

## “Have a little less, feel a lot better”: Mixed-method evaluation of an alcohol intervention

Article (Accepted Version)

Lockwood, Nina, De Visser, Richard and Larsen, John (2020) “Have a little less, feel a lot better”: Mixed-method evaluation of an alcohol intervention. *Addictive Behaviors Reports*, 12. a100306 1-9. ISSN 2352-8532

This version is available from Sussex Research Online: <http://sro.sussex.ac.uk/id/eprint/94255/>

This document is made available in accordance with publisher policies and may differ from the published version or from the version of record. If you wish to cite this item you are advised to consult the publisher’s version. Please see the URL above for details on accessing the published version.

### **Copyright and reuse:**

Sussex Research Online is a digital repository of the research output of the University.

Copyright and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable, the material made available in SRO has been checked for eligibility before being made available.

Copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

Lockwood, N.C., de Visser, R.O. & Larsen, J.A. (in press) “Have a little less, feel a lot better”: Mixed-method evaluation of an alcohol intervention. *Addictive Behaviors Reports*.

**Note:** this is the accepted manuscript; the published version may differ

### ABSTRACT

The aim of the mixed methods study reported here was to evaluate the impact of a “gain-framed”, multimedia campaign to encourage heavier drinking men aged 45-64 years to drink less. Quantitative analyses were based on pre-intervention panel surveys of 3057 men in intervention regions and 500 in the control region, and post-intervention panel surveys of 1508 men in intervention regions and 219 in the control region. Qualitative analyses entailed thematic analysis of interviews with 14 men: five who had reduced their drinking after seeing the campaign, four who had considered reducing but did not, and five who did not consider changing. The campaign was associated with significant changes in alcohol consumption, and significant increases in readiness to change and likelihood of using moderate drinking strategies. In qualitative analyses, men appreciated the friendly, non-threatening tone and that the message was straightforward, meaningful, achievable, and was gain-framed - i.e., emphasised the benefits of drinking less rather than the harms of drinking too much. However, men who did not change their behaviour also identified several barriers to change. It would be important to address their views of their drinking as not problematic, as pleasurable, and as socially expected, and also their sense of not feeling empowered to initiate or maintain behaviour change.

---

Alcohol is an important contributor to the global burden of disease (World Health Organization, 2018). Excessive alcohol consumption increases the risk of acute adverse outcomes such as accidents and injuries, and many chronic health conditions (Gore et al., 2011; Hosking & Benger, 2013; Jones et al., 2008; Rehm et al., 2014, 2017; WHO, 2018). Governments in many countries have developed guidelines to encourage people to reduce alcohol intake and to help them to monitor their alcohol intake (Furtwängler & de Visser, 2013). In addition, various campaigns challenge people to change their drinking behaviour. Some such as “Dry January” ([www.dryjanuary.org.uk](http://www.dryjanuary.org.uk)) are one-month alcohol abstinence challenges. Others such as “Hello Sunday Morning” ([www.hellosundaymorning.org](http://www.hellosundaymorning.org)) encourage healthier patterns of drinking in other ways: be that permanent abstinence, temporary abstinence, or simply determining how to have a healthy relationship with alcohol.

There is some evidence that such efforts can help people to manage their alcohol intake, and may lead to longer-term behaviour change (de Visser & Piper, 2020; de Visser et al., 2016; Moss & Albery, 2018; Tait et al., 2019).

Various models of processes of behaviour change have been developed for use in health promotion research and practice (Prochaska & DiClemente, 1984; Schwarzer, 1999; Schwarzer & Luszczynska, 2008; Weinstein, 1988). In many models, individuals' readiness or willingness to change is an important component, so it is important to increase motivation to change, and to provide appropriate messages or advice for people who are ready to change. For example, within the Transtheoretical or "Stages of Change" Model (Prochaska & DiClemente, 1984) when people are exposed to health-promoting messages they may move from a stage of "pre-contemplation" to "contemplation" if they consider the messages to be relevant and motivating. Following on from this, people enter a "preparation" or "planning" stage, which precedes "action". There is evidence that people with different levels of willingness or readiness to change respond differently to the same health-promotion message or intervention (Heather et al., 2009; Merrill, Wardell & Read, 2015).

In addition to considering individuals' willingness or readiness to change, it is important to note that behaviour change messages can be presented with different emphases. Many studies have examined the relative impact of "gain-framed" messages - which emphasise desirable outcomes of a behaviour - and "loss-framed" messages - which emphasise undesirable consequences (Rothman & Salovey, 1997; Salovey, 2002). It has been hypothesised that loss-framed messages are more persuasive for encouraging disease detection behaviour, but that gain-framed messages are more persuasive for disease prevention behaviour (Salovey, 2002; Churchill et al., 2016). One would expect gain-framed messages to be more effective for encouraging lower alcohol intake, because this is a preventive behaviour. However, there is inconsistent supporting evidence (Churchill et al., 2016; de Graaf et al., 2015; Quick & Bates, 2010). Similarly, studies of other behaviours - skin cancer prevention, smoking cessation, and physical activity - find that gain-framed messages are not always more effective (Gallagher & Updegraff, 2012; O'Keefe & Jensen, 2007, 2009; O'Keefe & Wu, 2012).

The gain-framed "Have a little less, feel a lot better" (HaLL) campaign was designed to help heavier-drinking men aged 45-64 become more aware of how much they routinely drink, and to make healthier choices, particularly about home-based drinking (Drinkaware, 2019). Campaign development was not explicitly linked to the transtheoretical model, but its targets and methods reflected an interest in encouraging behaviour change in men who had not considered doing so. The campaign was not formally mapped onto a taxonomy of behaviour

change techniques, but its components covered many of the techniques identified by Michie et al. (2013): providing information about health consequences; providing information about emotional consequences; encouraging self-monitoring of behaviour; encouraging self-monitoring of outcomes of behaviour; and encouraging behavioural experiments. This approach was taken because research suggests that multifaceted campaigns can be more effective than approaches that use a restricted range of messages and/or media (Wakefield et al., 2010). However, whereas mass-media campaigns have been successful in reducing some risk behaviours such as drink-driving, there is less clear evidence of the success of campaigns aimed at reducing alcohol intake in general (Moss & Albery, 2018). Mass-media alcohol campaigns are often recalled by individuals, and often result in changes in knowledge, attitudes and beliefs, but there is less evidence of their effects on alcohol intake (Young et al., 2018). This is likely to be influenced by message recipients' readiness to change, and their responses to loss- or gain-framed messages.

The HaLL campaign was developed by the Drinkaware Trust, an independent alcohol education charity funded largely by UK alcohol producers and retailers. The target group of men in mid-life was identified via research commissioned by Drinkaware (Ipsos MORI, 2015), and other data indicating that mid-life men have the greatest alcohol-related mortality risk (Office for National Statistics, 2016). The focus on home-drinking reflected midlife men's greater willingness to moderate their individual drinking than their social drinking: the anticipated loss of benefits of social drinking has been reported as a reason for them not changing their behaviour (Christmas & Souter, 2016; Parke et al., 2018). Whereas government-backed campaigns in the UK typically refer to "units" of alcohol - 10mL / 8g of pure ethyl alcohol (Furtwängler & de Visser, 2013; UK Chief Medical Officers, 2016) - the HaLL campaign did not specify a maximum unit intake. This was influenced by research evidence that drinkers often report that "units" are not intuitive or easy to use, and that adhering to guidelines may have detract from social drinking (Furtwängler & de Visser, 2017a, 2017b; Robertson & Tustin, 2018).

The campaign adopted multiple approaches: an online alcohol harm assessment tool, educational videos, posters, digital images, social media banners and radio advertisements on stations whose audiences contained many men aged 45-64. The materials were created to help heavier-drinking men aged 45-64 to understand how alcohol can affect their bodies, to advise them that small reductions in alcohol intake can make a big difference to their health, and to support them to take simple steps to reduce their alcohol intake. There was an accompanying website that outlined the background to the campaign and provided links to the resources:

[www.drinkaware.co.uk/about-us/what-we-do/our-approach/our-campaigns/have-a-little-less-feel-a-lot-better](http://www.drinkaware.co.uk/about-us/what-we-do/our-approach/our-campaigns/have-a-little-less-feel-a-lot-better). The campaign was launched in May 2016 for 4 weeks and ran again for 12 weeks from September 2016.

The study reported here used mixed methods to evaluate the HaLL campaign. As noted above, the campaign was developed by the alcohol education charity Drinkaware. The data were collected by a market research company, and Drinkaware then engaged the first two authors to analyse the anonymised data independently. The first aim was to measure the impact of the campaign by comparing men from regions in which the campaign was run to men from a control region. Attention was given to actual behaviour (alcohol consumption) as well as putative predictors of behaviours such as beliefs about drinking and readiness to change. A second aim was to determine whether campaign impact differed for heavier and lighter drinkers given that the intervention was targeted at heavier drinkers. A third aim was to explore men's responses to the campaign, and to identify areas for improvement: attention was given to men's readiness or willingness to change.

## **METHODS**

The samples were composed of adult members of the general population who had previously agreed to be contacted by the market research company. The university employing the first two authors gave IRB approval for the secondary analysis of anonymised data.

### **Quantitative assessment of impact**

#### Samples

Panel surveys of men aged 45-64 were conducted before the campaign began in May 2016 and after its conclusion in May 2018. The 2016 and 2018 samples were designed to be representative of the general population, and were created from a panel of over 1 million UK residents following the standard procedures of the market research company. The analyses presented here are based on pre-intervention surveys with a panel of 3057 men in the regions of the UK where the campaign was delivered and a panel of 500 in a control region where the campaign was not delivered, and post-intervention surveys with a panel of 1508 men in intervention regions and a panel of 219 men in the control region. The intervention samples were larger because within each of the 6 regions, samples comparable to the control sample were included. The control region was selected because it was geographically distinct from the other areas: this reduced the likelihood of inadvertent exposure to the campaign. There was not matching at the individual level, but the same sampling strategies were used in each region to obtain representative samples.

### Pre-post test: 2016 and 2018 questionnaires

Surveys were used in a pre-post design comparing men in the campaign regions to men in a control region. The pre- and post-campaign surveys were largely identical, but the latter also included items designed to enable evaluation of campaign content. The materials used are described below. They were designed by the market research company that administered the surveys. The analyses reported in this paper were conducted subsequently and independently by the authors.

*Alcohol consumption* was assessed using the 3-item Alcohol Use Disorders Identification Test - Consumption (AUDIT-C) scale, which assesses frequency of alcohol consumption, usual volume consumed on a drinking day, and frequency of heavy episodic drinking (Babor et al., 2001). Scores could range from 0 to 12, with scores of five and over indicative of “increasing risk” of harm, and scores below five indicative of “lower risk” (Bush et al., 1998).

*Perceived susceptibility to health problems* was assessed using one question: “Thinking about your alcohol consumption, how likely or not do you think it is that you will have increased health problems in the future if you continue to drink at your current level?” to which respondents replied using a 4-point scale (anchors: “very likely”, “not at all likely”).

*Readiness to Change* was assessed via a 3-item scale (Gunstone et al., 2018). Respondents used 5-point scales (anchors: “strongly disagree”, “strongly agree”) to respond to the statements: “I am actually changing my drinking”; “I don’t think I drink too much”; “Sometimes I think I should cut down my drinking”. The scale had acceptable internal consistency (Cronbach  $\alpha = .78$ ), with higher scores indicating greater readiness to change.

*Beliefs about health impact of drinking alcohol* were assessed with five items. Respondents used 5-point scales (“strongly disagree” - “strongly agree”) to indicate their agreement with the statements: “A few extra drinks here and there can add up to more than is good for you”; “As long as you’re not getting drunk, regular drinking won’t affect your health”; “Cutting back on a few drinks is a good way to improve your health”; “Drinking is only a problem if it gets in the way of your day-to-day responsibilities”; “If most days of the week you have more than a couple of drinks then you may be storing up health problems”. The scale had acceptable internal consistency (Cronbach  $\alpha = .70$ ), with higher scores indicating greater perceived health impact of drinking.

*Moderate drinking strategies* were assessed with 10 items. The root “Here are some things people have said they do to moderate their drinking. Have you tried any?” was followed by the strategies: “Alternate alcoholic drinks with soft drinks or water”; “Avoid always having alcohol in the house”; “Avoid being in a round of drinks”; “Avoid drinking alcohol on a

‘school/work night’; ‘Drink a lower strength alcoholic drink’; ‘Drink smaller glasses of wine or smaller bottles of beer’; ‘Drink within the daily guidelines’; ‘Record how much I am drinking’; ‘Set myself a drinking limit e.g. just a glass/bottle’; ‘Stay off alcohol for a fixed time period’. Respondents used a 5-point scale to indicate their engagement with them (‘I have been doing this for a while’ - ‘I could never see myself doing this’). The scale had good internal consistency (Cronbach  $\alpha = .86$ ), with higher scores indicating greater engagement with moderate drinking strategies.

#### Impact of campaign: 2018 questionnaire

The 2018 survey assessed recall of, and responses to, the campaign. First, respondents indicated whether they could recall any alcohol harm-reduction campaign in the last year (yes/no). Those who could were then asked if they recognised the HaLL campaign, and if they recognised each campaign element (yes/no): ‘Know it all’ radio advertisement; radio advertisement on ‘TalkSport’; Digital/social media messages; Drink compare tool on website; ‘Health Harms’ video; Washroom poster.

For the campaign overall, and for each campaign element they recognised, respondents used a 3-point scale (‘not at all’, ‘a little’, ‘a lot’) to indicate how it influenced them to: consider how healthy my drinking habits are; make a plan to cut down my drinking; actually change my drinking habits; talk to family or friends about my drinking.

Respondents who did not recall the campaign were shown the HaLL campaign materials and asked a series of questions about the potential impact of each element. All questions had the same stem ‘How likely do you think it is that this campaign will prompt men in your age group to ...’. This was followed by four statements corresponding to the four changes noted in the final sentence of the preceding paragraph.

#### Analytic strategy

Survey data were analysed using standard parametric tests (MANCOVA) and non-parametric tests ( $\chi^2$ ). The dependent variables were those five listed under the heading ‘pre-post test: 2016 and 2018 questionnaires’: Alcohol consumption (AUDIT-C); perceived susceptibility to health problems; readiness to change, beliefs about health impacts of drinking, and moderate drinking strategies. Tests were conducted to assess overall intervention effects, and to assess whether campaign impact differed for heavier and lighter drinkers. Prior to analysis, samples were weighted to reflect the population in relation to age, region of residence, and occupation-based social grade. In addition, age and social grade were included as covariates in MANCOVA to account for any between region differences.

## **Qualitative evaluation of campaign**

### Semi-structured interviews

In-depth telephone interviews lasting around 45 minutes were conducted with 14 purposively-selected survey respondents who recalled at least one campaign element. Five men had reduced their drinking after seeing the campaign (the “Acted” group), four had considered reducing their drinking but had not taken action (“Contemplated”), and five did not consider making any changes (“Disregarded”). Sample selection ensured variation according age, occupational classification, geographical location, and drinking patterns. The interviews allowed in-depth exploration of perceptions of the campaign, motivations to act, perceived barriers to action, and recommendations for future modifications of the campaign. Respondents were contacted and interviewed by the research company that conducted the survey. All men gave informed consent and the interviews were audio recorded. The authors of this paper transcribed the recordings verbatim and analysed them independently.

### Analytic strategy

Transcripts underwent inductive Thematic Analysis in the six phases outlined by Braun and Clarke (2006): familiarisation with data; generation of initial codes; searching for themes; reviewing themes; defining and naming themes; and writing-up. The first author conferred with the second author at regular intervals to agree coding and interpretation.

## **RESULTS**

Table 1 shows that at baseline, there were no significant differences between the intervention and control groups in scores for alcohol consumption ( $F_{(1,2190)} = 0.88$ ,  $p = .76$ ), perceived susceptibility to health problems ( $F_{(1,2190)} = 0.24$ ,  $p = .81$ ), readiness to change ( $F_{(1,2190)} = 0.43$ ,  $p = .67$ ), beliefs about health impacts of drinking ( $F_{(1,2190)} = 1.06$ ,  $p = .58$ ), and moderate drinking strategies ( $F_{(1,2190)} = 1.09$ ,  $p = .55$ ). Although the intervention group included more people aged 55-64 and fewer people aged 45-54 ( $\chi^2_{(1)} = 9.01$ ,  $p < .01$ ), there were no between group differences in occupation-based social grade ( $\chi^2_{(3)} = 0.19$ ,  $p = .98$ ).

### **Quantitative assessment of impact**

Table 1 shows that there was a significant group-by-time effect for alcohol consumption. Mean AUDIT-C scores fell in intervention regions, whereas they increased in the control region. Men in the intervention group reported significant increases in readiness to change scores and engagement with moderate drinking strategies, whereas men in the control group did not. There was no significant group-by-time effect for perceived susceptibility to alcohol-related health problems, or beliefs about the potential health impact of drinking.

>> Table 1 <<



### Impact of campaign: 2018 questionnaire

“Increasing risk” drinkers were significantly more likely than “lower risk” drinkers to recall any campaigns about reducing alcohol intake (59% vs 50%;  $\chi^2_{(1)} = 31.52$ ,  $p < .01$ ), and they were more likely to recognise the HaLL campaign (22% vs 16%;  $\chi^2_{(1)} = 7.68$ ,  $p < .01$ ). When prompted about specific components of the campaign, respondents were most likely to remember the “Know it all” radio advertisement. “Increasing risk” drinkers were significantly more likely to remember at least one campaign element (32% vs 22%;  $\chi^2_{(1)} = 12.46$ ,  $p < .01$ ). They were also significantly more likely to remember the “Know it all” radio advertisement (23% vs 15%;  $\chi^2_{(1)} = 12.53$ ,  $p < .01$ ), the washroom poster (9% vs 4%;  $\chi^2_{(1)} = 13.29$ ,  $p < .01$ ), and digital/social media messages (7% vs 4%;  $\chi^2_{(1)} = 4.79$ ,  $p = .03$ ). There were no significant differences in recall of the drink compare tool on the Drinkaware website (5% vs 4%;  $\chi^2_{(1)} = 0.75$ ,  $p = .39$ ), radio advertisement on “TalkSport” (5% vs 3%;  $\chi^2_{(1)} = 2.23$ ,  $p = .14$ ), or “Health Harms” video (3% vs 2%;  $\chi^2_{(1)} = 0.15$ ,  $p = .70$ ).

Table 2 shows that among respondents who remembered at least one campaign element, “increasing risk” drinkers were significantly more likely than “lower risk” drinkers to say that the campaign message had: made them consider how healthy their drinking was; been a trigger for planning to cut down their intake; and been a trigger for actually making changes. After all of the drinkers who did not remember any element of the campaign had been shown the materials, the “increasing risk” drinkers were significantly more likely to say that the campaign message would encourage men of their age to: consider how healthy their drinking was; plan to reduce their intake; and actually change their drinking behaviour.

>> Table 2 <<

### **Qualitative evaluation of campaign**

Qualitative analyses identified three major themes, some of which had sub-themes. Each theme is described below and illustrated with quotes which include a code that combines the campaign response group, an interviewee number, and the man’s age - e.g., “Disregarded-16-54” refers to 54-year-old interviewee 16 from the group who disregarded the HaLL message.

#### Theme 1: Campaign message

##### Theme 1.1: Campaign focus on “everyday drinking”

The focus on “everyday drinking” rather than “excessive drinking” or “binge drinking” was well-received by all but one respondent. Men appreciated the focus on a type of drinking that was common, but was often not acknowledged as potentially problematic. This was linked to a belief that “everyday drinkers” are often unaware of the actual volumes of alcohol they

routinely consume:

People that do the extremes will probably realise that what they're doing is extreme and they'll either change or won't, depending on who they are and their lifestyle, what have you. For the majority of people, it's going to be, "I don't drink too much", but if you think about it and you add up what you do all through the week and weekend, you probably go, "That adds up to too much." [Disregarded-16-54]

Some respondents explicitly developed this line of thinking by noting that for many everyday drinkers, there were "incremental increases" in the volumes of alcohol they consumed. Across all groups, men underscored the broad relevance of the campaign's focus:

It's a very wise focus, because, as I understand it, that's where Britain's hidden drinking, that's where it takes place. So, people do, kind of, drink regularly rather than in binges, at least that kind of behaviour isn't something that's really been addressed, to my knowledge, particularly with any great focus. [Disregarded-17-52]

Noteworthy due to his clear divergence from the remainder of the sample, one man argued against the focus on "everyday drinking" and instead suggested that "binge drinking" was a more urgent and necessary target for interventions. However, he acknowledged that being a police officer may have influenced his opinion: he was often exposed to the physical, emotional and financial costs of heavy episodic drinking:

I find the focus on everyday drinking in moderation to be a little annoying, purely because I think - obviously everyday drinking in excess is a massive problem - I think personally that binge drinking is much more of a serious problem than everyday drinking in moderation [...] I don't think that somebody, you know, who sits at home with a partner and drinks a bottle of wine of an evening with the meal and then afterwards watching TV is a problem to society. [Acted-08-59]

#### Theme 1.2: Campaign message

Men positively appraised several dimensions of the campaign message, each of which is described below.

##### *Theme 1.2a: Straightforward message*

Prevalent across both the "Acted" and "Contemplated" groups was a feeling that the campaign's message was clear and straightforward, and therefore accessible:

There's no science. It's just, "You have a bit less, then you'll feel a lot better." I mean, having sat there and thought about it, I've been so impressed with that simplicity. [...] There's no argument. There's no intellectualising of it... It's just, "If you drink a little less, then you'll feel a lot better." [Acted-05-53]

For several respondents, the absence of reference to alcohol units was praised. As noted in the introduction, past research has indicated that the UK system of alcohol "units" is not intuitive or easy to use (Furtwängler & de Visser, 2017a, 2017b; Robertson & Tustin, 2018). Some men shared the opinion that this enhanced the accessibility of the central message:

There was no talk of units, was there, because I always think that's ridiculous. I still think it's stupid that they talk about alcohol in units. Nobody ever thinks about alcohol in units. Not one person who drinks thinks about units. You think about a bottle of wine, a can of beer, a pint of beer. [Acted-07-52]

The ease with which men immediately grasped the message prompted their self-reflection and deliberation. Men in the “Disregarded” group did not suggest that the message was complex or difficult to follow. Instead, they focused on other aspects of the message which are considered below.

*Theme 1.2b: Meaningful message*

Expressions of the meaningfulness of the campaign's central message were most evident in the “Acted” group and, to a lesser degree, the “Contemplated” group. These men felt able to identify with the message:

It just struck me. I thought “Well, actually, that's true. That is very true.” You know, if you have a glass of wine or two glasses of wine and you get up in the morning, you feel right as rain. There's no issue, no problem, no headache, no weirdness. If you do the same after a bottle or more of wine, then you feel the impact. If you have significantly more than that, if you go out and have five or six pints, then you do feel a lot worse than if you have a little bit less. [Acted-05-53]

Contrary to the generally positive responses from men in the “Acted” and “Contemplated” groups, men in the “Disregarded” group reported that they did not indicate that they related to the campaign's message. Some men in these groups expressed an inability to relate to the message, feeling that it was irrelevant to them because they had no experience of their health having been affected by their alcohol use:

Let's have a look at these different posters, I mean, there's, “How are your drinks stacking up through the week? Cutting out just one or two every time you drink could improve your health, and even lower your blood pressure.” Well, that's fine. I'll go along with that, that's, yes, a factual statement, but I have very good blood pressure. [Disregarded-13; 53]

*Theme 1.2c: Gain-framed message*

Some men in the “Acted” and “Contemplated” groups positively evaluated the gain-framed approach adopted in the campaign, and highlighted its motivating effect:

It was good to show... the positive side as well. People can be encouraged to have a little bit less and show that they will gain something because of that. [Contemplated-12; 62]

- - -

That's good, you see, because it's positive. Positive reinforcement, from a psychological point of view, you don't punish, you just reward positive behaviour. [Acted-07-52]

These quotes reflect a belief that the campaign's gain-framed approach incentivised drinkers, and that behaviour change could provide positive feedback.

### *Theme 1.2d: Achievable message*

Observable across all groups was the feeling that encouragement to “Have a little less” was achievable. Perhaps unsurprisingly given their first-hand experience of reducing their alcohol consumption, such response were most common within the “Acted” group:

If you can say, “Well if you try this” and we’re not talking about a huge change, they’re probably much more likely to stop, think and say “Yes, well, maybe.” [Contemplated-12-62]

The emphasis on moderation rather than abstinence appeared pivotal to men’s evaluations of the campaign’s message as realistic and therefore achievable. Moreover, the idea that *any* reduction would qualify as meeting the desired goal accentuated impressions of feasibility.

### Theme 2: Campaign Tone

Aside from two men in the “Disregarded” group, respondents positively appraised the tone of the campaign, as outlined below.

#### Theme 2.1: Non-lecturing tone

Widespread among the “Acted” group and, to a lesser degree, the “Contemplated” group was a feeling that the campaign had an advisory, rather than prescriptive, tone:

What stood out to me, it wasn’t lecturing, it wasn’t preaching, in that sense. [...] It’s always nice when someone persuades you to do something rather than telling you. [Acted-09-68]

Respondents had positive perceptions of the campaign’s tone as information-based and advisory, rather than overtly commanding or judgemental. Echoing several respondents’ remarks, these reflections employed terms like “nanny state” and “Big Brother” to conjure an image of what they *did not* experience as the tone of the campaign. However, some men in the “Disregarded” group felt that the campaign *did* come across as lecturing:

It’s obviously trying to nudge your behaviour, but it’s done in such an overt way that it’s just, sort of, you know, you just think, “Oh for God’s sake, shut up.” I just find it really condescending, irritating. [Disregarded-16-54]

These men experienced the tone as patronising, either as a result of feeling that they were being told things they were already aware of, or that the call for behaviour change was expressed too blatantly. However, it should be noted that the quote above came from a man who explicitly stated that he may have reacted defensively to *any* campaign seeking to reduce alcohol consumption given that he worked in the alcoholic drinks industry.

#### *Theme 2.1a: choice and personal responsibility*

Many respondents drew attention to different ways in which the campaign’s phrasing underscored the sense of choice and personal responsibility. This appeared to contribute to their openness to engaging with the campaign:

There was a bit of autonomy. It's, like, saying "A little less," and giving some examples of what that is, you know, and sort of, "Cut down, or maybe have an evening," or something like that. It wasn't telling you "You must do this!" It was kind of giving some responsibility back on the person to decide what that little less would be [...] I've never been one for telling people off... or wagging fingers, you've got to provide information and help people understand how they can make good choices. [Acted-07-52]

#### Theme 2.2: Friendly tone

When asked to consider what features of the campaign motivated their reduced alcohol consumption, several respondents from the "Acted" group identified the non-lecturing, non-threatening and easy-to-relate-to qualities of the campaign's tone:

The tone was more chummy, pally, as if it's one of your friends come around to you and saying, "Come on. Wise up. Catch yourself on," that sort of thing. It was more like a good friend suddenly saying some sort of truths to you. [Acted-03-55]

For several men in the "Contemplated" group, the conversational style of delivery contributed to their feelings of being able to relate to it, and they associated this with their heightened contemplation of changing their drinking:

It sounded like the sort of person who could be a mate of yours, who'd look out for you and make you see that you're drinking a bit too much and it's not doing you any good, and he just wanted to help you out and put you on the right course. [Contemplated-06-55]

#### Theme 2.3: Non-threatening tone

In all groups, men made positive comments about the non-threatening tone of the campaign, and the absence of extreme or scary images or messages. They highlighted that this could encourage engagement with the campaign:

People are increasingly being told how to live. So, to just be informed and nudged, if you like, without anybody trying to scare you, or, as I say, tell you what's best. I think that's more likely to succeed. [Disregarded-17-52]

Clear in many men's comments was the idea that fear-based appeals are not an effective way to persuade people to change their behaviour:

It's gentle and it's letting you make your decision as to how you go about it. You know, things like alcohol is like any drug, it's a complicated issue psychologically, and telling people off won't work. Telling them it's going to kill them. It's like, if you tell a smoker who's smoking regularly, like, "Carry on like that, it'll kill you." I mean, what, they're going to put the cigarette out and then go, "Yes, you're right," and stop? [Acted-07-52]

### Theme 3: Barriers to change

The third major theme relate to a number of barriers to moderating alcohol consumption that were identified by respondents in the "Contemplated" and "Disregarded" groups.

### Theme 3.1: Perceptions of personal relevance

The most prevalent obstacle to behaviour change reported by men who “Contemplated” or “Disregarded” behaviour change was their perception of a lack of personal relevance of the message. Many clearly felt comfortable with their current levels of alcohol consumption:

Not to be conceited, but I've got control of my drinking. [Disregarded-14-51]

Some respondents developed their reasoning around their perceptions of the personal irrelevance of the campaign - or indeed any call for moderate drinking - by reflecting on the “safe” and “sensible” nature of their drinking:

I think what I'm drinking is moderate and reasonably safe. [Contemplated-11-60]

Although most respondents reflected on the possible personal relevance of the campaign before drawing conclusions that they did not need to change, a small number of men experienced a complete disjunction between the campaign's message and their own drinking:

The first thing I was thinking to myself was, “Well obviously, it's not really aimed at me because I don't drink, or I don't class myself as a heavy drinker”, and you know, I don't drink every day, or more than a couple of times a week. [Contemplated-10-54]

### Theme 3.2: Enjoyment

A number of men in the “Contemplated” and “Disregarded” groups emphasised how their unwillingness to sacrifice the enjoyment of drinking shaped their motivation to change. The mood enhancement and sensory satisfaction experienced through drinking were highly valued and therefore presented barriers to their interest in reducing their drinking:

My main barrier is, I drink because I enjoy it, not to get drunk. So, if I'm drinking with a meal, it's part of the meal, and I enjoy a good wine. I don't go out and drink a bottle of meths or a bottle of cheap cider, I'll drink nice wine, a nice glass of wine. I enjoy drinking interesting gins with different flavours, different botanicals, so again, that's not drinking to excess, it's drinking to enjoy the drink you have. [Disregarded-13-53]

### Theme 3.3: Habit

For a very small number of respondents, the role of habit was considered a particularly resistant barrier to behaviour change. Although framed in abstract, non-personal terms, one respondent highlighted the widespread influence of habitual drinking as a barrier to the impact of any intervention or education campaign:

I think it's almost habit with a lot of people. As I say, particularly perhaps when they've had a stressful day at work and it's almost an automatic thing. [Disregarded-01-56]

Interestingly, the only respondent to reflect openly on his personal struggles with habitual drinking questioned the capacity of any drinking-related campaign aimed at the general population to combat ingrained habits. He was unlike many of the other men who perceived their drinking as unproblematic in that he acknowledged the unhealthy and problematic nature

of his long-standing drinking habits:

Talking about my own situation, this has been ingrained for decades, really, so it's just something I became used to, it's just down to habit. It's really hard to shift [...] I'm just thinking about how it could be effective. I mean, as I say, thinking about myself, I just can't see how it, I mean, I'd listen to it, but I can't see how it would change my behaviour.

[Contemplated-06-55]

#### 3.4: Personal resources

Although only reported by a single respondent from the “Disregarded” group, not feeling personally resourced in the face of multiple stresses was cited as an additional barrier to behaviour change. This interviewee felt that various stresses had contributed to his sense of not being resilient enough to tackle the additional challenge of reducing his alcohol consumption:

I'm very good at talking about what the effect might be on other people, but not on myself. [...] Well, in my case, I think there were some particular circumstances... I, sort of, had several highly-stressful things that were happening, all at the same time. To be honest with you, I kind of postponed any kind of attempt to add something else stressful, in the form of trying to change habits until after this period was over. [Disregarded-17-52]

#### 3.5: Social norms

Although it was not a common theme, some men commented on the important influence of social norms for drinking. Social norms around drinking and the central role of drinking in socialising were considered to pose a challenge to attempts to change individual behaviour:

That's a barrier, isn't it? If you're out, then people tend to drink in rounds, and maybe especially with men, there's a slight discomfort in saying, “No, count me out from this round.” [Disregarded-17-52]

## DISCUSSION

The HaLL campaign was associated with significant changes to alcohol consumption in the target audience of mid-life men: a small reduction in the intervention regions as opposed to a larger increase in the control region. It is noteworthy that the mean AUDIT-C score in the intervention region remained close to the threshold score of 5, but in the control region it increased to above the threshold indicative of “increasing risk” drinking. Data from the Health Survey for England indicate that among men aged 45-64 in the general population, there were not marked changes in patterns of alcohol consumption between 2016 and 2018 (NHS Digital, 2019). The campaign was also associated with significant increases in readiness to change, and the likelihood of using moderate drinking strategies. The campaign had its greatest impact among the target audience of heavier drinkers.

The analyses suggest a need to develop and deploy multi-component, multi-media

campaigns, because no single element was widely recognised. This corresponds with findings that multi-component, multi-media campaigns can be more effective than less diverse approaches (Wakefield et al., 2010). The campaign focused on the health effects of alcohol use, but it may also be important to consider the (actual or perceived) social gains and losses that may be associated with reducing alcohol intake (Kingsbury et al., 2015; Robertson & Tustin, 2018). This was also noted in the qualitative evaluation.

Generally, men responded favourably to the campaign. The central message “Have a little less, feel a lot better” was well-received among men who changed their drinking and those who contemplated such change. They appreciated the straightforward, meaningful, achievable, and gain-framed qualities of the message. These responses contain echoes of the concept of “SMART” goals defined in terms of being Specific, Measurable or Motivating, Achievable, Realistic, and Time-Specific (Doran, 1981). As noted in the introduction, the HaLL campaign did not mention units, or recommend a unit intake maximum. This decision was influenced by evidence that many drinkers consider units “units” too abstract and difficult to use (Furtwängler & de Visser, 2017a, 2017b; Robertson & Tustin, 2018), and that to reduce the likelihood of various health risks, all drinkers would probably benefit from drinking less than the currently do (Rehm et al., 2019; Zhao et al., 2017).

Several aspects of the campaign were identified as particularly motivating. One key motivational factor was the HaLL message itself. It was noteworthy that several men who had begun reducing their alcohol intake prior to the campaign said that the gain-framed message (Rothman & Salovey, 1997; Salovey, 2002) confirmed the health benefits they hoped to achieve by drinking less. The overall tone of the campaign was evaluated favourably: the non-lecturing, friendly, and non-threatening qualities were identified as key positive features.

It is important to note that several barriers to moderation were identified by respondents who “Contemplated” or “Disregarded” the HaLL message. A key barrier was a perceived lack of personal relevance of the message which was reflected in a low willingness or readiness to change (Heather et al., 2009; Merrill, Wardell & Read, 2015; Prochaska & DiClemente, 1984; Schwarzer, 1999; Schwarzer & Luszczynska, 2008; Weinstein, 1988). Many men were comfortable with their current levels of alcohol consumption, had not experienced adverse health effects, and did not view the campaign’s message as relevant to them. A further barrier to change was men’s enjoyment of drinking socially, and their unwillingness to sacrifice this pleasure. Future campaigns would do well acknowledge these issues, and to address the positive aspects of drinking less. For example, other campaigns have highlighted



improvements to sleep, concentration, energy, and weight (de Visser et al., 2016). This study was not a test of a specific model of behaviour change (Prochaska & DiClemente, 1984; Schwarzer, 1999; Schwarzer & Luszczynska, 2008; Weinstein, 1988). However, the results indicated the importance of considering how well any intervention addresses various characteristics of the target audience: initial awareness of issues; motives for drinking or changing; readiness to change; and processes of planning for and enacting change. The barriers to change that men identified could be targeted in revisions of the HaLL campaign, and in other interventions.

One strength of the study reported here was the recruitment of large population-based panels to examine the impact of a multi-component, multi-media behaviour change campaign directed at the general population. This may help to explain the difference between the findings of this study and many other studies that have not found significant changes in behaviour despite having an effect on the cognitive antecedents of alcohol use (Young et al., 2018). The reliance on self-reports of alcohol consumption without validation via an objective measure could be considered a limitation. However, this should not have been a source of bias unless there were systematic changes over time in the accuracy of self-reports between the intervention and control groups: this is unlikely.

Although the intervention led to some changes in knowledge and motivation, if people are to make changes to their unhealthy behaviour then there may be an additional need to develop the behavioural skills needed to monitor alcohol intake and to manage temptations and/or pressure to drink (de Visser et al., 2017; Fisher, Fisher & Harman, 2003). Furthermore, contemporary models of behaviour change echo this sentiment (Michie et al., 2014): in addition to motivation and behavioural skills, people must also have opportunities to attempt behaviour change. Men who did not change their behaviour identified several barriers to responding in ways encouraged by the message. It would be important for revisions of this campaign (and perhaps other campaigns) to address men's views of their drinking as not problematic, as pleasurable, and as socially expected, and also their sense of not feeling empowered to initiate or maintain behaviour change. There may, therefore, be value in applying a broader range of behaviour change techniques including providing information about others' beliefs about non-drinking, drinking, and drunkenness, facilitating identification of barriers and facilitators of moderate drinking, providing opportunities for beneficial social comparison, developing social support or behaviour change, modelling healthier behaviour, and teaching the use of plans, prompts and cues (Michie et al., 2013). This could help people to understand the relevance of the campaign message and apply it in their own lives.

## REFERENCES

- Babor, T.F., Higgins-Biddle, J.C., Saunders, J.B. & Monteiro, M.G. (2001). *The Alcohol Use Disorders Identification Test (2<sup>nd</sup> Edition)*. Geneva: WHO.
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77-101. doi: 10.1191/1478088706qp063oa
- Bush, K., Kivlahan, D.R., McDonnell, M.B., Fihn, S.D. & Bradley, K.A. (1998). The AUDIT alcohol consumption questions (AUDIT-C) An effective brief screening test for problem drinking. *Archives of Internal Medicine, 158*, 1789-1795. doi: 10.1001/archinte.158.16.1789
- Christmas, S. & Souter, A. (2016). *Midlife Male Drinking: Findings from research with men aged 45 to 60*. London: Drinkaware. From: [https://www.drinkaware.co.uk/media/1574/midlife-male-drinking\\_v02-1.pdf](https://www.drinkaware.co.uk/media/1574/midlife-male-drinking_v02-1.pdf)
- Churchill, S., Pavey, L., Jessop, D. & Sparks, S. (2016). Persuading people to drink less alcohol: The role of message framing, temporal focus and autonomy. *Alcohol & Alcoholism, 51*, 727-733. doi: 10.1093/alcalc/agw033
- de Graaf, A., van den Putte, B. & de Bruijn, G.-J. (2015). Effects of issue involvement and framing of a responsible drinking message on attitudes, intentions, and behavior. *Journal of Health Communication, 20*, 989-994. doi: 10.1080/10810730.2015.1018623
- de Visser, R.O. & Piper, R. (2020). Short-and longer-term benefits of temporary alcohol abstinence during “Dry January” are not also observed among adult drinkers in the general population: prospective cohort study. *Alcohol & Alcoholism, 55*, 433-438. doi: 10.1093/alcalc/agaa025
- de Visser, R.O., Cooke, R., Cooper, G. & Memon, A. (2017). Using alcohol unit-marked glasses enhances capacity to monitor intake: evidence from a mixed-method intervention. *Alcohol & Alcoholism, 52*, 206-212. doi: 10.1093/alcalc/agw084
- de Visser, R.O., Robinson, E. & Bond, R. (2016). Voluntary temporary abstinence from alcohol during "Dry January" and subsequent alcohol use. *Health Psychology, 35*, 281-289. doi: 10.1037/hea0000297
- Doran, G.T. (1981). There's a SMART way to write management's goals and objectives. *Management Review, 70*, 35-36.
- Drinkaware (2019). *Have a little less, feel a lot better evidence*. Downloaded 01 April 2019 from: <https://www.drinkaware.co.uk/research/our-research-and-evaluation-reports/have-a-little-less-feel-a-lot-better-evidence>
- Fisher, W.A., Fisher, J.D. & Harman, J. (2003). The Information–Motivation–Behavioral Skills model: a general social psychological approach to understanding and promoting health behavior. In: J. Suls & K.A. Wallston (Eds) *Social Psychological Foundations of Health and Illness*. London: Blackwell (pp.82-106).
- Furtwängler, N.A.F.F. & de Visser, R.O. (2013). Lack of international consensus in low risk drinking guidelines. *Drug & Alcohol Review, 32*, 11-18. doi: 10.1111/j.1465-3362.2012.00475.x

- Furtwängler, N.A.F.F. & de Visser, R.O. (2017a) Motivation to adhere to unit-based guidelines for alcohol consumption and ability to do so is limited among university students, *Drugs: Education, Prevention & Policy*, 24, 418-425. doi: 10.1080/09687637.2016.1211991
- Furtwängler, N.A.F.F. & de Visser, R.O. (2017b). University students' beliefs about unit-based guidelines: A qualitative study. *Journal of Health Psychology*, 22, 1701-1711. doi: 10.1177/1359105316634449
- Gallagher, K.M. & Updegraff, J.A. (2012). Health message framing effects on attitudes, intentions, and behavior: a meta-analytic review. *Annals of Behavioral Medicine*, 43, 101-116. doi: 10.1007/s12160-011-9308-7
- Gore, F.M., Bloem, P.J.N., Patton, G.C., ... Mathers, C.D. (2011). Global burden of disease in young people aged 10–24 years: a systematic analysis. *Lancet*, 377, 2093–2102. doi: 10.1016/S0140-6736(11)60512-6
- Gunstone, B., Piggott, L., Butler, B., Appleton, A. & Larsen. J. (2018). *Drinking behaviour and moderation among UK adults: Findings from Drinkaware Monitor 2018*. London: Drinkaware.
- Heather, N., Hönekopp, J., Smailes, D. & the UKATT Research Team. (2009). Progressive stage transition does mean getting better: a further test of the Transtheoretical Model in recovery from alcohol problems. *Addiction*, 104, 949-958. doi: 10.1111/j.1360-0443.2009.02578.x
- Hoskins, R. & Bengler, J. (2013). What is the burden of alcohol-related injuries in an inner city emergency department? *Emergency Medicine Journal*, 30, e21 doi: 10.1136/emered-2011-200510
- Ipsos MORI (2015). *Drinkaware Monitor 2014: Adults' drinking behaviour and attitudes in the UK*. London: Drinkaware.
- Jones, L., Bellis, M.A., Dedman, D., Sumnall, H. & Tocque, K. (2008). *Alcohol-attributable fractions for England: Alcohol-attributable mortality and hospital admissions*. Liverpool: Centre for Public Health, Liverpool John Moores University.
- Kingsbury, J.H., Gibbons, F.X. & Gerrard, M. (2015). The effects of social and health consequence framing on heavy drinking intentions among college students. *British Journal of Health Psychology*, 20, 212-220. doi: 10.1111/bjhp.12100
- Merrill, J.E., Wardell, J.D., & Read, J.P. (2015). Is readiness to change drinking related to reductions in alcohol use and consequences? A Week-to-Week Analysis. *Journal of Studies on Alcohol and Drugs*, 76, 790-798. doi: 10.15288/jsad.2015.76.790
- Michie, S., Atkins, L. & West, R. (2014). *The Behaviour Change Wheel: A guide to designing interventions*. London: Silverback.
- Michie, S., Richardson, M., Johnston, M., Abraham, C., Francis, J., Hardeman, W., Eccles, M.P., Cane, J., Wood, C.E. (2013). The behavior change technique taxonomy (v1) of 93 hierarchically clustered techniques: building an international consensus for the reporting of behavior change interventions. *Annals of Behavioral Medicine*, 46, 81-95.

doi:10.1007/s12160-013-9486-6

- Moss, A.C. & Albery, I.P. (2018). The science of absent evidence: Is there such thing as an effective responsible drinking message? *Alcohol & Alcoholism*, 53, 26-30. doi: 10.1093/alcalc/agx070
- NHS Digital (2019). *Health Survey for England, 2018: Adults' Health-Related Behaviours Data Tables (version 2)*. dataset downloaded 12 August 2020 from: <https://files.digital.nhs.uk/08/96A2C2/HSE18-Adult-Health-Related-Behaviours-tab-v2.xlsx>
- O'Keefe, D. J. & Wu, D. (2012). Gain-framed messages do not motivate sun protection: A Meta-Analytic Review of Randomized Trials Comparing Gain-Framed and Loss-Framed Appeals for Promoting Skin Cancer Prevention. *International Journal of Environmental Research and Public Health*, 9, 2121-2133. doi:10.3390/ijerph9062121
- O'Keefe, D.J. & Jensen, J.D. (2007). The relative persuasiveness of gain-framed and loss-framed messages for encouraging disease prevention behaviors: A meta-analytic review. *Journal of Health Communication*, 12, 623-644. doi: 10.1080/10810730701615198
- O'Keefe, D.J. & Jensen, J.D. (2009). The relative persuasiveness of gain-framed and loss-framed messages for encouraging disease detection behaviors: A meta-analytic review. *Journal of Communication*, 59, 296-316. doi: 10.1111/j.1460-2466.2009.01417.x
- Office for National Statistics (2016). *Alcohol-related deaths in the UK*. Newport: ONS. From: [www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/alcoholrelateddeathsintheunitedkingdom/registered2014](http://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/alcoholrelateddeathsintheunitedkingdom/registered2014)
- Parke, H., Michalska, M., Russell, A., Moss, A. C., Holdsworth, C., Ling, J., & Larsen, J. (2018). Understanding drinking among midlife men in the United Kingdom: A systematic review of qualitative studies. *Addictive Behavior Reports*, 8, 85-94. doi: 10.1016/j.abrep.2018.08.001
- Prochaska, J.O. & DiClemente, C.C. (1984). *The transtheoretical approach: Towards a systematic eclectic framework*. Homewood, IL: Dow Jones Irwin.
- Quick, B.L. & Bates, B.R. (2010). The use of gain- or loss-frame messages and efficacy appeals to dissuade excessive alcohol consumption among college students: A test of Psychological Reactance Theory. *Journal of Health Communication*, 15, 603-628. doi: 10.1080/10810730.2010.499593
- Rehm, J., Dawson, D., Frick, U., Gmel, G., Roerecke, M., Shield, K.D., Grant, B. (2014). Burden of disease associated with alcohol use disorders in the United States. *Alcoholism: Clinical & Experimental Research*, 38, 1068-1077. doi: 10.1111/acer.12331
- Rehm, J., Gmel, G.E., Gmel, G., ... Shuper, P.A. (2017). The relationship between different dimensions of alcohol use and the burden of disease-an update. *Addiction*, 112, 968-1001. doi: 10.1111/add.13757
- Rehm, J., Soerjomataram, I., Ferreira-Borges, C. & Shield, K.D. (2019). Does alcohol use affect cancer risk? *Current Nutrition Reports*, 8, 222–229. doi: 10.1007/s13668-019-0267-0
- Robertson, K., & Tustin, K. (2018). Students Who Limit Their Drinking, as Recommended by

- National Guidelines, Are Stigmatized, Ostracized, or the Subject of Peer Pressure: Limiting Consumption Is All But Prohibited in a Culture of Intoxication. *Substance Abuse: Research and Treatment*, 12: 1-9. doi: 10.1177/1178221818792414
- Rothman, A.J. & Salovey, P. (1997). Shaping perceptions to motivate healthy behavior: The role of message framing. *Psychological Bulletin*, 121, 3-19. doi: 10.1037/0033-2909.121.1.3
- Salovey, P., Schneider, T. & Apanovich, A. (2002). Message framing in the prevention and early detection of illness. In J.P. Dillard & M. Pfau (Eds) *The Persuasion Handbook*. Thousand Oaks, CA: Sage (pp. 391-406).
- Schwarzer, R. (1999). Self-regulatory processes in the adoption and maintenance of health behaviors. *Journal of Health Psychology*, 4, 115-127. doi: 10.1177/135910539900400208
- Schwarzer, R., & Luszczynska, A. (2008). How to overcome health-compromising behaviors: The health action process approach. *European Psychologist*, 13, 141-151. doi: 10.1027/1016-9040.13.2.141
- Tait, R.J., Paz Castro, R., Kirkman, J., Moore, J.C., & Schaub, M.P. (2019). A digital intervention addressing alcohol use problems (the "Daybreak" program): quasi-experimental randomized controlled trial. *Journal of Medical Internet Research*, 21(9), e14967. doi: 10.2196/14967
- UK Chief Medical Officers (2016). *UK Chief Medical Officers' Low Risk Drinking Guidelines*. Downloaded 08 Jan 2020 from: [www.gov.uk/government/publications/alcohol-consumption-advice-on-low-risk-drinking](http://www.gov.uk/government/publications/alcohol-consumption-advice-on-low-risk-drinking)
- Wakefield, M.A., Loken, B. & Hornik, R.C. (2010). Use of mass media campaigns to change health behaviour. *Lancet*, 376, 1261-71. doi: 10.1016/S0140-6736(10)60809-4
- Weinstein, N.D. (1988). The precaution adoption process. *Health Psychology*, 7, 355-386. doi: 10.1037/0278-6133.7.4.355 doi: 10.1037/0278-6133.7.4.355
- World Health Organization (2018). *Global status report on alcohol and health 2018*. Geneva: WHO.
- Young, B., Lewis, S., Katikireddi, S.V., Bauld, L., Stead, M., Angus, K., ... Langley, T. (2018). Effectiveness of Mass Media Campaigns to Reduce Alcohol Consumption and Harm: A Systematic Review, *Alcohol & Alcoholism*, 53, 302-316. doi: 10.1093/alcalc/agx094
- Zhao, J., Stockwell, T., Roemer, A., Naimi, T. & Chikritzhs, T. (2017). Alcohol consumption and mortality from coronary heart disease: an updated meta-analysis of cohort studies. *Journal of Studies on Alcohol & Drugs*, 78, 375-386. doi: 10.15288/jsad.2017.78.375

**Table 1** Impact of “Have a little less ...” campaign on alcohol intake, attitudes toward drinking, and use of moderate drinking strategies

	Control group		Intervention group		Group * Time Effect
	2016 panel mean (sd) (n = 500)	2018 panel mean (sd) (n = 219)	2016 panel mean (sd) (n = 3057)	2018 panel mean (sd) (n = 1508)	
<b>AUDIT-C</b> <sup>a</sup>	4.91 (3.30)	6.45 (3.19)	5.05 (3.37)	4.86 (2.95)	F <sub>(1,5242)</sub> = 11.91, p < .001*
<b>Perceived susceptibility to harm</b> <sup>b</sup>	3.08 (0.85)	2.84 (0.87)	3.09 (0.85)	3.14 (0.84)	F <sub>(1,5242)</sub> = 3.87, p = .064
<b>Readiness to change drinking</b> <sup>c</sup>	3.54 (0.97)	3.35 (1.06)	3.56 (0.99)	3.69 (1.00)	F <sub>(1,5242)</sub> = 4.01, p = .045*
<b>Potential health impact of drinking</b> <sup>c</sup>	3.40 (0.98)	3.35 (0.83)	3.45 (0.98)	3.17 (0.98)	F <sub>(1,5242)</sub> = 2.26, p = .133
<b>Moderate drinking strategies</b> <sup>d</sup>	3.66 (0.59)	3.67 (0.42)	3.63 (0.63)	3.86 (0.56)	F <sub>(1,5242)</sub> = 4.81, p = .028*

a - range 0 - 12

b - range: 1 = very likely ... 4 = not at all likely

c - range: 1 - Strongly disagree ... 5 Strongly agree

d - range: 1 - I have been doing this for a while ... 5 - I could never see myself doing this

\* - significant difference (p < .05)

**Table 2** Impact of elements of “Have a little less ...” campaign according to drinker type

	<b>Lower risk</b>	<b>Increasing risk</b>	
<b>Men who recognised at least one campaign element <sup>a</sup></b>	(n = 119)	(n = 249)	
Made me consider how healthy my drinking is	50.4%	66.3%	$\chi^2_{(1)} = 13.65, p < .01^*$
Trigger for making a plan to cut down	27.2%	43.2%	$\chi^2_{(1)} = 29.76, p < .01^*$
Trigger for actually changing drinking habits	27.4%	45.3%	$\chi^2_{(1)} = 18.35, p < .01^*$
Trigger to talk to others about drinking	20.4%	19.8%	$\chi^2_{(1)} = 1.29, p = .26$
	<b>Lower risk</b>	<b>Increasing risk</b>	
<b>Men who did not recognise any campaign element <sup>b</sup></b>	(n = 412)	(n = 533)	
Would make men my age consider how healthy their drinking is	38.4%	61.8%	$\chi^2_{(1)} = 64.60, p < .01^*$
Would trigger men my age to make a plan to cut down	20.7%	44.3%	$\chi^2_{(1)} = 108.92, p < .01^*$
Would trigger men my age to actually change drinking habits	22.8%	44.7%	$\chi^2_{(1)} = 101.23, p < .01^*$
Would trigger men my age to talk to others about drinking	20.2%	24.5%	$\chi^2_{(1)} = 3.50, p = .06$

a - unprompted recall

b - prompted recognition after viewing materials

\* - significant difference (p < .05)