

## Introduction

Research on alcohol and sexual behaviour has largely focused on adolescents and young adults or selected high-risk groups, showing alcohol use contributing to riskier sexual choices.

Adults now in their late thirties have been exposed to normalised heavy drinking when young, and effects of alcohol use on sexual well-being later in adulthood are largely unknown.

## Aims

To examine, for men and women separately:

1. Self-reported use of alcohol in relation to sexual activity and perceived consequences of that use,
2. Cross-sectional associations of heavy drinking occasion (HDO) frequency with self-reported alcohol involvement in sex,
3. Associations of heavy drinking frequency with partner numbers, sexually transmitted infections (STIs) and terminations of pregnancy (TOPs),
4. Whether associations of heavy drinking with these three outcomes have changed since the 26-32 year old period of the same cohort.

## Methods

Members of the Dunedin Study birth cohort answered computer-presented questions about sexual behaviour and outcomes, and interviewer-administered alcohol consumption questions, at age 26, 32 and 38 years.

Study members who self-identified as heterosexual and reported only or mostly opposite sex sexual experiences were included in the analyses reported here. Heavy drinking frequency was chosen as the alcohol pattern measure because the presumptive mechanisms relate to intoxication.

## Results

The response level was >90% at each assessment (n=936 at age 38 years)

### In the past 12 months

	Men	Women
<b>How often did you or your sexual partner drink alcohol before or during sex?</b>	%	%
Never	19.6	15.9
Rarely	30.3	29.7
Sometimes	41.9	39.8
Usually/always	8.2	14.6
<b>Who usually drank alcohol before or during sex?</b>		
Self only	17.5	8.3
Partner only	5.1	11.8
Both	77.4	79.9
<b>Have you used alcohol to make it easier to have sex?</b>	6.3	13.9
<b>Sex without contraception (when pregnancy not wanted) due to own drinking</b>	8.3	7.1
due to partner's drinking	7.3	6.9
<b>Sex without a condom to protect against an STI due to own drinking</b>	7.9	7.6
due to partner's drinking	4.8	6.3
<b>Sex that you later regretted</b>	7.0	5.7

## Results

At 38, almost half of participants reported they or their partner drank alcohol before sex 'rarely' or 'never', while 8.2% of men and 14.6% of women reported drinking 'usually' or 'always'. Unwanted consequences were reported by 13.5% of men and 11.9% of women, including regretted sex or failure to use contraception or condoms.

Women who were frequent heavy drinkers were more likely to 'use alcohol to make it easier to have sex' and regret partner choice.

### Associations of HDO frequency with alcohol involvement in sex in the past year

	Men adj OR* (95% CI)	Women adj OR* (95% CI)
<b>Usually/always drank alcohol before sex (either partner)</b>		
Monthly to <weekly HDOs	2.12 (0.76,5.91)	3.50 (1.63,7.50)
Weekly+ HDOs	5.46 (2.26,13.23)	12.31 (5.16,29.37)
<b>Used alcohol to make it easier to have sex</b>		
Monthly to <weekly HDOs	1.97 (0.60,6.47)	3.31 (1.43,7.69)
Weekly+ HDOs	1.97 (0.58,6.72)	2.83 (1.04,7.67)
<b>Sex without contraception (when pregnancy not wanted) due to own drinking</b>		
Monthly to <weekly HDOs	1.69 (0.49,5.87)	1.52 (0.50,4.64)
Weekly+ HDOs	3.20 (1.01,10.15)	1.01 (0.26,3.94)
<b>Sex without contraception (when pregnancy not wanted) due to partner's drinking</b>		
Monthly to <weekly HDOs	1.21 (0.39,3.78)	1.36 (0.42,4.42)
Weekly+ HDOs	0.97 (0.27,3.43)	2.53 (0.76,8.42)
<b>Sex without a condom to protect against an STI due to own drinking</b>		
Monthly to <weekly HDOs	0.92 (0.30,2.85)	1.10 (0.28,4.43)
Weekly+ HDOs	1.23 (0.41,3.71)	3.26 (0.88,12.12)
<b>Sex without a condom to protect against an STI due to partner's drinking</b>		
Monthly to <weekly HDOs	0.77 (0.17,3.51)	1.22 (0.31,4.80)
Weekly+ HDOs	1.26 (0.29,5.44)	3.65 (1.04,12.82)
<b>Sex that respondent later regretted due to own drinking</b>		
Monthly to <weekly HDOs	3.37 (0.80,14.25)	3.12 (0.68,14.30)
Weekly+ HDOs	5.39 (1.37,21.25)	5.89 (1.23,28.30)

\*Adjusted for relationship status, SES, and parenting of biological children under 6 years old.

Heavy drinking frequency was strongly associated with partner numbers for men and women at 32, but only for women at 38. Significantly higher odds of STIs amongst the heaviest drinking men, and TOPs among the heaviest drinking women were seen at 32-38.

### Associations of HDO frequency with partner numbers, STI and TOP at 32 and 38

	Men adj OR*(95% CI)	Women adj OR*(95% CI)
<b>3+ sexual partners in past year (age 32)</b>		
Monthly to < weekly HDOs	2.71 (1.37,5.34)	4.15 (1.64,10.50)
Weekly+ HDOs	4.26 (2.09,8.67)	9.43 (3.00,29.64)
<b>3+ sexual partners in past year (age 38)</b>		
Monthly to < weekly HDOs	1.38 (0.66,2.93)	1.69 (0.55,5.23)
Weekly+ HDOs	1.44 (0.70,2.96)	4.05 (1.16,14.16)
<b>Sexually transmitted infection (age 26-32)</b>		
Monthly to < weekly HDOs	1.13 (0.59,2.15)	1.35 (0.75,2.44)
Weekly+ HDOs	0.76 (0.40,1.45)	1.36 (0.68,2.75)
<b>Sexually transmitted infection (age 32-38)</b>		
Monthly to < weekly HDOs	1.12 (0.43,2.90)	0.87 (0.39,1.92)
Weekly+ HDOs	2.37 (1.04,5.39)	1.57 (0.69,3.59)
<b>Termination of pregnancy (age 26-32)</b>		
Monthly to < weekly HDOs	1.56 (0.59,4.11)	1.33 (0.62,2.85)
Weekly+ HDOs	1.61 (0.64,4.01)	0.85 (0.32,2.31)
<b>Termination of pregnancy (age 32-38)</b>		
Monthly to < weekly HDOs	2.03 (0.57,7.21)	0.36 (0.08,1.72)
Weekly+ HDOs	1.67 (0.47,5.95)	3.81 (1.47,9.90)

\*adjusted for relationship status and SES from the relevant period

## Conclusions

- Alcohol involvement in sex continues beyond young adulthood and is common at 38.
- The associations of alcohol with sex change with age and context.
- Alcohol use appears more closely related to these sexual behaviours and outcomes in women than men, and heavy drinking is associated with poorer outcomes for both.
- Improving sexual health and wellbeing throughout the life course needs to take account of the role of alcohol in sexual behaviour at all ages.