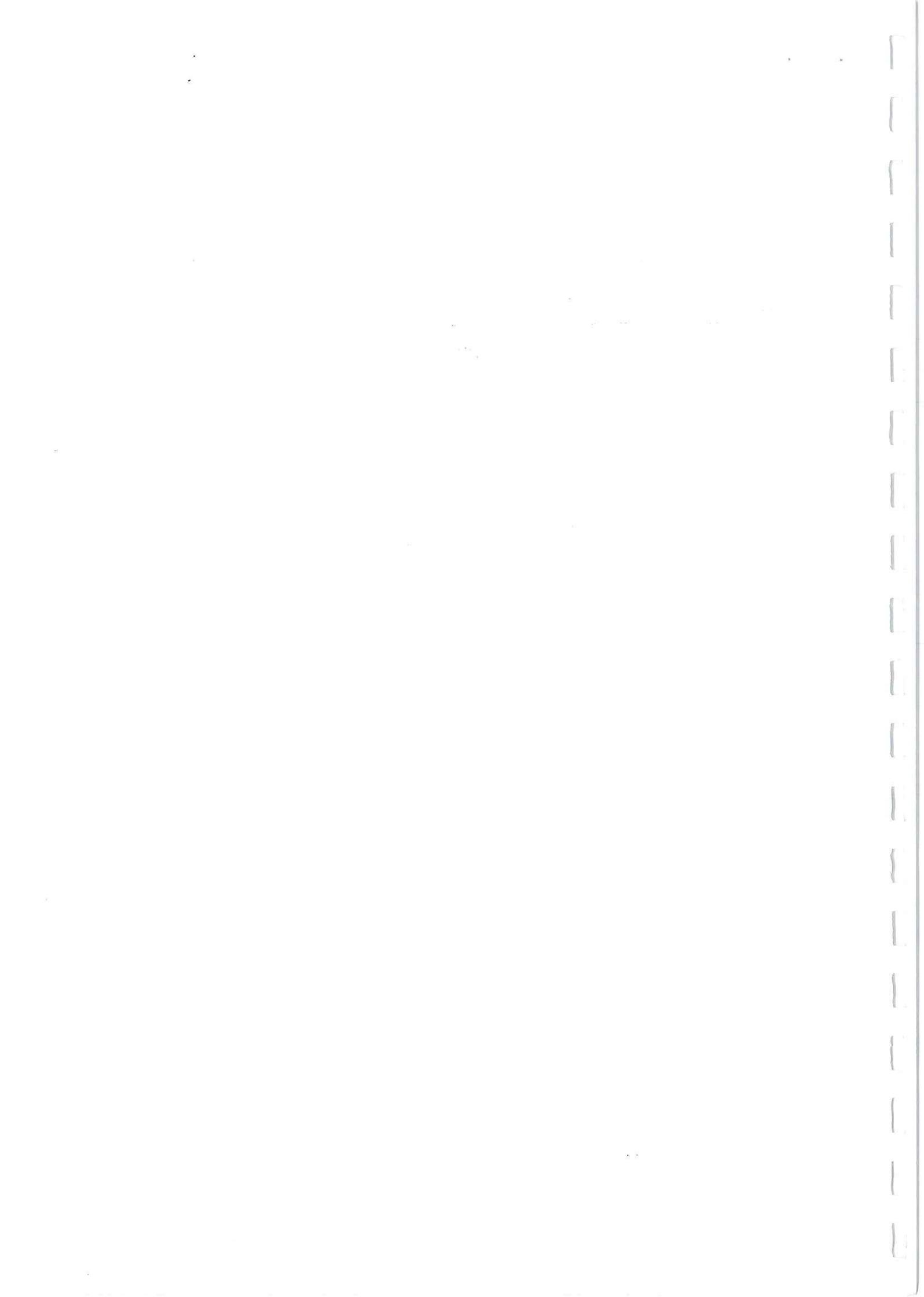


**Effectiveness of different types of prevention and treatment responses
to alcohol misuse (adapted from Edwards and Unnithan)**

Prevention	Rating Of Efficacy	Confidence Of Efficacy Rating
National strategies to control real price of alcohol and thus per capita consumption	5	5
Health education (general or school age population)	2	2
Local community action	3	1

Treatment Of Category I (misuse without problems of dependence)	Rating Of Efficacy	Confidence Of Efficacy Rating
Advice by GP or other primary care worker	5	5

Treatment of Category II (problems) and Category III (dependence)	Rating Of Efficacy	Confidence Of Efficacy Rating
Advice	5	5
Intensive treatment	0 (as routine) 4 (heavily dependent patients)	5
Outpatient care	5	5
Inpatient care	0 (as routine) 5 (as clinically determined)	5
Detoxification	5	5
Rehabilitation hostels and related day programmes	4	2
AA	4	2
AlAnon	4	2



APPENDIX 3

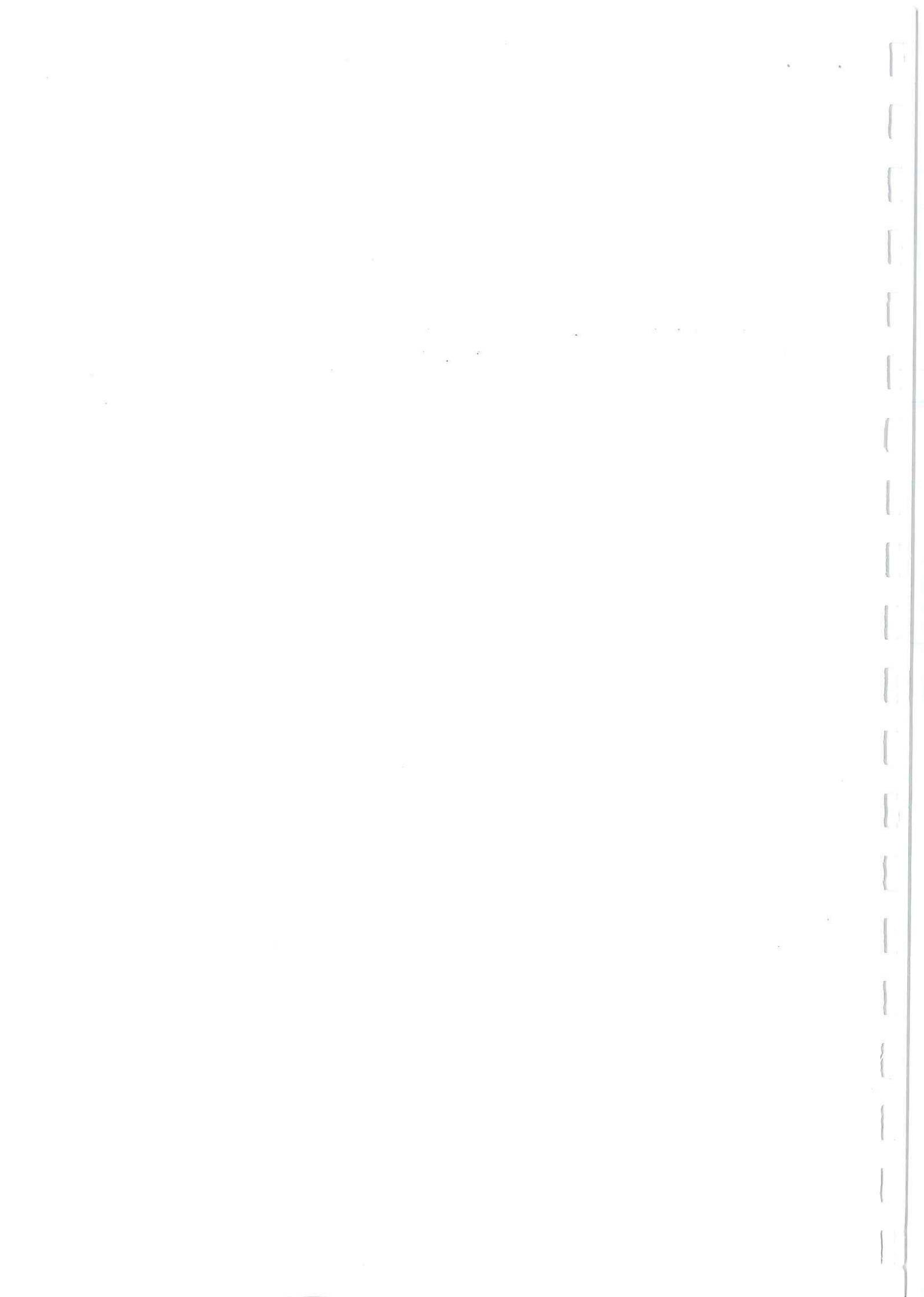


Table 1
UK consumption of alcohol (litres per head of 100% alcohol)

Year	Total Population	Aged 15 and over
1960	4.4	5.7
1961	4.5	5.9
1962	4.5	5.8
1963	4.6	6.0
1964	4.8	6.3
1965	4.7	6.2
1966	4.8	6.3
1967	4.9	6.5
1968	5.1	6.7
1969	5.1	6.8
1970	5.4	7.1
1971	5.6	7.4
1972	5.9	7.8
1973	6.6	8.7
1974	6.9	9.1
1975	6.9	9.0
1976	7.2	9.3
1977	6.8	8.8
1978	7.4	9.4
1979	7.7	9.8
1980	7.4	9.4
1981	7.2	9.0
1982	7.0	8.7
1983	7.1	8.9
1984	7.3	9.0
1985	7.4	9.1
1986	7.4	9.1
1987	7.5	9.2
1988	7.6	9.4
1989	7.6	9.3
1990	7.5	9.3
1991	7.2	8.9

Table 2a
National estimates for drinking among the general population (GHS, 1990):
Men 16+ years

Consumption level (units per week)	Scotland	Great Britain
Non-drinker	8	6
Very low (<1)	9	9
Low (1-10)	35	36
Moderate (11-21)	25	22
Fairly high (22-35)	14	13
High (36-50)	6	17
Very high (51+)	4	7
Total high (22+)	24	27
Sample size	701	8097

Table 2b
National estimates for drinking among the general population (GHS, 1990):
Women 16+ years

Consumption level (units per week)	Scotland	Great Britain
Non-drinker	16	12
Very low (<1)	25	23
Low (1-7)	39	40
Moderate (8-14)	14	14
Fairly high (15-25)	5	7
High (26-35)	1	2
Very high (36+)	0	2
Total high (15+)	6	11
Sample size	884	9424

Table 3a
Prevalence of drinking in Scotland by alcohol consumption categories, males
aged 16+ years % and estimated numbers using 1991 population

Category	Male %	Male No.
Non drinkers/very occasional (<1 unit)	17	331 000
Low/moderate drinkers (1-21) units)	59*	1 148 000
I (22-35 units)	14	272 000
II (35-50 units)	6	117 000
III (51+ units)	4	78 000

* adjusted to add up to 100%

Table 3b
Prevalence of drinking in Scotland by alcohol consumption categories, females
aged 16+ years % and estimated numbers using 1991 population

Category	Female %	Female No.
Non drinkers/very occasional (<1 unit)	41	877 000
Low/moderate drinkers (1-14) units)	52**	1 112 000
I (15-25 units)	5	107 000
II (26-35 units)	1	21 000
III (36+ units)	1**	21 000

** adjusted to include 1% of women drinking 36+ units

Table 4
Deaths in Scotland relating to alcohol or cirrhosis
Numbers by selected cause, 1977-1991

	Chronic liver disease and cirrhosis (alcohol reported as cause) (571.0 - 571.3)	Chronic liver disease and cirrhosis (571)	All deaths relating to alcohol or cirrhosis (291, 303, 305.0, 425.5, 571, 980.0)
1977	182	739	1137
1978	188	794	1249
1979	262	870	1409
1980	212	628	1023
1981	222	704	1073
1982	228	638	978
1983	248	689	998
1984	272	693	1032
1985	270	697	1052
1986	238	645	1046
1987	249	647	1031
1988	283	710	1127
1989	345	778	1188
1990	331	788	1164
1991	334	773	1142

Source: GRO (ISD analysis)
 ISU\LHB (Ref. A239/93)

Table 5
Discharges in Scotland relating to alcohol or cirrhosis
Mean crude rates per 100 000 population by selected cause,
1977-1979 and 1989-1991

	crude rate	
	1977-1979	1989-1991
Chronic liver disease and cirrhosis (alcohol reported as cause) (571.0 - 571.3)	4.1	6.6
Chronic liver disease and cirrhosis (571)	15.5	15.3
All deaths relating to alcohol or cirrhosis (291, 303, 305.0, 425.5, 571, 980.0)	24.4	22.8

Source: GRO (ISD analysis)
 ISU\LHB (Ref. A239/93)

Table 6
Deaths in Scotland relating to alcohol or cirrhosis
Number and rate per 100 000 population by Health Board of residence and selected cause, 1991

	Chronic liver disease and cirrhosis (alcohol reported as cause) (571.0-571.3)	Chronic liver disease and cirrhosis (571)	All deaths relating to alcohol or cirrhosis (291, 303, 305.0, 425.5, 571, 980.0)	Chronic liver disease and cirrhosis reported as cause (571.0-571.3)	Chronic liver disease and cirrhosis (571)	Rate per 100 000 population	
						Number	Rate per 100 000 population
Scotland	334	773	1142	6.5	15.2	22.4	22.4
Argyll & Clyde	41	87	117	9.4	19.9	26.8	26.8
Ayrshire & Arran	20	51	62	5.3	13.5	16.5	16.5
Borders	5	8	16	4.8	7.7	15.4	15.4
Dumfries & Gway	6	15	22	4.1	10.1	14.9	14.9
Fife	12	28	48	3.5	8.1	13.9	13.9
Forth Valley	17	47	60	6.2	17.2	22.0	22.0
Grampian	26	47	77	5.1	9.1	15.0	15.0
Greater Glasgow	76	211	286	8.2	22.9	31.0	31.0
Highland	19	33	51	9.3	16.2	25.0	25.0
Lanarkshire	38	98	121	6.8	17.5	21.6	21.6
Lothian	53	105	181	7.1	14.0	24.1	24.1
Orkney	0	1	2	0.0	5.1	10.2	10.2
Shetland	1	2	8	4.4	8.9	35.6	35.6
Tayside	20	40	87	5.1	10.2	22.2	22.2
Western Isles	0	0	4	0.0	0.0	13.6	13.6

Table 7
Deaths in Scotland relating to alcohol or cirrhosis
Number and rate per 100 000 population by age group, sex and selected cause, 1991

All ages	Chronic liver disease and cirrhosis (alcohol reported as cause) (571.0-571.3)			Chronic liver disease and cirrhosis (571)			All deaths relating to alcohol or cirrhosis (291, 303, 305.0, 425.5, 571, 980.0)			Chronic liver disease and cirrhosis reported as cause) (571.0-571.3)			Chronic liver disease and cirrhosis (571)			All deaths relating to alcohol or cirrhosis (291, 303, 305.0, 425.5, 571, 980.0)			
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	
<25	0	0	0	0	1	1	6	3	9	0.0	0.0	0.0	0.0	0.1	0.1	0.7	0.4	0.5	
25-44	38	25	63	63	37	100	114	68	182	5.0	3.3	4.2	8.4	4.9	6.6	15.1	9.0	12.1	
45-64	119	63	182	233	147	380	357	196	553	22.1	10.9	16.3	43.3	25.4	34.0	66.3	33.9	49.5	
65-74	50	21	71	118	87	205	169	98	267	26.1	8.4	16.1	61.5	34.9	46.5	88.1	39.3	60.5	
75+	11	7	18	43	44	87	69	62	131	10.3	3.2	5.5	40.1	19.9	26.5	64.4	28.1	40.0	

Source: GRO (ISD analysis)
 ISU\LHB (Ref. A239/93)

Table 8
Discharges in Scotland relating to alcohol or cirrhosis
Numbers by selected diagnoses, 1980-1992

	Chronic liver disease and cirrhosis (alcohol reported as cause) (571.0 - 571.3)	Chronic liver disease and cirrhosis (571)	All discharges relating to alcohol or cirrhosis (291, 303, 305.0, 425.5, 571, 980.0)
1980	803	1443	3377
1981	852	1551	3482
1982	683	1344	3082
1983	862	1570	3401
1984	901	1552	3407
1985	921	1619	3687
1986	922	1599	3764
1987	889	1626	4064
1988	1177	1898	4563
1989	1123	1923	4648
1990	1094	1781	4876
1991	1140	1885	5152
1992	1303	2064	5523

Source: SMR1 non-psychiatric, non-obstetric hospitals (ISD analysis)
 ISUNLHB (Ref. A239/93)

Table 9
Discharges in Scotland relating to alcohol or cirrhosis
Mean crude rates per 100 000 population by selected diagnoses,
1980-1982 and 1989-1991

	crude rate	
	1980-1982	1989-1991
Chronic liver disease and cirrhosis (alcohol reported as cause) [571.0 - 571.3]	15.0	21.9
Chronic liver disease and cirrhosis [571]	27.9	36.5
All discharges relating to alcohol or cirrhosis [291, 303, 305.0, 425.5, 571, 980.0]	64.0	95.9

Source: SMR1 non-psychiatric, non-obstetric hospitals (ISD analysis)
 ISU\LHB (Ref. A239/93)

Table 10
Discharges in Scotland relating to alcohol or cirrhosis
Number and rate per 100 000 population by Health Board of residence and selected diagnoses, 1992

	Chronic liver disease and cirrhosis (alcohol reported as cause) (571.0-571.3)	Chronic liver disease and cirrhosis (571)	All deaths relating to alcohol or cirrhosis (291, 303, 305.0, 425.5, 571, 980.0)	Chronic liver disease and cirrhosis reported as cause (571.0-571.3)	Chronic liver disease and cirrhosis (571)	All deaths relating to alcohol or cirrhosis (291, 303, 305.0, 425.5, 571, 980.0)	Chronic liver disease and cirrhosis (571)	Chronic liver disease and cirrhosis reported as cause (571.0-571.3)	Chronic liver disease and cirrhosis (571)	All deaths relating to alcohol or cirrhosis (291, 303, 305.0, 425.5, 571, 980.0)
	Number			Rate per 100 000 population						
Scotland	1296	2055	5424	25.4	40.3	106.4	25.4	40.3	106.4	106.4
Argyll & Clyde	97	150	583	22.2	34.4	133.7	22.2	34.4	133.7	133.7
Ayrshire & Arran	56	100	412	14.9	26.5	109.3	14.9	26.5	109.3	109.3
Borders	23	41	89	22.1	39.4	85.5	22.1	39.4	85.5	85.5
Dumfries & Gway	14	42	133	9.5	28.4	90.0	9.5	28.4	90.0	90.0
Fife	44	88	195	12.7	25.4	56.3	12.7	25.4	56.3	56.3
Forth Valley	50	106	258	18.3	38.9	94.6	18.3	38.9	94.6	94.6
Grampian	130	193	523	25.3	37.5	101.7	25.3	37.5	101.7	101.7
Greater Glasgow	332	466	1037	36.0	50.5	112.5	36.0	50.5	112.5	112.5
Highland	50	76	243	24.5	37.2	119.0	24.5	37.2	119.0	119.0
Lanarkshire	173	231	525	30.8	41.2	93.5	30.8	41.2	93.5	93.5
Lothian	246	428	826	32.8	57.0	110.1	32.8	57.0	110.1	110.1
Orkney	0	1	26	0.0	5.1	132.8	0.0	5.1	132.8	132.8
Shetland	8	12	49	35.6	53.3	217.8	35.6	53.3	217.8	217.8
Tayside	60	104	400	15.3	26.5	102.1	15.3	26.5	102.1	102.1
Western Isles	13	17	125	44.2	57.8	424.9	44.2	57.8	424.9	424.9

Table 11

Discharges in Scotland relating to alcohol or cirrhosis

Number and rate per 100 000 population by age group, sex and selected diagnoses, 1992

All ages	Chronic liver disease and cirrhosis (alcohol reported as cause) (571.0-571.3)			Chronic liver disease and cirrhosis (571)			All deaths relating to alcohol or cirrhosis (291, 303, 305.0, 425.5, 571, 980.0)			Chronic liver disease and cirrhosis reported as cause) (571.0-571.3)			Chronic liver disease and cirrhosis (571)			All discharges relating to alcohol or cirrhosis (291, 303, 305.0, 425.5, 571, 980.0)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	Number																	
	Rate per 100 000 population																	
All ages	849	454	1303	1120	944	2064	3641	1882	5523	34.5	17.2	25.5	45.5	35.8	40.5	147.9	71.4	108.3
<25	0	0	0	14	13	27	490	331	821	0.0	0.0	0.0	1.6	1.6	1.6	56.2	39.5	48.0
25-44	152	98	250	201	146	347	1041	405	1446	20.2	13.0	16.6	26.7	19.4	23.1	138.3	53.9	96.1
45-64	516	283	799	627	514	1141	1540	773	2313	95.8	48.9	71.5	116.4	88.9	102.1	285.9	133.6	207.1
65-74	150	59	209	218	195	413	459	258	717	78.2	23.7	47.4	113.6	78.3	93.6	239.2	103.5	162.6
75+	31	14	45	60	76	136	111	115	226	28.9	6.3	13.7	56.0	34.4	41.5	103.6	52.1	68.9

Source: SMR1 non-psychiatric, non-obstetric hospitals (ISD analysis) ISU\LHB (Ref. A239/93)

Table 12
Psychiatric admissions in Scotland relating to alcohol
Numbers by selected cause, 1977-1992

	Alcoholic psychoses (291)	Alcohol dependence syndrome (303)	Non-dependent abuse of alcohol (305.0)	Total
1977	335	5444	186	5965
1978	290	5366	178	5834
1979	283	5108	230	5621
1980	661	5074	154	5889
1981	506	4751	127	5384
1982	404	3727	157	4288
1983	478	3855	372	4705
1984	435	3693	654	4782
1985	429	3406	772	4607
1986	425	3434	836	4695
1987	432	3653	555	4640
1988	556	3581	754	4891
1989	507	3945	710	5162
1990	532	4040	738	5310
1991	484	3877	726	5087
1992	436	3480	634	4550

Source: SMR4 [ISD analysis]
 ISU\LHB [Ref. A239/93]

Table 13
Psychiatric admissions in Scotland relating to alcohol
Mean crude rates per 100 000 population by selected cause,
1977-1979 and 1989-1991

	crude rate	
	1977-1979	1989-1991
Alcoholic psychoses (291)	5.8	9.9
Alcohol dependence syndrome (303)	102.4	77.5
Non-dependent abuse of alcohol (305.0)	3.8	14.2
Total	112.1	101.6

Source: SMR4 (ISD analysis)
 ISU\LHB (Ref. A239/93)

Table 14
Psychiatric discharges in Scotland relating to alcohol
Number and rate per 100 000 population by Health Board of residence and selected cause, 1992

	Number						Rate per 100 000 population			Total
	Alcoholic psychoses (291)	Alcohol dependence syndrome (303)	Non-dependent abuse of alcohol (305.0)	Total	Alcoholic psychoses (291)	Alcohol dependence syndrome (303)	Non-dependent abuse of alcohol (305.0)			
Scotland	468	3754	523	4745	9.2	73.6	10.3	93.0		
Argyll & Clyde	53	552	8	613	12.2	126.5	1.8	140.5		
Ayrshire & Arran	24	485	104	613	6.4	128.7	27.6	162.7		
Borders	2	42	1	45	1.9	40.3	1.0	43.2		
Dumfries & Gway	1	58	5	64	0.7	39.2	3.4	43.3		
Fife	26	118	8	152	7.5	34.1	2.3	43.9		
Forth Valley	16	107	40	163	5.9	39.2	14.7	59.8		
Grampian	46	315	9	370	8.9	61.2	1.7	71.9		
Greater Glasgow	106	844	5	955	11.5	91.5	0.5	103.6		
Highland	13	163	135	311	6.4	79.8	66.1	152.3		
Lanarkshire	82	220	148	450	14.6	39.2	26.4	80.2		
Lothian	84	575	35	694	11.2	76.6	4.7	92.5		
Orkney	0	1	1	2	0.0	5.1	5.1	10.2		
Shetland	0	8	0	8	0.0	35.6	0.0	35.6		
Tayside	14	256	15	285	3.6	65.3	3.8	72.7		
Western Isles	1	10	9	20	3.4	34.0	30.6	68.0		

Source: SMR4 (ISD analysis)
 ISU\N\HB [Ref. A239/93]

Table 15
Psychiatric admissions in Scotland relating to alcohol
Number and rate per 100 000 population by age group, sex and selected cause, 1992

	Alcoholic psychoses (291)			Alcohol dependence syndrome (303)			Non-dependent abuse of alcohol (305.0)			Total	Alcoholic psychoses (291)	Alcohol dependence syndrome (303)	Non-dependent abuse of alcohol (305.0)	Total	Rate per 100 000 population	Total
	Alcoholic psychoses (291)	Alcohol dependence syndrome (303)	Non-dependent abuse of alcohol (305.0)	Alcoholic psychoses (291)	Alcohol dependence syndrome (303)	Non-dependent abuse of alcohol (305.0)	Alcoholic psychoses (291)	Alcohol dependence syndrome (303)	Non-dependent abuse of alcohol (305.0)							
All ages	307	2503	433	3243	12.5	101.6	17.6	131.7								
Male	129	977	201	1307	4.9	37.0	7.6	49.6								
Female	436	3480	634	4550	8.5	68.2	12.4	89.2								
<25	2	82	33	117	0.2	9.4	3.8	13.4								
Male	4	34	12	50	0.5	4.1	1.4	6.0								
Female	6	116	45	167	0.4	6.8	2.6	9.8								
25-44	110	1220	207	1537	14.6	162.0	27.5	204.1								
Male	37	519	116	672	4.9	69.0	15.4	89.4								
Female	147	1739	323	2209	9.8	115.6	21.5	146.8								
45-64	115	951	137	1203	21.3	176.5	25.4	223.3								
Male	57	330	50	437	9.9	57.1	8.6	75.6								
Female	172	1281	187	1640	15.4	114.7	16.7	146.8								
65-74	49	106	25	180	25.5	55.2	13.0	93.8								
Male	19	59	14	92	7.6	23.7	5.6	36.9								
Female	68	165	39	272	15.4	37.4	8.8	61.7								
75+	17	29	6	52	15.9	27.1	5.6	48.5								
Male	9	15	5	29	4.1	6.8	2.3	13.1								
Female	26	44	11	81	7.9	13.4	3.4	24.7								
N/K	14	115	25	154	N/A	N/A	N/A	N/A								
Male	3	20	4	27	N/A	N/A	N/A	N/A								
Female	17	135	29	181	N/A	N/A	N/A	N/A								

Source: SMR4 (ISD analysis)
 ISU\LHB (Ref. A239/93)