ALCOHOL CONSUMPTION, LIFE COURSE TRANSITIONS AND HEALTH IN LATER LIFE

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Introduction

Older people tend to drink less than any other age group. However, in recent years British survey data on alcohol consumption has shown that while younger age groups have experienced a decline in the quantity and frequency of consumption, drinking behaviours among the elderly have not declined in the same way. This means that as the population is ageing, older people are responsible for a greater proportion of alcohol consumption. Yet relatively little is known about the (a) diversity of patterns of drinking in later life; (b) how drinking is associated with key socio-demographic characteristics and health conditions; (c) and how drinking changes over time and which life course events, such as retirement and partnership change, might influence this process. This research, funded by the Economic Social Research Council as part of the Secondary Data Analysis Initiative, explores these questions to improve understanding of drinking in later life and to inform possible interventions and guidelines targeting older people's drinking.

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ELSA English Longitudinal Study of Ageing

Methodology

The research project uses data from the English Longitudinal Study of Aging (ELSA). This is a representative, longitudinal study of English residents aged 45/50 and over[1]. For the purposes of this study we use data from wave 0 (carried out in 1998/99 and 2001), wave 4 (2008/9) and wave 5 (2010/2011). Cross-sectional (i.e. using one wave of data only) and longitudinal (using all three time points) analysis establishes the dynamics of drinking in later life. Additionally, a practice-informed methodology, developed in collaboration with the Beth Johnson Foundation, provides information from two focus groups to provide guidance for the statistical analysis and possible policy initiatives.

Main Findings

- Older men tend to drink more and to drink more often than women. For both men and women, those in higher income groups and with higher levels of education drink more and drink more frequently.
- Both the amount that older people drink and how often they drink declines over time, though the rate of decline in quantity and frequency varies according to health and partnership status.
- Men who are not in a partnership drink more compared to men with a partner, though there is no difference in the frequency of men's drinking by partnership status. For women loss of a partner is associated with a faster decline in weekly alcohol consumption and with drinking less often.
- Poorer self-rated health is associated with not drinking. Among drinkers, there is no evidence that a moderate amount of alcohol consumption improves health in later life compared to heavy drinking.
- Over time older people with poor health and deteriorating health report a steeper decline in the quantity and frequency of alcohol consumed. This finding suggests that older people moderate their drinking in response to health events.
- Those who stopped drinking at the start of the period of observation and remained in the study were more likely to experience an improvement in health compared to drinkers.

1 ELSA is a panel study of people living in England aged 45/50 and older. ELSA participants were selected from households who participated in the Health Survey for England (HSE - an annual, cross-sectional, nationally representative household survey) in the years 1998, 1999, and 2001, if aged 50 or older at the start of the fieldwork for ELSA wave 1 (March 2002 to March 2003). The three years of data from the HSE form wave 0 of ELSA. In this analysis we use data from wave 0 when some panel members were aged between 45 and 50. Participants were followed up every 2 years and six waves have been completed, the last wave in 2012/13.

Drinking patterns in later life

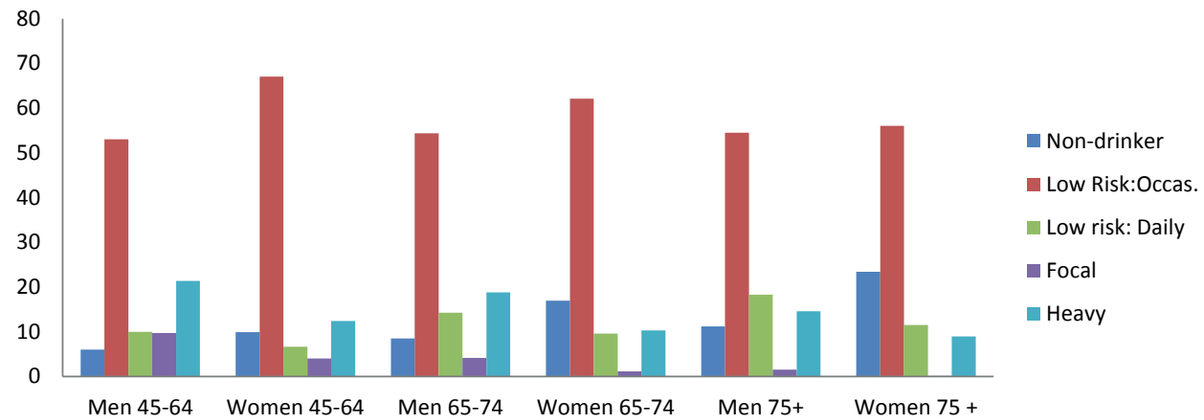
Drinking profiles were created to take into account both the ***amount*** and the ***frequency*** of alcohol consumed at wave 0. The measurement of quantity of alcohol consumed distinguishes between older people who drink above or below recommended thresholds. Cross-sectional analysis verifies that gender, age and indicators of social position (e.g. level of education, wealth) are the main determinants of different drinking behaviours.

Table 1: Percentage distribution of drinking profiles by gender, wave 0.

Drinking Variables			Drinking Profiles	% Respondents wave 0	
Drinking Status	Quantity of Alcohol[2]	Frequency of drinking		Men	Women
Non-drinker			*Non-Drinker*	7	14
Drinker	Below Recommended Limits (Men ≤21 units; Women≤ 14 units)	Occasional (≤ 4 days)	*Low Risk: Occasional Drinker*	54	64
		Daily (≥ 5days)	*Low Risk: Daily Drinker*	12	8
	Above Recommended Limits (Men > 21 units Women > 14 unit)	Occasional (≤ 4 days)	*Focal Drinker*	7	3
		Daily (≥ 5days)	*Heavy Drinker*	20	11

Base: ELSA wave 0 (years 1998, 1999 and 2001), 11205 respondents aged between 45 and 90.

Figure 1: Percentage Distribution of Drinking profiles by age and gender: wave 0.



Base: ELSA wave 0 (years 1998, 1999 and 2001), 11205 respondents aged between 45 and 90.

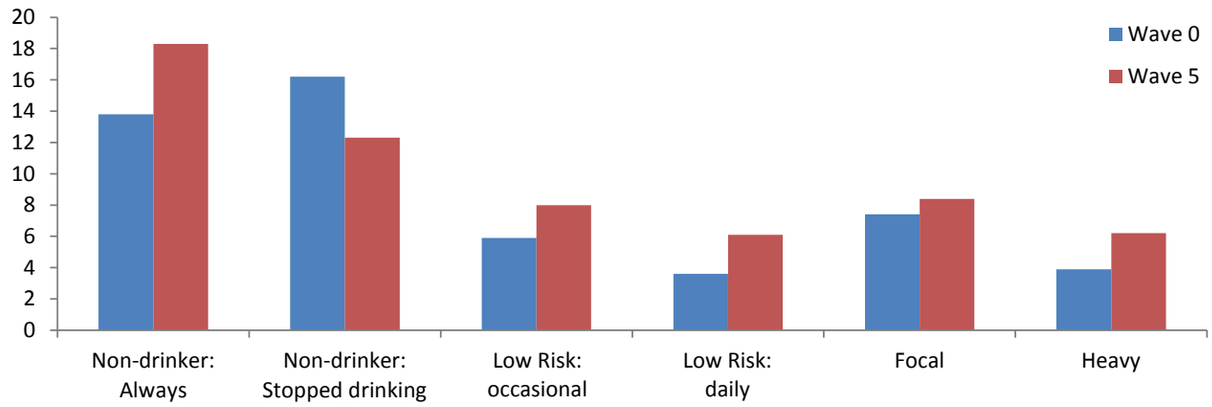
- The majority of respondents engage in low risk drinking behaviours. Across all age groups and for both men and women, 69% drink below the recommended weekly amount.
- At all age groups, men are more likely to be drinkers while women are more likely to be low risk, occasional drinkers. Men are more likely to be heavy drinkers.
- Among the oldest age groups there is a higher proportion of non-drinkers.

2 In the UK one alcohol unit is measured as 10ml or 8g of pure alcohol. This equals one 25ml measure of whisky (ABV 40%); one third of a pint of beer (ABV ≈5%) or half a standard (175ml) glass of red wine (ABV 12%).

Drinking and health in later life

Analysis of wave 0 and wave 5 data confirms that among drinkers the drinking profiles are not associated with self-rated health, and non-drinkers have worse self-rated health.

Figure 2: Percentage of drinking profiles with poor self-rated: wave 0 and wave 5.



Base: ELSA wave 0 and 5 (1998/99/01 and 2010/11) 5868 valid cases aged over 45 at wave 0 also present in wave 5.

- Poorer self-rated health is more common among non-drinkers: in wave 0 it is highest among those who have stopped drinking, followed by those who have never consumed alcohol.
- There is a decline from wave 0 to wave 5 in the proportion of participants with poor self-rated among those who have stopped drinking. This suggests that stopping drinking is associated with improvement in health.
- Among drinkers, there is generally no association between drinking profiles and self-rated health.

Drinking behaviours over time: analysis of weekly consumption

We use the longitudinal data on alcohol consumption to model the numbers of weekly units drank at waves 0, 4 and 5 for drinkers at all three time points. The results of this model are used to compute the average number of units of alcohol consumed for a series of synthetic profiles at wave 0 (approximately year 2000) and at wave 5 (10 years later). The overall percentage decline in drinking is given for each profile. These synthetic profiles summarise the main findings from the longitudinal model.

Table 2: Average weekly units consumed for synthetic profiles of older people.

Pauline:		**Pearl:**		**Doreen:**		**Dorothy:**	
Age 60 (wave 0) In partnership Retired Good health Some qualifications Non-smoker Average Wealth		Age 80 (wave 0) Widowed Retired Not in good health No qualifications Non-smoker Lowest wealth group		Age 50 (wave 0) In partnership Working Good health University degree Former smoker Highest wealth group		Age 60 (wave 0) *During 10 year period:* • Loses partner • Retires • Health deteriorates A level qualifications Non-smoker Above average wealth	
Weekly Units Age 60	**Weekly Units Age 70**	**Weekly Units Age 80**	**Weekly Units Age 90**	**Weekly Units Age 50**	**Weekly Units Age 60**	**Weekly Units Age 60**	**Weekly Units Age 70**
3.95	**3.50 (11%)**	**3.43**	**2.92 (15%)**	**11.92**	**10.18 (15%)**	**5.84**	**4.54 (22%)**
Paul: Age 65 (wave 0) In partnership Retired Good health Some qualifications Non-smoker Average Wealth		**Peter**: Age 80 (wave 0) Widowed Retired Not in good health No qualifications Non-smoker Lowest wealth group		**Duncan:** Age 50 (wave 0) *During 10 year period:* • Gets married Working Good health, University degree Former smoker Highest wealth group		**Derek:** Age 60 (wave 0) *During 10 year period:* • Loses partner • Retires • Health deteriorates A level qualifications Non-smoker Above average wealth	
Weekly Units Age 65	**Weekly Units Age 75**	**Weekly Units Age 80**	**Weekly Units Age 90**	**Weekly Units Age 50**	**Weekly Units Age 60**	**Weekly Units Age 60**	**Weekly Units Age 70**
6.75	**5.76 (15%)**	**7.47**	**6.04 (19%)**	**33.80**	**28.0 (17%)**	**7.76**	**6.81 (12%)**

Base: ELSA wave 0, 4 and 5 (1998/99/01 and 2008/09, 2010/11) drinkers only, 3610 valid cases aged over 45 at wave 0 and present in all 3 waves.

- The 'Duncan' profile drinks the most at both time points and is the only profile to exceed the weekly recommended amount. This confirms the association between high wealth and education and greater alcohol consumption, but also that for men being out of a relationship for a period of time is associated with drinking more.
- For women 'Pearl' has the lowest alcohol consumption at both time points, confirming how poverty and increasing age for women are associated with lower consumption. For men the 'Paul' profile has the lowest consumption, this is the only profile for men who

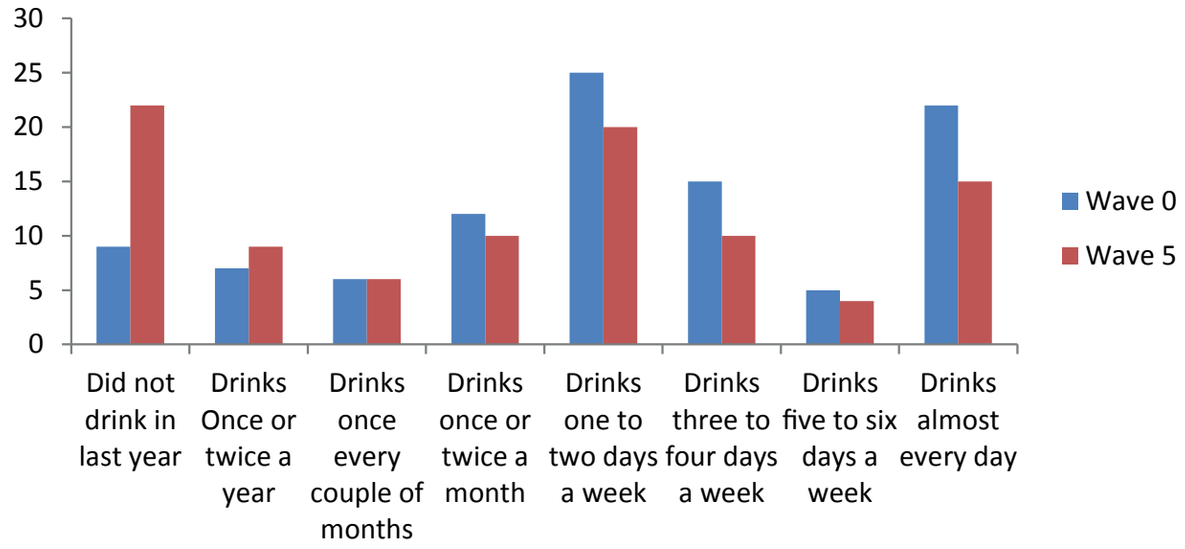
remain married over the time period and illustrates how being married (and staying married) is associated with lower consumption for men.

- For women the profile with the largest decline in drinking over time is Dorothy. This is associated with both loss of a partner and deterioration in health. In contrast the Derek profile, which has the same life course experiences as Dorothy, has the smallest decline in drinking. This can be explained by the different impact of partnership change on the drinking behaviours of men and women. For women loss of a partner (either separation or widowhood) is associated with a faster decline in drinking, for men loss of a partner slows down the decline in drinking over time. For both men and women the impact of deteriorating health is similar and is associated with a steeper decline in alcohol consumption.
- For men employment status is not associated with changes in drinking behaviours, though retired women drink less.

Drinking behaviours over time: analysis frequency of drinking

The longitudinal data are also used to model the frequency of drinking over time. This model uses a variable of frequency of drinking over the last year and the distribution of this variable in waves 0 and 5 is shown in figure 3. This illustrates that there is a shift towards non-drinking between waves 0 and 5 and that there is an overall decline in drinking more than once a week.

Figure 3: Percentage distribution of drinking frequency waves 0 and 5.



Base: ELSA wave 0 and 5 (1998/99/01 and 2010/11) 4740 valid cases aged over 45 at wave 0 also present in wave 5.

The model explores whether the socio-demographic characteristics and life course events of older people are associated with different frequencies of drinking at wave 0 and how this changes in wave 4 and 5. The following table summarises the model results, a ⬆ indicates that the category is associated with drinking more frequently than the reference category, a ⬇ indicates that the category is associated with drinking less frequently. The number of arrows indicates the significance: ⬆⬆ indicates 95% significance, ⬆ indicates 90% marginal significance. If a cell is blank this indicates that there is no significant association. For simplicity we do not include all the results of the model in the table, we have selected the variables that are of most interest.

Table 3: Summary of results of longitudinal model of frequency of drinking

Variable	Men	Women
Time (continuous variable)	⬇⬇	⬇⬇
Partnership status		
Reference: Always in partnership		
Always out of partnership		
Enters into partnership between waves		
Partnerships ends between waves		
Employment status		
Reference: Always in work		
Always retired		⬆⬆
Transition to retirement between waves		
Health:		
Reference always in good health		
Always in poor health	⬇⬇	⬇⬇
Health worsens between waves		
Health improves between waves	⬇⬇	⬇⬇
Wealth Quintile		
Reference category: Bottom Quintile		
2nd Quintile	⬆⬆	⬆⬆
3rd Quintile	⬆⬆	⬆⬆
4th Quintile	⬆⬆	⬆⬆
5th Quintile	⬆⬆	⬆⬆
Education:		
Reference: No qualifications		
Some qualifications		⬆⬆
A-level or equivalent	⬆⬆	⬆⬆
Degree	⬆⬆	⬆⬆

Base: ELSA wave 0, 4 and 5 (1998/99/01 and 2008/09, 2010/11): 4740 valid cases aged over 45 at wave 0 and present in all 3 waves.

- There is a marked decline in the frequency of drinking over time.
- Partnership has no impact on the frequency of drinking for men. This can be contrasted with the finding from the analysis of the number of units consumed for which partnership is significant and suggests that for older men being in a partnership makes a difference to the amount that they drink, but not how often. For women further analysis (not shown above) suggests that over time women who are not in a partnership experience a faster decline in the frequency of drinking.
- Those in poor health drink less frequently, this includes respondents whose health improves between the waves.
- Wealth and education are very strong predictors of frequency of drinking and older people who drink less often are more likely to be poorer and less well-educated.

Policy Implications

- Older people are reducing the amount that they drink over time, and many are stopping drinking altogether. This is often associated with poor health. This suggests that older people are moderating their drinking if their health declines.
- There is no evidence that a small amount of alcohol consumption is associated with better health outcomes compared to heavy drinking. The message that moderate drinking is good for you is not supported by this analysis. Furthermore for this sample we did not find that excessive drinking causes a deterioration of health in later life.
- Those at most risk of drinking in excess and drinking most frequently are well educated and have high wealth. This is a concern particularly as the prosperity of older people improves then this may lead to more people drinking excessively in later life. This group of successful older people could be resistant to public health messages.
- Partnership makes a difference to how much older people drink though this differs for men and women. For women the end of a partnership (either separation or widowhood) is associated with drinking less and drinking less often, for men being out of a partnership increases alcohol consumption. The social context of drinking is important and advice about drinking needs to be sensitive to partnership status.
- Those who stopped drinking were more likely to experience an improvement in health compared to drinkers so cessation may be recommended for older people in poor health.

Limitations

- This analysis was carried out using ELSA. Though this is a representative sample of older people in England in wave 0 it does not include many cases of older people who are alcohol dependent. This analysis does not focus on very hazardous drinking
- The sample is subject to attrition over time; however there is no differential in the attrition between waves 0 and 5 for the different drinking profiles of drinkers, the main bias is that there is greater attrition for non-drinkers in wave 5.

The Research Team

This research was carried out by Clare Holdsworth (Principal Investigator), Marina Mendonça and Martin Frisher from Keele University and Nicola Shelton, Hynek Pikhart and Cesar de Oliveira from University College, London.

For further information see the project web site at **www.keele.ac.uk/drinkinglaterlife**
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