Supporting residents in Cambridgeshire who drink alcohol to follow UK lower risk drinking guidelines

Phase one report: Insight gathering and intervention recommendations

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Executive Summary

Sheffield Hallam University were commissioned by Cambridgeshire County Council and Peterborough City Council to undertake research to understand the barriers and facilitators for seven health behaviours.

In Cambridgeshire, we explored:

- Physical activity, Diet, Smoking in adults, Alcohol consumption, Uptake of NHS health checks, and Vaping in young people

In Peterborough, we explored:
- Uptake of routine childhood vaccinations

This report presents the findings from the alcohol workstream in Cambridgeshire. The findings for other health behaviours in Cambridgeshire and Peterborough are presented in separate reports.

The aim of was to:

- Identify the barriers and facilitators to risky drinking amongst adults in Cambridgeshire.
- Make recommendations for interventions that have the potential to address those identified needs.

Our approach

We used the Capability, Opportunity and Motivation – Behaviour (COM-B) [1,2] model to explore factors influencing risky drinking.

We conducted a survey and carried out interviews with residents in Cambridgeshire to explore the barriers and facilitators to risky drinking.

We conducted a rapid evidence review using the Behaviour Change Wheel (BCW) [1,2] to understand what types of interventions have been implemented to reduce alcohol intake amongst adults.

We then produced a heat map [3] to explore whether, and to what extent, existing interventions have the potential to address these identified barriers and facilitators.

Informed by the BCW, we made intervention recommendations to address those identified barriers.

We used the APEASE evaluation criteria [2] and the IN-CASE framework [4] to explore which intervention recommendations are likely to be acceptable, practical, effective, and affordable for residents to receive, and for Cambridgeshire County Council and/or wider stakeholders to deliver, and whether receiving and/or delivering these interventions are likely to result in unintended consequences or impact on inequalities.

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Key findings – local survey

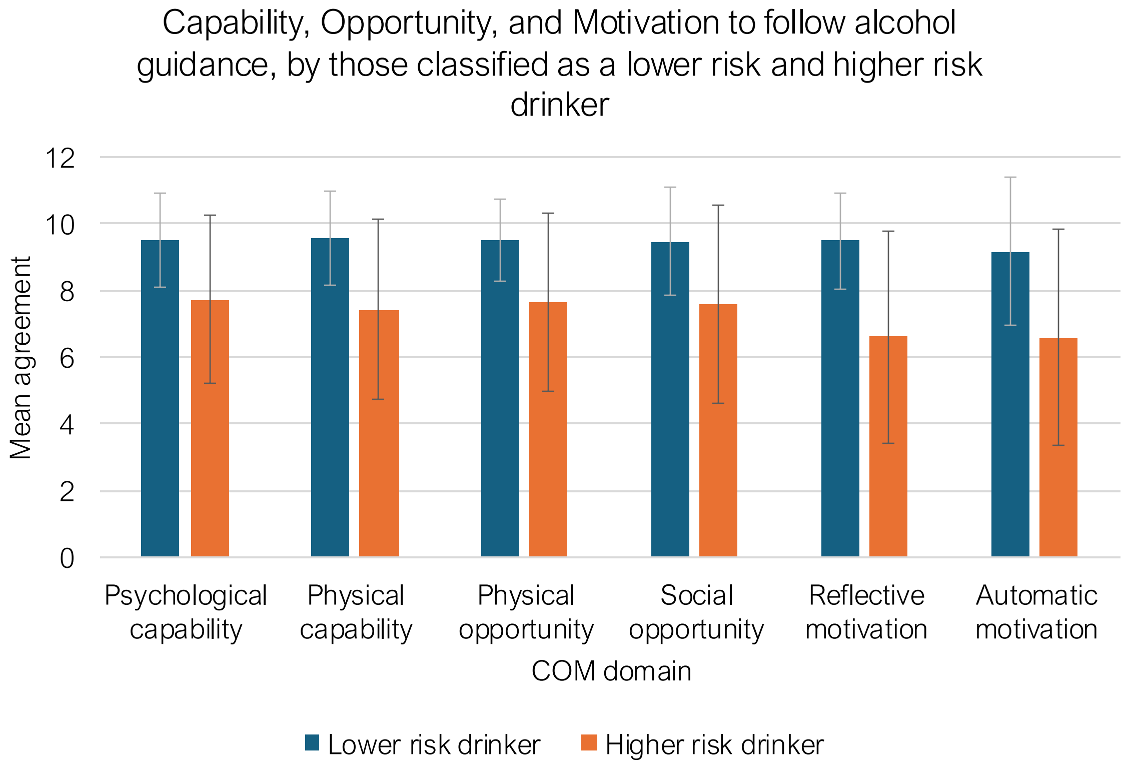
We surveyed 543 residents in Cambridgeshire who reported that they drank alcohol.

A considerable proportion of residents in Cambridgeshire who reported that they drink alcohol are drinking at risky levels. In total, 44.1% (226) of residents that we surveyed were classified as a higher risk drinker.

Those that are drinking at risky levels report weaker capability, opportunity, and motivation to follow UK alcohol guidelines (drinking no more than 14 units a week, spread across 3 days or more) and are less willing to access services.

Residents who are drinking at risky levels were more likely to be: younger, male, living in a moderately deprived area, live in Huntingdonshire, be unemployed, have no formal educational qualifications, are not living with a long-term health condition, and are living with a mental health condition.

Overall, there was a trend for residents from these key demographic groups to report weaker capability, opportunity, and motivation to follow UK alcohol guidelines.



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Key findings – interviews

We interviewed 9 residents of Cambridge who were drinking alcohol at higher levels than the guidance recommends. We identified key barriers (B) and facilitators (F) for drinking within the guidelines including:

- Not being sure about or having out of date knowledge about the alcohol guidelines (B)
- Monitoring alcohol consumption and having strategies to moderate consumption (F)
- Having difficulties in being able to respond to prompts to stop drinking once they had started (B)
- Believing that alcohol had positive effects, particularly being fun and helping them to relax (B)
- Believing that excessive alcohol consumption can have negative effects on health and social factors (F)
- Believing that the negative effects of alcohol consumption probably did not apply to them (B)
- Intending and having goals to moderate alcohol consumption or to cut down (F)
- Believing that reducing alcohol consumption is difficult, particularly in social situations (B)

But health benefits, apart from a hangover and stuff- I know everyone says it's bad for you, but **unless you're a complete alcoholic, I don't see that much negatives.** I know they keep banging on about it in the press, but- I don't know. (P9)

No. I've always had a difficult off switch when I start. You know, every drink I have the more I want the next one (P7)

So if I've drunk in the week I will make sure I have another day that I don't drink. For example I drank on Monday this week because I went out. I wouldn't normally drink on a Monday so I would not drink another night in the week (P4)

Not if things carry on as they do, and I think I would if I, if it did become a problem I'd be aware of it, I would, but I can't see it becoming a problem (P3)

Key findings – rapid evidence review

We conducted a rapid evidence review of 9 interventions to identify what types of interventions have been implemented to reduce alcohol intake in adults.

All interventions were conducted after the introduction of the UK Chief Medical Officer (CMO) lower risk drinking guidelines, which advise that for both men and women, it is safest not to drink more than 14 units per week, spread over three or more days, and to have several alcohol-free days each week [5].

We identified five types of interventions:

- Education (used in 8 interventions) - intervention components that aimed to increase knowledge or understanding to support alcohol reduction.
- Persuasion (used in 8 interventions) - intervention components that used methods of persuasive communication to support alcohol reduction.
- Training (used in 2 interventions) – intervention components that impart skills to support alcohol reduction.
- Enablement (used in 3 interventions) – intervention components that increase facilitators or reduce barriers to support alcohol reduction, beyond education, training, or environmental restructuring.
- Environmental restructuring (used in 1 intervention) – intervention components that aimed to change the physical or social environment to support alcohol reduction.

Few interventions have focused on reducing alcohol consumption in adult (not student) populations since the publication of the CMO lower risk drinking guidelines.

There is limited evidence that interventions to reduce alcohol consumption are effective, with mixed findings for health warning messages (primarily education about the health risks of alcohol consumption and persuasion about the level of risk and impacts on health), and limited success for digital/web-based interventions.

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Heatmap

We identified whether 10 published interventions have the potential to address each of the identified barriers and facilitators for drinking alcohol within the guidelines

No intervention that we evaluated addressed all of the barriers for drinking alcohol within the guidelines

The most common interventions used in the published literature were **information about health consequences and salience of consequences**. While these are likely to be important our interview findings suggest that while people knew about health consequences and their severity, they thought these consequences were only relevant for people drinking at much higher levels that they were.

Other common interventions in the published literature were **information about social and environmental consequences**. While providing drinkers with further information about possible outcomes is likely useful, it did not address the issue that most participants enjoyed drinking and were not planning to change as long as they did not perceive personal risks of these negative outcomes.

None of the published interventions had techniques in place to address **optimism** and to enable people to **self-identify as someone drinking at unsafe levels**. There were also limited behavioural regulation techniques included to **support efforts to cut down and to drink within the guidelines**, especially in social situations, and where the effects of alcohol may limit the ability of people to stick to their goals.

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Our recommendations

Intervention recommendation 1:
INCREASING AWARENESS OF PERSONAL RISK

In order to understand personal risk people need to know what the guidelines are and that their drinking is exceeding these guidelines. They then need to understand their personal risks for negative health, social and emotional outcomes based on their levels of alcohol consumption. This information should emphasise the risks of drinking even a little more than the guidelines and be separate from information designed for dependent drinkers. It could be delivered through leaflets/posters and distributed in public venues and during ad hoc contact with health professionals

Intervention recommendation 2:
ADDRESSING UNREALISTIC OPTIMISM

Unrealistic optimism is a belief that one is less likely than others to experience negative Addressing unrealistic optimism requires communications that enable people to understand their personal risk, to recognise discrepancies in their account of their behaviour and their risk of negative outcomes, and to provide ways that people can begin to understand, believe and address their optimistic bias. Such an intervention could be delivered in an online or face to face conversation or through an online or app-based resource.

Intervention recommendation 1:
SUPPORTING DETAILED PLANNING TO DRINK MODERATELY

Even where people intend to drink within the guidelines they need some support to enable them to make realistic plans about how (monitoring and restricting units and having dry days), and how to overcome temptations to drink more than planned in higher risk scenarios. This could emphasise consistency with goals to drink for pleasure not to result in negative consequences (being drunk, hangovers, longer term health impacts) They also need some encouragement to keep trying even if they do not always stick to the plan, rather than giving up. A planning intervention needs to take a person through a series of steps to make a detailed plan. This can be done on paper (workbook) or online.

Conclusions

This mixed-method research has identified key capability, opportunity, and motivational barriers and facilitators for drinking alcohol within government guidelines.

We have made a series of recommendations about how to address key barriers to drinking alcohol within government guidelines:

1. Increasing awareness of personal risk i.e. that current alcohol consumption exceeds the guidance.

2. Addressing unrealistic biases that the negative effects of drinking alcohol to levels that exceed the guidelines are only relevant for others.

3. Supporting people to make effective plans to drink moderately (i.e. within the guidelines).

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Alcohol consumption: Main report

Background

In 2016, the UK Chief Medical Officers published low risk drinking guidelines and advise that for both men and women, it is safest not to drink more than 14 units per week, spread over three or more days, and to have several alcohol-free days each week [5].

Huntingdonshire and Fenland have some of the highest rates of hospital admissions for alcohol-specific conditions in Cambridgeshire [6]. However, this local data mostly relates to people with alcohol dependency, rather than people who are drinking at levels that increases the risk of ill health (defined as regularly drinking more than the low risk guidelines) [7].

We are seeing increasing effects of alcohol consumption in older adults, with the rate of older adults admitted to hospital with alcohol-related conditions rising [8]. Preventing the risk of ill-health associated with alcohol consumption requires us to tackle risky drinking earlier in adulthood.

There are a number of alcohol services available in Cambridgeshire, however these services are predominately focused on moderate-severe alcohol problems. Without an in-depth understanding of who is drinking at risky levels and the drivers for this behaviour, we don't know what else needs to be put in place to address any unmet needs.

	Admission episodes for alcohol-specific conditions (under 18) 2021/22 -23/24
Areas	**Crude rate – per 100,000**
England	22.6
Cambridgeshire	24.7
Cambridge	23.6
South Cambridgeshire	17.3
East Cambridgeshire	16.1
Huntingdonshire	35.8
Fenland	26.6

How we used behavioural science in this context

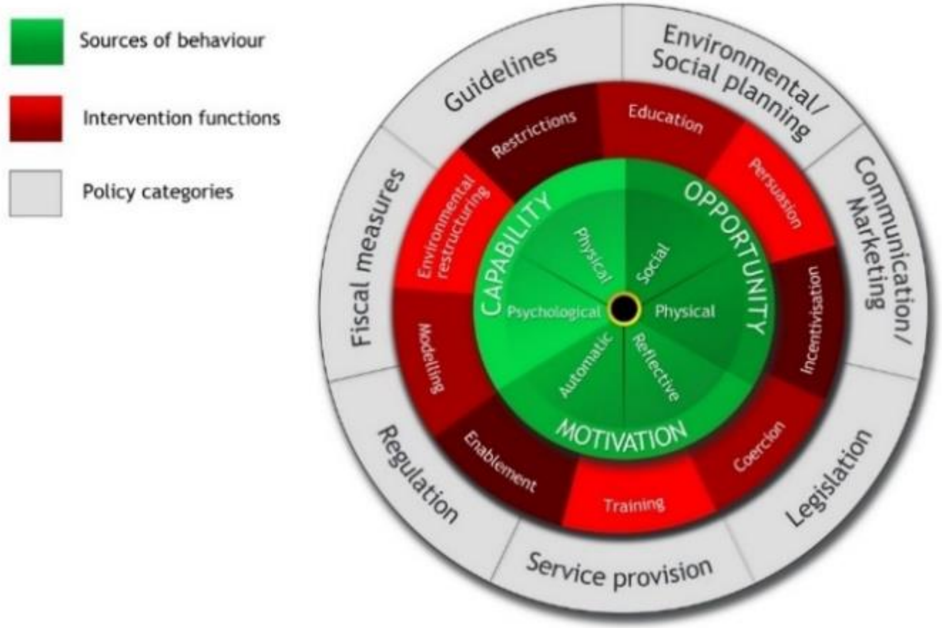
Theoretical approach

We used the Behaviour Change Wheel [2] to make theory-informed intervention recommendations for reducing risky drinking.

This involved:

- Understanding the barriers and facilitators for drinking within UK alcohol guidelines, which is defined as drinking no more than 14 units a week, spread across 3 days [5] using the capability-opportunity-motivation model of behaviour (COM-B) (green circle) and the Theoretical Domains Framework (TDF) [1,2]
- Matching the types of intervention functions that are likely to address those identified barriers and facilitators (red circle)
- Matching the types of policy categories that can help to deliver those identified interventions (grey circle).

We described the content of the intervention recommendations in terms of its Behaviour Change Techniques (BCTs), which are the 'active ingredients' of the intervention [1,3].



We used the APEASE evaluation criteria [2] and the IN-CASE framework [4] to explore which intervention recommendations are likely to be acceptable, practical, effective, and affordable, and whether receiving and/or delivering these interventions are likely to result in unintended consequences or impact on inequalities.

Local survey of residents in Cambridgeshire

We conducted a survey of residents in Cambridgeshire, including questions regarding multiple health behaviours (i.e., smoking, alcohol, diet, physical activity, uptake of NHS Health Checks). Survey participants who stated that they currently drink alcohol were asked specific questions about their alcohol consumption.

The objectives were to:

(1) Understand who is drinking in excess of the government guidelines/ binge drinking across Cambridgeshire

(2) Identify the barriers and facilitators to risky drinking amongst adults living in Cambridgeshire

(3) Explore whether the barriers and facilitators to risky drinking vary by those who are and are not drinking at risky levels

(4) Explore whether the barriers and facilitators to risky drinking vary by key demographic and health variables

(5) Are people who are drinking at risky levels willing to access a Healthy You service?

Individuals were recruited via on-street market researchers between August – October 2024. Eligibility criteria included: participants aged 18 or above; Cambridgeshire resident; currently drink alcohol; able to provide consent. A purposive sampling strategy was used to recruit a diverse sample e.g., living in areas of varying deprivation; ethnicity; age.

The survey was designed in consultation with professional stakeholders and measured:

- **Alcohol behaviour** i.e., frequency of alcohol consumption; number of units consumed on a typical day; how often someone engages in binge drinking (6 or more units of female/ 8 or more units if male [9]; how often someone is not able to stop drinking once they had started (alcohol dependency).
- **Capability, Opportunity and Motivation** to drink no more than 14 units a week, spread across 3 days [10]
- **Demographic and health data** i.e., age; partial postcode; gender; ethnicity; country of birth; whether they speak a language other than English at home; employment status; health status; annual household income; educational level.

Descriptive statistics and/or univariable statistics were conducted to address each research question. The analysis was done using SPSS version 26.0 (IMB Corp).

Ethical approval

Ethical approval was granted by Sheffield Hallam University Research Ethics Committee (ID ER65436549) and Cambridgeshire County Council. All participants provided informed consent before participating.

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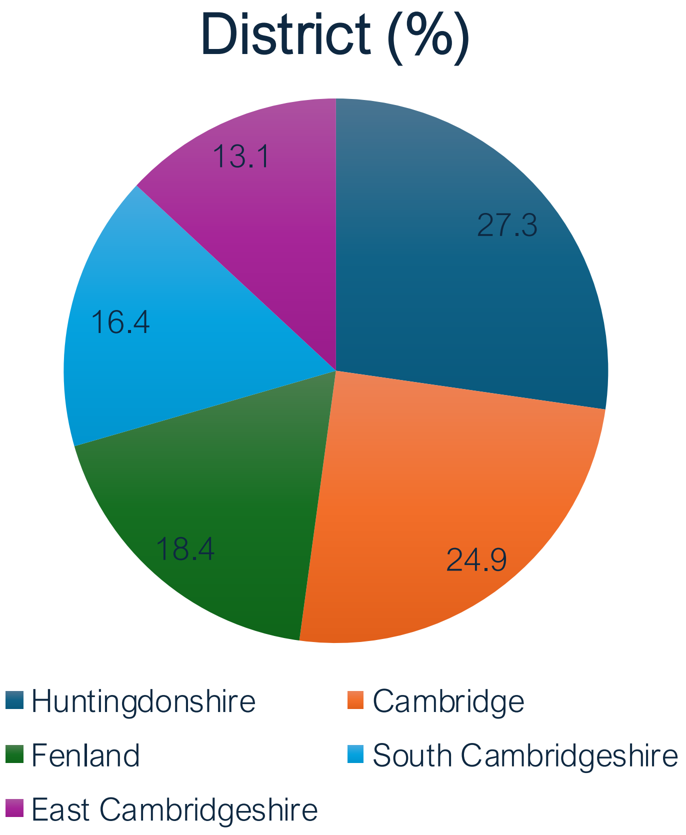
Survey findings - Participants

In total, 543 residents in Cambridgeshire who reported that they drank alcohol took part in the survey.



The mean age of residents was 46.97 years (SD 17.62), with over half being male (53%).

Most residents were White British ethnicity (77.1%), with a significant proportion of residents (12.2%) being of White Other background

A significant proportion of residents were born outside of the UK (16.3%) and spoke a language other than English at home (15.2%).

Most residents were from moderately deprived (IMD 3 – 6) (51.2%) and least deprived (IMD 7 – 8) (43.4%) areas of Cambridgeshire.

Over half of residents were in full or part-time employment (including self-employed and those who maternity/ paternity leave) (64.3%).

Of those reporting income data (n = 226), a significant proportion of residents reported an annual income of ≤£20,000 (20%).

A significant proportion of residents reported having no formal education qualifications (26.8%).

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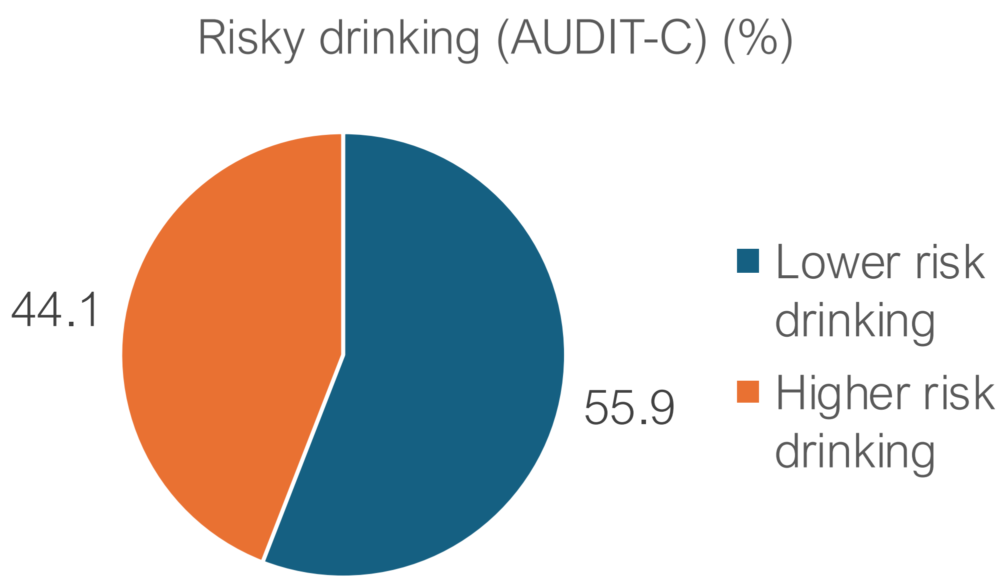
Research Question 1: *Who is drinking in excess of the government guidelines/ binge drinking across Cambridgeshire?*

In total, 512 people drank alcohol and answered all three AUDIT-C questions.



AUDIT-C total scores were calculated from answers to the three AUDIT-C questions about frequency of drinking alcohol, number of units of alcohol consumed on a drinking day and frequency of binge drinking. AUDIT-C scores are on a scale from 0 to 12, with higher scores indicating higher risk drinking. Higher risk drinkers were classified as those who scored 5 or more.

Alcohol use	
How often do you have a drink containing alcohol?	
Monthly or less	92 (16.9%)
2 – 4 times per month	100 (18.4%)
2 – 3 times per week	264 (48.6%)
4+ times per week	87 (16.0%)
How many units of alcohol do you drink on a typical day when you are drinking?	
1-2	203 (38.9%)
3-4	136 (26.1%)
5-6	72 (13.8%)
7-9	44 (8.4%)
10+	67 (12.8%)
Unsure	*20*
Prefer not to say	*1*
How often have you had 6 or more units if you are female or 8 or more if male on a single occasion in the last year?	
Never	260 (49.5%)
Less than monthly	109 (20.8%)
Monthly	59 (11.2%)
Weekly	65 (12.4%)
Daily or almost daily	32 (6.1%)
Unsure	*12*
Prefer not to say	*6*

Research Question 1: *Who is drinking in excess of the government guidelines/ binge drinking across Cambridgeshire?*

In total, 512 people drank alcohol and answered all three AUDIT-C questions.

A measure of alcohol dependence was calculated from one question about how often participants were unable to stop drinking once they had started, with response options ranging from 'never' to 'daily or almost daily'.

Responses of 'daily or almost daily' were considered to indicate probable physical dependence on alcohol, while responses of 'less than monthly' and 'monthly' probably indicated binge drinking behaviour.

As shown in the table, AUDIT-C total scores increased with alcohol dependence. This means that **as risky drinking behaviour increased, so did alcohol dependence.**

Alcohol dependency	
How often during the last year have you found that you were not able to stop drinking once you had started?	
Never	459 (87.1%)
Less than monthly	36 (6.8%)
Monthly	12 (2.3%)
Weekly	15 (2.8%)
Daily or almost daily	5 (0.9%)
Unsure	11
Prefer not to say	15
AUDIT-C alcohol scores by level of alcohol dependence	
Never unable to stop drinking once started (no dependence) (n = 440)	4.43 (2.73)
Less than monthly or monthly (probably binge drinking) (n = 48)	7.50 (2.33)
Weekly (n = 15)	10.20 (1.47)
Daily or almost daily (probable dependence) (n = 4)	12.00 (0.00)

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Research Question 1: *Who is drinking in excess of the government guidelines/ binge drinking across Cambridgeshire?*

We explored differences in demographic characteristics between those who were classified as lower risk drinkers (55.9%; 286) and those classified as higher risk drinkers (44.1%; 226).

Residents who were classified as a higher risk drinker were significantly more likely to:

- Be younger
- Be male
- Live in a moderately deprived area
- Live in Huntingdonshire
- Be unemployed
- Have no formal education qualifications
- Not have a long-term health condition
- Have a mental health condition

Research Question 2: *What are the barriers and facilitators to risky drinking?*

The table presents the mean (SD) scores for each barrier and facilitator to drink within UK alcohol guidelines. Each item is assessed on an 11-point scale from strongly disagree (=0) to strongly agree (=10). The data were highly skewed, with a high proportion of participants strongly agreeing (score of 10) with each barrier and facilitator item.

Across the entire sample (n = 275), residents reported that they:

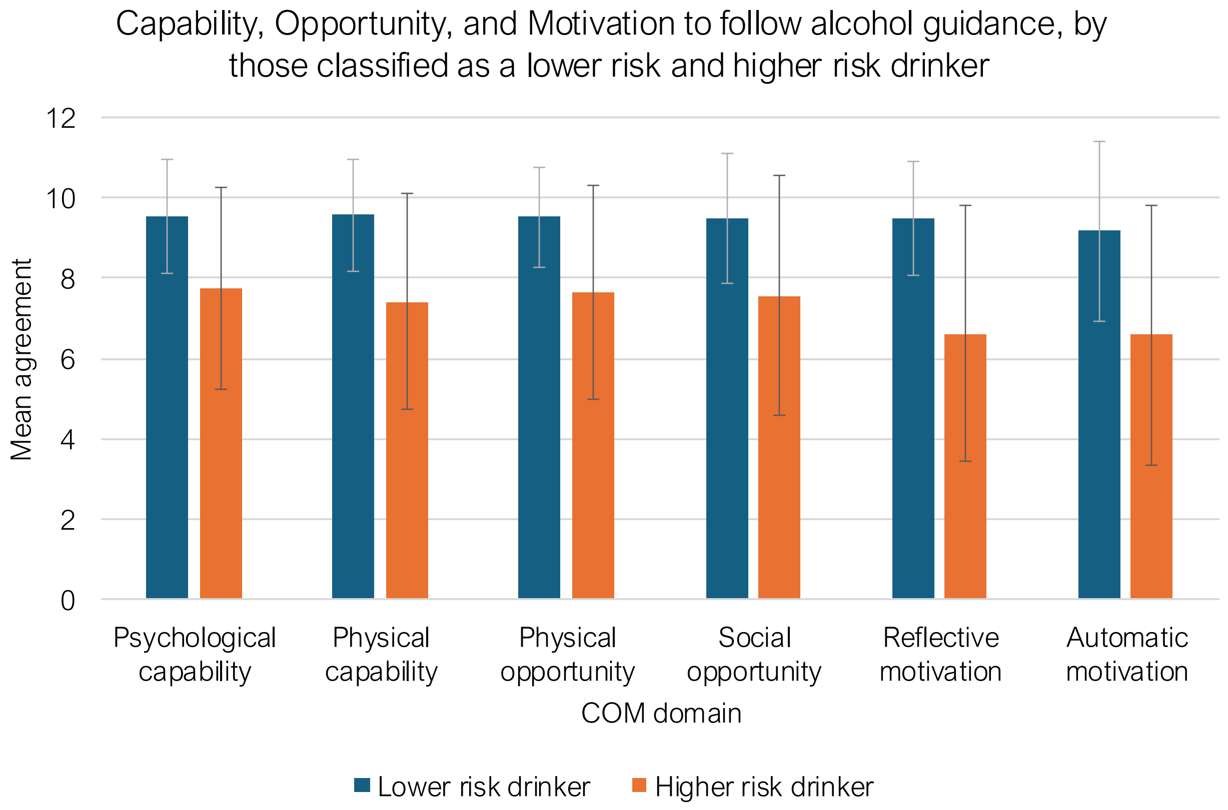
- Know about the importance of drinking no more than 14 units a week, spread across 3 days or more and have the skills to make decisions and plans to do this **(psychological capability).**
- Have the physical skills and enough physical stamina to drink no more than 14 units a week, spread across 3 days or more **(physical capability).**
- Have sufficient time and the necessary resources (e.g., access to information about units and support services) to drink no more than 14 units a week, spread across 3 days or more **(physical opportunity).**
- Have the necessary support from people (e.g., from friends and family) to drink no more than 14 units a week, spread across 3 days or more **(social opportunity).**
- Intend to (or want to) drink no more than 14 units a week, spread across 3 days or more (**reflective motivation**).
- Drink no more than 14 units a week, spread across 3 days or more, automatically (without thinking about it) **(automatic motivation)**

Capability, Opportunity, and Motivation to drink within UK alcohol guidelines	Entire sample (n = 275)
	Mean (SD)
Psychological capability	
I know about the importance of drinking no more than 14 units a week, spread across 3 days or more and have the skills to make decisions and plans to do this.	8.70 (2.17)
Physical capability	
I have the physical skills and enough physical stamina to drink no more than 14 units a week, spread across 3 days or more.	8.58 (2.33)
Physical opportunity	
I have sufficient time and the necessary resources (e.g., access to information about units and support services) to drink no more than 14 units a week, spread across 3 days or more.	8.68 (2.19)
Social opportunity	
I have the necessary support from people (e.g., from friends and family) to drink no more than 14 units a week, spread across 3 days or more.	8.60 (2.49)
Reflective motivation	
I intend to (or want to) drink no more than 14 units a week, spread across 3 days or more.	8.20 (2.75)
Automatic motivation	
Drinking no more than 14 units a week, spread across 3 days or more, is something I do automatically (without thinking about it).	8.01 (2.98)

Research Question 3: *Do the barriers and facilitators to risky drinking vary by those who are and are not drinking at risky levels?*

Residents who were classified as a higher risk drinker were significantly more likely to report:

- Weaker knowledge about the importance of drinking within government guidelines and weaker skills to make decisions and plans to do this (**psychological capability**).
- Weaker physical skills and stamina to drink within government guidelines (**physical capability**).
- Having less time and resources (e.g., access to information about units and support services) to drink within government guidelines (**physical opportunity**)
- Having less support from people (e.g., from friends and family) to drink within government guidelines (**social opportunity**).
- Weaker intentions (or willingness) to drink within government guidelines (**reflective motivation**).
- Being less likely to believe that drinking within government guidelines is something they do automatically (without thinking about it) (**automatic motivation**).



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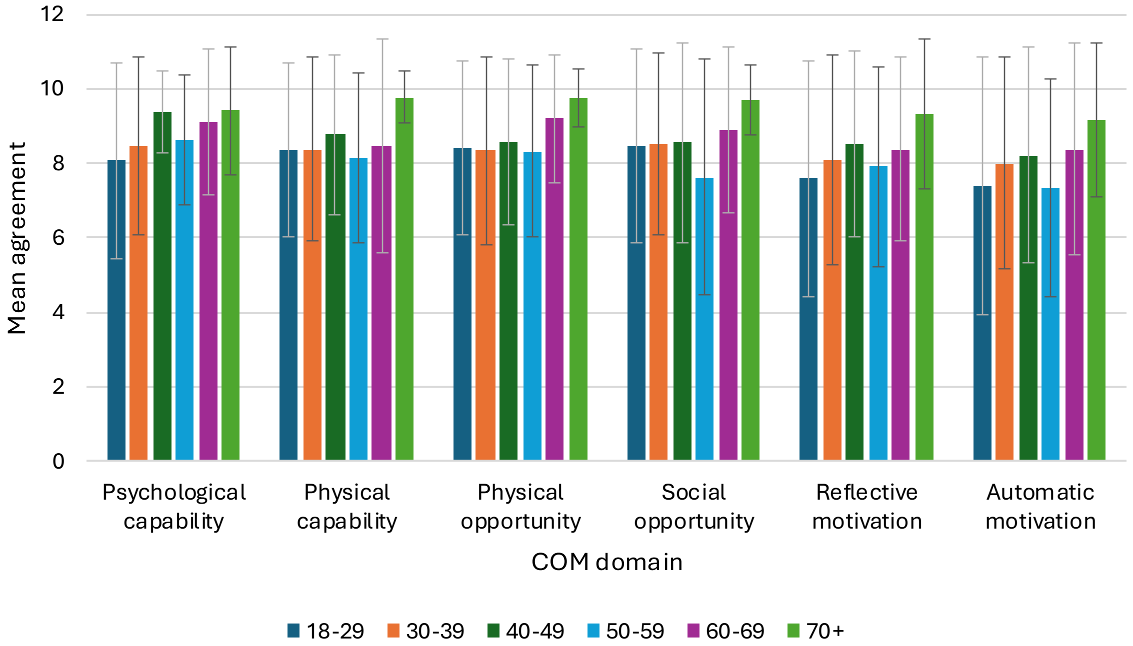
Research Question 4: *Do the barriers and facilitators to risky drinking vary by key demographic and health variables?*

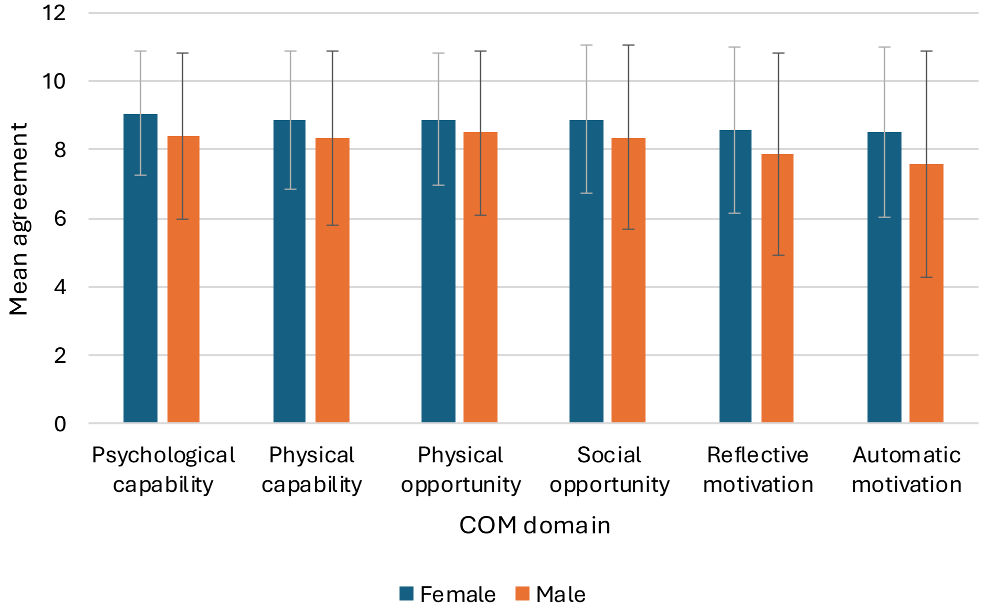
There was a trend for younger aged drinkers, especially those aged 18- 29 years, to report weaker capability, opportunity, and motivation to drink within government guidelines compared with older residents.

Middle aged drinkers (50 – 59 years) also tended to report more barriers for drinking within government guidelines compared with older aged drinkers (60 years plus), especially weaker physical and social opportunities to drink within government guidelines, believing less likely to believe that drinking within government guidelines is something they do automatically (automatic motivation).



There was a trend for **men** to report weaker capability, opportunity, and motivation to follow alcohol guidance compared with females, including:

- Weaker knowledge about the importance of drinking within government guidelines and weaker skills to make decisions and plans to do this (psychological capability).
- Weaker intentions (or willingness) to drink within government guidelines (reflective motivation).
- Being less likely to believe that drinking within government guidelines is something they do automatically (without thinking about it) (automatic motivation).



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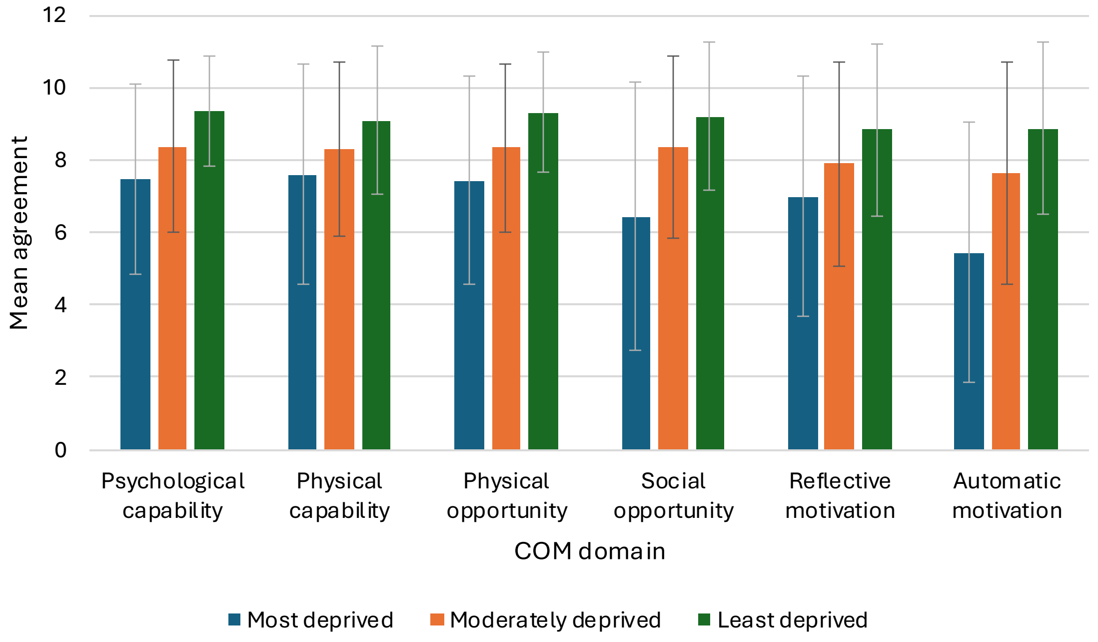
Research Question 4: *Do the barriers and facilitators to risky drinking vary by key demographic and health variables?*

There was a trend for residents who are living in the **most deprived areas** of Cambridgeshire to report weaker capability, opportunity, and motivation to follow alcohol guidance compared with those living in less deprived areas. For those living in the most deprived areas, there was a trend for the lowest scores to be for:

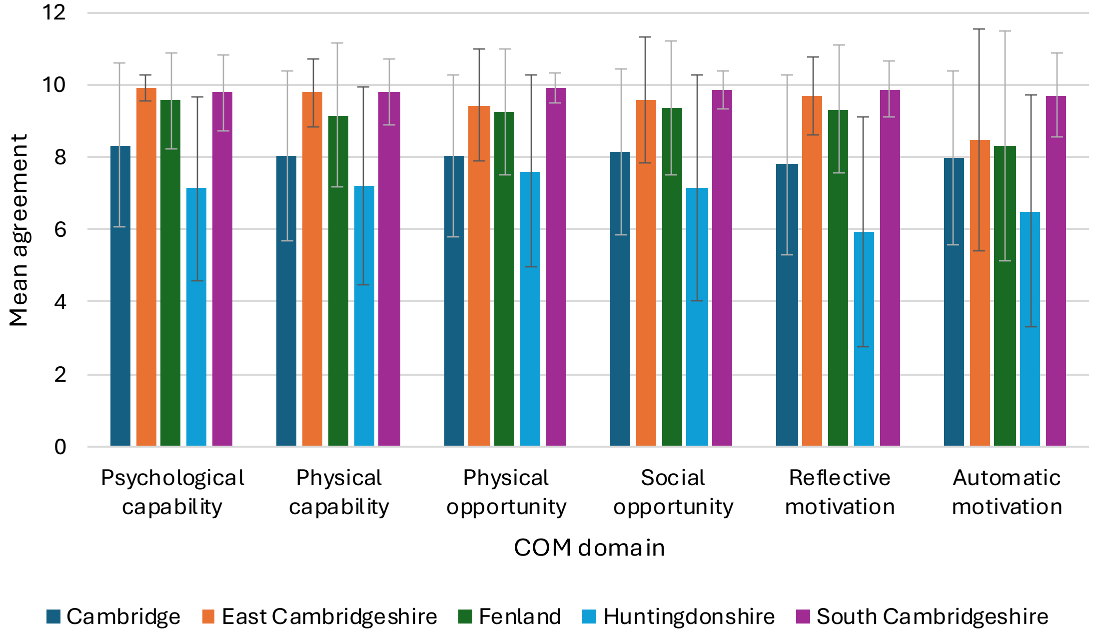
- Social opportunity (having less support from people to drink within government guidelines)
- Reflective motivation (weaker intentions/ willingness to drink within government guidelines)
- Automatic motivation (being less likely to believe that drinking within government guidelines is something they do automatically



There was a trend for residents living in **Huntingdonshire** to report weaker capability, opportunity, and motivation to follow alcohol guidance compared with those living in Fenland , South Cambridgeshire, East Cambridgeshire, and Cambridge.

For those living in Huntingdonshire, there was a trend for the lowest scores to be for:

- Reflective motivation (weaker intentions/ willingness to drink within government guidelines)
- Automatic motivation (being less likely to believe that drinking within government guidelines is something they do automatically.



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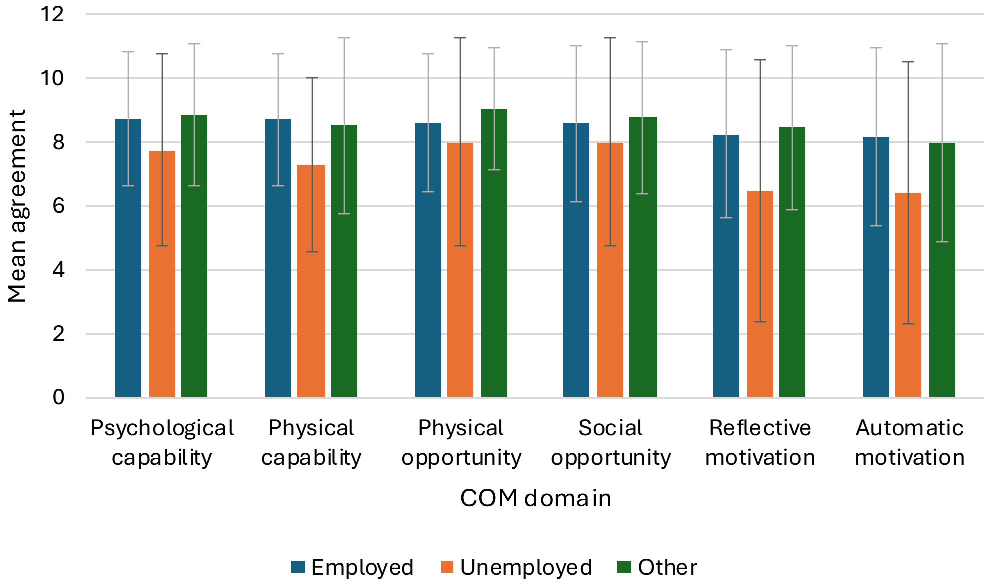
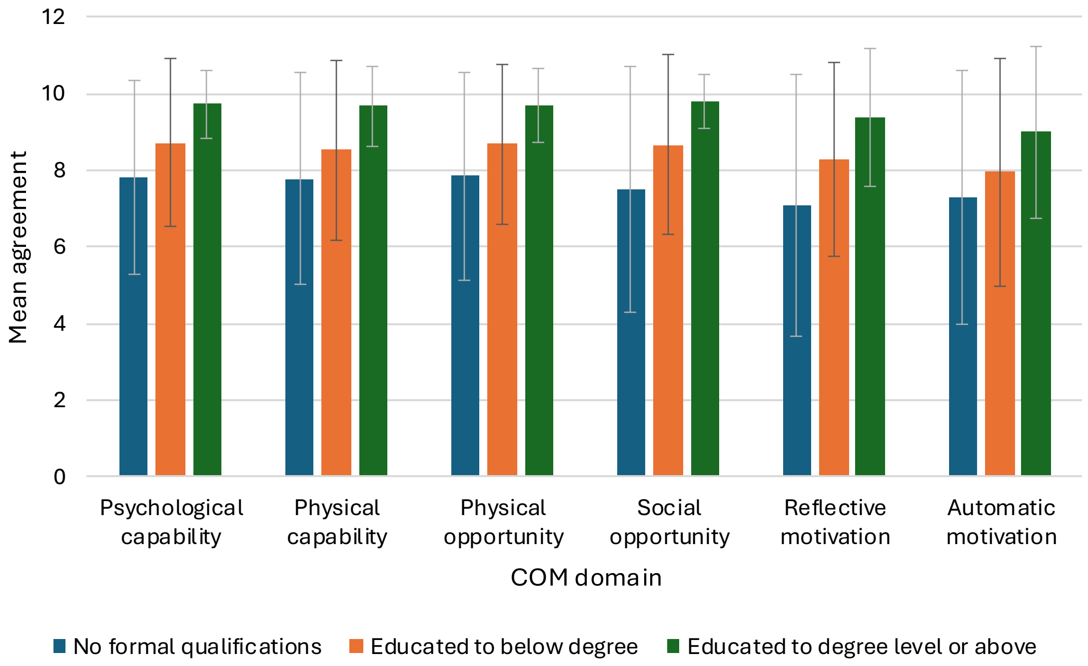
Research Question 4: *Do the barriers and facilitators to risky drinking vary by key demographic and health variables?*

There was a trend for residents who were **unemployed** to report weaker capability, opportunity, and motivation to follow alcohol guidance compared with those who were either employed or not working for other reasons (e.g., retired, caring responsibilities). There was a trend for the lowest scores to be for:

- Reflective motivation (weaker intentions (or willingness) to drink within government guidelines)
- Automatic motivation (being less likely to believe that drinking within government guidelines is something they do automatically (without thinking about it).



There was a trend for residents with **fewer educational qualifications** to report weaker capability, opportunity, and motivation to follow alcohol guidance compared to those with more educational qualifications.



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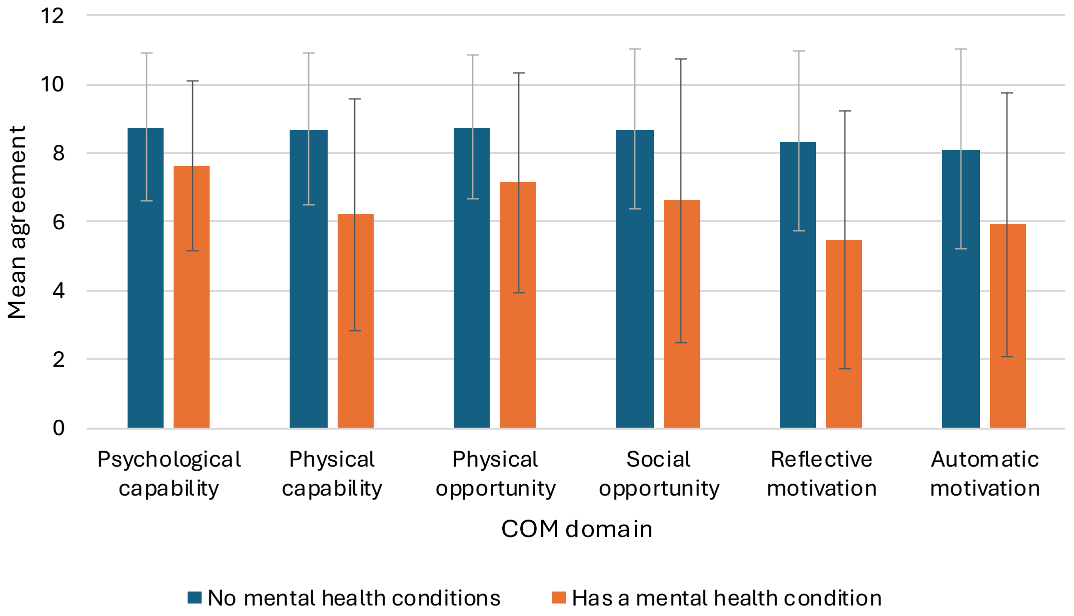
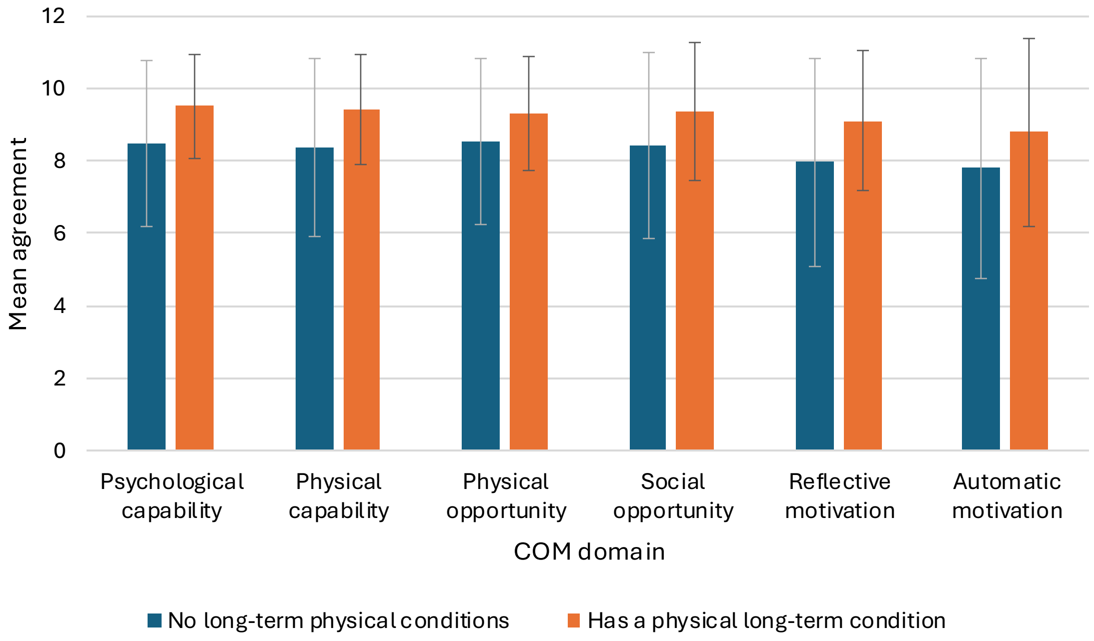
Research Question 4: *Do the barriers and facilitators to risky drinking vary by key demographic and health variables?*

There was a trend for residents with **mental health conditions** to report weaker capability, opportunity, and motivation to follow alcohol guidance compared to those without mental health conditions. For those living with mental health conditions, there was a trend for the lowest scores to be for:

- Reflective motivation (weaker intentions (or willingness) to drink within government guidelines)
- Automatic motivation (being less likely to believe that drinking within government guidelines is something they do automatically (without thinking about it)
- Physical capability (weaker physical skills and stamina to drink within government guidelines)



There was a slight trend for residents **without physical long-term conditions** to report weaker capability, opportunity, and motivation to follow alcohol guidance compared to those with physical long-term conditions.



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Research Question 5: *Are people who are drinking at risky levels willing to access a Healthy You service?*

Residents who were classified as a **higher risk drinker were less likely to be willing to access a Healthy You service** compared with those who were classified as a lower risk drinker:

- 79.9% of residents who were classified as a lower risk drinker would be willing to access a Healthy You service in the future
- 58.8% of residents who were classified as a higher risk drinker would be willing to access a Healthy You service in the future.

	Entire sample (n = 512)	Lower risk drinking (n = 286)	Higher risk drinking (n = 226)
Uptake of Healthy You services			
Yes	48 (9.6%)	16 (5.7%)	32 (14.6%)
No	451 (90.4%)	264 (94.3%)	187 (85.4%)
Unsure	*9*	*4*	*5*
Prefer not to say	*4*	*2*	*2*
Willingness to access Healthy You amongst those who have not accessed a service			
No – but willing to access in the future	321 (71.2%)	211(79.9%)	110 (58.8%)
No – and unwilling to access in the future	47 (10.4%)	18 (6.8%)	29 (15.5%)
No – and unsure whether they would be willing to access in the future	83 (18.4%)	35 (13.3%)	48 (25.7%)
Type of Healthy You service accessed			
Physical activity services	25 (4.9%)	5 (1.7%)	20 (8.8%)
Healthy eating services	5 (1.0%)	1 (0.3%)	4 (1.8%)
Weight management services	6 (1.2%)	4 (1.4%)	2 (0.9%)
Smoking services	11 (2.1%)	4 (1.4%)	7 (3.1%)
Mental health services	10 (2.0%)	1(0.3%)	9 (4.0%)
Alcohol services	2 (0.4%)	0 (0.0%)	2 (0.9%)
Other	3 (0.6%)	2 (0.7%)	1 (0.4%)

Summary – local survey

We surveyed 543 residents in Cambridgeshire who reported that they drank alcohol.

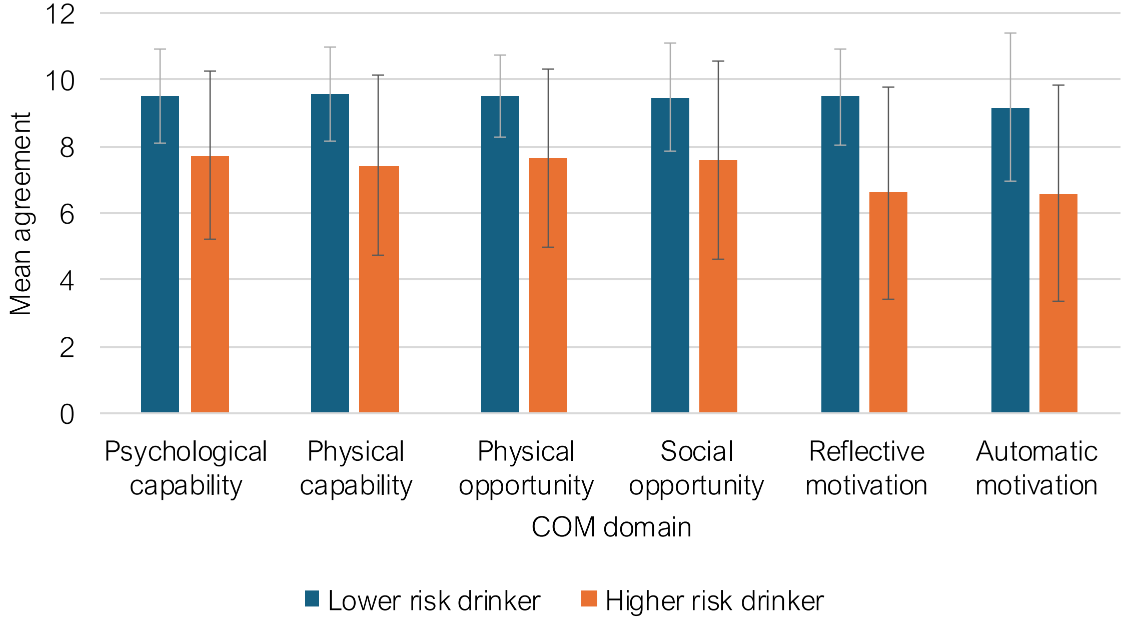
A considerable proportion of residents in Cambridgeshire who reported that they drink alcohol are drinking at risky levels. In total, 44.1% (226) of residents that we surveyed were classified as a higher risk drinker.

Those that are drinking at risky levels report weaker capability, opportunity, and motivation to follow UK alcohol guidelines (drinking no more than 14 units a week, spread across 3 days or more) and are less willing to access services.

Residents who are drinking at risky levels were more likely to be: younger, male, living in a moderately deprived area, live in Huntingdonshire, be unemployed, have no formal educational qualifications, are not living with a long-term health condition, and are living with a mental health condition.

Overall, there was a trend for residents from these key demographic groups to report weaker capability, opportunity, and motivation to follow UK alcohol guidelines.

Capability, Opportunity, and Motivation to follow alcohol guidance, by those classified as a lower risk and higher risk drinker



Interviews with residents in Cambridgeshire

We conducted interviews to explore the barriers and facilitators to risky drinking in more depth. The objectives were to:

(1) Explore the capability, opportunity, and motivational barriers and facilitators to risky drinking

(2) Explore what would help residents to drink alcohol within UK lower risk drinking guidelines

Sampling and recruitment

Individuals were recruited between February and April 2025. Eligibility criteria were: participants aged 18 years or older, a Cambridgeshire resident, drinks alcohol at higher risk levels, is not alcohol dependent, able to provide consent. We prioritised speaking to middle-aged drinkers (aged 35 – 59 years).

Individuals were recruited via adverts and social media, expressions of interest from participants from the earlier survey, and via voluntary and community sector organisations. All participants were offered a £20 gift voucher as a thank you for their participation.

Ethical approval

Ethical approval was granted by Sheffield Hallam University Research Ethics Committee (ID ER68324734) and Cambridgeshire County Council. All participants provided informed consent before participating in the interview.

Data collection

Interviews were conducted via telephone/online platform (MS teams/ zoom). A semi-structured topic guide was developed with questions exploring thoughts and feelings about alcohol, capability, opportunity and motivation to reduce alcohol consumption, including any previous experiences of accessing alcohol support services.

Analysis

Data were audio-recorded, transcribed, and anonymised. Framework analysis was used to code the data [11] using NVivo. The transcripts were coded into domains, using the 14 TDF domains as a framework. Text was coded under the domain (theme) that best matched the content. Text relating strongly to more than one TDF domain was coded in both. The types of statements under each TDF domain were than analysed using inductive content analysis. Sub-themes arising from the data (under each TDF domain) were identified to create sub-categories.

Qualitative interview findings – Participants

In total, 9 residents in Cambridgeshire who drink alcohol at higher risk levels took part in an interview.

Participants ranged in age from 36 years old to 64 years old, with eight residents between the ages of 36 and 53

8 residents were male, and 1 resident was female

8 residents identified as being White British, and 1 resident identified as being White Other

*Are there **capability** barriers (B) and facilitators (F) for drinking alcohol within the guidelines?*

Residents reported the following **capability** barriers (b) and facilitators (f):

Knowledge

- Having or not having knowledge about the alcohol guidelines (B/F)
- Knowing about the negative health effects of excessive alcohol consumption (F)
- Knowing how to access support to quit or cut down drinking (F)
- Knowing about the number of units of alcohol in different drinks (F)
- Knowing about the negative social effects of excessive alcohol consumption (F)

…all I've got is the guidance that is generally 21 units for men, 15 for women per week as being the official government sort of guidance. So I want to say that, but I don't know that that is because that's what deemed as safe (P5)

Behavioural regulation

- Monitoring drinking: units, volume, or effects of alcohol (F)
- Having dry periods or not (B/F)
- Making substitutions for alcohol (F)
- Having dry days (F)
- Planning the amount of alcohol to be consumed (F)

So if I've drunk in the week I will make sure I have another day that I don't drink. For example I drank on Monday this week because I went out. I wouldn't normally drink on a Monday so I would not drink another night in the week (P4)

I mean I don't tick it off on a chart, but I know, I know sort of like an evening that I drink, I'm very cognisance of how much I'm drinking. I'll know if I've finished a bottle of wine, you know, what that looks like and how much I've drunk (P5)

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*Are there **capability** barriers (B) and facilitators (F) for drinking alcohol within the guidelines?*

Residents reported the following **capability** barriers (b) and facilitators (f):

Memory, attention and decision processes

- Ability to respond to prompts to stop drinking once started (B/F)

No. I've always had a difficult off switch when I start. You know, every drink I have the more I want the next one (P7)

I would say a bottle and a half of wine. Yeah, I would say that would be the maximum. I would stop drinking then. Not so much that I'd feel that I was unsafe, but more that I'm not enjoying it anymore and feeling pretty groggy, you know. Yeah. Yeah, I'd just want to stop (P8).

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*Are there **opportunity** barriers (B) and facilitators (F) for drinking alcohol within the guidelines?*

Residents reported the following **opportunity** barriers (b) and facilitators (f):

Social influences

- Having friends and/or family who drink alcohol (B)
- Having friends and/or family who drink within guidelines (F)
- Making social comparisons with others (B/F)
- Making social comparisons with past self (B)
- Feeling stigmatised for not drinking (B)
- Being aware of people who have been seriously negatively affected by excessive alcohol consumption (negative role models) (F)

Environmental context and resources

- Cost of alcohol (B)
- Place of drinking (home or pub/bar) (B/F)
- Childcare responsibilities (F)
- Need to drive (F)
- Dry January (F)

But I know a few people who just- They just go and go and go and you think, bloody hell, you've had enough, you idiot. I know you've had enough. So I kind of look at people like that and think at least I know I'm not that bad, I can know where to draw the line (P9).

My wife drinks as well. So ...between the two of us,... If it's meat, we'll have a red wine to start with, and then as we're watching TV, when that wine finishes we'll open a second bottle and sometimes we finish it sometimes we don't (P1).

I think making my own wine, that I did for the last couple of years, was- like I mentioned, that was definitely to do about cost when you know I was drinking towards a bottle a day, you know, and it definitely mounts up. So that's- yeah, that's kind of part of the reason why I was making my own wine (P6).

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*Are there **motivation** barriers (B) and facilitators (F) for drinking alcohol within the guidelines?*

Beliefs about consequences

- Drinking helps me to relax (B)
- Drinking causes short term negative effects (e.g. hangover) (F)
- Drinking is pleasurable/fun (B)
- Drinking helps me to be more sociable (B)
- Drinking causes serious consequences for alcoholics (not me)
- There are few negative consequences of drinking (B)
- Drinking leads to cognitive impairment (tiredness, not being able to drive, violence) (F)
- There are some long term health consequences of drinking (e.g. cancer, premature aging) (F)
- I enjoy the taste of alcohol (B)
- Drinking leads to impaired sleep (F)
- Alcohol can have health benefits (B)

So for me it brings you down, it brings, it gets rid of all anxiety, a way to just relax and unwind at the end of the day or on a Friday and Saturday because it's the weekend and just to chill out (P4).

And the older I get the- you know, the more kind of- yeah, it takes a little while to recover. So I do get the odd hangover if I drink to much, like if I go out to listen to music or anything (P8).

Reinforcement

- Experiencing positive effects of drinking (B)
- Experiencing negative effects of drinking the day after (e.g. hangover) (F)
- Feeling guilty after drinking (F)
- Not feeling any adverse effects after drinking (B)

But health benefits, apart from a hangover and stuff- I know everyone says it's bad for you, but **unless you're a complete alcoholic, I don't see that much negatives.** I know they keep banging on about it in the press, but- I don't know. (P9)

I mean they're quite significant I would say in terms of what it can do to your liver and your body, and obviously your mental health. Yeah, it's quite significant **if you let it sort of get out of control** (P6).

*Are there **motivation** barriers (B) and facilitators (F) for drinking alcohol within the guidelines?*

Beliefs about capability

- I am in control of my drinking (B/F)
- I could quit drinking (B)
- It is a challenge sticking to my good intentions (B)
- It is more difficult to moderate alcohol in social situations (B)
- Cutting down would be easy (F)
- Quitting would be hard (B)
- Being able to substitute makes it easier (F)

…yes, I am in control of it. Yeah, it's just- yeah, tricky to kind of implement what myself and my wife would ideally like to do, which is to drink a lot less. [laughs] It's a long journey. But in control. Yeah, definitely not out of control, that's for sure (P6)

I mean I'd definitely, if I was out with my friends or whatever I'd maybe struggle a bit in the moment but if I- But generally speaking I could quite easily stop social drinks and it doesn't bother me that much. It's just a nice thing to do but it's not the most important thing, part of seeing friends or whatever. I think I'd miss it. I'd definitely miss, I'd definitely miss it. But I think if I decided to do it I could do it (P7).

I'm going to say it would be quite easy if I wanted to. I mean for me to not drink there would have to be like a serious health issue that would- like some sort of liver disease maybe or something like that, for me to completely stop. I mean I have stopped in the past, obviously, back in 2022. And that was just to see if I could do it or not, and you know I was able to do that. So yeah, I know I could stop easily (P6).

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*Are there **motivation** barriers (B) and facilitators (F) for drinking alcohol within the guidelines?*

Residents reported the following **motivation** barriers (b) and facilitators (f):

Social/ professional role and identity

- I'm a social drinker (F)
- I'm not that kind of drinker (an alcoholic) (B)
- Needing a new persona as a non-drinker (B)

Intentions

- Intend to continue current levels of drinking (B)
- Intend to have dry days (F)
- Intend to cut down (F)

Goals

- To drink fewer than x drinks in a session (F)
- To have x dry days each week (F)
- To avoid alcohol when driving (F)
- To achieve but not surpass a pleasant level of intoxication (B)

He was just spending, drinking, drinking, drinking, and he died a couple of weeks ago, went to his funeral, he was like 56, I think he was. …But you sort of looked at him and you think, oh my God, there was only one way it was going to end, and you could see it. But yeah, **I mean I'd never get like that** (P9).

I think alcohol has had quite an effect on my life and what life would have been like without it and that's a very difficult thing to contemplate at my age. **… it might seem easier for people to just carry on because if they stop, start re- start building a new persona,** then they might- They might need help to not look back to say- To think God what a waste (P2)

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*Are there **motivation** barriers (B) and facilitators (F) for drinking alcohol within the guidelines?*

Emotion

- The role of stress in alcohol consumption (B/F)

So if I'm stressed- Say I'm stressed to start with, beer absolutely doesn't help. I don't know why, it seems to have a different effect to wine. It's possible that it's- I don't think it's anything to do with the alcohol, it's like where I drink them. If I'm stressed already, going out into a busy environment where I don't really have control over it might not be the best idea (P2)

It depends. On a day to day basis it's normally fine but if I'm stressed then I will drink slightly more and I would probably not feel as in control of my drinking, definitely not (P3)

Optimism

- Drinking alcohol will not become a problem for me (B)

Not if things carry on as they do, and I think I would if I, if it did become a problem I'd be aware of it, I would, but I can't see it becoming a problem (P3)

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How do residents drink alcohol?

- Purchasing alcohol
  - Supermarket (offers)
  - Pubs, clubs and restaurants (high prices)
  - Wine clubs
  - Brewing your own
- Place of drinking
  - Home
  - Pubs
  - Restaurants
  - With other family members
  - Party/socialising at others' houses
  - Garden/gazebo (covid)

I mean the beer prices in the pub, you've just sort of got to accept it, there's nothing you can do about it, but in the supermarket, I'm always sort of- Whatever's on offer I'll normally pick up, if it's a nice ale, or whatever (P9).

Most of my drinking's done out the house so it will usually be in pubs and bars. Occasionally if we're having someone, you know, if we're having friends over or having a party or we're going to a party we'll get, I'll get some, either some spirits and a mixer or some cans of beer or whatever, lager to take with me. But I'd say, I would say 95% of my drinking is done out of the house (P7)

Obviously, if we're going out to people's houses or going away or anything like that, but- As I said, the normal pattern of the week is just to drink at home (P1)

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Access and recommendations for support services to drink alcohol within the guidelines?

- Source of information
  - Government
  - GP/NHS/Healthcare professional
  - Changing (confusing) guidelines
  - Web search
  - Someone who has previously quit alcohol
  - Close friends
- Type of support services
  - Alcoholic Anonymous (for 'others')
  - Employee assistance programme
  - Drink Less website
  - Drink Aware app
  - Cambridge local services
  - Peer support
- Mode of delivery
  - Face-to-face
  - Online meeting (e.g. Zoom)
  - Website/online resources

There's no clear message, and no one- I mean people should know, alcohol's been around for thousands of years, but there's no- The guidelines just seem to move all the time, and I think everyone takes them with a pinch of salt (P9).

Participants generally did not want support – these answers were about what they might want if they had wanted support

...as I said earlier you know, their definition of what's safe and what's a healthy lifestyle in general does to me tend to veer towards the joyless side of life. However, if they were to say, "Look if you carry on drinking like this you'll be dead in a year." Then yeah, yes I would (P3)

Probably, I mean it could be an NHS resource or an employee resource but somebody with less of a medical stance. I know there's a Drink Less website I have been on there when I calculated the units, something like that would be advisable to me and then where you could find support (P4)

Summary – interviews

We interviewed nine people about drinking alcohol within government guidelines

Capability

Most participants were aware that there were guidelines about suggested limits on alcohol consumption and had some knowledge about the guidelines for drinking alcohol. However, sometimes their knowledge reflected older versions of the guidance. Participants knew that there are negative effects of excessive alcohol consumption and that the guidelines were there to prevent health consequences and were therefore a good idea. In response, many of the participants monitored their alcohol consumption, either by assessing the volume or units drunk on a single occasion or over a week and some had made plans to limit their consumption including having dry days and making substitutions for alcohol. Participants also reported plans to monitoring the effects of alcohol when they were drinking to ensure that they remained 'safe', although they also reported some problems in being able to respond to prompts to stop drinking once they had started. Participants broadly and how they could access or search for support if they needed it although they tended to think this was just for other people (alcoholics).

Opportunity

Participants reported strong social influences on their alcohol consumption and drinking with friends and family was common. Participants made social comparisons about how much they drank compared to others which in some cases meant that they felt that comparatively they drank in moderation. Some participants commented on people being stigmatised for not drinking although this situation was reported to be improved with improved non-alcoholic options that could be used to 'hide' abstinence. Many of the participants were aware of other people who has significant problems with alcohol that served a s warning. Some contexts meant that alcohol was less likely to be consumed or only in moderation and these included childcare and driving responsibilities.

Motivation

Participants believed that drinking alcohol had lots of positives including helping them to relax, that it was fun and helped them to be more sociable and they wanted to continue to drink for these reasons. Stress was an important driving factor in alcohol consumption for some. Participants also believed that alcohol had some negatives including cognitive impairment when drinking, hangovers the following day and some longer-term health consequences although some identified few negative impacts of drinking. Importantly, though many participants showed 'unrealistic optimism' in terms of these effects, believing that there were severe health impacts for those who drank to excess (i.e. ' alcoholics') but not for them as a 'social drinkers' and were broadly optimistic that alcohol was not currently impacting their health and would not likely become a problem for them in the future. Most participants intended to continue to drink although a few intended to cut down. Some participants had specific goals to restrict the number of drinks per session and to have dry days as well as not getting too drunk and not drinking when driving. Some reported that they would need to be persuaded of serious health impacts before they would consider stopping. Participants views of how easy it would be to cut down or quit were varied with some believing they were in control, and it would be easy while others acknowledged it would be challenging particularly in social situations.

I'd like to be able to continue to drink alcohol at sort of the rate I do I guess. It's nice to have a good session with friends or whatever every once in a while. And it's nice to have a couple of pints or a couple of drinks in the pub and just be, you know, just loosen up a little bit. But I don't think I'd, I'd just, **I'd want to kind of keep the same balance really until my health says I can't** (P7)

Needs analysis

The qualitative analysis allowed us to identify three key needs for people drinking more alcohol than the guidelines recommend.

Support to identify that their current levels of drinking are risky (more than the guidelines recommend)

Support to address optimistic bias i.e. to understand that drinking at risky levels means that they (rather than others) are currently at risk of experiencing negative health and social effects of drinking

To support current or future efforts to moderate alcohol consumption and resist temptation so that they can drink within the guidelines

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Rapid evidence review of interventions

We conducted a rapid evidence review to identify what types of interventions have been implemented to reduce alcohol intake in adults.

The aim was to:

(1) Identify what types of interventions (i.e., its content) have been implemented to support adults to reduce their alcohol intake.

Searches

We conducted systematic searches in electronic bibliographic databases, using relevant search terms for alcohol (i.e., alcohol consumption, alcohol units, alcohol intake), terms for intervention (i.e., intervention, strategy, approach), and terms for reviews (i.e., systematic review, narrative review, scoping review). Studies were included in the review if they were an English review paper that reported a UK intervention for adults to reduce alcohol consumption, measured changes in alcohol consumption, and were conducted after the introduction of the August 2016 CMO guideline [5]. We excluded papers that only focused on student populations or people who were alcohol dependent.

Data extraction

Data relating to the content of the intervention was extracted and classified using the Behaviour Change Wheel [2] and the BCT taxonomy [12]. Data were managed in Covidence and Excel.

Analysis

Using the Theory and Techniques Tool (a heat map identifying links between BCTs and Mechanisms of Action: MoAs) [3], we then identified whether these previously tested interventions have the potential to address the barriers and facilitators for reducing alcohol consumption amongst adults in in Cambridgeshire, as identified in our survey and qualitative insight gathering activities. That is, we explored the extent to which there was a *match* between the content of the interventions (i.e., how they seek to change behaviour) and the barriers and facilitators to reducing risky drinking, and whether there were any gaps.

Rapid evidence review of interventions:

Description of included studies

In total, 9 interventions were included in the review.

- 9 studies were UK-based, while one was international with 28 countries including the UK
- Three of the studies included students alongside non-student participants and were included in the review on this basis.
- Mean ages of participants in the studies ranged from 22 years – 63 years.

The interventions were:

- health warning messages/labels (n = 5)
- digital interventions (web or app based) (n = 2)
- face to face counselling (n = 1)
- beverage serving sizes (n = 1)

The target behaviour/ outcomes were:

- AUDIT (n = 4)
- Proportion of alcoholic (vs non-alcoholic) drinks selected (n = 2)
- Awareness of risks of drinking (n = 2)
- Intentions to reduce drinking (n = 2)
- Self-reported units of alcohol consumed (n = 2)

Types of interventions

We identified five types of interventions:

- **Education** (used in 8 interventions) - intervention components that aimed to increase knowledge or understanding to support alcohol reduction.
- **Persuasion** (used in 8 interventions) - intervention components that used methods of persuasive communication to support alcohol reduction.
- **Training** (used in 3 interventions) – intervention components that impart skills to support alcohol reduction.
- **Enablement** (used in 3 interventions) – intervention components that increase facilitators or reduce barriers to support alcohol reduction, beyond education, training, or environmental restructuring.
- **Environmental restructuring** (used in 1 intervention) – intervention components that aimed to change the physical or social environment to support alcohol reduction.

The most commonly reported BCTs were: 5.1 Information about health consequences (n = 7); 5.2 Salience of consequences (n = 4); 5.3 Information about social and environmental consequences (n = 3); 2.2 Feedback on behaviour (n = 3); 2.7 Feedback on outcomes of behaviour (n = 3).

Description of the strategies used in existing interventions

Intervention function	Description of intervention to reduce alcohol consumption in adult drinkers
Education (8 papers)	**Five studies described the use of health warning messages** which included: text and image based messages about the health risks of excessive alcohol consumption (Clarke et al., 2020; 2021; Pechey et al., 2020; Sillero-Rejon et al., 2018; Winstock et al., 2019)
	Two studies described the use of digital interventions (websites or apps) which included: information about the amount of alcohol they are consuming and the amount of money spent and calories consumed as a result of their drinking (Davies et al., 2017; Crane et al., 2017), and the effect of alcohol on mood, productivity and sleep (Crane et al., 2017).
	One study described face to face counselling which included: information about the amount of alcohol they are consuming and information about the consequences of excessive alcohol consumption including information about where to seek help (Coulton et al., 2017)
Persuasion (8 papers)	**Five studies described the use of health warning messages** which included images to persuade about the health consequences of excessive alcohol consumption (Clarke et al., 2020; 2021; Pechey et al., 2020; Sillero-Rejon et al., 2018; Winstock et al., 2019)
	Two studies described the use of digital interventions (websites or apps) which included: being given feedback about social embarrassment experiences as a result of drinking (Davies et al., 2017) or about how their drinking compared with others in their age group (Crane et al., 2017)
Training (2 papers)	**One study described face to face counselling** that included advice about how to reduce alcohol consumption (Coulton et al., 2017)
	One study described a digital intervention that trained people to reduce their cognitive bias to approach alcohol (Crane et al., 2017)
Enablement (3 papers)	**One study described a health warning message** that included a self-affirmation intervention (Sillero-Rejon et al., 2018)
	One study described face to face counselling that included counselling and motivational interviewing (Coulton et al., 2017)
	One study described a digital intervention that included supported goal setting and plans to reduce drinking in specific situations (Crane et al., 2017)
Environmental restructuring (1 paper)	**One study described adapting beverage serving sizes** (Kersbergen et al., 2018)

Heatmap

We identified whether 10 published interventions have the potential to address each of the identified barriers and facilitators for drinking alcohol within the guidelines

No intervention that we evaluated addressed all of the barriers for drinking alcohol within the guidelines

The most common interventions used in the published literature were **information about health consequences and salience of consequences**. While these are likely to be important our interview findings suggest that while people knew about health consequences and their severity, they thought these consequences were only relevant for people drinking at much higher levels that they were.

Other common interventions in the published literature were **information about social and environmental consequences and environmental consequences**. While providing drinkers with further information about possible outcomes is likely useful, it did not address the issue that most participants enjoyed drinking and were not planning to change as long as they did not perceive personal risks of these negative outcomes.

None of the published interventions had techniques in place to address **optimism** and to enable people to **self-identify as someone drinking at unsafe levels**. There were also limited behavioural regulation techniques included to **support efforts to cut down and to drink within the guidelines**, especially in social situations, and where the effects of alcohol may limit the ability of people to stick to their goals.

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Intervention recommendations

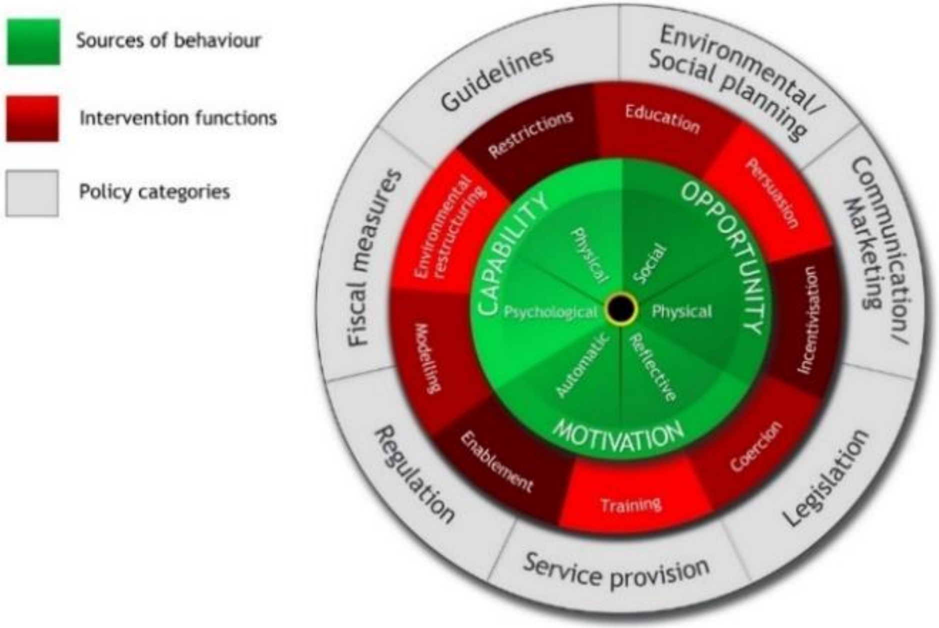
We used the Behaviour Change Wheel [2] to make theory-informed intervention recommendations for supporting drinking alcohol within the guidelines

We have matched the types of intervention functions (red circle) that are likely to address the identified barriers and facilitators for drinking alcohol within the guidelines (green circle).

We have also matched the types of policy categories that can help to deliver those identified interventions (grey circle).

We describe the content of the intervention recommendations in terms of its Behaviour Change Techniques (BCTs), which are the 'active ingredients' of the intervention [10].

Using the APEASE evaluation criteria [2] and the IN-CASE framework [4], we have explored the likely acceptability, practicality, effectiveness, and affordability of the interventions (both from the perspective of the resident, and those who would deliver the intervention), and explored whether receiving and/or delivering these interventions are likely to result in unintended consequences or impact on inequalities.



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Intervention recommendation 1:

Increasing awareness of personal risk

Awareness of the guidelines with regards to alcohol consumption is only useful if people understand how their own behaviour is risky. In order to understand personal risk people need to know what the guidelines are and that their drinking is exceeding these guidelines. They then need to understand their personal risks for negative health, social and emotional outcomes based on their levels of alcohol consumption. This information should emphasise the risks of drinking even a little more than the guidelines and be separate from information designed for dependent drinkers. It is important that this information comes from a credible source and the majority of people recognise healthcare professionals/NHS as reliable sources of health information. We cannot rely on them going to support services or looking for information themselves. Therefore, health professionals need to use ad hoc contact for other reasons to provide this information. There could also be an ad campaign (posters/leaflets) to raise awareness.

APEASE and IN-CASE evaluation criteria:
Participants discussed how they would trust information about the health consequences of drinking from a GP or healthcare professional (**acceptability**) and GPs are and other healthcare professionals are well-placed to have conversations and to provide information to patients (**practicability**). There is substantial evidence that brief interventions in primary care can result in lowered alcohol consumption[1,2] (**effectiveness**). The intervention could be expensive if it required substantial training and time for health professionals to deliver but evidence suggests that a simple leaflet can be as effective as a conversation[1] (**affordability**). Providing information about risk alone may result in some people avoiding or denigrating the message or its source (**side-effects**) but this could be addressed by also providing information about support and how to reduce alcohol consumption (and see intervention 3). In order to ensure accessibility for all, the leaflet would need to be translated into relevant languages with versions suitable for those with learning difficulties and visual impairment (**equitable**).

Behaviour change Wheel

Policy categories:

Communication/marketing

Intervention functions:

Education

Persuasion

Key BCTs:

2.7 Feedback on outcomes(s) of behaviour

5.1 Information about health consequences

5.2 Salience of consequences

9.1 Credible source

Identified need

Having knowledge about the alcohol guidelines and that I am drinking more than is recommended

Knowing about the negative health effects of excessive alcohol consumption

Believing that there are negative health consequences of drinking more than the guidelines recommend (i.e. I am at risk)

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Intervention recommendation 2:

Addressing unrealistic optimism

Unrealistic optimism is a belief that one is less likely than others to experience negative effects and this was expressed quite commonly in our interviews. Previous research has shown that those showing unrealistic optimism are more likely to experience alcohol related problems[3]. Addressing unrealistic optimism requires communications that enable people to understand their personal risk (see intervention 1), to recognise discrepancies in their account of their behaviour and their risk of negative outcomes, and to provide ways that people can begin to understand, believe and address their optimistic bias. Such an intervention could be delivered in an online or face to face conversation or through an online or app based resource.

APEASE and IN-CASE evaluation criteria:
Participants discussed how they would prefer to receive support online or from a peer (**acceptability**). This would require an online system to exist or to train peers to deliver the intervention (**practicability**). There is evidence of the effectiveness of both peer delivery and online approaches [4,5], and although online approaches tended to focus on University students[5] there is emerging evidence that they can also be effective for older adults[6]. (**effectiveness**). The intervention could be expensive if it required the time and money to develop online resources, however training for peer-supporters could be delivered cost effectively using online meeting software (**affordability).** Providing information about risk alone may result in some people feeling fearful (**side-effects**) but this could be addressed by also providing information about support and how to reduce alcohol consumption (and see intervention 3). In order to ensure accessibility for all, online resources would need to be translated and/or peers would need to be selected to represent all the languages spoken in the community (**equitable**).

Behaviour change Wheel

Policy categories:

Service provision

Intervention functions:

Education

Training

Enablement

Modelling

Key BCTs:

5.5 Anticipated regret

6.2 Social comparison

13.2 Framing/reframing

13.3 Incompatible beliefs

13.4 Valued self-identity

Identified need

Believing that I am at risk of experiencing the negative effects of alcohol

Knowing that other people who drink at similar levels to me have experienced negative health outcomes

Believing that the negative effects of alcohol can be invisible in the early stages

Understanding that you don't need to be alcohol dependent to experience negative effects of alcohol

Being able to process and respond to personal risk information

Intervention recommendation 3:

Supporting detailed planning to drink moderately

A consistent finding from the interviews was that even where people were trying to moderate their alcohol intake there were situations and times when they found it difficult to do so. This is supported by a large body of literature which shows a large intention-behaviour gap[7]. In alcohol consumption, when some of the decisions about drinking are made during a period of intoxication, there are additional challenges in sticking to goals that means that planning is even more important. People need some support to enable them to make realistic plans about how to drink within the guidelines (monitoring and restricting units and having dry days), and how to overcome temptations to drink more than planned in higher risk scenarios. They also need some encouragement to keep trying even if they do not always stick to the plan, rather than giving up. A planning intervention needs to take a person through a series of steps to make a detailed plan. This can be done on paper (workbook) or online.

APEASE and IN-CASE evaluation criteria:
Many participants were already engaged in some planning around their alcohol consumption but others were more resistant so this intervention would only be acceptable to those who intended to drink within the guidance and could be designed to be consistent with their goals to drink for pleasure not to result in negative consequences (being drunk, hangovers, longer term health impacts) (**acceptability**). Planning tools can be delivered in a variety of ways to meet local needs (**practicability**). There is substantial evidence detailed planning interventions can support lowered alcohol consumption[8,9,10] (**effectiveness**). The intervention could be delivered in a paper form[8] and therefore would be a relatively low cost (**affordability**). If people do not stick to their plans this could result in them feeling that they are a failure and giving up quickly[11] (**side-effects**) but this could be addressed by integrating a self-compassion intervention[12,13] to enable people to recognise that errors along the way are normal and to be expected. In order to ensure accessibility for all, the workbook would need to be translated into relevant languages with versions suitable for those with learning difficulties and visual impairment (**equitable**).

Behaviour change Wheel

Policy categories:

Communication or Service delivery

Intervention functions:

Training

Enablement

Key BCTs:

1.1 Goal setting (behaviour)

1.2 Problem solving

1.3 Goal setting (outcome)

1.4 Action planning

8.2 Behaviour substitution

11.2 Reduce negative emotions

15.1 Verbal persuasion about capability

Identified need

Being able to monitor alcohol consumption

Being able to make a plan about how to meet the alcohol guidelines

Making a plan to make alcohol substitutions

Making a plan about how to meet the guidelines in social situations

Setting a goal and making a plan to have dry days

Making a plan about how to resist the temptation to drink more than planned.

Being able to keep striving to meet alcohol consumption goals even if there are failures along the way

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Conclusions

This mixed-method research has identified key capability, opportunity, and motivational barriers and facilitators for drinking alcohol within government guidelines.

We have made a series of recommendations about how to address key barriers to drinking alcohol within government guidelines:

1. Increasing awareness of personal risk i.e. that current alcohol consumption exceeds the guidance.

2. Addressing unrealistic biases that the negative effects of drinking alcohol to levels that exceed the guidelines are only relevant for others.

3. Supporting people to make effective plans to drink moderately (i.e. within the guidelines).

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