



Electronic alcohol screening and brief intervention for hospital outpatients: A pilot study

Dr Natalie Johnson, School of Medicine and Public Health

UNIVERSITY OF NEWCASTLE

Associate Professor Kypros Kypri, School of Medicine and Public Health

UNIVERSITY OF NEWCASTLE

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Acronyms

ACC Ambulatory Care Centre, John Hunter Hospital (New South Wales)

AIHW Australian Institute of Health and Welfare

AUDIT Alcohol Use Disorders Identification Test

BAC Blood Alcohol Content

CI Chief Investigators or Confidence Interval (depending on context)

DALYs Disability-Adjusted Life Years

df Degrees of Freedom

e-SBI Electronic Screening and Brief Intervention

FARE Foundation for Alcohol Research and Education

GP General Practitioners

IT Information Technology

JHH John Hunter Hospital

LDQ Leeds Dependence Questionnaire

NHMRC National Health and Medical Research Council

NICE National Institute for Health and Clinical Excellence (UK)

NPHT National Preventative Health Taskforce

NSW New South Wales

RACGP Royal Australian College of General Practitioners

RCT Randomised Control Trial

SBI Screening and Brief Intervention

UK United Kingdom

United States of America

USPSTF US Preventive Services Task Force

WHO World Health Organization

Executive Summary

Screening and brief intervention (SBI) in health care settings for harmful alcohol use is recommended in the United States of America (USPSTF, 2004), the United Kingdom (NICE, 2010) and Australia (RACGP, 2004; NPHT, 2009) but not well-implemented (Nilsen, 2010). Provider-level barriers to implementing SBI include time constraints on clinicians, concerns about patient sensitivity to questions about alcohol consumption, lack of knowledge and skills in administering brief interventions, lack of overall resources, and absence of specific reimbursement for these services (Nilsen, 2010; Anderson et al, 2010; Johnson et al, 2010). Although electronic screening and brief intervention (e-SBI) has been shown to reduce alcohol consumption in University students (Kypri et al, 2009; Carey et al, 2009) and may be a low cost means of circumventing provider-level barriers to SBI, its efficacy among adults with hazardous and harmful drinking has not been established. The aim of this study was to establish whether it would be possible to conduct a large trial of e-SBI with hospital outpatients. More specifically, to:

- modify an existing e-SBI program for use with hospital outpatients; and
- develop and test procedures (e.g., recruitment and follow-up procedures) for a randomised controlled trial (RCT) designed to determine whether e-SBI reduces hazardous and harmful drinking among hospital outpatients.

People attending the Ambulatory Care Centre (ACC) at the John Hunter Hospital, who were waiting for medical care, were invited to complete e-SBI using laptop computers located in the waiting areas. Of those approached, 63 per cent agreed to participate (n=99). Among these people, 15 per cent had not consumed alcohol in the last 12 months. Of those who had consumed alcohol in the past 12 months (n=84):

- 60 per cent (50/84) screened negative for hazardous or harmful drinking on the ten-item Alcohol Use Disorders Identification Test (AUDIT<8);
- 40 per cent (34/84) screened positive for hazardous or harmful drinking or alcohol dependence (AUDIT score ≥ 8); and
- 18 per cent (15/84) had not consumed alcohol in the last four weeks.

Both age and gender were associated with alcohol consumption. The drinkers most at risk were young people and men, with 59 per cent of people aged 18 to 34 (17/29) and 56 per cent of males (27/49) scoring at a risky or hazardous level or above on AUDIT.

Feedback regarding the acceptability and usability of the e-SBI instrument included the following:

- Most participants (57%) thought the level of computer competence required to complete the online survey was low or very low;
- Most (80%) participants thought the feedback on their drinking was useful;
- All participants (100%) thought that the intervention would appeal to at least some of the people who attend the service.

The participants who reported consuming alcohol in both the 'past 12 months' and the 'last four weeks' (n=69) received a follow-up questionnaire approximately two months after their visit to the ACC. Among respondents (n=52), the median number of days in the last four weeks that alcohol was consumed was 9.5 and the median number of standard drinks consumed per drinking day was two. Although it was not possible to determine whether participants' alcohol consumption was reduced at follow-up, nine participants (17 per

cent) chose the response option "decreased" when asked "As a consequence of receiving the feedback the amount of alcohol I consume has: not changed; decreased; or increased" and 11 participants (21 per cent) reported they had "sought support to reduce my drinking as a consequence of receiving the feedback".

This pilot research, which demonstrates that it is possible to implement e-SBI in the hospital outpatient setting in a manner acceptable to patients and with minimal disruption to service, has resulted in the receipt of a National Health and Medical Research Council (NHMRC) Project Grant for a large clinical trial of e-SBI.

Introduction

Hazardous drinking

Hazardous drinking is defined as a level or pattern of alcohol consumption that increases the risk of harmful consequences for the drinker and others (Babor et al, 1994). Hazardous drinking is a major threat to public health (Babor et al, 2010; NPHT, 2009; WHO 2009) being a causal factor in 60 different medical conditions (Babor et al, 2010; WHO, 2009). In Australia, hazardous and harmful drinking causes 3,430 deaths and accounts for 85,435 disability-adjusted life years (DALYs) per year (Begg et al, 2007). In the period 1993-94 to 2000-01, over half a million hospitalisations were caused by hazardous and harmful drinking (Chikritzhs et al, 2003). The most numerous conditions among these alcohol-related hospitalisations were for alcohol dependence (87,186), injuries caused by assault (76,115), traffic crash injuries (47,167) and attempted suicide (20,374) (Chikritzhs et al, 2003).

Negative health outcomes are only a portion of the total social burden arising from hazardous drinking. Estimates that include costs arising from property damage, criminal justice, and absenteeism, suggest that hazardous drinking costs Australia more than \$15 billion per annum (Collins & Lapsley, 2008). Accordingly, the National Preventative Health Taskforce (NPHT, 2009) has identified the reduction of hazardous drinking as a national priority, is seeking "to reduce the proportion of Australians who drink at levels which place them at risk of short term harm from 20 per cent to 14 per cent and the proportion at longer term harm from 10 per cent to 8 per cent" by 2020, and has identified the routine implementation of screening and brief intervention (SBI) as a priority in recognition of the need for targeted strategies that reduce demand for alcohol among high risk drinkers that can be widely disseminated.

Screening and brief intervention (SBI)

Brief interventions delivered in healthcare settings are typically based on social-cognitive theory and "...incorporate some or all of the following elements: feedback of the person's alcohol use and any alcohol-related harm; clarification as to what constitutes low risk alcohol consumption; information on the harms associated with risky alcohol use; benefits of reducing intake; motivational enhancements; analysis of high risk situations for drinking and coping strategies; and the development of a personal plan to reduce consumption" (Kaner et al, 2007). Ideally, brief intervention is provided systematically to individuals who are not seeking treatment for drinking problems, but whose drinking has been identified as potentially health compromising. For those showing signs of physiological dependence, referral for specialist treatment is appropriate (NICE, 2009; Saitz 2010; USPSTF 2004).

There is a solid evidence-base supporting the use of brief intervention in non-treatment seeking patients in the primary care setting (Nilsen, 2010). A comprehensive 2007 Cochrane review (22 trials with over 7,000 participants) showed primary care patients who received brief intervention had lower alcohol consumption than the control group after follow-up of one year or longer (mean difference: - 38 g of ethanol/week; 95 per cent CI: -54 to -23; Kaner et al, 2007). Accordingly, several organisations have recommended the routine implementation of SBI: the US Preventive Services Task Force (USPSTF, 2004) recommended screening and behavioural counselling interventions to reduce alcohol misuse by adults in primary care settings; the World

Health Organization (WHO) in its Mental Health Gap Action Program (2010) recommended that SBI should be provided as routine in general health care settings (except in countries where alcohol consumption is minimal); the Royal Australian College of General Practitioners (RACGP, 2004) advises that "brief interventions to reduce alcohol consumption should be offered to all patients drinking at potentially risky or high risk levels"; and the National Institute for Health and Clinical Excellence (NICE, 2010) in the United Kingdom (UK) recently recommended that professionals working in a wide range of health care settings offer structured advice on alcohol-related harms to adults who have been identified by screening as drinking hazardously (the settings identified were primary health care, emergency departments, hospital outpatient departments, occupational health, sexual health clinics, antenatal clinics and pharmacies). Despite these recommendations, SBI is under-utilised (NPHT, 2009). Barriers to the implementation of brief intervention include time constraints on clinicians, concerns about patient sensitivity to questions about alcohol consumption, lack of knowledge and skills in administering brief interventions, lack of overall resources, and absence of specific reimbursement for these services (Nilsen, 2010; Anderson et al, 2010; Johnson et al, 2010).

Electronic screening and brief intervention (e-SBI)

Electronic screening and brief intervention (e-SBI) is the delivery of screening and brief feedback interventions for alcohol use electronically, via computer programs and the Internet. Advantages of this approach include the potential to reach a large number of people, the possibility of privacy and anonymity, and the ability to provide both automated and tailored information (Bewick et al, 2008).

The first randomised controlled trial of e-SBI, based on extensive development research (Kypri & Langley, 2003; Kypri et al, 2003), was conducted at a university health service in New Zealand in 2002 and involved 104 patients (Kypri et al, 2004). Participants were screened using the AUDIT (Saunders et al, 1993), a validated screening instrument for the identification of patients with hazardous drinking. The initial assessment was conducted electronically in the reception area. Those who screened positive were randomly assigned to receive a leaflet-only control group or a 15 minute assessment and personalised feedback intervention delivered entirely via the Internet in the waiting room. Relative to controls, those who received the intervention drank less alcohol after six weeks (-26 per cent; p=.03) and had fewer (-24 per cent; p=.03) alcohol-related personal, sexual and legal problems six months later.

Results of a subsequent (four arm) trial of e-SBI, in which 576 students screened positive for hazardous drinking and were re-assessed six and 12 months later (with 85 per cent retention), were similar (Kypri and Langley, 2008; Kypri & Langley 2008). At six months, relative to controls, patients receiving e-SBI reported a significantly lower drinking frequency (-21 per cent; p=.008) and lower total consumption (-23 per cent; p=.02). At 12 months, the significant difference in total consumption (-23 per cent; equivalent to 3.5 standard drinks per week; p=.01) remained and AUDIT scores were 2.2 points (-3.2 to -1.1) lower than those of controls, which was estimated to be equivalent to an absolute risk reduction of nine per cent (95 per cent; Cl 3 per cent to 14 per cent) in diagnoses of alcohol abuse and dependence (Foxcroft et al, 2009).

Although systematic reviews and meta-analyses of computer-delivered interventions have generally been positive (Bewick et al, 2008; Carey et al, 2009; Khadjesari et al, 2010; Rooke et al, 2010; White et al, 2010), at least three have concluded there is a need for further research (Bewick et al, 2008; Khadjesari et al, 2010; White et al, 2010), with one highlighting the need for "more extensive research to establish the clinical

appropriateness and usability of online health technologies, especially in nonstudent contexts" (White et al, 2010). In addition, there have been no economic analyses of computerised interventions which seem likely to be highly cost-effective given their low cost per unit of intervention. Along with the research done in interventions for other health compromising behaviours (e.g., smoking, by Wolfenden et al, 2005), this body of research suggests that carefully designed and implemented computerised interventions could become a central element of preventive medicine delivered in hospitals.

e-SBI, preventative care and hospital outpatients

In 2010–11, Australian public hospitals provided almost 17 million service episodes delivered in specialist outpatient clinics, with the main contributor being medical, surgical, and obstetric occasions of service. Accordingly, the hospital outpatient setting offers access to a large population with a high prevalence of hazardous drinking (Persson & Magnusson, 1987). Although there are no systematic reviews or meta-analyses of alcohol brief interventions for hospital outpatients, findings from trials comparing brief intervention to usual care among patients attending particular outpatient clinics, for example oral and maxillofacial surgery patients (Smith et al, 2003) and sexual health patients (Lane et al, 2008), suggest that brief interventions will be effective in the outpatient setting. Further, if e-SBI were found to be effective in this setting, many of the barriers to its routine implementation could be circumvented.

Thus, although the evidence base is strongest for the provision of brief intervention in non-dependent, non-treatment-seeking patients in the primary care setting, the hospital outpatient setting is currently an untapped opportunity to provide alcohol SBI for a large number of users of the public healthcare system. If e-SBI in outpatient settings has a similar effect as in primary care in reducing hazardous drinking, it offers the prospect for systematically delivering interventions that contribute to reduced alcohol-related harm both in the individual patient and at a population level.

The aims of this staged pilot study were to:

- 1. modify an existing e-SBI program (Stage 1 of the project); and
- 2. develop procedures (e.g., recruitment and follow-up procedures) for a large randomised controlled trial [RCT] designed to determine whether e-SBI reduces unhealthy drinking among outpatients (**Stage 2** of the project).

Methodology

A staged pilot study was conducted in 2010-11.

Stage 1

Stage 1 involved modifying an existing e-SBI instrument for use with hospital outpatients. The existing resource had been developed by Associate Professor Kypros Kypri and colleagues and was designed for and evaluated for use with tertiary students (Hallett et al, 2009; Kypri et al, 2009). Permission to modify the instrument was not required because Associate Professor Kypri is a co-investigator on this project and further development was made under the provisions of a Commons License (http://creativecommons.org.au/learn-more/licences). There was no steering committee or advisory group.

Modifications included the addition of the revised Australian drinking guidelines (NHMRC, 2009), the inclusion of normative data for older adults (AIHW 2008), changes to the content and language used in the 'facts' and 'tips' pages, and the addition of local sources of support for drinking. Further, as programming by Information Technology (IT) staff at the JHH was required to produce an instrument that would be compliant with the NSW Health IT systems, extensive pre-testing to eliminate 'bugs' in the new version of the instrument was also undertaken.

A paper-based version of the pilot e-SBI instrument is provided in Appendix 1. The full version of the e-SBI for hospital outpatients, which is currently being utilised in a randomised controlled trial designed to determine the efficacy of e-SBI for hospital outpatients, is available at http://hoap.herokuapp.com (Please note that multiple visits may be required to experience the intervention as you may be randomised to the control group).

Stage 2

Stage 2 involved testing procedures (e.g., recruitment and follow-up) for a large clinical trial in the hospital outpatient setting and collecting data to determine whether the modified instrument was acceptable to patients.

The study was conducted in the outpatient department of a large tertiary referral hospital located in Newcastle, NSW, Australia, which recorded 127,148 attendances in 2010 (AIHW, 2012): equating to approximately 500 patients per day. Patients presenting for outpatient services at this facility must have a written referral from their primary care provider and may be attending this hospital for outpatient services that are not available at the hospital nearest to their home.

The recruitment process was modelled on previous research conducted by Kypri and colleagues in a New Zealand University primary care service (Kypri et al, 2004). Adults (18+ years) waiting for an outpatient clinic appointment and capable of self-administering the e-SBI instrument via a laptop were invited to participate by research assistants located in the waiting areas in the outpatient department who had been trained in the application of a study protocol stipulating they should invite the next patient leaving the reception desk to

participate in the study, obtain informed consent, and log the participant onto the laptop computer. Thus, as each participant finished, the research assistant would recruit the next patient to leave the reception desk.

Eligible consenting outpatients were invited to: (i) complete the e-SBI instrument (Appendix 1) using laptops located in the waiting areas of the outpatient department, and (ii) to provide feedback on their impressions of the e-SBI instrument via a short pen-and-paper questionnaire (Appendix 2). Some participants were also asked to share their impressions of the e-SBI program with the research assistant verbally via a structured interview (Appendix 3). Participants were advised to stop the e-SBI if called by their doctor, so as not to interfere with service provision, but were asked to return to the waiting area to complete the survey before leaving.

Follow-up was attempted approximately two months later. All participants received a letter reminding them about the study and advising them they would receive a brief follow-up questionnaire in the next few days. Participants who provided an email address received an emailed hyperlink to the brief web-based follow-up questionnaire while participants who did not provide an email address received a paper-based questionnaire. Up to three email/postal reminders were sent following the initial invitation to complete the follow-up surveys. As a last resort, participants who had not responded to the initial and reminder emails/postal surveys were followed up via telephone.

Results

Stage 1

Page 1 of the e-SBI instrument provided a brief description of the study. Page 2 collected demographic data (gender, age, and postcode). Page 3 asked respondents if they had consumed any alcohol in the last 12 months (yes/no). Those who responded 'no' were excluded at this point. Page 4 comprised the full ten-item Alcohol Use Disorders Identification Test (AUDIT), which was developed to identify persons with early alcohol problems using procedures that were suitable for health systems and validated on primary care patients in six countries. Page 5 asked questions concerning the largest number of standard drinks consumed on one occasion in the last four weeks, the duration of that drinking episode in hours, and body weight (for the purpose of estimating peak blood alcohol concentration [BAC]). Pages 6 and 7 comprised the five-item History of Trauma scale and the ten-item Leeds Dependence Questionnaire (LDQ), respectively.

On completion of the screening questions described above, participants received:

- feedback on their AUDIT score and guidance on its meaning (see example in Appendix 1 Web page 8);
- ii. an estimate of the BAC for their heaviest episode in the previous month with information on the behavioural and physiological sequelae of various BACs, and traffic crash relative risk (see example in Appendix 1 Web page 9);
- iii. an estimate of their spending on alcohol per month (see example in Appendix 1 Web page 9);
- iv. a bar graph comparing their typical *episodic* consumption with medical recommendations and that of adults of the same age and gender (see example in Appendix 1 Web page 10);
- v. a bar graph comparing their *weekly* consumption with medical recommendations and that of adults of the same age and gender (see example in Appendix 1 Web page 10); and
- vi. their score on the LDQ with an explanation of the associated health risk and information about how to reduce that risk (see example in Appendix 1 Web page 11). In addition, three web pages offering facts about alcohol, tips for reducing the risk of alcohol-related harm, and information on reputable sites offering help with drinking problems were available (see examples in Appendix 1 Web pages 12 –14).

Stage 2

Sixty-three per cent of patients approached agreed to participate in the pilot study (n=99). Among these:

- 54 per cent (53/99) were male;
- the age distribution was relatively uniform (19 per cent aged 18-24, 14 per cent aged 25-34, 16 per cent aged 35-44, 16 per cent aged 45-54, 21 per cent aged 55-64, 13 per cent aged 65+); and

• 15 per cent (15/99) had not consumed alcohol in the last 12 months.

As shown in Table 1, among those who had consumed alcohol in the past 12 months (n=84):

- 60 per cent (50/84) screened negative for hazardous drinking on the ten-item AUDIT (AUDIT score < 8; Saunders et al, 1993);
- 40 per cent (34/84) screened positive for hazardous or harmful drinking or alcohol dependence (AUDIT score ≥ 8); and
- 18 per cent (15/84) had not consumed alcohol in the last four weeks.

Table 1: Categorical data obtained from the pilot study participants via the e-SBI instrument (n=84)

Variable Variable	Frequency	Per cent (%)
Gender		
Male	49	58
Female	35	42
Age Group		
18 to 34	29	35
35 to 54	26	31
55+	29	35
AUDIT score:		
0 to 7	50	60
8 to 15	19	23
16 to 19	7	8.3
20 to 40	8	9.5
Consumed alcohol in the last 4 weeks:		
Yes	69	82
· No	15	18

Among those who had consumed alcohol in the last four weeks (n=69), the median:

- number of standard drinks was six (25th to 75th percentile, three to 12 standard drinks); and
- duration in hours of the drinking episode was five hours (25th to 75th percentile, two to eight hours).

Table 2: Continuous data obtained from the pilot study participants via the electronic screening and brief intervention instrument

Variable	Median	25 th - 75 th percentile
AUDIT score (n=84)	5	3 -12
Leeds Dependence Questionnaire score (n=84)	0	0-3
Number of Standard Drinks consumed in last 4 weeks (n=69)	6	3-12
Duration of drinking episode (hours) (n=69)	5	2-8

Both age group and gender were associated with alcohol consumption as shown below in Table 3.

Table 3: Association between AUDIT score and demographic characteristics (n=84)

	AUDIT	AUDIT	AUDIT	AUDIT	χ2 test of association	df*	P-value
	0-7	8-15	16-19	20-40			
	n (%)	n (%)	n (%)	n (%)			
Age group						'	
- 18 to 34	12 (24)	10 (53)	1 (14)	6 (75)			
- 35-54	15 (30)	5 (26)	6 (86)	0 (0)			
- 55÷	23 (46)	4 (21)	0 (0)	2 (25)	22.9732	6	0.001
Gender							
- Male	22 (44)	14 (74)	5 (71)	8 (100)			
- Female	28 (56)	5 (26)	2 (29)	0 (0)	12.2766	3	0.006

^{*} df = degrees of freedom

Analysis of the process evaluation data collected via the paper survey (Appendix 2) showed that participants found the e-SBI program easy to complete. Almost 60 per cent of participants felt that the level of computer competence required was 'low' (34 per cent) or 'very low' (24 per cent). One participant, for example, wrote: "I don't usually use a computer but this survey was quite easy...". In terms of the feedback to participants on their drinking, 25 per cent of participants found it 'very useful', 24 per cent found it 'quite useful' and 30 per cent found it 'somewhat useful'. All participants (100 per cent) thought the electronic intervention will appeal to at least some of the people who attend this service.

Results of follow-up questionnaire

The participants who reported consuming alcohol in both the "past 12 months" and the "last four weeks" (n=69) received a follow-up questionnaire approximately two months after the initial questionnaire was completed to determine the likely response rate to the proposed large trial of e-SBI. Participants who provided an email address received an email containing a link to a web-based survey (approximately 73 per cent), while the remainder received a paper-based, postal version of the web-based questionnaire. The response rate was 75 per cent.

As shown below in Table 4, among respondents (n=52), the median number of:

- days in the last four weeks that alcohol was consumed was 9.5 (25th to 75th percentile, three to 20 days);
- standard drinks per drinking day was two (25th to 75th percentile, one to four standard drinks); and
- days in the last four weeks that six or more standards drinks was consumed on one occasions was 0 (25th to 75th percentile, zero to three days).

Table 4 Continuous data obtained from the pilot study participants via the follow-up survey (n=52)

Variable	Median	25th - 75th percentile
Frequency (number of days consumed alcohol in the last 4 weeks)	9.5	3-20
Quantity (average number of standard drinks per occasion)	2	1-4
Number of days consumed six or more standard drinks	0	0-3

It was not possible to determine whether participants' alcohol consumption was reduced at follow-up because the questions used at baseline were different to those used at follow-up as the analyses in the proposed large trial of e-SBI will compare differences between groups, not within, groups. However nine participants (17 per cent) chose the response option "decreased" when asked "As a consequence of receiving the feedback the amount of alcohol I consume has: not changed; decreased; or increased" and 11 participants (21 per cent) indicated they had sought support to reduce their drinking as a consequence of receiving the feedback. The follow-up data is summarised in Table 5.

Table 5 Categorical data obtained from the pilot study participants via the follow-up survey (n=52)

Variable	Frequency	Per cent (%)
I found the questionnaire easy to complete:		
- No	3	5.8
- Yes	48	92
I found the feedback on my drinking useful:		
- No	7	14
- Yes	33	64
- I did not receive this feedback but would like to receive it	6	12
- I did not receive this feedback and am not interested in receiving it	5	9.6
The feedback I received on my drinking included comparisons of my drinking with the average drinking levels of others the same age and gender as me. The averages presented were:		
- About what I expected	23	45
- Higher than I expected	5	9.8
- Lower than I expected	3	5.9
- I had no idea what the average was	10	20
- I did not receive this feedback but would like to receive it	5	9.8
- I did not receive this feedback and am not interested in receiving it	4	7.8
As a consequence of receiving this feedback the amount of alcohol I consume has:		
- Not changed	39	75
- Decreased	9	17
- Increased	0	0
I have sought support to reduce my drinking as a consequence of receiving the feedback:		
- No	37	71
- Yes	11	21
I would recommend this program to a friend if I was concerned about how much they were drinking:		
- No	17	33
- Yes	33	63

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Appendices

Appendix 1 -Copy of online survey and sample feedback

Appendix 2 - Paper questionnaire

Appendix 3 - Verbal questionnaire

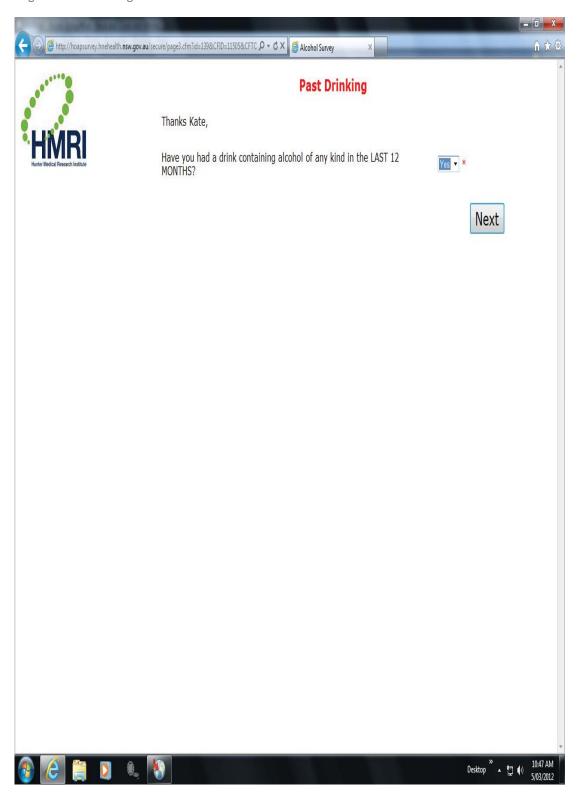
Appendix 4 - Follow-up survey (postal version)

Appendix 1 - Copy of online survey and sample feedback

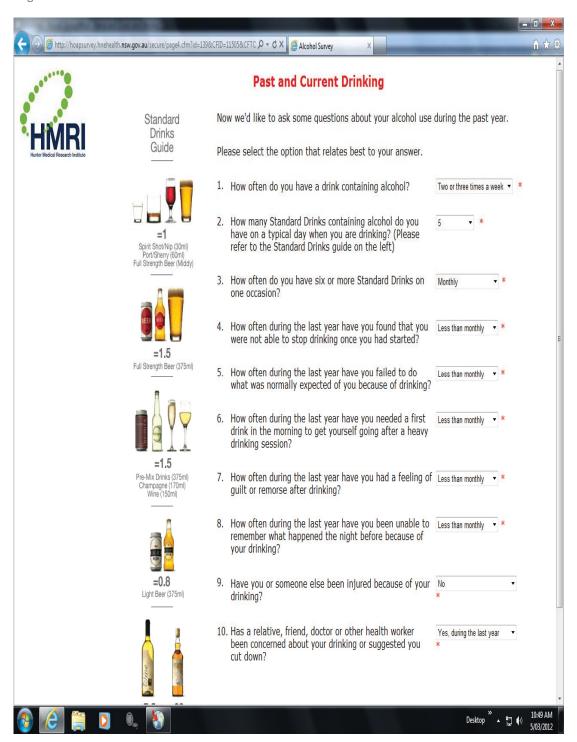
Page 1 - Welcome Page



Page 2 - Past Drinking



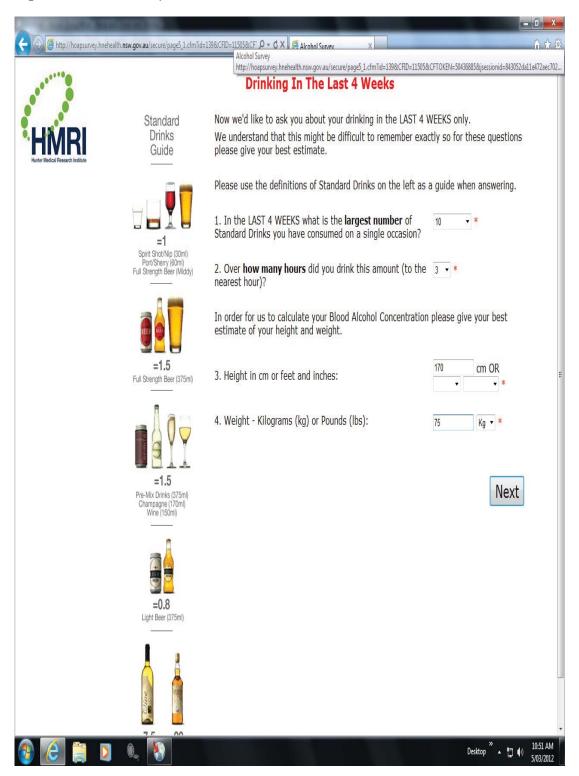
Page 3 - AUDIT



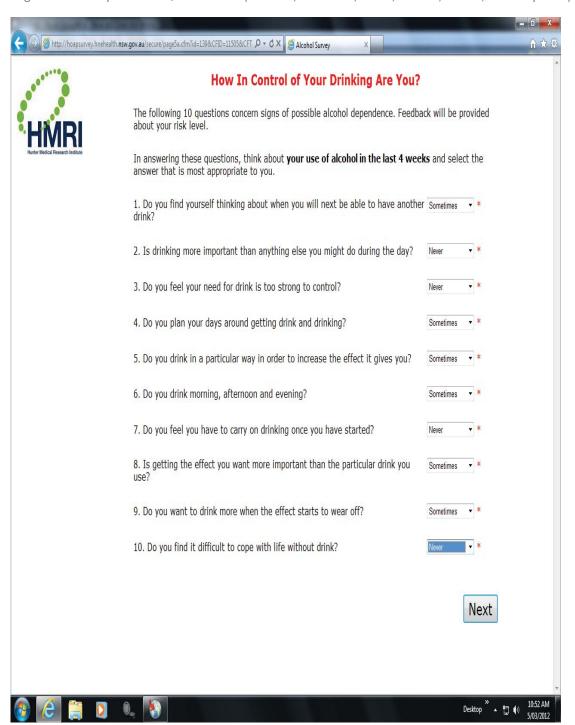
Page 4 - Recent Drinking



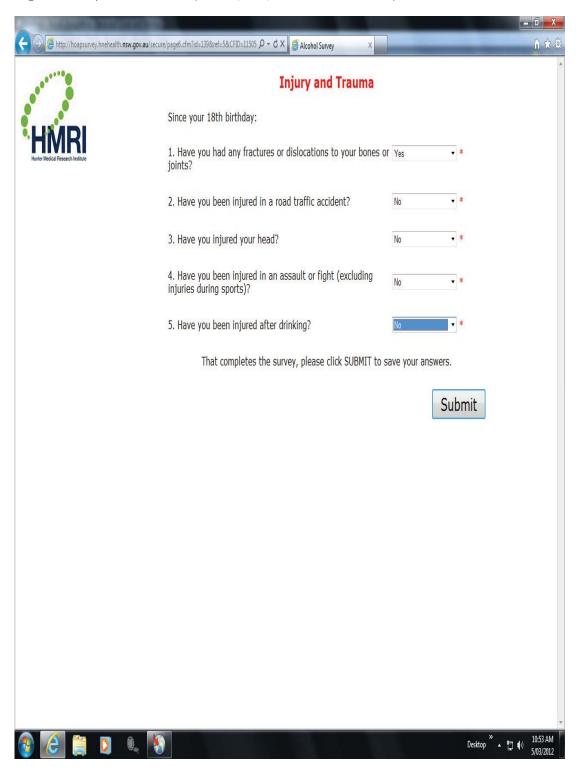
Page 5 - Data for BAC & Expenditure Feedback



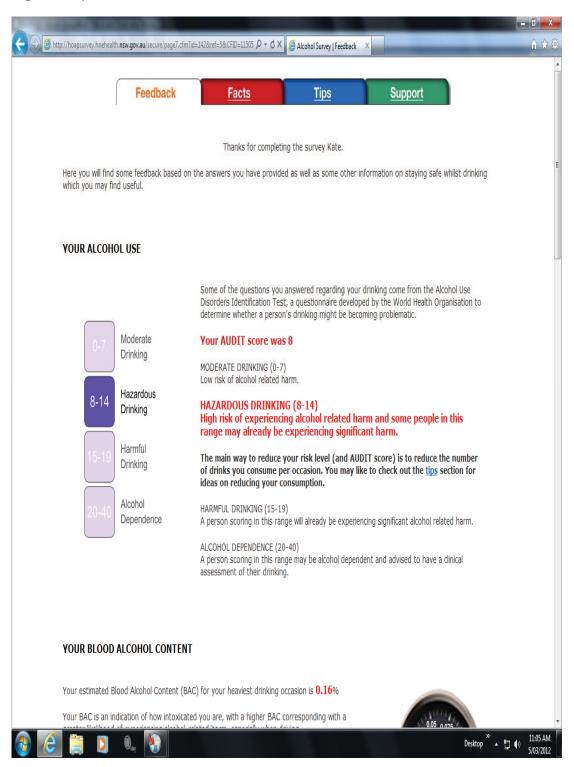
Page 6 - Leeds Dependence Questionnaire (Raistrick, Bradshaw, Tober, Weiner, Allison, & Healey 1994)



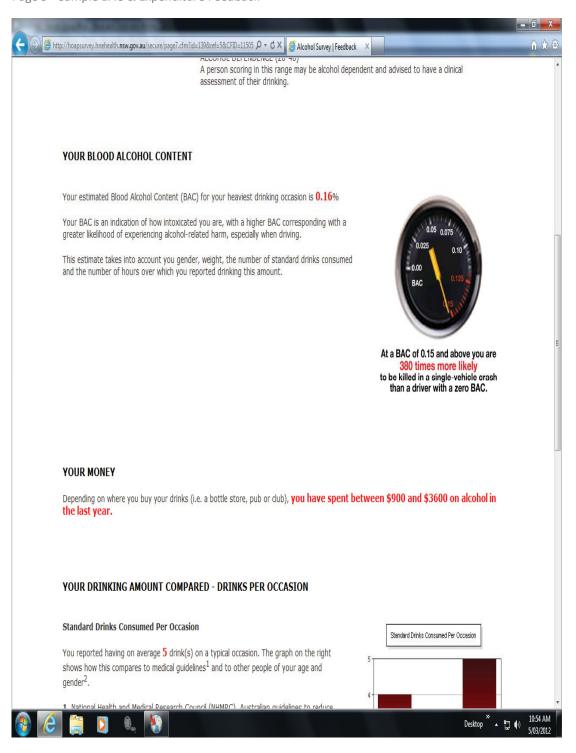
Page 7 - History of Trauma Scale (Skinner, Holt, Schuller & Israel 1984)



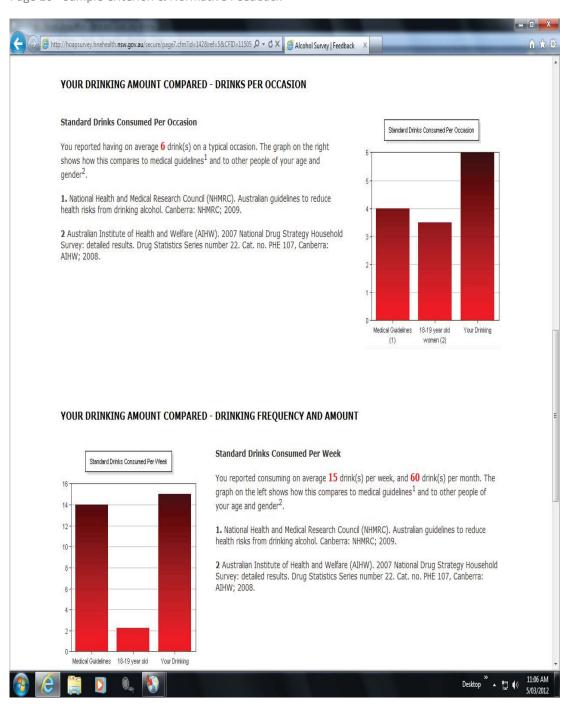
Page 8 - Sample AUDIT Feedback



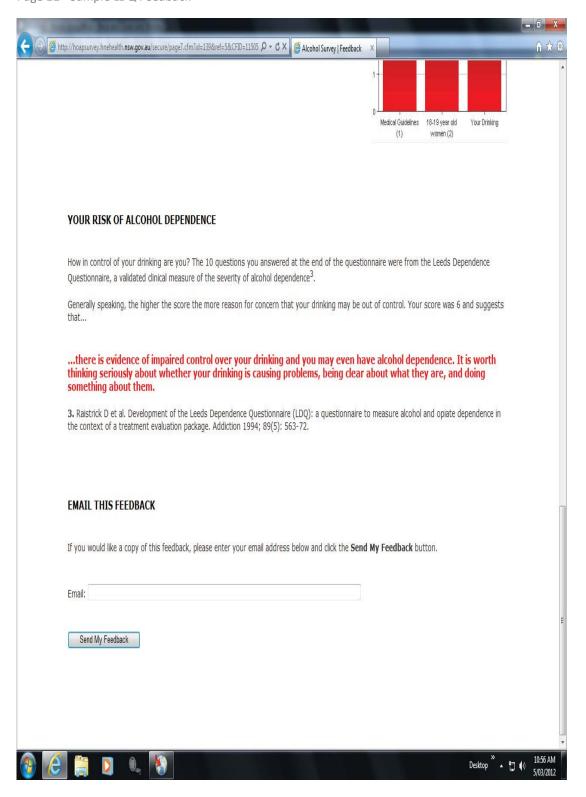
Page 9 - Sample BAC & Expenditure Feedback



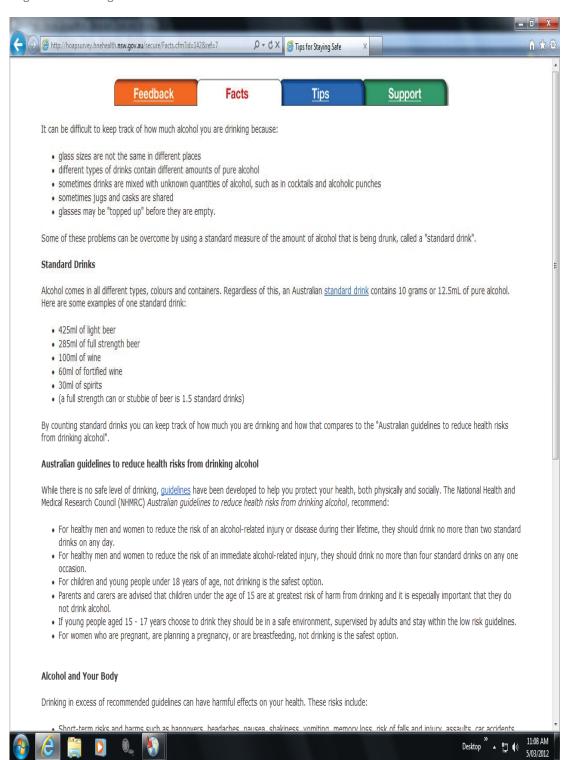
Page 10 - Sample Criterion & Normative Feedback



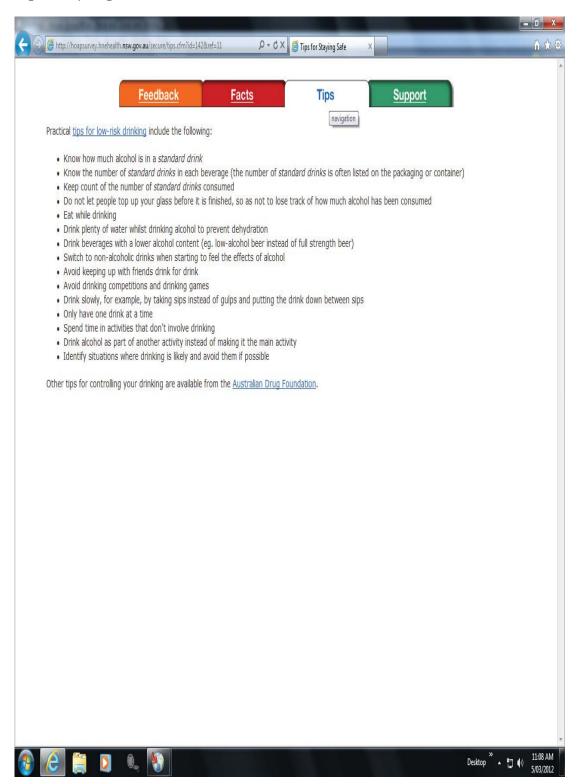
Page 11 - Sample LDQ Feedback



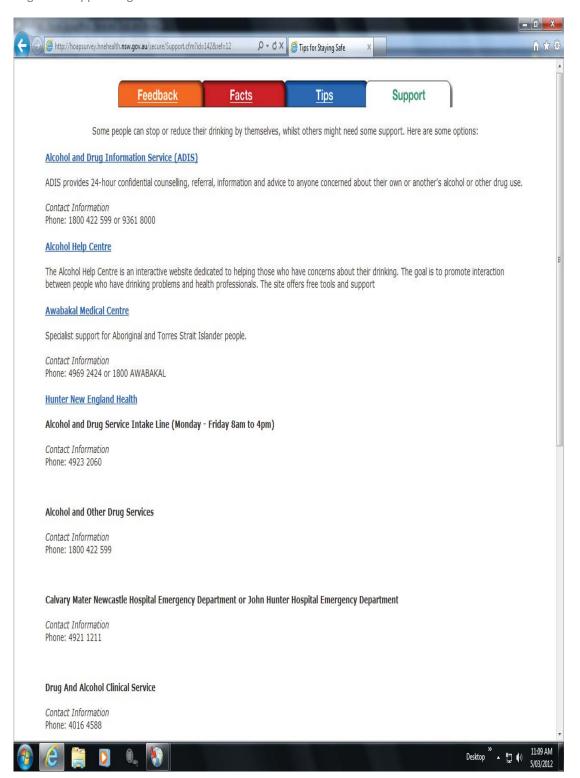
Page 12 - Facts Page



Page 13 - Tips Page



Page 14 - Support Page



Appendix 2 - Paper Questionnaire

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Modification and pre-testing of an alcohol electronic screening and brief intervention (e-SBI)

instrument for hospital outpatients

Version 1: 26.11.2008

Instructions

- 1. Please read the instructions on this page carefully.
- 2. There are no right or wrong answers.
- 3. Please <u>answer every question</u>. Do not skip any questions or leave questions blank if possible.
- 4. Please give the completed questionnaire to the person who gave it to you. Please note that your answers will be handled with the strictest confidence.
- 5. If you have any questions or concerns about the study please do not hesitate to ask.
- 6. If you have any concerns or complaints about the conduct of the study, you may contact the Professional Officer at the Hunter New England Research Ethics and Governance Unit on 49214950 or the University of Newcastle's Human Research Ethics Officer on 4921 6333.

THANK YOU FOR YOUR TIME

1. What gender are you?		7. Which web browser do you usually	y use?
Male			_
Female		8. How hard was it to estimate how often you drink?	much or how
2. How old are you?		Very hard	
18-29 years		Hard	
30-39 years		Somewhat hard	
40-49 years		Not hard at all	
50-59 years			_
60-69 years		9. Did you respond honestly?	
70-79 years		All of the time	
80 years or older		Most of the time	
oo years or order		Some of the time	
3. How would you rate your level of cor	nnetence	None of the time	
in the use of a computer?	претенее	None of the time	
Very low		10. How surprising was the feedba	ack on your
Low		drinking?	ack on your
Moderate		Very surprising	
		Quite surprising	
High Very high		Somewhat surprising	
very mgn			
A How would you got the lovel of	computor	Not surprising at all	
4. How would you rate the level of o	-	11 Mas the feedback on very drinkin	~fl?
competence required to complete the	ne online	11. Was the feedback on your drinkin	g userur.
survey?		Very useful	
Very low		Quite useful	
Low		Somewhat useful	
Moderate		Not useful at all	
High		40 14011 11: 10: 1	1 . 1
Very high		12. Will this affect how much you future?	drink in the
5. How often do you use email?		Yes	
Everyday		No	
4-6 times a week		Possibly	
2-3 times a week			
Once a week		13. Did you have enough privacy wh	ile doing the
Less than once a week		survey?	
Never		Yes, all of the time	
		Yes, most of the time	
6. How often do you use the web – othe	r than for	Yes, some of the time	
email?		No, none of the time	
Everyday			
4-6 times a week		14. Did the amount of privacy you	had concern
2-3 times a week		you? (did it affect your answers?)	
Once a week		Yes, all of the time	
Less than once a week		Yes, most of the time	
Never		Yes, some of the time	
	_	No, none of the time	

15. Were questions clear? Yes, all of the time Yes, most of the time Yes, some of the time No, none of the time	
16. Was the font size large enough to read? Yes No	
17. Do you think this online intervention appeal to people who attend this service? Yes, all of them	will
END OF SURVEY	
Please check that you answered all of questions. Thank you for your participation.	the
If you have any comments or suggestions, pla	ease

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write them below:

Appendix 3 - Verbal Questionnaire

HOAP Pilot Study

Structured Interview

As people complete the paper-based survey we will ask them if they would be willing to participate in a verbal interview about their impressions of the computer survey and feedback. We will explain that:

"The purpose of this interview is to find out your impressions of the computer survey and feedback in more depth than is possible in a paper-based questionnaire and to identify ways of improving the way we collect and present the information. Please feel free to speak your mind. You'll see me writing as you speak, so that I don't have to try and remember everything at the end."

Q1 – What did you think about completing the questionnaire and receiving feedback? Prompts:

- Was it at all interesting?
- Do you think it could be useful to you or other people?
- Would you do it again?
- If a friend asked you about it, what would you say to them?

AUDIT

Q2 — What did you think about the questions concerning your use of alcohol?

(Note: This is the first set of questions - just the AUDIT)

Prompts:

- How comfortable were you providing this information?
- How easy or difficult were the questions to answer?

Q3 – Were there any questions that you would have preferred not to answer?

Q4 — How helpful did you find the guide on standard drinks (down the side)? Prompts:

- Did you know what a standard drink is?
- Were you able to work out approximately how many drinks you had?
- Do you need more information about standard drinks?

Recent drinking

Q5 — What did you think about the questions concerning your drinking in the last 4 weeks? Prompts:

- How comfortable were you providing this information?
- How easy or difficult were the questions to answer?

Q6 – How accurate do you think you were in reporting the number of drinks you had?

Height and weight

Q7 – What did you think about the questions concerning your height and weight? Prompts:

- How comfortable were you providing this information?
- How easy or difficult were the questions to answer?

Q8 – How did you find the options for metric versus Imperial measurements? (Was it clear what you were being asked to do and why it was requested?)

Alcohol related consequences

Q9 – What did you think about the questions on injuries related to drinking? Prompts:

- How comfortable were you providing this information?
- How easy or difficult were the questions to answer?
- Were any of the questions ambiguous or confusing?

Q10 – Were there any questions you would have preferred not to answer? (if so, which ones?)

Feedback

Now I'd like to ask you about the feedback. (refer to sample print-out)

Q11 — What did you think about the feedback you received?

Q12 – How did you find the feedback concerning the number of drinks you had per week and per month?

Prompt:

• Was it surprising/interesting/obvious?

Q13 – How did you find the comparison of your drinking with that of other men/women your age? Prompt:

Was it believable/surprising/interesting/ obvious?

Q14 – How did you find the information about how much you might have spent?

Prompt:

 Was it believable/surprising/interesting/ obvious?

Q15 – How did you find the information about your AUDIT score compared with others? Prompt:

 Was it believable/surprising/interesting/ obvious?

Q16 — What about the information about your weekly drinking compared with that of others? Prompt:

Was it believable/surprising/interesting/ obvious?

Q17 – How did you find the information about BACs ?

Prompt:

Was it believable/surprising/interesting/ obvious?

Q18 – Is there any other information you'd like to receive?

Q19 – Thinking back to the questions about problems you might have experienced, we're

thinking about providing some information about the likelihood of your risk of experiencing some of those problems.

e.g. "Based on your present level of consumption, there is a 20per cent risk of you suffering an injury that requires medical attention, in the next 3 months"

What would you make of this kind of information? Prompt:

- Would it be relevant?
- Would it concern you?

Q20 — In general, do you think this kind of feedback would/could affect your decisions about drinking?

Practical Considerations

In this last section, I'd like to ask you about some practical issues.

Q21 – How did you feel about completing the survey and feedback while you were waiting? Prompts:

 Were you concerned you might miss your appointment?

Q22 – How did you feel about completing the survey and getting the feedback in the waiting area?

Prompts:

• Is this a suitable place to collect such information and provide feedback?

Q23 — Were you aware that new drinking guidelines had been released this year? Prompts:

• If so, what do you think of them?

Q24 — Is there other health-related information you'd be interested in receiving? Prompts:

For example, information about diet, exercise, depression

That's all I/we wanted to ask. Is there anything you'd like to ask me?

Thank you for your time today. I appreciate your assistance with our research.

Appendix 4 - Follow-up Survey (postal version)

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Modification and pre-testing of an alcohol electronic screening and brief intervention (e-SBI)

instrument for hospital outpatients

Version 1: 18/11/2010

Instructions

- 1. Please read the instructions on this page carefully.
- **2.** There are no right or wrong answers.
- 3. Please answer every question. Do not skip any questions or leave questions blank if possible.
- **4.** Please note that your answers will be handled with the strictest confidence.
- **5.** If you have any questions or concerns about the study please do not hesitate to telephone Dr Natalie Johnson on 49138162.
- 6. If you have any concerns or complaints about the conduct of the study, you may contact the Professional Officer at the Hunter New England Research Ethics and Governance Unit on 49214950 or the University of Newcastle's Human Research Ethics Officer on 4921 6333.

THANK YOU FOR YOUR TIME

Standard Drinks Guide



Spirit Shot/Nip (30ml) Port/Sherry (60ml) Full Strength Beer (Middy)



=1.5
Full Strength Beer (375ml)



=1.5
Pre-Mix Drinks (375ml)
Champagne (170ml)
Wine (150ml)



=0.8 Light Beer (375ml)



=7.5 =22
Botle of Wine (750ml)
Bottle of Spirits (700ml)

SECTION ONE: YOUR DRINKING IN THE LAST 4 WEEKS

We'd like to ask you about your drinking in the LAST 4 WEEKS. We understand that this might be difficult to remember exactly so for these questions please give your best estimate.

Please use the definitions of Standard Drinks on the left as a guide.

- On how many days in the last 4 weeks did you drink alcohol?
 days (please write a number between 0 and 28)
- 2. On average, how many Standard Drinks did you have per drinking day?

 Standard Drinks
- 3. On how many days in the last 4 weeks did you have 6 or more Standard Drinks on one occasion?
 days (please write a number between 0 and 28)

SECTION 2: YOUR THOUGHTS ABOUT THE QUESTIONNAIRE

This web program is in development and we would be interested in knowing what you think about it. Please answer the questions below and we would be interested in any comments you may wish to make in the text box at the end.

1. I found the questionnaire easy to complete. No	
2. I found the feedback on my drinking useful. No	
3. The feedback I received on my drinking included comparisons of my drinking the average drinking levels of others the same age and gender as The averages presented were: About what I expected	_

4. As a consequence of receiving the feedback the amount of alcohol I consume has:	
Not changed	
Decreased	
Increased	
5. I have sought support to reduce my drinking as a consequence of receiving the feedback.	П
Yes	
6. I would recommend this program to a friend if I was concerned about how much they were drinki	ing.
No	
Yes	
END OF SURVEY	

Please check that you answered all of the questions.

Thank you for your participation. Any comments you wish to make about the web program, the feedback, or any aspect of being involved in this research would be much appreciated (please write them below):



Foundation for Alcohol Research & Education

Level 1 40 Thesiger Court Deakin ACT 2600

PO Box 19 Deakin Wes ACT 2600

www.fare.org.au

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