Older people and alcohol

Background paper – a review of the literature

Prepared as part of the *Older people and alcohol* research project commissioned by South, East and North Ayrshire Councils, Ayrshire & Arran NHS and the Ayrshire & Arran Alcohol and Drug Action Team

Roger Clough and Ruth Hart

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Third Sector First
Bridleway House
Newchurch in Rossendale
Lancashire BB4 9DR

Tel. 0845 330 4027
Email mail@3sf.co.uk
Web www.3sf.co.uk

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Introduction

Older people and alcohol is the working title of a study commissioned in mid 2003 by the three Ayrshire local authorities, NHS Ayrshire and Arran and Ayrshire and Arran Alcohol and Drug Action Team. This review was drafted in the early stages of the project, in order to establish what had already been written on alcohol usage and policies. We wanted to build on this knowledge, rather than merely reinforce it; in the first draft of this document we noted that the purpose of the review was to assess the significance of previously published studies to circumstances in Ayrshire and Arran. The review was revised early in 2004, in the light of comments made by the commissioning team and our own increased familiarity with the subject, and to take account of publications which had appeared in the intervening months.

Our original aim was to identify and highlight 'key issues' before examining any discrepancies between the picture portrayed in the literature and local people's perceptions of the nature and scale of any problems and of appropriate services. Even at an early stage in the project we were finding small contradictions between what previous research suggested and what we were being told locally. These contrasts are important, they have been reflected on throughout the project and they are discussed in more detail in the main body of our final report.

In this review we aimed to identify key texts exploring different aspects of alcohol consumption, in particular those relating to Scotland and / or older people, and to draw out and reflect on key themes. In one respect the purpose of the review was to alert the research team - and others with an interest in the study - to important topics and questions.

Some of the demographic statistics have been taken from documents provided by the commissioning bodies and others have been taken from the 2001 census. As some documents contain pre-census population estimates the reader may note certain small inconsistencies in the figures given.

We do not include references in the text, but note our sources in footnotes. Much of the material cited is now available to the public on-line. For many of the Scottish Executive documents we drew upon, but whose author and date of publication we were unsure of, we have provided the URL in the footnote as opposed to the more conventional 'Scottish Executive (Date unknown a/b/c etc)'.

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Summary

Prevalence

In the literature we have examined there is detailed information on general levels of alcohol consumption in Scotland and the UK as a whole, but less is known about the alcohol consumption of people over 60. Many studies describe consumption for people up to age 64, and a smaller number include the age band 65-74. There is very little information on levels of alcohol consumption for people over 74. However, it is important to look at both these 'older old people', and those coming into old age.

In the light of changes in the price and availability of alcohol and attitudes to its consumption, it is likely that many younger older people will have habitually consumed alcohol in their middle years. But what happens as people age? Some authors believe that levels of drinking remain constant; others argue that levels of consumption will fall as people's health, attitudes and financial circumstances change with age. O'Connell *et al.* (2003) argue convincingly that the absolute number of older people with alcohol problems is rising [1].

In addition to age, prevalence is discussed in relation to different groups of people, for example men and women, different social classes, and different ethnic groups. We suspect that urban/rural distinctions are also important, though we have found little information on this issue in the literature.

[1] O'Connell *et al* (2003)

In order to get an idea of the scale of the problem in Ayrshire and Arran we have used prevalence estimates from the literature to infer the numbers of older people in the locality likely to be experiencing problems as a result of alcohol consumption. We have since asked the people we met in the course of our fieldwork to comment on these projections: their responses are discussed in the end of project report.

Patterns of drinking

Different writers use a variety of terms to describe the ways in which people drink alcohol. We found references to 'moderate drinking' (under the recommended weekly intake); 'excessive drinking' (over the recommended weekly intake) and 'binge drinking' (over safe limits in any one day)*.

We have been told that 'harmful' and 'hazardous' are now the recommended terms to describe levels of drinking at which physical or psychological harm is already occurring, or, if sustained, are likely to lead to physical or psychological harm. These may be emerging definitions but they are not yet in consistent use.

An alternative terminology might include those who 'never drink alcohol', those who 'always drink safely', those who 'generally drink safely' but occasionally do so 'immoderately', those who 'habitually drink to excess', 'chronic', lifetime misuse of alcohol and 'excessive' drinking in old age.

It is important to note that the literature strongly suggests that the effects of alcohol increase as people get older. This is stated by many writers and agencies, and is generally coupled with advice that people should drink less in old age. One study suggests that in old age people should *halve* the existing safe levels of 21 units per week for men and 14 units for women. However, there is no authoritative guidance on what is a safe level at different age bands after 60.

To properly understand alcohol consumption in old age it is essential to explore when people drink and how this fits in with the pattern of their day, whether they drink alone or

* We understand that the Scottish Executive definition of binge drinking is more specific and refers to the consumption of more than twice the daily benchmark on ones heaviest drinking day i.e. 8+ units for men and 6+ units for women.

with others, and where they drink, for example at home or in the pub. We found little information on this in the literature; information derived from our own primary research is to be found in the main report, as are our reflections on whether and how people's patterns of consumption change as they age, for example, if there is less drinking in pubs, and less heavy drinking in any one episode but more solitary drinking, which may start earlier in the day. The difficulties of talking about consumption are also discussed. For example, people who regularly lace their tea or coffee with spirits may not think of this as constituting 'a drink' or of themselves as 'drinkers'.

Why people drink

Any policy that aims to influence people's drinking must take account of the reasons *why* people drink. We found a range of explanations in the literature, including building confidence, to socialise, and to cope with adverse events and feelings. These things may result in increased alcohol consumption at any stage in the life cycle – there are however some stressors that are particularly common and powerful in older age, for example, boredom, isolation, fear and ill health. These are discussed both later in this document and in the main report.

The impact of alcohol consumption: gains and losses

It has been argued that low levels of alcohol consumption can actually improve people's health prospects; the details of these arguments change but the most frequently reported is that small amounts of red wine are beneficial.

There is more detailed information on the health problems directly caused by alcohol, particularly liver failure and alcohol-related brain damage. It is less clear to what extent alcohol consumption in old age contributes to deterioration in mental health and reduces people's capacity to look after themselves and their home. However, it would seem a reasonable assumption that alcohol consumption, even at small levels, will exacerbate any sense of confusion and may result in older people feeling less like eating healthily, increase the risk of falls and other accidents, and cause mismanagement of medication. We solicited comments on this general proposition during the course of the project.

It is frequently emphasised in the literature that medical staff often fail to recognise the contribution of alcohol to older people's ill health. Several authors give examples of alcohol consumption being misdiagnosed as a mental health problem or neurodegenerative condition, for example dementia.

The literature also suggests that where they do recognise the existence of an alcohol problem, it seems common for both health and social care professionals to be unwilling to comment or 'intrude' – in a sense condoning the behaviour. Patients and their families also under-report.

Alcohol policies

A recent overview of international alcohol policies prepared for the Scottish Executive concluded that no one measure was effective on its own, and that the research evidence available suggested that a broad policy mix, incorporating health, social and fiscal measures had the greatest likelihood of success, as regards reducing the levels of alcohol-related problems experienced in Scotland.

We noted three key suggestions for policies. The first is the notion of targeting, a focus on specific groups. The second is that policies will only be successful if people want to adopt them, therefore they need to be encouraged to make responsible choices. Another approach is to see better management of alcohol consumption as part of healthy living approaches.

Policy statements, whilst identifying a need for action related to alcohol consumption in old age, are in general, rather vague. Take for example the stated objective of developing 'appropriate' services for older people; it would seem that there is some general uncertainty as to the nature of older people's problems or the appropriate course of remedial action. There appears to be very little evaluation of the effectiveness of programmes of education for older people.

Several authors assert that there is only limited hope of success in attempting to change the consumption of life long excessive drinkers, but that significant changes could be made with other groups of older drinkers.

Alcohol services

Treatment may be effective where it is received. It is not clear from the literature what proportion of those older people who could benefit from treatment are actually receiving it. Neither did we find information in the literature as to who is referring older people for treatment services.

Alcohol treatment services in some areas of the UK have upper age limits. Others, whilst theoretically open to all, are not accessible to older users demonstrating a wide spectrum of needs.

It is apparent that older people, their relatives and even the professionals working with them frequently do not know where to go to get advice. They may be able to suggest someone they could approach - usually their GP - but they are not sure whether their GP has any expertise in relation to alcohol problems.

A number of authors comment that effective treatment strategies should be available to the general elder population, and that these must be accessible and acceptable, that is non-stigmatising. It is stressed that services must be continuous and durable, in the sense that they should be offered again where people fail to follow them through.

Interestingly, more expensive and intensive treatments do not necessarily result in better outcomes. There is a place for low cost services - particularly as regards early identification, secondary prevention and long-term support.

There seems to have been little research into which services are more effective with older people, though for the population as a whole it is claimed that there is a need for a range of services including alcohol advice, screening and brief interventions and outreach support.

Gaps in the literature and evidence base

We conclude the review with a discussion of areas where the evidence base is particularly thin and topics to which we could find little reference at all in the literature. These include:

- the patterns of people's days and how this relates to and is affected by their consumption of alcohol
- the impact of low to moderate levels of alcohol consumption on the management of daily living
- how much older people know about the effects of different levels of alcohol consumption on their health, well being and capacity to manage daily living
- the knowledge or awareness people have of sources of help.

These are subjects that we discussed with interviewees in the course of our fieldwork and our reflections and comments appear in the main body of the report.

The literature review

Prevalence

Far more is known from research about the drinking patterns of people under the age of 60 than about people aged 60 plus. Nevertheless, sufficient information exists on a national level for us to make tentative projections regarding the prevalence of alcohol problems in Ayrshire and Arran.

To begin with we reviewed alcohol consumption in Scotland in general. The Scottish Executive, on its website [2], states that 'Alcohol is widely used and enjoyed in Scotland': Scots certainly have reputation for being 'good drinkers', in the sense of being able to maintain and manage a high level of alcohol consumption.

In actual fact alcohol consumption in Scotland in general is, like in the rest of Britain, well below that of other European countries such as France, and has remained fairly constant over the last 20 years [3]. Alcohol consumption in Britain is however quite distinctive, being characterised by weekly drinking bouts or 'binges'. And it is noticeable here that both men and women in Scotland are far more likely than their peers in England to have drunk over twice the recommended daily benchmark (2-3 units for women and 3-4 for men) on at least one day the previous week [4].

[2] www.scotland.gov.uk/health/alcoholproblems/

[3] www.scotland.gov.uk/health/alcoholproblems/docs/paap1-00.asp

[4] *ibid.*

Geography is one of several variables that appear to have implications for drinking behaviour. In 1998 the proportion of men exceeding recommended limits was greatest in the Greater Glasgow Health Board area (36 per cent); for women it was highest in Lothian, Fife, the Borders and Dumfries and Galloway (17 per cent) [5]. Other factors identified as linked to both patterns and levels of alcohol consumption are ethnicity, sex, socio-economic status and age [6].

Ethnicity appears to be the variable least commented on, perhaps as a result of preconceptions or received wisdom concerning the drinking or non-drinking behaviour of the main UK Black and Minority Ethnic (BME) groups. There is however sufficient evidence to show that even traditionally and 'officially' abstinent groups such as the Muslim community have members with alcohol problems. Older people in these communities are likely to find it particularly difficult to access help and their numbers may therefore be under-reported[7].

Gender receives greater attention in the literature and 'women and alcohol' is a title we encountered on several occasions. The Alcohol Focus Scotland leaflet by this name justified this interest as follows:

> 'There are distinct differences in the way that alcohol affects women physically, women's drinking is viewed differently in society, particularly if a woman becomes dependent on alcohol (and) there are barriers to women getting help, particularly if they are mothers.'

Though the latter point is of less relevance to older drinkers, the first two points are very important, especially as the proportion of women over the age of 65 drinking more than the 'low risk' limits appears to be on the rise [8].

Statistics on alcohol in Scotland warns that Scottish women are drinking more, and that more of these drinkers are drinking to excess. Alcohol-related deaths for women have doubled in the last decade. Sex, in combination with socio-economic status, appears to be strongly associated with drinking patterns [9].

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[5] Guest & Varney (2001)

[6] Waller, Naidoo & Thom (2002)

[7] Anonymous (2003)

[8] Plant & Haw (2000)

[9] www.scotland.gov.uk/health/alcoholproblems/docs/paap1-00.asp

For example, women in non-manual social classes had the highest levels of mean weekly consumption and were most likely to be consuming more than 14 units per week, though women in manual classes were more likely to have had more than 6 units on any one day of the previous week [10].

Men in non-manual social classes had higher levels of weekly consumption. However, those in manual classes were more likely to drink over 8 units on a single occasion [11]. Those living in the most deprived areas (Carstairs' Deprivation Index Category 7) were seven times more likely to die an alcohol-related death than those in Category 1 areas [12].

Residents of the most deprived areas are also seven times more likely to be admitted to an acute hospital with an alcohol-related diagnosis, with inpatient admission rates of 1,461.3 per 100,000 as compared to 189.6 per 100,000 from the least deprived (Category 1) areas [13].

Overall, alcohol-related deaths increased by 180 per cent between 1980 and 1999 (changes in recording practices may have contributed to this substantial rise) [14] but as illustrated above, the burden of mortality and morbidity is not evenly shared. This suggests that the impact of alcohol on people's lives cannot be understood solely from looking at the amounts of alcohol that people consume and that the figures above point to an interaction between alcohol consumption, lifestyle and other factors.

In part, the consequences for health and daily living are the outcome of the pattern of drinking, in particular whether people drink small amounts regularly or very large amounts sporadically. However, there are other influences which are less well documented. People's diet and lifestyle, for example, levels of activity and fitness, in addition to general health, all have significant effects on the impact of alcohol consumption.

A recently circulated draft report on Alcohol Related Brain Damage (ARBD) [15] notes how the available information on ARBD across Scotland indicates a changing pattern of gender and age distribution, and a marked concentration in areas of high socio-economic deprivation,

[10] *ibid.*

[11] Guest & Varney (2001)

[12] www.scotland.gov.uk/health/alcoholproblems/docs/paap1-00.asp

[13] www.scotland.gov.uk/health/alcoholproblems/docs/paap1-00.asp

[14] Guest & Varney (2001)

[15] Cox, Anderson & McCabe (2003)

where it is associated with poor nutrition and a range of physical and mental health problems.

Age - our main area of interest in this study - is a variable about which the statistics and evidence are far from complete. Throughout the policy literature young people (aged 16-24) are identified as a priority group, and indeed in Scotland they appear to be the group most likely to exceed recommended limits. However, concern about older people's drinking habits is growing, and has become a target for recent national and local plans. The ageing population can only increase the importance and, in time, the prominence of this issue. Wood and Bain[16] point out that the older population in Scotland is growing in both absolute and relative terms, and has been doing so throughout the twentieth and twenty first centuries.

Other developed countries will also have to confront the issue of an ageing population. In Australia, for example, the over 65s currently make up around 12 per cent of the population but projections put this proportion nearer to 25 per cent by 2051 [17]. Similarly Scotland can anticipate an increase of 18.5 per cent by 2016 (from a 2000 baseline) [18]. Another source predicts that the over 65s will account for 24 per cent of the population by 2031 and notes that:

> 'Projections suggest that rural areas of Scotland will experience particularly marked population ageing... Women substantially outnumber men in the older age groups, but this imbalance is predicted to decline in the future. The number of older people from minority ethnic groups will increase over coming years.' [19]

South Ayrshire's population is already elderly, in the sense that the proportion of the population made up of older people (65+) is higher than the average for Scotland [20]. The 2001 census gives the population a mean average age of 41.44. This contrasts with the mean average age of the Scottish population of 38.97 [21].

[16] Wood & Bain (2001)
[17] Lynskey *et al.* (2003)
[18] North Ayrshire Council, (2003)
[19] Wood & Bain (2001:2)
[20] South Ayrshire Council (2002)
[21] General Register Office for Scotland (2003)

Figures published in 1999 were used to produce population estimates for the years 2001, 2006 and 2011. In 2001, people aged over 65 were expected to make up 18.4 per cent of South Ayrshire's population (21,136 individuals) but by 2011 this is expected to rise to 22,677, or 19.6 per cent of the population. The largest increase will be among the 'older old', the people aged 85 and over [22].

Year 2000 estimates for North Ayrshire put the 65+ resident population at 21,298, equal to around 15 per cent of the general population. The figure can be broken down into three further age groups - 65-74, 75-84 and 85+ - these groups comprising 56, 33 and 11 per cent of the older population respectively. The pattern reflects Scotland-wide trends but these groups are not evenly distributed across North Ayrshire – 32 per cent of the oldest group, for example, resides on the north coast [23].

Though the current proportions match national trends, General Register Office (GRO) projections for North Ayrshire indicate rises in the older population far in excess of that of the country as a whole. Whereas, for example, the older population of Scotland is expected to increase some 18.5 per cent by 2016, in North Ayrshire this figure is projected to be nearer 30.5 per cent. The implications of this for the development of older people's services will be profound. In East Ayrshire, 18.93 per cent of the total resident population (120, 235) is currently of pensionable age or above [24].

An increase in the numbers of very old people will lead to an increased demand on health and social care services. However, whether an overall increase in numbers will result in increased numbers of people with alcohol problems is a different question. Our belief is that different cohorts will have different patterns of consumption associated to changes in attitudes to (and the availability of) alcohol; the data suggests that older people in Scotland are more likely to be teetotal than younger groups, with 13 and 28 per cent of men and women respectively aged between 65 and 74 stating that they did not drink at all[25]. Unfortunately statistics are not available for the over 74s.

Within the 65-74 age group it is possible that some 21 per cent of men and 4 per cent of women drink 'excessively', meaning above the recommended limits referred to earlier [26].

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[22] South Ayrshire (2002)

[23] North Ayrshire Council (2003)

[24] General Register Office for Scotland (2003b)

[25] Wood & Bain (2001)

[26] *ibid.*

This estimate compares with evidence from the United States, which suggests that between one and three per cent of older people are affected by the consequences of excessive alcohol consumption [27]. World Health Organisation figures put the proportion of older people admitted to hospital in developing countries and exhibiting signs of alcoholism at around 6-11 per cent [28].

The 1994 General Household Survey suggested that 17 per cent of men and 7 per cent of women over the age of 65 were drinking at 'unsafe' levels. More recent data from the Health Education Board for Scotland *Health Education Population Survey*, indicates that around 13 per cent of adults aged 55-64 and 6 per cent of those aged 65-74 may be drinking more than the recommended maximum limits [29]. A breakdown of the figures by sex is not available.

Information covering five-year age bands up to the age of 80 is available with regard to emergency admissions to Scottish hospitals in 2000 on the basis of acute intoxication [30]. The data indicates that admissions decrease between the ages of 19 and 29, then start to rise again, falling away at the age of 44. The age group 60-64 totals around 525 admissions; at 65-69 this falls to around 475; at 70-74 there are around 325 admissions, falling to 250 at ages 75-79. Around 100 individuals over the age of 80 were admitted for acute intoxication during the study period (2000).

In addition, the Royal College of Physicians is cited on the Alcohol Focus Scotland web site as estimating that 'as many as 60% of elderly people admitted to hospital because of confusion, repeated falls, recurrent chest infections and heart failure, may have unrecognised alcohol problems'[31]. An exploratory study conducted within an Ayrshire A&E department also suggests an association between alcohol and accidents (falls in particular).[32]

Although a disparate terminology makes it hard to compare these figures, it is clear that a significant number of older people can be described as having some degree of alcohol problem. Our first estimates of the numbers of older people in Ayrshire and Arran with some degree of alcohol problem are set out below. These estimates are based on three of

[27] Blondell (1999)

[28] WHO (1999)

[29] Health Education Board for Scotland (2002)

[30] www.scotland.gov.uk/health/alcoholproblems/docs/paap1-00.asp

[31] Alcohol Focus Scotland (2002)

[32] McDonach, E., Bell, K., Gallacher, D. & Gilhooly, M. (Date of publication not given)

the scenarios described above: the General Household Survey, the Health Education Population Survey and Wood's and Bain's estimates. Please note that these figures were at the time of writing both tentative and provisional. In the main body of the report we suggest ways to collect local data and to test these estimates.

Table 1: Projected numbers of older people in Ayrshire and Arran with alcohol problems, based on different estimates of the scale of the problem

Age	Total population (368,149)		Numbers with alcohol problem – based on GHS 1994		Numbers with alcohol problem – based on Wood & Bain		Numbers with alcohol problem – based on HEPS 2002	
	Male	Female	Male	Female	Male	Female	Male	Female
65-74	15,606	19,089	2, 653 (17%)	1,336 (7%)	3,277 (21%)	764 (4%)	2,082 (6%)	
65+	25,400	37,220	4,318 (17%)	2,605 (7%)	5,334 (21%*)	1,489 (4%*)	3,757 (6%*)	

* Percentages and figures for people aged 65 and above with alcohol problems are based on the assumption that the rates for those aged 65-74 are maintained in older groups.

Based on our lowest estimate, some 2,082 people aged 65-74 and residing in the Ayrshire and Arran Health Board area drink above the recommended limits. If these levels were maintained for the over-65 population as a whole, then there would be a total of 3,757 people consuming alcohol above the recommended limits. We must emphasise that these limits are levels determined as 'safe' for younger members of the population. As we explain in more detail later, physiological changes mean that similar levels of alcohol consumption are far more damaging to a person in their sixties than to a person in their twenties.

Other commentators have highlighted additional sources of information from which one might infer the likely prevalence of alcohol use, including ambulance service call outs, screening at Accident and Emergency departments and GPs records. Some individuals with alcohol problems self-identify, others have their habits detected through screening instruments such as CAGE and AUDIT (these tools, which are short questionnaires designed

to identify alcohol dependence and harmful or hazardous drinking respectively, are of course reliant on the cooperation and honesty of the drinker), from blood tests, or the testimonies of people in close contact with them.

The consensus in the literature is that the scale of the problem is greater than most existing measures would suggest. This appears to be true across the full age range of alcohol users and, whilst alcohol may play an important and sometimes positive role in Scottish society, a recent study of people's attitudes to alcohol revealed the extent of the stigma attached to alcohol abuse. The study described a widespread reluctance by people to use terms such as 'alcohol misuse', 'alcohol problems' or 'alcoholism', either about themselves or in relation to friends and family [33].

However, many authors argue that with regard to alcohol problems in older people, the potential for underestimation is even greater. These authors believe that it is debatable whether the screening tools mentioned above (AUDIT and CAGE) are appropriate for use with older people[34]. The 'features' of alcohol use disorders may not be so apparent in older people whose roles, circumstances and health characteristics are quite different to those of younger drinkers, and the focus of the screening tools on current levels of alcohol intake may result in an inaccurate estimation of the extent of the problem [35].

Some of our interviewees in Ayrshire and Arran stated that they found AUDIT, whilst imperfect, to be a useful tool and one that has become widely accepted, and that they favoured it over CAGE. The literature clarified for us how these tools have different uses, with AUDIT being designed for detecting hazardous, harmful or risky drinking, and CAGE (and SAD-Q) for detecting alcohol abuse and dependency [36]. AUDIT, one of the tools used in the Ayrshire A&E study referred to earlier, comprises ten questions investigating patterns of drinking, symptoms of dependency and resultant harm. It is scored out of 40, with a score of 8+ indicating 'hazardous' use and 16+ 'harmful' use.

It is common for the symptoms of even severe alcoholism to be disguised by a range of other, non-specific, medical problems. These include insomnia, gastrointestinal problems, and dementia. An example of this appears in the Scottish Executive booklet *Are you over 50?* where 'Moira', admitted to hospital as a result of a fall, but evidencing some confusion,

[33] Lancaster & Dudleston (2001)

[34] Luttrell (1997)

[35] O'Connell *et al* (2003)

[36] www.scotland.gov.uk/health/alcoholproblems/docs/lire-01.asp

is initially diagnosed with dementia. It is only later that it is acknowledged that the root of the problem is habitual and excessive alcohol consumption.

Falls, cognitive impairment, self neglect and incontinence can all be exacerbated or precipitated by alcohol, but, according to the literature, are commonly regarded by both family members and health professionals as simply signs of ageing. A failure to acknowledge or diagnose the underlying problem can only contribute to a decline in the older person's health.

Patterns of drinking

It is important to recognise and understand older people's drinking habits, how in both style and quantity their consumption patterns differ from those of younger drinkers and each other. However the range of terms currently used to describe drinking habits is extensive and, it can be argued, reduces rather than enhances our understanding of the role alcohol plays in people's lives. Research into the attitudes of problem drinkers and their friends and families found that terms such as 'alcohol misuse', 'alcohol problem' and 'alcoholism' were interpreted in different ways, but were broadly understood to mean inappropriate use, use to an extent that other aspects of someone's life are affected, and dependence on alcohol. As mentioned above, there was a great reluctance to attach these definitions to oneself, friends or family [37].

Terms we encountered in the literature include 'alcohol misuse', 'alcohol abuse', 'alcohol dependency', 'alcoholism', 'alcohol problems', 'harmful drinking', 'hazardous drinking', 'moderate drinking', 'excessive drinking', and 'binge drinking'. 'Alcohol problems' is the term favoured by the Scottish Executive. As a blanket or umbrella term this works, but clearly problems differ by degree – the parameters therefore need to be agreed upon and defined, perhaps by levels of consumption (with the recommended limits serving as a benchmark) or by the scale of the problems generated. Some of our respondents in Ayrshire described unit-based definitions of consumption as unhelpful, pointing out that individuals differ significantly in how they metabolise alcohol.

One of the more self-explanatory terms is 'binge drinking', addressing which is one of the two main priorities of the Scottish Executive's *Plan for Action*. Binge drinking is a pattern

[37] Lancaster & Dudleston (2001)

associated with northern Europeans and young people, evidence of which can be found in most British town and city centres on a Friday or Saturday night.

Is this a style of drinking that continues into old age, and if not, how are older people drinking? How does alcohol fit into their lives? When do older people drink and what do they drink, for example wine with dinner, or whisky in tea or coffee? What time do they drink and do they drink alone or in company? These are not questions asked out of curiosity – it seems a reasonable prediction that the nature of any problems, in terms of management of daily living at least, will vary in accordance with these practices. Although there was very little information in the literature on these aspects of older people's drinking habits, our fieldwork provided us with some valuable insights.

Why people drink

Alcohol consumption is largely believed to decline with age, presumably as a consequence of declines in health and wealth. However the literature suggests that more people are drinking more in older age [38]. The more liberal attitudes of the last 50 years may in part be responsible for this, increased levels of acceptability and availability leading more adults to develop a habit of drinking. Changes in disposable income may also have contributed, but even where disposable income has not increased the falling cost of alcohol relative to other things makes alcohol markedly 'cheaper' than it was 20 years ago.

The Institute of Alcohol Studies (IAS) identifies three types of older problem drinker [39]. Early-onset or 'survivors' – people whose drinking habits are a continuation of those developed earlier in life - may account for up to two thirds of the group, though lifelong drinking is likely to reduce their life span (by on average 10-15 years). The second sub-group is intermittent or binge drinkers whilst the third is described as late-onset or 'reactors'. These are people who begin problem drinking later in life. Why do they do this? Possible reasons are discussed in detail below. It is worth noting here that according to the IAS 'both the Late-onset drinkers and the Intermittent or binge drinkers have a high chance of managing their alcohol problem if they have access to appropriate treatment such as counselling and general support'.

[38] Institute of Alcohol Studies (Date of publication not given)

[39] *ibid.*

If services or policy are to influence people's drinking habits, they need to be based on an understanding of why people drink, for example to increase their confidence and enable them to socialise, or to cope with difficult feelings or circumstances. These broad explanations are of relevance to older and younger drinkers alike, but the emotions and events with which older people have to contend need to be explored.

Illness and pain, though not peculiar to older people, are commonly cited as reasons for drinking, as are bereavement and loneliness. In their leaflet *Alcohol and older people*, Alcohol Focus Scotland [40] note that drinking habits may develop early in life but that there are a number of triggers peculiar to older age. These include boredom and isolation, difficulty sleeping, desire to feel warm, belief that 'tonic wines' have health benefits, difficulties in preparing meals (alcohol is a source of calories and reduces appetite) and fear.

In a more detailed discussion of the problems associated with alcohol misuse, Alistair Beattie, Project Officer at Age Concern London, cited the following factors and statistics [41]. (Though the figures relate to older people in London, many of the factors are of relevance to older people in Ayrshire).

Beattie identifies loneliness as a significant factor, arguing that older people are particularly likely to live alone and that of the four million older people in London, four per cent live lives circumscribed by chronic illness. In addition to living alone, older people are increasingly likely to be isolated from family and friends; these may be geographically distant or closer but still inaccessible due to the older person's limited mobility or lack of transport. Older people's role in the community is often diminished, compounding feelings of loneliness, something identified by Beattie as a problem by 32 per cent of older people.

Deteriorating health is, however unwelcome, an accepted part of the ageing process but the following statistics (also cited by Beattie) are worth noting: each week around 20 per cent of Londoners over 50 have cause to see their doctor and in 1998 there were nearly 150,000 over 65s registered as disabled in London alone. Poor physical health is directly correlated with depression, which in turn is commonly linked to alcohol problems. The reciprocal relationship between ill health and alcohol misuse deserves further exploration.

Housing may also precipitate alcohol problems. Many older people live in relatively old and poorly maintained property and older people are one of the main groups of people living

[40] Alcohol Focus (2002)

[41] Alcohol Concern (2000a)

without indoor lavatories or central heating. Those who do have heating often lack the financial means fully to heat their homes; Beattie identifies one in ten as unable to heat their bedrooms and nearly 17 per cent of the over 60s as dependent on Income Support.

Older people appear particularly fearful of their safety, though figures from crime surveys show that this group is not in fact most at risk. This dissuades many older people from venturing out, so compounding their isolation. Often older people, accustomed to showing greater reserve, find it hard to talk about these fears.

Finally, with regard to women, but not older women in particular, published research suggests an association between childhood abuse and the development of alcohol problems. Studies exist which suggest that between 40 and 90 per cent of women with alcohol problems may have experienced some form of childhood abuse [42].

The impact of alcohol consumption: gains and losses

In recent years it has been reported that low levels of alcohol consumption can make a positive contribution to health. In particular, it has been argued that a moderate daily intake of red wine can reduce levels of cholesterol, thereby reducing the risk of a range of cardio-vascular conditions. On the Scottish Executive website it is noted that 'Drinking small amounts is compatible with a healthy lifestyle and can confer health benefit. Drinking too much can, however, lead to illness, accidents and anti-social and criminal behaviour' [43].

The second part of this quote sums up the types of problems alcohol can provoke. It also makes the point that the problems created by drinking are not purely experienced by the drinker. An individual's alcohol problems can lead to problems for their family, friends, carers, neighbours and the professionals with whom they have contact. Society at large also bears a heavy burden.

An analysis carried out in connection with the Scottish Executive's *Plan for Action on Alcohol Misuse* comments that:

[42] Plant & Haw (2000)

[43] www.scotland.gov.uk/health/alcoholproblems/

> 'The total annual societal cost associated with the 795,008 men and 368,984 women in Scotland whose weekly alcohol consumption was above the recommended limits was estimated to be £1,071 million [at 2000/2001 prices]. Of this, 9% was due to resource use by NHS Scotland, 8% by social work services, 25% by the criminal justice system, 38% due to wider economic costs and 20% due to human costs (i.e. premature mortality in the non-working population)' [44].

The consequences for the individual are no less significant and various sources have listed the effects of continued heavy drinking on the different parts of the body. These range in severity, with the stomach, for example, at risk of sickness, indigestion or the more severe condition of gastritis. Ulcers, whilst not necessarily caused by alcohol consumption, will certainly be aggravated by it.

In regular drinkers the liver becomes progressively less efficient at breaking down alcohol; continuous and excessive alcohol consumption may result in a build up of fat deposits on the liver and is implicated in the development of hepatitis and cirrhosis.

Acute and chronic pancreatitis can also be a consequence of heavy drinking, with people affected by the latter often proceeding to develop diabetes. Heightened blood pressure significantly increases the risk of heart disease and strokes, and persistent heavy drinking has been linked to certain specific forms of brain damage (Wernicke's encephalopathy and Korsakoff's syndrome).

In *Statistics on Alcohol in Scotland*, it is noted that 'There were an estimated 107,685 GP consultations in Scotland for alcohol-related diagnoses in 2000, representing 0.7% of all GP consultations. Alcohol misuse has been attributed to 1 in 10 A&E attendances... 3 in 100 of all acute hospital inpatient admissions had an alcohol-related diagnosis' [45].

It is not only long-term heavy drinking that has consequences for the older person; even relatively moderate levels of alcohol can have deleterious consequences in old age. Whilst it is accepted that the effects of drinking alcohol are more pronounced in older people, and that the recommended limits of 14 units per week for women and 21 for men (increasingly presented as daily benchmarks of 2-3 and 3-4 units for men and women respectively) are higher than is appropriate for older people, we could find no clear guide as to what was

[44] Guest & Varney (2001)

[45] www.scotland.gov.uk/health/alcoholproblems/docs/paap1-00.asp

advisable. It is possible that a safe level may be as little as half the number of units listed above.

Why is this? The answer probably lies in changing physiology consequent on age, in particular the changing ratio of fat to water means that as we get older the alcohol we consume is less diluted. In addition to this, liver enzymes become progressively less efficient with age and alcohol is broken down more slowly. Hence for older people the consequences of a relatively small amount of alcohol can be unexpectedly long-lasting and severe. In addition to the adverse effects of alcohol listed above, it can be implicated in falls, confusion, incontinence and low quality sleep; an older person's ability to independently manage their daily life may also be severely impaired. Some of the evidence might be a neglect of personal hygiene, the home, financial matters, relationships and personal safety, though, obviously, these are characteristics associated with other personal and health problems as well.

Confusion may in part be a result of alcohol, but can be dangerously compounded by medication. Alcohol may also exacerbate or strengthen the effects of medicines in other ways, causing unpleasant side effects such as headaches, stomach upsets or hot flushes.

Alcohol policies

The Scottish Parliament appears to have recognised that alcohol misuse is an important public health issue and subsequent to the debate on this topic in December 2000, the Scottish Executive committed itself to publishing a *Plan for Action on Alcohol Problems* [46]. The plan has four key areas for action: culture change, education and prevention, provision of services, and protection and control, and looks at two priorities in relation to these key areas - the reduction of binge drinking and harmful drinking by children and young people. An extensive consultation process preceded publication and a number of research reports and reviews were published around the same time. A comprehensive review of Scottish licensing law was also initiated, this being completed during the course of our study (Autumn 2003).

[46] Scottish Executive (2002)

We have drawn on several of these reports in the course of preparing this review and found Kate Sewel's report, *International alcohol policies: a selected literature review* [47], particularly useful. This is summarised below.

Internationally, policy responses to alcohol are diverse, and range from total prohibition to information and education campaigns. Whilst some policies have focussed on general drinking behaviour, Sewel notes a move away from attempts to reduce population-wide alcohol consumption and towards a focus on addressing drinking in certain contexts and settings or by certain groups. Sewel argues that all these policies can be categorised as part of three distinct but related domains of control: prevention (dissuading people from drinking to excess), provision (of support and treatment services) and protection (restricting access and imposing penalties).

Whilst noting the general deficiencies in the evidence and the difficulties inherent in comparing data internationally, Sewel concludes that the evidence for any significant impact of preventative methods on either attitudes or behaviour is not strong, though there is evidence to suggest that information and education campaigns may have an effect when developed in parallel with other measures or if placed in a broader context of community action.

Support and treatment services, on the other hand, are described by Sewel as playing a core role in any alcohol strategy. Of course different types of problem require different types of treatment; interestingly however, whilst there are problems and difficulties in evaluating the evidence of treatment efficacy, the research evidence suggests that better outcomes are not necessarily achieved by more expensive and intensive treatment. Lower cost options can contribute significantly to identification, prevention and on-going support.

Finally, protection measures: these include restrictions on access by age, time of sale, and location, type and density of sales outlet. Studies of changes in licensing hours suggest a direct link between hours and problems, with longer hours leading to increased problems. This contradicts the received wisdom - that longer opening hours would allow people to 'pace' their drinking.

At the population level, alcohol consumption does respond to changes in price. Therefore taxation can potentially have a significant impact on the public's health. The effects of price on population sub-groups are however more complicated. Whilst many studies have

[47] Sewel (2001)

concluded that heavier drinkers will be more responsive to changes in price, other studies have indicated an interaction between price and income. And according to another report prepared for the Scottish Executive, there is evidence to suggest that:

> 'the alcohol consumption of the heaviest 10% of drinkers is not responsive to price increases but problem drinkers below this level do respond' [48].

Sewel concludes that single measures cannot effectively control alcohol misuse; instead comprehensive strategies comprising health, social and fiscal policies are required. Furthermore, policies need to be developed at both local and national level, if they are to be successful. This suggests that there are things that individuals and organisations within Ayrshire and Arran can and should do to address the problems arising from alcohol consumption, but to be fully effective they will need to be accompanied by action at a national level.

Alcohol services

Sewel describes support and treatment services as playing an important, indeed core role in any alcohol strategy. Also of relevance to the *Older people and alcohol* project are the wider health and social care services for older people: these can help individuals maintain or adopt a healthy lifestyle in old age and limit both alcohol consumption and its impact. We discuss the important role of these services in more depth in the main body of the report.

The literature discussing effective alcohol services for older people is limited and presumably reflects a lack of research in this area. What is clear is that though there is a good idea of what works for the general populace and where additional services are warranted, many of these services are, in theory at least, not available to older people[49]. This concern has been raised both in the literature and by health professionals we spoke to in Ayrshire and Arran. Older people are known to be excluded from alcohol treatment services in a few areas; far more often these services exist but are inaccessible.

It would seem self-evident that for treatment strategies and services to be effective they need to be available, accessible to all who need them, and in no way stigmatising. Ongoing services are required, constructed and delivered in ways which encourage people to

[48] www.scotland.gov.uk/health/alcoholproblems/docs/lire-01.asp

[49] Age Concern Wandsworth (2002)

maintain contact and follow their course of treatment through. The *Health Technology Assessment Report 3: Prevention of relapse in alcohol dependence*[50] makes it very clear that relapse is likely where a longer term programme is not provided.

The Scottish Executive's *Plan for Action on Alcohol Problems*[51] sets out a series of core principles for alcohol services: confidentiality, accessibility, without time restraints, holistic i.e. addressing the problem along with its causes and contexts, understanding, positive, tailored to individual needs, joined-up / interagency, designed with user / beneficiary input and addressing the needs of the family.

We know that older people, friends, relatives and the professionals with whom they have contact, are often unsure where to get advice. GPs are identified as a first point of contact, but a recent study conducted for the Scottish Executive [52] also reported that people appeared unsure of their GP's level of diagnostic or treatment expertise in relation to harmful alcohol consumption. Some of our interviewees emphasised that the insular nature of small rural communities, such as are common in Ayrshire and Arran, might deter older people from confiding in their GP. It is not clear from the literature whether people's uncertainty regarding their GP's level of expertise in relation to alcohol is justified – we do know that Scottish GPs have very recently received guidelines on treating alcohol misuse and dependence, prepared and issued by the Scottish Intercollegiate Guidelines Network [53].

It is far from clear what proportion of older people receive the treatment they need and we cannot say from the literature how older people are in general identified as needing treatment. Do they seek help or are they referred and, if so, by whom? There appears to have been very little written on the referral process, on how long it can or should take, how appropriate referrals are or what their final outcomes are. These are all things that merit exploration.

The evidence base for the provision of alcohol services to older people is sparse, so we have looked at research addressing services delivered to the population as a whole. Sewel [54] argues that intensive, expensive treatments do not necessarily lead to better outcomes. Relatively inexpensive services, which we take to mean things such as the consistent taking

[50] Slattery *et al* (2003)
[51] Scottish Executive (2002)
[52] Lancaster & Dudleston (2001)
[53] Scottish Intercollegiate Guidelines Network (2003)
[54] Sewel (2001)

of alcohol histories and opportunistically delivered 'brief interventions', can also make a significant contribution to early identification, secondary prevention and longer term support.

The Health Development Agency's (HDA) briefing on the prevention and reduction of alcohol misuse reviews evidence on the effectiveness of interventions in various settings [55], identifying strong evidence for the effectiveness of alcohol screening and interventions in A&E departments. It also finds solid evidence supporting the delivery of brief (lasting 5-20 minutes) interventions to heavy drinkers, including those who have not actively sought treatment. Extended brief interventions, which might involve repeat visits and the use of counselling or motivational techniques, were found to be yet more effective, particularly for women drinkers. The authors note however that there is a lack of research in certain areas and that they cannot advocate the extension of all their conclusions to all population subgroups.

Two previously mentioned Scottish reports that cover similar ground are the SIGN *Guidelines on the management of harmful drinking and alcohol dependence in primary care* and the Health Technology Board report on relapse prevention (we were not able to access the full SIGN report on-line at the time of writing, but the partner *Quick Reference Guide* was available [56] and we believe the full document will be on-line early in 2004). Both sources provide recommendations for practice and indicate the strength of the evidence supporting the proposed interventions; we would recommend that individuals working in these specific areas should look at the source documents.

Another paper which we found of particular interest and relevance was the report prepared by Jane Yeomans for Age Concern Wandsworth [57] in connection with their Alcohol Misuse, Older People project. Yeomans suggests four levels of intervention, which broadly correspond with the four tiers of the Scottish Executive's *Alcohol problems support and treatment services framework*.[58] The first of these is described as a 'primary' or 'community level' intervention. This could be provided within generic services to people 'at risk', people drinking above the recommended levels and moderate to heavy drinkers.

[55] Waller, Naidoo and Thom (2002)

[56] Scottish Intercollegiate Guidelines Network (2003)

[57] Age Concern Wandsworth (2002)

[58] Scottish Executive (2002a)

At the next level, alcohol counselling services would be required (comparable to the Scottish Executive's second tier of local services for identifying and responding to people with alcohol problems); these would be provided by specialist services and would be targeted at harmful drinkers and individuals concerned about their alcohol consumption and requiring help to stabilise or reduce their intake.

The third level, assisted withdrawal, is designed for dependent drinkers. This might involve a residential experience and could be described in Scottish Executive terms as provision for people with more complex needs. At the fourth and highest tier a harm reduction intervention is proposed. The focus of this would be social stabilisation and reintegration. Withdrawal is considered an unrealistic goal for this heavily dependent group that has highly individual and complex needs.

It was concluded at the end of the Wandsworth project that there was a particular shortfall at the two lower levels and that development of first tier interventions (services for the whole community) should be made a priority. It was argued by Yeomans that more effective lower level services would decrease the number of older people increasing their consumption to more hazardous levels and requiring more specialised support.

However, an important point is made in the Scottish Executive's framework: people's movement between tiers will not always be sequential or predictable, thus whilst prevention or early intervention is desirable, it will not always be possible.

Gaps in the literature and evidence base

Whilst there is a considerable body of evidence of the effects of alcohol consumption in the general population on individuals, families, communities and society at large, there is, to quote Age Concern:

> 'A dearth of evidence into older people's alcohol use and issues associated with this' [59].

The authors of the HDA briefing outlined in the previous section note the deficiencies of the evidence in this and other areas and make recommendation for both primary research and systematic reviews. Primary research, for example, is needed in a number of significant and relevant areas. They recommend further investigation of the cost effectiveness of both

[59] Age Concern (2003)

brief and extended brief interventions, evaluation of their effectiveness when delivered to minority ethnic groups and different socio-economic groups, and, we noted:

> 'Research is needed to evaluate the effectiveness of brief interventions in general practice delivered to older patients in the UK' [60].

The SIGN *Quick Reference Guide* (*QRG*) recommends that brief interventions should be delivered by GPs and other primary health care professionals and grades the evidence supporting the recommendation as 'A'. There is no mention in the *QRG* of how effective these may be in relation to different population sub-groups, such as older people, though this may be discussed in the full document.

With regard to relapse prevention, the Health Technology Board states (with particular reference to psychosocial interventions) that:

> 'The quality of evidence regarding effectiveness of interventions is not high. Most studies... are performed by skilled enthusiasts... they generally involve small, and necessarily unblinded, trials. The assumption that other specialists can consistently achieve similar results in everyday practice is not obviously justifiable' [61].

So there are some acknowledged gaps and deficiencies in the evidence base for alcohol-related services and interventions. Other topics of which we found little mention in the literature, but which we thought was critical to our study, include:

- how health and social care professionals perceive older people's drinking habits, in particular the levels of consumption that they regard as a problem, and how they respond to drinking at different levels *
- the structure of older people's days; how this changes and the effect of its pattern on older people's consumption of alcohol
- the impaction of different levels of alcohol consumption on the management of daily living and practical issues such as housing and finances
- how much people know about the impact of low to moderate amounts of alcohol on their health, well being and independence

[60] Waller, Naidoo and Thom (2002)

[61] Slattery et al (2003:1-4)

* Herring and Thom (1997) addressed some aspects of this, in particular how home carers responded to requests to buy alcohol.

- what people know about sources of help.

We explored these topics in the course of our fieldwork in Ayrshire and Arran. For a discussion of our findings please see the full report.

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Appendix: Demographic information from the 2001 census

Taken from Scottish Census Results OnLine: www.gov.uk/scrol/common/home.jsp

CAS002 Age by sex and marital status

All people

Geographical level : Council Areas - Summary for all areas East Ayrshire, North Ayrshire, South Ayrshire

	ALL PEOPLE			Males			Females		
	Total	Married or re-married	Single[1], separated, divorced or widowed	Total males	Married or re-married	Single[1], separated, divorced or widowed	Total females	Married or re-married	Single[1], separated, divorced or widowed
ALL PEOPLE	368149	157356	210793	175486	78848	96638	192663	78508	114155
0 - 15	71449	0	71449	36499	0	36499	34950	0	34950
16 - 19	17604	71	17533	8820	24	8796	8784	47	8737
20 - 24	18961	1027	17934	9458	311	9147	9503	716	8787
25 - 29	20656	5857	14799	10172	2502	7670	10484	3355	7129
30 - 34	26096	13233	12863	12379	6091	6288	13717	7142	6575
35 - 39	28423	17608	10815	13500	8457	5043	14923	9151	5772
40 - 44	26942	18147	8795	12842	8760	4082	14100	9387	4713
45 - 49	24745	17648	7097	12083	8778	3305	12662	8870	3792
50 - 54	27194	20067	7127	13431	10062	3369	13763	10005	3758
55 - 59	22813	17231	5582	11037	8616	2421	11776	8615	3161
60 - 64	20646	15164	5482	9865	7795	2070	10781	7369	3412
65 - 74	34695	21724	12971	15606	11707	3899	19089	10017	9072
75 - 79	12822	5783	7039	5188	3394	1794	7634	2389	5245
80 - 84	8307	2675	5632	2821	1627	1194	5486	1048	4438
85 - 89	4584	898	3686	1320	570	750	3264	328	2936
90 and over	2212	223	1989	465	154	311	1747	69	1678

CAS002 Age by sex and marital status

All people

Geographical level : Council Areas - East Ayrshire

	ALL PEOPLE			Males			Females		
	Total	Married or re-married	Single[1], separated, divorced or widowed	Total males	Married or re-married	Single[1], separated, divorced or widowed	Total females	Married or re-married	Single[1], separated, divorced or widowed
ALL PEOPLE	120235	51371	68864	57842	25804	32038	62393	25567	36826
0 - 15	23942	0	23942	12282	0	12282	11660	0	11660
16 - 19	5750	26	5724	2851	12	2839	2899	14	2885
20 - 24	6233	357	5876	3169	117	3052	3064	240	2824
25 - 29	7233	2232	5001	3620	976	2644	3613	1256	2357
30 - 34	9075	4717	4358	4336	2200	2136	4739	2517	2222
35 - 39	9462	5920	3542	4592	2883	1709	4870	3037	1833
40 - 44	8789	5957	2832	4185	2864	1321	4604	3093	1511
45 - 49	7845	5717	2128	3884	2877	1007	3961	2840	1121
50 - 54	8855	6621	2234	4424	3371	1053	4431	3250	1181
55 - 59	7184	5490	1694	3503	2754	749	3681	2736	945
60 - 64	6532	4801	1731	3103	2455	648	3429	2346	1083
65 - 74	10853	6771	4082	4917	3641	1276	5936	3130	2806
75 - 79	3946	1703	2243	1586	1002	584	2360	701	1659
80 - 84	2535	787	1748	865	476	389	1670	311	1359
85 - 89	1368	222	1146	386	143	243	982	79	903
90 and over	633	50	583	139	33	106	494	17	477

CAS002 Age by sex and marital status

All people

Geographical level : Council Areas - North Ayrshire

	ALL PEOPLE			Males			Females		
	Total	Married or re-married	Single[1], separated, divorced or widowed	Total males	Married or re-married	Single[1], separated, divorced or widowed	Total females	Married or re-married	Single[1], separated, divorced or widowed
ALL PEOPLE	135817	56107	79710	64238	28077	36161	71579	28030	43549
0 - 15	27217	0	27217	13897	0	13897	13320	0	13320
16 - 19	6772	25	6747	3374	5	3369	3398	20	3378
20 - 24	7193	417	6776	3486	123	3363	3707	294	3413
25 - 29	7611	2066	5545	3651	890	2761	3960	1176	2784
30 - 34	9724	4795	4929	4511	2188	2323	5213	2607	2606
35 - 39	10585	6341	4244	4913	3041	1872	5672	3300	2372
40 - 44	9815	6479	3336	4658	3158	1500	5157	3321	1836
45 - 49	9128	6362	2766	4384	3143	1241	4744	3219	1525
50 - 54	10012	7253	2759	4887	3582	1305	5125	3671	1454
55 - 59	8299	6151	2148	4014	3078	936	4285	3073	1212
60 - 64	7603	5499	2104	3662	2875	787	3941	2624	1317
65 - 74	12319	7504	4815	5500	4061	1439	6819	3443	3376
75 - 79	4348	1924	2424	1736	1141	595	2612	783	1829
80 - 84	2863	906	1957	955	548	407	1908	358	1550
85 - 89	1558	302	1256	441	192	249	1117	110	1007
90 and over	770	83	687	169	52	117	601	31	570

CAS002 Age by sex and marital status

All people

Geographical level : Council Areas - South Ayrshire

	ALL PEOPLE			Males			Females		
	Total	Married or re-married	Single[1], separated, divorced or widowed	Total males	Married or re-married	Single[1], separated, divorced or widowed	Total females	Married or re-married	Single[1], separated, divorced or widowed
ALL PEOPLE	112097	49878	62219	53406	24967	28439	58691	24911	33780
0 - 15	20290	0	20290	10320	0	10320	9970	0	9970
16 - 19	5082	20	5062	2595	7	2588	2487	13	2474
20 - 24	5535	253	5282	2803	71	2732	2732	182	2550
25 - 29	5812	1559	4253	2901	636	2265	2911	923	1988
30 - 34	7297	3721	3576	3532	1703	1829	3765	2018	1747
35 - 39	8376	5347	3029	3995	2533	1462	4381	2814	1567
40 - 44	8338	5711	2627	3999	2738	1261	4339	2973	1366
45 - 49	7772	5569	2203	3815	2758	1057	3957	2811	1146
50 - 54	8327	6193	2134	4120	3109	1011	4207	3084	1123
55 - 59	7330	5590	1740	3520	2784	736	3810	2806	1004
60 - 64	6511	4864	1647	3100	2465	635	3411	2399	1012
65 - 74	11523	7449	4074	5189	4005	1184	6334	3444	2890
75 - 79	4528	2156	2372	1866	1251	615	2662	905	1757
80 - 84	2909	982	1927	1001	603	398	1908	379	1529
85 - 89	1658	374	1284	493	235	258	1165	139	1026
90 and over	809	90	719	157	69	88	652	21	631

Note: 'Single' is never married.