

Older people and alcohol

Introduction

The older population is the fastest growing segment of the European Union. The number of people aged 65 years and older is estimated to increase from 86.8 million in 2010 to 122.5 million in 2030. The number of people over 80 years of age is estimated to increase from 23.3 million in 2010 to 36 million in 2030. Average life expectancy has risen by five years for women (to 81 years) and four years for men (to 76 years) since 1960, and will continue to rise in the coming decades (European Commission, 2009). These changes will have an enormous impact on European society. An older population typically increases the overall health burden and poses many challenges for public health policymakers. Demographic shifts have been paralleled by improvements in average disposable incomes and the buying power of many older Europeans, which generally lead to increases in alcohol consumption, although it is likely that future cohorts of older people will experience less prosperity. The ageing of the European population means that over the coming years, the absolute number of older EU citizens with alcohol-use disorders is likely to rise and the impact of these changes must be considered.

Alcohol pharmacokinetics

There are two pharmacokinetic processes that might lead to older people being more susceptible to the impact of consumed alcohol than younger people (Ferreira & Weems 2008): first, due to reduced degradatory activity in the stomach of older people, more alcohol may be absorbed for each given intake; and, second, due to on average reduced body water, higher blood alcohol concentrations may be achieved in older people. Although the extent of these processes and their health importance are not fully known, they might imply that guidelines which describe risk in relation to alcohol consumption conclude that lower guidelines are more appropriate for older as opposed to younger adults.

Alcohol use by older people

A comprehensive review of alcohol consumption amongst elderly European Union citizens published in 2009 and reviewing data from the Czech Republic, Germany, Finland, Italy, Latvia, Poland, Spain, Sweden and the United Kingdom suggested that there were some increases in alcohol consumption in older people in some European countries, but it was difficult to say that this was a large, consistent or worrying trend in terms of drinking rates, volume of consumption or risky patterns of drinking, all of which were substantially lower than in the middle aged population (Hallgren et al 2009). There was no evidence of disproportionate changes in the drinking of older people compared with that of younger people. That is, any trends in the volumes and patterns of drinking amongst older people mirrored those of the population as a whole.

A large study in the United Kingdom of people aged 75 years or more (Hajat et al 2004) found that that heavy drinking and the problems associated with such behaviour, was rare among people aged 75 years or more. Overall, about 10% of the cohort drank between 7 and 13 drinks in the week, and very few people drank more than this. Only 5% of men and 2.5% of women drank more than 210g for men and 140g for women per week. Drinking decreased linearly with increasing age.

The GENACIS project reported in 35 countries worldwide including eleven EU countries, that the prevalence of current drinking did not decline with increasing age amongst the majority of studies undertaken during the early 2000s, with still very high proportions of drinkers amongst those aged 50-65 years (Wilsnack et al 2009); high frequency drinking (≥ 5 days/week) tended to increase with

age; and high volume drinking (> 23g/day) did not regularly decrease with age, and often increased with age certainly for men and most likely for women. Although episodic heavy drinking (≥ 60 g in a day in preceding 12 months) tended to decrease with age, still a very high proportion of those aged 50-65 years engaged in this activity. Whether or not the cohorts of heavier drinking middle age people continue to drink more heavily as they age remains to be seen.

Alcohol-related harm in older people

The review of alcohol consumption amongst elderly European Union citizens published in 2009 and referred to above also suggested that there were some increases in alcohol-related hospital admissions and alcohol-related deaths in older people, usually paralleling changes in alcohol consumption (Hallgren et al 2009). But, as with changes in alcohol consumption, it seemed that any trends amongst older people mirrored those of the population as a whole.

An illustration of this is changes in alcohol-related deaths (which include causes regarded as most directly due to alcohol consumption) in the United Kingdom over the period 1992-2008 (National Statistics Online 2010). Two-thirds of the deaths occurred amongst men, and over four-fifths were due to alcoholic liver diseases and fibrosis and cirrhosis of the liver, conditions with usually a long time course. For men, the most marked increases occurred in the age group 55-74 years, with a stable or only slightly increasing trend in those 75 years and older.

In a comprehensive analysis, Jones et al (2008) estimated deaths in the United Kingdom, also including conditions that are partially due to alcohol. For both men and women, the estimated highest number of deaths from wholly alcohol-attributable conditions occurred in the age ranges 45-64 years, and was quite small amongst those dying at age 75 years or more, Figures 1-2. In the older age ranges, the estimated number of deaths from the partially attributable conditions became more important. However, this may be due to methodological artefact. Such conditions (cancers and cardiovascular diseases) are more common amongst older people, and even small relative risks and attributable fractions for such conditions will increase estimates of the number of deaths. We do not have good estimates of relative risks and attributable fractions amongst older people, but they are likely to be considerably lower than such estimated for younger adults. Thus, applying estimates derived from younger populations is likely to inflate the number of partially attributable deaths. Figures 1-2 also show that, although in absolute numbers, there were an estimated higher numbers of alcohol-related deaths in older people, the proportion of all deaths that are alcohol-related declined with age. The estimated top three causes of alcohol-related deaths amongst older people included liver diseases, malignant neoplasms and cardiovascular diseases, conditions for which there tend to be long durations between consumption and outcome, and long durations for benefit to accrue following reductions in alcohol-consumption (Rehm et al 2007).

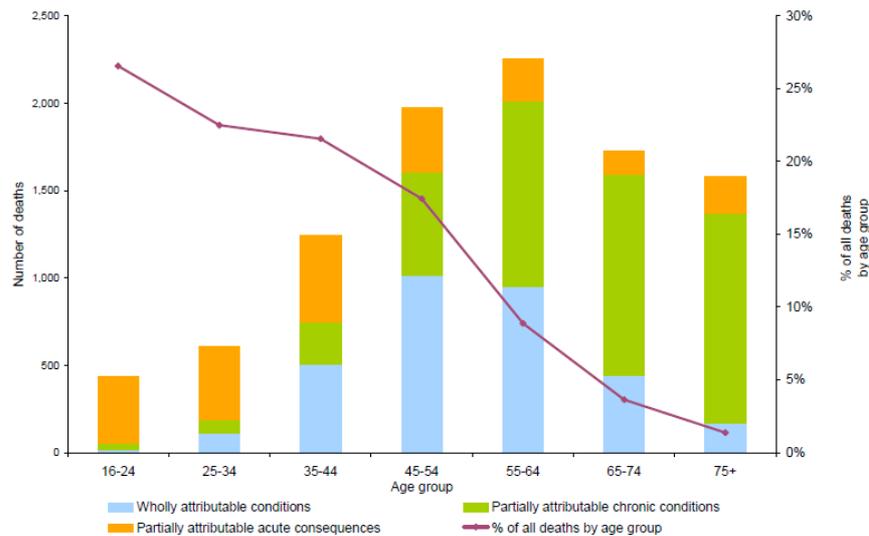


Figure 1 Estimated number (% of all deaths in each age group) of UK male deaths attributable to alcohol consumption by age and type of condition (2005). Source: Jones et al (2008).

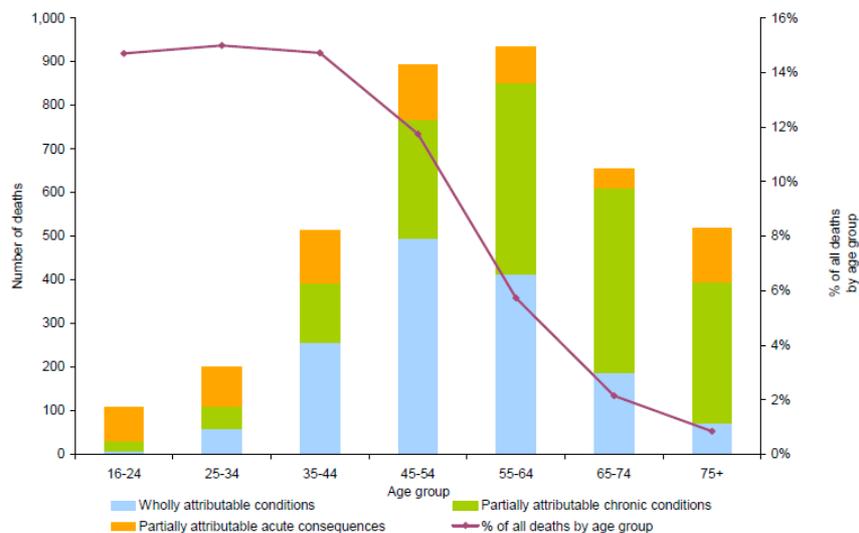


Figure 2 Estimated number (% of all deaths in each age group) of UK female deaths attributable to alcohol consumption by age and type of condition (2005). Source: Jones et al (2008).

Alcohol and well-being

A number of cross sectional studies and longitudinal studies suggest that, compared with not drinking and heavier drinking, light or moderate drinking (10-20g alcohol a day) might improve the quality of life amongst older people. However, whether or not or the extent to which this is due to other factors is not known: compared with older non-drinkers, older lighter drinkers may just simply be healthier, wealthier and better socially integrated people.

In the UK study mentioned above, never and ex-drinkers were less likely to live with a spouse and more likely to live alone or with other people compared with drinkers (Hajat et al 2004). Drinkers

were also more likely to have contact with other people. Never and ex-drinkers were less likely to be home-owners, whereas those that drank were more likely to be home-owners. Never drinkers were likely to be the most deprived and those that drink in moderation were likely to be the most affluent. A clear gradient was observed with current drinking being more common amongst those who were not cognitively impaired. When subjects were asked about whether they had difficulties undertaking everyday activities such as cooking, washing and walking, again the two drinking groups were less likely to answer yes. Drinkers were also less likely to have had falls, more likely to have a good perception of their general health, and more likely to consider themselves physically active.

Lang et al (2007) reported on the results of two similar longitudinal studies that followed up 13,333 individuals aged 65 and older for 4 to 5 years, studying functioning and mortality at follow-up compared with alcohol consumed at baseline - the Health and Retirement Study (HRS) from the US and the English Longitudinal Study of Aging (ELSA). Those drinking one to two drinks a day functioned just as well and were no more likely to die than those drinking more than none to one drink per day.

Alcohol and health

Alcohol increases the risk of cancers, neuropsychiatric conditions, gastrointestinal conditions, infectious diseases and injuries in a dose-dependent manner with no level of consumption risk free (Rehm et al 2009). For some cardiovascular conditions (for example ischaemic heart disease and ischaemic stroke), alcohol has a bifurcated relationship with low doses decreasing the risk and high doses increasing the risk, whereas for other cardiovascular conditions (for example, hypertension and haemorrhagic stroke), alcohol increases the risk on a dose dependent manner. Amongst older people, there are mixed findings for many conditions. Some studies find that alcohol increases the risk of low bone mineral density, falls and fractures, whereas others do not (Reid et al 2002; Papaioannou et al 2009). There is some evidence that alcohol reduces the risk of dementia and Alzheimer's disease, but not vascular dementia or cognitive decline (Peters et al 2008). Also, amongst older people, alcohol appears to reduce the risk of coronary heart disease (although the size of the protective effect may be overestimated), as well as reducing the risk of lower extremity arterial disease (Goldberg et al 2001). Alcohol appears to reduce the risk of type 2 diabetes, and increase the risk of macular degeneration. Although alcohol theoretically interacts with a range of prescribed medicines, there is little evidence to demonstrate that this is a real experienced significant risk (Moore et al 2007).

Compared with non-drinkers, the use of alcohol by older people appears to reduce the risk of death over five to ten year follow-up periods. Data from longitudinal studies in six European countries found that any alcohol use was protective of the risk of death amongst older people followed up for five years (hazard ratio, 0.81(95% CI, 0.71-0.93) (Noale et al 2005). Similar findings were apparent for a ten year follow-up in another study of eleven European countries (Hazard ratio, 0.78, 95%CI, 0.67-0.91). (Knoops et al 2004). The extent to which this is due factors other than alcohol itself is not known.

Alcohol policy and older people

Although there is a very strong evidence base for the impact of a range of alcohol policies, none of these have been specially evaluated with respect to their differential impact on older people (WHO 2009). Of the known effective alcohol policies summarized, the policy option that is likely to have the biggest impact on older people is price. Increasing the price of alcohol relative to other goods

and disposable income reduces alcohol consumption, heavy drinking, alcohol dependence and the chronic conditions related to the use of alcohol, such as liver cirrhosis (Anderson et al 2009).

Individually directed interventions and older people

Although there is an extensive evidence base for the impact of early identification and brief intervention programmes in reducing hazardous and harmful alcohol consumption and their sequelae amongst adults, very few studies have particularly investigated older people (NICE guidance 2009). However, those studies that have investigated older people suggest identification and screening instruments work just as well for older as opposed to younger adult populations, and that outcomes of brief interventions do not differ between older and middle-aged populations.

Conclusions

It is difficult to say that older people are a particular or special at risk group with respect to alcohol. Average life expectancy is rising and the number of older Europeans will increase enormously over the coming years. These people are the present middle age, who have high levels of both frequency and volume of drinking (Anderson 2009). The middle aged are also the group of people with the highest levels of wholly attributable alcohol related hospitalization and death. To prevent burgeoning alcohol-related problems amongst older people over the coming twenty years, it is important to target policy on the present middle age, which will also have an immediate impact in reducing alcohol-related hospitalizations and deaths. Further, many alcohol-related conditions, and in particular cancers, have a long latency period in terms of both cause and reduction in risk. Thus, if one wishes to prevent an increase in alcohol-related cancers in older people, action should also be taken on the middle-aged. From a policy perspective, actions that reduce the consumption of the middle aged, such as price increases or the delivery of early identification and brief advice programmes, will not only prevent problems for a future cohort of older people but, at the same time, reduce patterns of hazardous and harmful alcohol consumption amongst the existing cohort of older people.

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