

## Alcohol's harm to others: self-reports from a representative sample of New Zealanders

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### Abstract

**Aim** There is a lack of research, internationally and in New Zealand, on the harms experienced as a result of drinking by others. Such effects have often been neglected in policy development and in estimates of the economic burden associated with alcohol consumption. This study describes the broad range of harms reported by New Zealanders due to the drinking of someone else.

**Method** A representative national survey was conducted using Computer Assisted Telephone Interviewing with New Zealanders aged 12 to 80 years (N=3068) in 2008/2009 (response rate – 64%). Harms experienced due to the drinking of others were reported along with demographic variables.

**Results** One in four respondents indicated that they had at least one heavy drinker in their life. Most of these respondents indicated they had experienced a range of harms because of this person's drinking. Further, 17% of respondents with children reported that their children experienced harm because of the drinking of someone else. Seventy-one percent of those sampled reported experiencing at least one harm because of the drinking of a stranger.

**Conclusion** A large proportion of New Zealanders report the experience of physical, social, economic, and psychological harms because of the drinking of others. These harms should be considered in the discussion of alcohol policy.

Alcohol has negative effects for people other than the drinker; however, these are less well documented than the impacts experienced by the drinkers themselves. These less well measured effects are relevant to the formulation of alcohol policy and might, if carefully established, be influential in the policy debate in the way that passive smoking contributed to tobacco policy debates.

The limited data available on the effects on those other than the drinker have largely been confined to the effects of traffic crashes and foetal alcohol syndrome, both of which have been established well enough to be included in measures of alcohol's contribution to the Global Burden of Disease.<sup>1</sup>

In New Zealand, 40% of traffic crash injury is experienced by those other than the drinking driver.<sup>2</sup> Other injury has also been related to the effect of others' drinking with a survey showing 5.7% of 12–65 year old New Zealanders reported being physically assaulted by someone who had been drinking, and 5.3% reported being sexually harassed under the same circumstance.<sup>3</sup>

Research conducted on the effects of alcohol among university students in New Zealand showed that 84% of survey respondents experienced at least one harm because of other students' drinking within the month prior to the survey. For instance,

one-third of students reported being insulted or humiliated; 15% being pushed, hit or otherwise assaulted; and 28% reported experiencing unwanted sexual advances.<sup>4</sup>

The effect of alcohol on the families of heavier drinkers has been investigated with research showing that alcohol is related to greater family disruption and lower family functioning scores,<sup>5</sup> and stress.<sup>6</sup> The effects on children begin prenatally with drinking during pregnancy associated with Foetal Alcohol Syndrome.<sup>7</sup> In longitudinal studies parental alcoholism has been associated with increased risk of attention deficit hyperactivity disorder, substance abuse, conduct disorder, mood and anxiety disorders,<sup>8</sup> and teacher rated behavioural problems.<sup>9</sup> Other studies show a relationship between parental heavy drinking and lower academic achievement.<sup>10</sup>

While there has been research on alcohol's involvement in workplace injuries or deaths,<sup>11</sup> it has been without specific reference to the issue of the effect of a worker's drinking on others. Similarly, absenteeism due to drinking has been studied in New Zealand,<sup>12</sup> as elsewhere, but the impact on the wellbeing and productivity of workmates has not been researched.

Some research has assessed the specific harms reported by survey respondents due to the drinking of strangers (for instance, being afraid of intoxicated people on the street). Research conducted in the Nordic countries found that the percentage of respondents who reported experiencing three or more such harms ranged from 10–22% across gender in the four countries studied (Denmark, Finland, Norway and Sweden). The most common harm reported for men and women was being harassed by intoxicated people in a public place (in the Swedish sample).<sup>13</sup>

This paper reports findings from a national sample of New Zealanders who were asked about their exposure to heavy drinkers. Analysis of respondents' reports of their personal wellbeing and health status has shown significant relationships with level of exposure to heavy drinkers.<sup>14</sup> This analysis reports the prevalence of specific experiences related to the heavy drinking of people in different relationships to the respondent. It provides the first comprehensive measurement of a wide range of alcohol's effects on those other than the drinker in New Zealand.

## Method

**Data collection**—Data was obtained from a representative national sample of 3068 New Zealanders, aged 12–80, who were living in private residential dwellings with a connected landline telephone in New Zealand in 2008/9. The survey was conducted using Computer Assisted Telephone Interviewing (CATI).

Landline phone numbers were generated randomly and distributed in proportion to the usually resident population across strata area, which cover the whole country when combined. Once recognised as a residential line, households were called at different times of the day and days of the week at least ten times in order to reach a respondent. All eligible people in the household were enumerated from which the computer selected one respondent at random. If the selected respondent was not available for interview a call back was arranged (if the selected respondent was away for the duration of the survey they were counted as a non-response).

As with any telephone-based interviewing method, people without landline telephones are excluded from the sample. Telephone coverage in New Zealand however is comparatively high. In 2006, 97.9% of households in New Zealand had accessible landline telephones.<sup>15</sup> Certain sectors of the population are under-represented among those with access to a landline telephone, however previous analysis using similar New Zealand survey data has found that does not affect population level estimates.<sup>16</sup>

**Response rate**—The response rate of the survey was 64% [(number of eligible responding / the number of eligible responding + number of eligible non-responding + estimated number of eligible from the unknowns) × 100].

Eligible respondents were defined as those aged 12–80 years who had lived in the country for at least 12 months. Eligible non-responders were made up of those who were contacted but declined to take part. The estimated number of eligible from the unknowns was an estimation of the respondents that would have been eligible in the households that were unable to be reached.

Response rates are declining internationally and in this context 64% is a high response rate, particularly taking into account that the sampling frame included unpublished telephone numbers (providing a more representative sample but reducing response rates). This response rate is within the range of 50%–80% found to produce accurate and unbiased estimates of health related behaviour.<sup>17</sup>

**Sample weighting**—The sample was reasonably representative of the NZ population aged 12–80 years old at the time of the 2006 Census [see for example Statistics New Zealand<sup>18–20</sup>] however weighting was carried out to correct for unequal household selection probabilities.

The data were weighted in four stages. The first stage was to correct for dwelling unit or household selection probabilities. The second stage was to match the strata back to Census data – (because there were slightly larger numbers in the Auckland Region). The third stage was to match the survey weights to New Zealand 2006 Census (Access to a Landline Telephone only) population distributions using Rim Weighting, an iterative procedure to match the sample to the known population marginal, upon a set of major variables, in this case for groups based on gender, age and ethnicity. The final stage involved a standardization to match the weighted sample size back to the initial survey size.

**Measures**—Respondents were asked a number of questionnaire items about the drinking of those around them. Initially they were asked whether there “are any people in your life whom you consider to be fairly heavy drinkers or who sometimes drink a lot”. Those who answered affirmatively were then asked to specify the number of heavy drinkers in their life and their relationship to these people. The respondent next identified the person whose drinking had the most significant negative impact on them over the last 12 months. Subsequently, questions were asked about the occurrence of specific adverse events associated with this person’s drinking.

Respondents with children aged under 18 living in the household were asked about the effects of someone else’s drinking on these children. Another set of questions addressed the specific harms experienced by the respondent because of the drinking of a stranger. The survey also included items on the respondent’s demographic information. The questionnaire items were developed in collaboration with researchers who conducted a similar study in Australia.<sup>21</sup> The responses to the questions were such that other members of the household were not able to tell what the respondent was reporting.

**Ethics**—The project was been reviewed and approved by the Massey University Human Ethics Committee.

## Results

Twenty-eight percent of respondents indicated that at least one person with whom they had some relationship was a “fairly heavy drinker or sometimes drinks a lot” (as shown in Table 1). Female respondents were significantly more likely to report having a heavy drinker in their life (31%) than males (25%) (Chi-squared=12.8, df=1, p=0.0003).

In order, respondents reported that the heavy drinker was a relative or partner not in the household (this included boyfriends, girlfriends, and ex-partners) (13%), a friend (13%), household member (6%) and finally a coworker (2%). Women were more likely to report heavy drinking among household members and relatives or partners outside the household (22%; males 12%) (Chi-squared=31.9, df=1, p≤0.0001).

**Table 1. Percentages of those in various relationships to the respondent reported as heavy drinkers by the respondent**

Variables	Female	Male	Total
(N)	1836	1232	3068
Household member*	8	3	6
Relative or partner (not in the household)**	16	9	13
Friend	12	14	13
Coworker†	1	2	2
Total reporting one heavy drinker	31	25	28

\*Partner/spouse, mother, father, children, sibling, wider family member who live in the same household as respondents; \*\*Includes boyfriends, girlfriends, and ex-partners; †Work colleague, employer, and employee;

Respondents who indicated the presence of at least one heavy drinker in their life were subsequently asked to identify the person whose drinking had most negatively affected them in the last 12 months (see Table 2). The description of these people in terms of relationships was generally proportionate to the reports of heavy drinkers in that category (Table 1).

**Table 2. Percentages of those the respondent reports as the heavy drinker whose drinking most negatively affected them**

Variables	Female	Male	Total
(N)	492	268	760
Household member	23	11	18
Family members not in the household	43	33	39
Friend	31	48	38
Coworker	3	7	5
Other	1	1	1

**Effects from the drinking of the person who most affected them**—Of the respondents who indicated the presence of at least one heavy drinker in their life, 85% identified the one person whose drinking most negatively affected them. These respondents were then asked a series of questions about the specific adverse experiences and situations they had encountered in the last 12 months due to this person’s drinking (see Table 3).

Eighty-four percent of these respondents indicated that they had experienced at least one of the adverse impacts listed. Among younger respondents (12–29 years) over 95% of those who reported one person who most negatively affected their life reported at least one specific harm because of this person’s drinking.

The most commonly reported experience (reported by over half of respondents) was that the other person’s drinking meant that the drinker failed to do something they were being counted on to do. Around a third or more of the respondents indicated that the other person’s drinking meant they had felt emotionally hurt and neglected, had a serious argument with the person, had to stop seeing the person, had to drive them somewhere, had to clean up after them, had to take on extra caring responsibilities, and that the other person was not there for them and interested in them.

In regards to the more serious harms asked about, 7% of respondents reported being physically hurt by the other person and 9% reported having money stolen by them.

There was no significant gender difference in the percentage of those reporting experiencing at least one harm (Chi-squared=1.08, df=1 p=0.300); however, there were differences in the specific harms reported. The largest differences were that females were more likely to report being emotionally hurt or neglected (51%) (Chi-squared=17.3, df=1 p<0.0001) or feeling threatened and scared (30%) than males (35% and 22% respectively) (Chi-squared=4.0, df=1 p=0.046).

**Table 3. Percentage of respondents who reported being affected in the following ways by the drinker who most negatively affected them (n=760)**

Harms	Female	Male	Total (% of the total sample)
<i>How many times in the last 12 months, because of their drinking:</i>			
Were you emotionally hurt or neglected by them?	51	35	44
Did you have a serious argument (not including physical violence)?	51	47	49
Did they fail to do something they were being counted on?	57	52	55
Did you have to stop seeing them?	32	28	31
Did you have to take them somewhere?	33	39	35
Was there not enough money for the things you needed?	19	11	15
Did you have to clean up after them?	38	41	39
Did you feel threatened or scared by them?	30	22	26
Were you physically hurt by them?	8	7	7
Did you feel at risk in the car when they were driving?	18	11	15
Were you forced or pressured into sex or something sexual?	2	3	3
Did they break or damage something that mattered to you?	27	19	23
Did you have to take on extra responsibilities caring for children or others?	30	31	30
Could you not bring friends home?	17	17	17
Did you have to leave home to stay somewhere else?	17	10	14
Did you avoid seeing other friends/family because you were embarrassed?	26	18	22
Were you injured in a car accident?	2	1	1
Were you less able to do your paid employment, or have to take time off?	12	15	13
Were meals not cooked?	19	14	16
Was there no transport to and from places?	19	21	20
Have they not shown much interest in you?	45	38	42
Have you not seen them when you wanted to?	44	40	42
Has your money been stolen by them?	8	10	9
Have you gone without food?	6	5	5
Total respondents experiencing at least one adverse impact	85	83	84

**Effects on respondents' children**—Respondents who had identified having at least one heavy drinker in their life were asked whether they had any children under 18 years old living in their household. Those who did were asked about specific harms experienced by the children because of someone else's drinking (this could have included another parent or caregiver of the child) (see Table 4).

Seventeen percent of respondents with children in the household indicated the children were negatively affected by the drinking of someone else in the last 12 months. Eleven percent of those with children living in the household indicated that the child had been yelled at or verbally abused because of someone else's drinking.

Seven percent of respondents with children in the household reported that children had witnessed serious violence in the home because of someone else's drinking.

**Table 4. Harms experienced by under-18 year old children living in the household of the respondent (n=334)**

Harms	Female	Male	Total
<i>Because of someone else's drinking how many times in the last 12 months:</i>			
Were children yelled at, criticised or verbally abused?	13	9	11
Did children witness serious violence in the home?	6	7	7
Were children left in an unsupervised or unsafe situation?	6	5	5
Were children physically hurt?	4	1	2
Was a protection agency or family services called?	2	2	2
Was there not enough money for the things the children needed?	4	5	5
Total respondents with children reporting at least one impact	18	15	17

**Effects from a heavy drinking coworker**—Of those respondents who reported having a heavy drinking coworker, 39% reported experiencing at least one specific harm (see Table 5). Forty-four percent of these reported that they had experienced reduced productivity because of a colleagues' drinking.

**Table 5. Harms experienced by respondents with coworkers identified as heavy drinkers (n=61)**

Harms	Female	Male	Total
<i>Because of your coworker's drinking how many times in the last 12 months:</i>			
Were you involved in an accident or a close call at work?	4	0	2
Have you had to work extra hours?	29	24	26
Did you have to cover for them?	47	21	31
Was your productivity at work reduced?	34	50	44
Total percentage of respondents who indicated they had one heavy-drinking coworker reporting at least one adverse impact	44	36	39

**Effects from strangers' drinking**—Finally, respondents were asked about the harms experienced because of a stranger's drinking. Seventy-one percent of respondents indicated that they had experienced at least one harm due to the drinking of strangers or people they did not know very well. The age group most likely to report experiencing at least one harm was those between 20–29 years old (85%) and least likely were those over 50 (58%), with no differences in the likeliness of reporting at least one harm across genders, although reports of experiencing specific harms varied by gender.

The specific harms experienced by those respondents who indicated one or more adverse event are shown in Table 6. Almost half of those who indicated they had experienced at least one harm because of a stranger's drinking stated that they had gone out of their way to avoid drunk people and places. Nearly one third responded that they had been verbally abused.

Around 15% answered that because of a stranger's drinking they had damage done to their property, had been paid unwanted sexual attention, had been threatened, had felt unsafe and had a serious argument. Fewer respondents indicated that they had been physically hurt (4%), been injured in a car accident (1%), or been forced or pressured to do something sexual (2%).

The largest gender differences were that female respondents were more likely to report feeling unsafe waiting for public transport (18%; males 11%) (Chi-squared=19.3, df=1 p<0.0001) and being paid unwanted sexual attention (18%; males 12%) (Chi-squared=11.7, df=1 p=0.0006) than men, whereas men were more likely to report being annoyed by vomit and littering (70%; females 59%) (Chi-squared=31.4, df=1 p<0.0001) and being verbally abused (31%; females 24%) (Chi-squared=11.7, df=1 p=0.0006) due to the drinking of others.

**Table 6. Respondent-reported alcohol-related harms in the community. Harms experienced by respondents indicating at least one harm because of the drinking of a stranger (N=2142)**

Harms	Female	Male	Total
<i>We would now like to ask you about strangers or people you don't know very well. Because of their drinking, in the last 12 months, how many times have you:</i>			
Avoided drunk people/places?	47	44	45
Been kept awake or disturbed at night?	51	46	49
Been annoyed by vomit, urination or littering?	59	70	64
Felt unsafe waiting for public transport?	18	11	15
Felt unsafe in a public place?	21	19	20
Experienced trouble or noise related to a licensed venue?	10	11	11
Been verbally abused?	24	31	27
Been physically hurt?	3	5	4
Been threatened?	15	18	16
Been involved in a serious argument?	14	18	16
Been injured in a car accident?	1	1	1
Had damage done to your house, car or other property?	13	15	14
Been forced or pressured to do something sexual?	2	2	2
Been paid unwanted sexual attention?	18	12	15

## Discussion

This research records the self-reported harms experienced because of the drinking of others by a representative sample of New Zealand respondents. The range of harms experienced is wide: from physical violence to emotional hurt and neglect to lower work productivity.

Previous research has tended to look at the effects on the immediate family of heavy drinkers. Our research shows that the drinking of people in various relationships can also have negative effects on others. One in four of our sample reported experiencing at least one adverse impact during the previous 12 months due to the drinking of someone they knew.

While there were significantly more women than men reporting heavy drinkers in their lives, reports of the specific adverse effects experienced because of the drinking

of someone known to them were similar between men and women. Similar numbers reported taking on extra responsibilities caring for children or others, that they had money stolen and had gone without food.

As many men as women also reported having been physically hurt and forced or pressured into sex. However, some gender difference existed in the harms experienced with women more likely to report having felt threatened or scared, having felt at risk in a car and having something that mattered being broken or damaged. They also were more likely to have felt emotionally hurt or neglected.

Children have long been recognised as being particularly vulnerable to the impacts of others' drinking, particularly that of their caregivers. A New Zealand literature review for the Families Commission concluded that most studies show harmful impacts on the health and wellbeing of children in families with caregivers who are heavy drinkers.<sup>7</sup>

Two percent of the respondents in this study who had children living in their household reported that child protection services had been called because of someone else's drinking. However, this is a smaller proportion than those who reported both verbal and physical abuse of children due to someone else's drinking. The considerable impacts on children found in this study fit with previous research that indicates that heavy alcohol use in the family is a risk factor for child abuse.<sup>22</sup>

While only small numbers reported heavy drinking coworkers, more than a third of these reported some adverse effects, including having to cover for their workmates and their own productivity being reduced. While this is a relatively under researched area, estimates of economic costs from alcohol attribute considerable costs to lost productivity in the workplace.<sup>11,12</sup>

Seventy percent of our sample reported at least one adverse event that was attributed to the drinking of a stranger. These findings support other evidence of the relationship of alcohol with public nuisance and disorder. Internationally, United Kingdom data show that almost 75% of residents in London Boroughs reported experiencing crime, disorder, nuisance or anti-social behaviour that they attribute to the drinking of others<sup>23</sup> and one-quarter of respondents in an Irish sample report feeling unsafe in their local area at night.<sup>24</sup>

Overall, these results are similar to those found in a comparable Australian study. In Australia, 28% percent of respondents reported being negatively affected by the drinking of someone they knew and 75% of respondents reported at least one harm of a public nuisance sort that they attributed to the drinking of strangers.<sup>21</sup>

Establishing causal relationships in cross-sectional research such as this is difficult. In this analysis data from items in which the respondents themselves attribute the harm experienced to the drinking of others is reported. At the least, these data show the extent and range of harms that people attribute to the drinking of others.

A large proportion of New Zealanders report harm from the drinking of others. New Zealand adults experience these impacts in homes, workplaces and in the community. These effects from others' drinking are often overlooked in alcohol policy development, and yet their common occurrence suggests that these harms should be



considered in economic costings of alcohol consumption and in discussion of policies to reduce alcohol-related harm.

**Competing interests:** None.

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