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Casting a shadow: harm from known drinkers

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Abstract

Introduction: This paper examines the negative consequences of having a known drinker in one's life. **Method:** The first dedicated national survey on alcohol's harm to others (AH20) in Ireland was undertaken in 2015. Data was gathered by a cross sectional probability sample of 2,005 adults (18+yrs). Using a 12 month time-frame, respondents were asked about adverse effects they experienced due to known drinkers. **Results**: Overall, two in five people experiencing harm from known drinkers. Intangible harm was more common (38%) than tangible harm (24%). Stress/anxiety was the most common harm. The youngest age group was most at risk of tangible harm, those under 60 were most at risk of intangible harm. Closeness of the relationship to known heavy drinkers increased the risk of harm, with partners and household members of heavy drinkers most at risk. Respondents who were risky drinkers were more likely to report harm from known drinkers. Respondents with a close relationship to heavy drinkers and those with both a close and an extended relationship to heavy drinkers reported lower life satisfaction than those who did not know heavy drinkers. **Conclusion:** Having a known drinker in one's life can cast a shadow on an individual's health and well-being and the closer the proximity relationship to known heavy drinkers the greater the shadow. To reduce AH20, a broad alcohol policy framework is needed, that incorporates effective measures to reduce harm across the population and improve relevant services in local communities. The implementation of the recently passed Public Health Alcohol Act can help identify and implement the necessary actions to reduce alcohol-related harm in Ireland.

Key words: alcohol's harm to others, general population, known drinkers

Declaration of interest: The authors declare no conflict of interest.

Introduction

There has been a significant expansion of research on alcohol's harm to others (AH20) in the last decade. Overall, survey studies from different regions of the world have reported that a significant proportion of populations have experienced harm from other people's drinking (Laslett et al 2011; Synnove Moan et al 2015; Karriker-Jaffe et al 2017; Marmet & Gmel 2017). While much of the harm experienced has been due to strangers' drinking, the negative effects of harm from known drinkers usually tend to be more severe in nature (Ferris et al 2011; Callinan et al 2019). The total impacts on those who are negatively affected by known drinkers may differ from the total impacts on those negatively affected by strangers' drinking because the types and frequency of the harms are likely to differ by relationship (Callinan et al 2014; Callinan et al 2017; Karriler-Jaffr et al 2017: Stanesby et al 2018).

Women were more likely to experience harm from known drinkers (Laslett et al 2011; Ramstedt et al 2015; Karriker-Jaffe et al 2017) and more younger people experienced harm from others' drinking (Rossow & Haugh 2004; Greenfield et al 2009; Laslett et al 2011; Ramstedt et al 2015; Marmet & Gmel, 2017). A strong relationship has been found between exposure to heavy drinkers and reduced personal wellbeing and poorer health status (Casswell et al 2011; Callinan et al 2019). Several studies have reported associations between having a heavy drinker in one's life and increased mental health problems such as depression, anxiety and distress (Ferris et al 2011, Greenfield et al 2016, Karriker-Jaffe et al 2017). The association between harm from others' drinking and mental health outcomes has also been reported among college students (Thompson et al 2017). Students who reported harm, in particular threats (being harassed or insulted, hit or assaulted, felt unsafe), due to others' drinking were associated with higher levels of anxiety and depression and poorer subjective well-being.

An international study across nine countries, including Ireland, examined harm from a partner's drinking, the paper was based on women who live with men (Callinan et al 2019). The prevalence of harm from a harmful heavy drinking partner in Ireland was 4% and similar to US, Lao PDR and Nigeria, while Australia was 7.4% and Vietnam highest at 29%. However, in Australia, Ireland, Sri Lanka, India and Vietnam respondents with a harmful heavy drinking partner were significantly more likely to experience anxiety and depression and report lower life satisfaction (Callinan et al 2018). The closeness of the relationship to the most harmful drinker has been identified as a critical factor in experiencing harm from known drinkers (Stanesby et al 2018). Women were more likely to report their most harmful drinker as a close male, while men were more likely to report their most harmful drinker as a male in an extended relationship (distant relative, friends or not in household). Women with a close relationship to a male heavy drinker were more likely to report harm (Stanesby et al 2018). The researchers suggest that for preventing harm to women, the primary focus should be on intervention within the close intimate relationship, while preventing harm to

men may require a broader approach, given that the relationship operates in a wider social context.

In Ireland, previous exploration of AH20 has been limited to short sections in broader national alcohol surveys. Over one in four adults had experienced harm from others' drinking based on six items (family problems, passenger with a drunk driver, property vandalised, physical assault and financial problems) (Hope 2014). Women were more likely to report family and financial problems, while more men reported physical assaults. Those younger were more likely to reports assaults, while family problems were more common among those under 50. One in ten adults in Ireland reported that children for whom they had parental responsibility experienced harm because of someone else's drinking, based on 4 harm items (verbal abuse, unsafe situations, witness serious violence in home, physical abuse) (Hope 2014). A multi-country study involving eight countries reported that the prevalence of alcohol's harm to children, using an indicator of substantial severity (two or more harms), was second highest in Ireland after Vietnam, and was significantly higher than in Australia (Laslett et al 2017). The study also reported that having a heavy drinker in the household was consistently identified as a correlate of harm to children because of others' drinking. Researchers in Australia have examined the association between caring for harmful drinkers, the impact on the carer's well-being and the burden of caring duties. Those who were caregivers for the most harmful drinker in their lives reported a lower quality of life compared to non-caregivers, with the majority of caregivers female (Jiang et al 2015). Caring duties involved on average 32 hours at an estimated cost of AU$250 million annually (Jiang et al 2017). In Australia, the estimated intangible costs (fear, pain, suffering and lost quality of life) to those that live with or know heavy drinkers were more than AU$6 billion (Laslett et la 2010).

This paper examines the prevalence of harm from known drinkers in the adult population in Ireland and the role to which closeness of the relationship to the known heavy drinker plays in reported harm from known drinkers and its association with quality of life. We hypothesised that

1) Women would be more likely to report harm from known drinkers compared to men, given that harmful drinking and related harm is more common among men in Ireland.
2) Having a close relationship to a heavy drinker would be associated with increased likelihood experiencing harm from known people's drinking and reduced quality of life.

Method

The first dedicated Irish national survey on alcohol's harm to others (AH20) was conducted in 2015. Data was gathered from a cross sectional probability sample of 2,005 adults in Ireland (18+yrs) via Computer Assisted Telephone interviewing conducted by a market

research company. The cooperation rate was 46% (the proportion of respondents among the eligible people actually contacted). The response rate was 37.2%, computed by the standards of the American Association of Public Opinion Research (AAPOR, 2016). While the response rate is relatively low, similar rates have been reported in other countries (Laslett et al. 2011). A two-stage weighting process was employed. The pre-weight adjusted for the unequal probability of selection for mobile, landline or a mix of both. The post-weight adjusted for the population based on gender, age and region. Ethical approval was obtained from the Research Ethics Committee of the National Drug Treatment Centre, Dublin.

Measures

Using a 12 month time-frame, all respondents were asked about a range of adverse effects they may have experienced due to the drinking of known drinkers in their life. In total, fourteen individual items assessed these harms which included stress, harassment, family problems, damaged property, called names or insulted and harmed physically (see Table 1 for full list). The 14 harm items were divided into tangible (7 items) and intangible/psychological harms (7 items) (Box 1) and were combined into two categorical variables (tangible and intangible) to determine the proportion of the population who reported such harms due to the drinking of known drinkers. The survey also collected socio-demographic information from respondents such as gender, age, civil status, place of living and employment status.

Box 1: Tangible and Intangible harms due to drinking of known drinkers

Tangible harms	**Intangible/psychological harms**
- Called names/insulted	- Stressed/anxious
- Ruined belongings	- Harassed in private
- Passenger w DD	- Problems w friend or neighbour
- Pushed/shoved	- Family problems
- Property damaged	- Feel threatened at home
- Harmed physically	- Felt depressed
- Traffic accident	- Financial trouble

To assess the closeness of the relation to known heavy drinkers, all respondents were asked the following question, 1) *Do you know anyone who you would consider to be a heavy drinker or who drinks a lot some times*? All respondents who answered yes to question 1 were asked question 2) *please select all types of relationships you have with heavy drinkers in you life*. The closeness of the relationship to the known heavy drinkers (KHD) variable was constructed as follows: respondents were assigned to one of the following four categories based on their answers to questions 1 and 2 above. Category 1 – no heavy drinker(s) in life; category 2 - one or more extended heavy drinker(s) but zero close heavy drinker(s); category 3 – one or more close heavy drinker(s) but zero extended heavy drinker(s);

category 4 – one or more close heavy drinker(s) AND 1 or more extended heavy drinker(s). Close relationship to heavy drinker(s) included partners, first degree relatives, house members, while Extended relationship included more distant relative, friends, colleagues, neighbours, and others not in household. The drinking habit of respondents was based on response to the question – *how often do you have 6 or more standard drinks (60+ grams) on a single occasion*?, defined in this paper as risky drinking. A guide for 6+SD was: at least 3 pints of beer, or 3.5 large cans of beer, or three-quarter bottle of wine, or 5 single measures of spirits or 6 premix alcopops. Response options ranged from every day, 5-6d/week, 3-4d/week, 1-2d/wk, 2-3d/mt, less often less than 12d/yr and never. These were collapsed into 4 categories of risky drinking, weekly, monthly, less than monthly and never. The never group included abstainers and those who did not engage in risky drinking in the past 12 months. Life satisfaction was measured using the well-being item '*how satisfied are you with your life as a whole*'. Respondents rated their overall life satisfaction on a scale from 0 (completely dissatisfied) to 10 (completely satisfied).

Analysis

Firstly, the proportion of those who experienced harm due to the drinking of known drinkers was examined by the 14 individual harm items. Secondly, pearson's chi-square was used to examine gender differences for each of the individual harm items. Thirdly, Pearson's chi-square was used to examine the tangible 1+ harms and intangible 1+ harms from known drinkers by the demographic variables (gender, age, civil status, employment status, place of living), closeness of relationship to known heavy drinkers, and respondents own risky drinking pattern in last 12 months. Fourthly, binary logistic regression was used to identify the factors associated with harm from known drinkers, controlling for gender, age, civil status, employment status, place of living, closeness of relationship to known heavy drinker and respondent's own drinking pattern (frequency of risky drinking). Lastly, the relationship between the closeness of relationship to KHD and overall well-being (life satisfaction) was examined. ANOVA analyses were undertaken with life satisfaction as dependent variable by the independent variable - closeness of relationship to KHD (four categories). The S*cheffe post hoc* test was undertaken where appropriate. Data analyses were carried out using SPSS version 25.

Results

Overall, 43% of respondents reported experiencing one or more harms due to the drinking of known drinkers (Table 1).The most common specific harms reported were been stressed or anxious (22%), called names or insulted (16%) and harassed at a party or other private setting (16%). A higher proportion of women than men reported stress, family problems, felt threatened in private, felt depressed and reported financial trouble due to the drinking of known drinkers. A higher proportion of men reported ruined belongings and a passenger with a drunk driver due to known drinkers' drinking (Table 1).

Overall, a higher proportion of respondents reported experiencing in*tangible/psychological harms* (37.6%) from known drinkers than *tangible harms* (24.3%) (Table2). A higher proportion of men reported tangible harms than women (27% vs 22%). An age gradient was evident in both tangible and intangible harms, with the highest rates in the youngest age group and lowest in the oldest age group. Those not married reported higher rates of both tangible and intangible harms from known drinkers. Approximately two-thirds (66%) of respondents with a close relationship to known heavy drinkers reported intangible harms and 43% reported tangible harms compared to other relationships (extended relationship to KHD, or no heavy drinker in their life).

A greater proportion of respondents who had both a close and extended relationship to KHDs reported experiencing harm from known drinkers than respondents with no relationship to KHDs, respondents with a close but not an extended relationship to KHDs or respondents with an extended relationship to KHD. There was an increase in the association between the likelihood of reporting tangible and intangible harms as the frequency of respondents own risky drinking increased, from never, less than monthly, monthly to weekly (Table 2).

Logistic regression, controlling for demographics, closeness of relationship to known heavy drinkers and the frequency of respondent's own risky drinking, showed that age, civil status, closeness of relationship to known heavy drinkers and frequency of respondents own risky drinking were significantly associated with reporting both intangible and tangible harm due to the drinking of known drinkers (Table 3). Those under 60 years were twice as likely to report ***intangible/psychological harm*** due to know drinkers compared to those over 60 years (Table 3). Those not married were also more likely than married respondents to report intangible harm. Respondents with a close relationship to known heavy drinkers (e.g. partners, first degree relatives, house members) were ten times more likely to report intangible harm from known drinkers (OR 9.71 CI 7.14-13.49 p<.001), compared to those with no heavy drinkers in their life. Those who had an extended relationship to known heavy drinkers (e.g. distant relatives, friends or others not in household) were three times more likely to report intangible harm (Table 3) than those with no heavy drinkers in their life. Respondents who themselves engaged in monthly or weekly risky drinking were more likely to report intangible harm.

Those under 60 years were more likely than those over 60 years to report ***tangible harm.*** In particular, those under 30 years compared to those over 60 years were seven times more likely to report tangible harm from known drinkers (OR 7.65 CI 4.78-12.22 p<.001). Those not married were more likely than married respondents to report tangible harm. Respondents with a close relationship to the known heavy drinkers were eight times more likely to report tangible harm than those with no heavy drinkers in their life (OR 8.12 CI 5.66-11.63 p<.001). Those who had an extended relationship to known heavy drinkers were three times more likely to report tangible harm than those with no heavy drinkers in their

life (Table 3). Respondents who themselves engaged in weekly risky drinking were more likely to report tangible harm from known drinkers.

The association between closeness of relationship to known heavy drinkers and respondents ***Life satisfaction*** is depicted in Figure 1. The overall mean life satisfaction score was 8.04(CI 7.96-8.11). ANVOA was undertaken with life satisfaction score as the dependent variable and the closeness of relationship to the known heavy drinker (KHD) as the independent variable with four categories – no HDs in their life, an extended relationship to 1 or more HDs, a close relationship to 1 or more HDs and both an extended and close relationship to heavy drinkers. A significant mean difference was observed in reported life satisfaction score across the closeness of relationship to known heavy drinker categories [F(3, 1991)= 20.09, p<.001]. The *Scheffe* post hoc test showed that respondents who had a close relationship to heavy drinkers and those who had both a close and extended relationship to heavy drinkers had a significantly lower life satisfaction score (Figure 1).

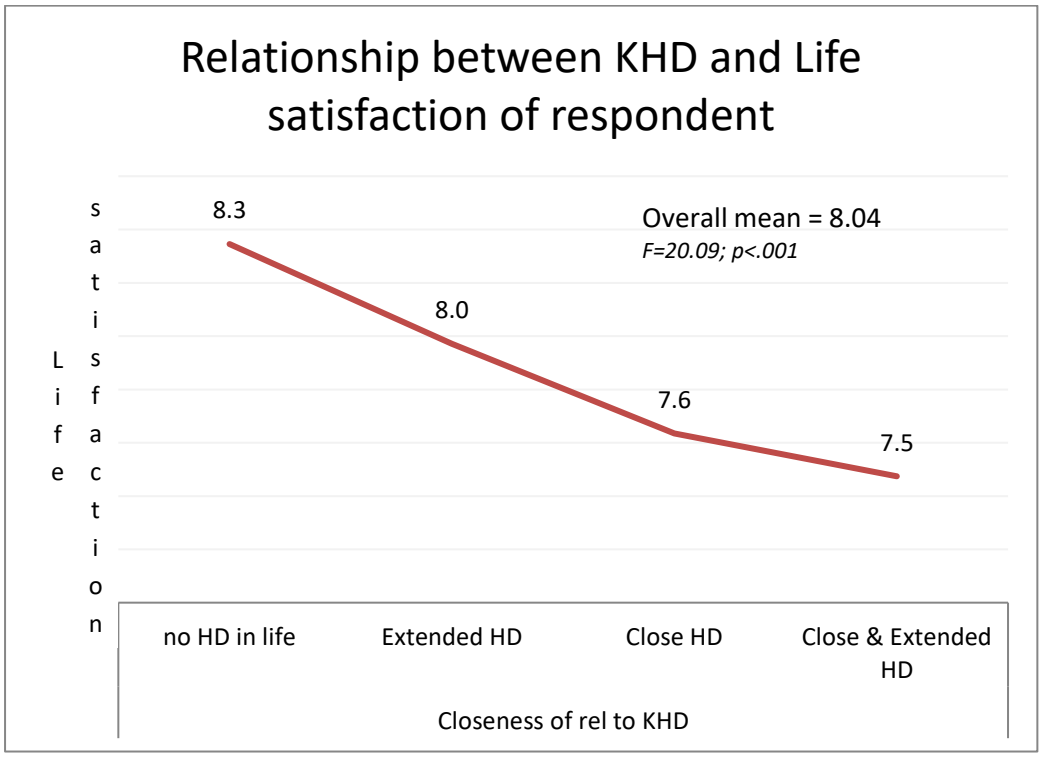

Figure 1: Relationship between known heavy drinkers and Life satisfaction of respondent.

Discussion

Overall, two in every five people reported harm from known drinkers. The most common harms reported were psychological in nature (intangible) such as stress/anxiety, perceived threatening behaviour and family problems. The top tangible harms reported were name calling/insulting and ruined belongings. More men than women reported tangible harms, however when demographics were controlled in the full model there was no gender difference associated with reported harm from known drinkers for intangible or tangible

harms. While earlier research did find that women were more likely to experience harm from known drinkers (Laslett et al 2011; Ramstedt et al 2015), the finding in this study may reflect the combination of harm items used, as gender differences were reported for several of harm items when examined individually.

The key factors associated with reported harm from known drinkers were age, civil status (not married), the closeness of the relationship to the known heavy drinkers and the respondent's own risky drinking pattern. While respondents under the age of 60 were more likely to report harm from known drinkers, the emphasis was meaningfully different for tangible and intangible harm. For tangible harm the youngest age group was most at risk of reporting such harm. The tangible harm items reflect the broader social context of drinking in public venues, such as bars and clubs in Ireland (Hope & Mongan 2010). For intangible/ psychological harm, the risk of experiencing harm from known drinkers was felt across each of the age categories between 18 to 60 years. The intangible harm items reflect the drinking situations that were more private in nature such as drinking at house parties, with friends or drinking in the home. For both tangible and intangible harm, respondents who themselves engaged in regular risky drinking increased their risk of harm from known drinkers. This is not surprising given that partners and friends were the two most common groups that people reported drinking with on a weekly basis, in the Irish social norms report (Hope & Barry, 2017), which reflects the social contexts of drinking in Ireland. During the 'Celtic Tiger' years (1990-2005) drinking was predominantly in public drinking venues (pubs and clubs). However, during the economic recession, drinking at home increased and was nudged on by below cost of selling of alcohol among the large retail chains. Drink consumed at home has remained relatively consistent since 2009-2010 (CSO 2017).

The closer the relationship to known heavy drinkers the more likely that harm from known drinkers was reported. Those who had the closest relationship to known heavy drinkers (partners, first -degree relatives or house members) increased their risk of experiencing harm. However, even less close relationships (distant relatives, friends or others not in household) were also at increased risk of harm from known drinkers. Having both close and extended relationships to known heavy drinkers added to the overall risk of harm and suggests a cumulative effect. Respondents who had a close relationship to heavy drinkers and those who had a close and extended relationship to the heavy drinker reported overall lower life satisfaction. Similar findings of reported lower life satisfaction were reported among women who reported living with a harmful heavy drinking partner (Callinan et al 2018), among caregivers for the most harmful drinker in their life (Jiang er al 2015) and among college students who experience harm from others drinking (Thompson et al 2017). In Australia, the estimated intangible costs (fear, pain, suffering and lost quality of life) to those that live with or know heavy drinkers were more than AU$6 billion (Laslett et la 2010).

Limitations

There are some limitations in this study. The response rate is relatively low; however, similar rates have been reported in other countries (Laslett et al. 2011). The range of harms measured may not have covered all relevant areas of potential harm and could have resulted in an underestimation of harm from known drinkers.

Conclusions

The growing research on the nature of alcohol use and its negative consequences for others has greatly enhanced the different ways we understand AH20. There is an emerging consensus that a joint approach is needed - both public health policy measures together with individual or contextual target interventions, to tackle alcohol's harm to others (Karriker-Jaffe et al 2018).

Having known drinkers in one's life can cast a shadow on an individual's health and well-being and the greater the proximity to known drinkers, the longer the shadow. In Ireland, the overall tangible cost estimates of harm from others drinking was €862.75 million annually (Hope et al 2018). The survey results did not estimate the intangible costs (fear, pain, suffering, lost quality of life) of alcohol's harm to others, but these are clearly substantial, as Laslett et al. (2014) estimated the intangible costs of alcohol harm to others in Australia at €6.4 billion, or 45% of the tangible costs.

In Ireland, to reduce AH20 a broad alcohol policy framework is needed, with effective measures to reduce such harms across the population as well as appropriate services in local communities. The implementation of the recently passed Public Health Alcohol Act 2018 with key evidence based public health measures contained in it (such as MUP, structural separation of alcohol products in mixed retail outlets, restriction on price promotions and restrictions on alcohol advertising) provides a clear opportunity and necessary actions to reduce alcohol-related harm in Ireland.

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Table 1: Harms reported due to the drinking of KNOWN DRINKERS (family/friends) in last 12 months,
Total weighted sample (N=2005), overall prevalence and by gender

	Prevalence	Men	Women
Harms reported due to the drinking of known drinkers	%	%	%
Been **Stressed** or anxious because of someone else's drinking	21.8	19.3	24.3**
Called you names or otherwise **insulted** you	16.4	16.0	16.7
Harassed or bothered you at a party or some other **private setting**	15.9	17.1	14.7
Had **problems with a friend or neighbour** due to their drinking	11.6	12.9	10.3
Had **Family problems** or marriage difficulties due to someone else's drinking	10.7	7.6	13.7***
Felt threatened or afraid **at home** or in some other private setting	8.8	7.3	10.2*
Felt depressed because of someone else's drinking	7.6	5.3	9.9***
Ruined your belongings	6.8	8.2	5.6*
P**assenger with a driver** who had too much to drink	5.3	7.4	3.3*B
Pushed or shoved you	5.2	5.8	4.6
Damaged your house, car or **property**	3.6	3.0	4.3
Had **financial trouble** because of someone else's drinking	2.2	1.2	3.2**
Harmed you **physically**	1.3	1.4	0.1
Been responsible for a **traffic accident** you were involved in	0.2	0.1	0.3
Reported one or more of harms due to the drinking of known drinkers	***44.3***	***45.6***	***43.1***

**p<.05; **p<.01; ***p<.000*

Table 2: **Tangible and Intangible harms** reported due to drinking of family/ friend in last 12 months, based on total weighted sample (2005), by demographics , relationship to known drinker and respondent's own drinking pattern

	N weighted	**Tangible Harm** experienced due to drinking of known drinkers 1+ harms (of 7 items)	**Intangible Harm** experiences due to drinking of known drinkers 1+ harms (of 7 items)
		%	%
Overall total	2005	24.3	37.6
Gender			
Men	980	26.9	36.8
Women	1025	21.8**	38.3
Age group			
18-29 yrs	437	51.0	48.3
30-44 yrs	631	24.1	41.4
45-60 yrs	517	15.5	35.8
Over 60 yrs	420	7.6***	22.9***
Civil status			
Married or de facto	1167	16.1	32.7
Other	835	35.8***	44.4***
Paid Employment			
Yes	1189	26.2	39.7
No	813	21.6*	34.5*
Place of living			
Rural	943	22.4	35.0
Urban	1053	25.9	40.0*
Closeness of relationship to known heavy drinker			
No HD in life	772	9.7	16.2
Yes Extended rel to HD	808	27.5	42.6
Yes Close rel to HD	326	42.9	65.7
Yes Close & Extended rel to HD	86	53.5***	73.3***
Respondent's own frequency of risky drinking^			
Never	776	14.3	32.3
Less than monthly	551	22.1	37.7
Monthly	336	31.0	41.7
weekly	339	44.0***	44.7***

**p<.05; **p<.01; ***p<.000*

^Risky drinking in past year defined as 60+grams/occ.

Table 3: Odds ratios from logistic regressions predicting experience of harm from known drinker, controlling for demographics, closeness of relationship to drinker and own drinking pattern

	***1+ Tangible harms** experienced due to drinking of known drinker*			***1+ Intangible harms** experienced due to drinking of known drinker*		
Demographics	*OR (95% CI)*	*Wald*	*p*	*OR (95% CI)*	*Wald*	*p*
Gender						
Male	*Ref*					
Female	*0.88(0.68-1.13)*	*1.02*	*p=.313*	*1.10 (0.89-1.37)*	*0.84*	*p=.359*
Age						
60+ yrs	*Ref*					
45-60	*1.82 (1.13-2.92)*	*6.13*	***p=.013***	*1.63 (1.16-2.29)*	*8.06*	***p<.005***
yrs	*3.21 (2.03-5.08)*	*25.00*	***p<.001***	*2.12(1.51-2.98)*	*19.11*	***p<001***
30-44	*7.65 (4.78-12.22)*	*72.36*	***p<.001***	*2.06(1.43-2.98*	*15.06*	***p<.001***
yrs						
18.29 yrs						
Civil status						
Married or de facto	*Ref*					
Other	*1.80 (1.38-2.35)*	*18.44*	***p<.001***	*1.52(1.21-1.92)*	*12.85*	***p<.001***
Paid employment						
No						
Yes	*0.96 (0.74-1.26)*	*0.65*	*P=.799*	*0.99(0.79-1.25)*	*.000*	*P=.985*
Place of Living						
Rural	*Ref*					
Urban	*0.98(0.77-1.25)*	*0.12*	*p=.911*	*1.17 (0.95-1.44)*	*2.26*	*p=.133*
Closeness of relationship to know heavy drinker						
No HD in life	*Ref*					
Yes extended rel to HD	*3.10(2.27-4.22)*	*51.85*	***p<.001***	*3.68(2.88-4.70)*	*109.00*	***p<.001***
Yes close rel to HD	*8.12(5.66-11.63)*	*129.83*	***p<.001***	*9.71(7.14-13.19)*	*211.08*	***p<.001***
Yes close & extended rel to HD	*10.71(6.23-18.40)*	*73.74*	***p<.001***	*13.52(7.98-22.92)*	*93.68*	***p<.001***
***Frequency of risky drinking (60+g/occ)** in last year*						
Never	*Ref*					
Less than monthly	*1.14 (0.82-1.57)*	*0.61*	*p=.434*	*0.91 (0.70-1.19)*	*0.44*	*p=.549*

Monthly	*1.28 (0.88-1.84)*	*1.75*	*p=.186*	*0.99 (0.72-1.36)*	*.001*	***p=.009***
Weekly	*2.87(2.02-4.08)*	*34.19*	***p<.001***	*1.14 (0.83-1.56)*	*0.67*	***p=.005***