

Welcome to this special edition of *News and Views* where we take a look at some recent alcohol-related research that has come to our attention in recent times.

CHILDREN AND YOUTH

The involvement of alcohol consumption in the deaths of children and young people in New Zealand during the years 2005-2007.

In September 2011 the Child and Youth Mortality Review Committee released a special report on the involvement of alcohol consumption in the deaths of children and young people from 2005-2007. They report that an average of 61 children and young adults aged between 4 weeks and 25 years died because of their or someone else's drinking each year. The proportion of alcohol involved deaths of children and young people was highest for motor vehicle accidents (31%), closely followed by falls (30%), assaults (29.6%), poisoning (20.6%), drowning (15.7%) and suffocation (9.7%). In 32% of all deaths, the death occurred due to someone else's drinking (intoxicated parents or caregivers). The Committee made a number of recommendations including, raising the price of alcohol, raising the purchase age, limiting trading hours, limiting advertising, eliminating the links between role models, sports and alcohol and a number of other recommendations.

Child and Youth Mortality Review Committee, Te Rōpū Arotake Auau Mate o te Hunga Tamariki, Taiohi. 2009. Special report: the involvement of alcohol consumption in the deaths of children and young people in New Zealand during the years 2005-2007. Wellington: Child and Youth Mortality Review Committee.

VIOLENCE & INJURY

Alcohol misuse and violent behavior: Findings from a 30-year longitudinal study

This New Zealand study conducted by the University of Otago used data from the Christchurch Health and Development Study and examined the associations between measures of alcohol abuse/dependence (AAD) and violent offending and intimate partner violence (IPV). The birth cohort was studied at 4 months, 1 year, annually to age 16, and again at 18, 21, 25 and 30 years. The study found a causal association between alcohol

misuse and violent offending/victimisation and IPV perpetration, with estimates suggesting that alcohol use disorder accounted for approximately 4.6-9.3% of the reported violent offending/victimisation and IPV perpetration in the cohort. When compared with individuals with no symptoms, individuals who had five or more alcohol abuse/dependence symptoms had: 3.58 times greater rates of violent offending (95% CI: 1.60-8.12); 2.15 times greater rates of physical IPV perpetration (95%CI: 1.26-3.65) and 1.91 times greater rates of violence victimisation (95%CI: 1.00-3.58). In terms of population attributable risk, the authors suggest that 9.3% of violence perpetration, 6.3% of violence victimisation, and 4.6% of IPV perpetration could be accounted for by the presence of alcohol abuse/dependence symptoms. One important finding from this New Zealand study was that the association between alcohol misuse and violence outcomes did not differ according to gender, and the strength of the association between alcohol misuse and violence was comparable for both males and females.

Boden JM, et al., Alcohol misuse and violent behavior: Findings from a 30-year longitudinal study. Drug Alcohol Depend. (2011), doi:10.1016/j.drugalcdep.2011.09.023

Alcohol involvement in aggression between intimate partners in New Zealand: a national cross-sectional study.

In this cross-sectional study Connor and colleagues analysed data from 1925 respondents and found that approximately 15% of men and 12% of women reported experiencing an aggressive act by a partner, and 11% of men and 16% of women reported being aggressive towards a partner in the past 2 years. Alcohol was a factor in over a quarter of aggression acts, with more women reporting that men-only were drinking when they were victimised.

Connor JL, Kypri K, Bell ML, et al. Alcohol involvement in aggression between intimate partners in New Zealand: a national cross-sectional study. BMJ Open (2011). doi: 10.1136/bmjopen-2011-000065. Retrieved from <http://bmjopen.bmj.com/content/early/2011/06/28/bmjopen-2011-000065.abstract> on 13 December 2011

Alcohol and risk of admission to hospital for unintentional cutting or piercing injuries at home: a population-based case-crossover study.

This New Zealand population-based case-crossover study found that acute alcohol use (within 6 hours of injury) is associated with hospital treatment for unintentional cutting or piercing injuries at home, among adults aged between 20 to 64 years of age. The researchers found a dose-response relationship with the adjusted odds ratio for 4 or more drinks being considerably higher (8.68) than that for 1 to 3 drinks, relative to no drinks (1.77). There was a strong smoking-alcohol interaction; smokers had higher (15.5) odds ratio for injury after more than 1 alcoholic drink compared to non-smokers (1.69). Smokers also reported having drunk larger amounts at the time of injury. The authors note that the prevalence of hazardous drinking in this study was considerably higher than previously identified in a New Zealand study (32.0% and 21% respectively).

Thornley S, Kool B, Robinson E, et al. Alcohol and risk of admission to hospital for unintentional cutting or piercing injuries at home: a population-based case-crossover study. BMC Public Health 2011, 11:852. Open access: <http://www.biomedcentral.com/content/pdf/1471-2458-11-852.pdf>. Retrieved 14.12.2011

Alcohol availability and youth homicide in the 91 largest US cities, 1984-2006

This study reaffirms the link between density of alcohol outlet and homicide amongst young adults. The study carried out in 91 of the largest U.S. cities between 1984 and 2006 found a strong correlation between the density of alcohol outlets and violent crime rates among young people aged 13 to 24 years. Even after taking into account other factors that are known to contribute to youth homicide rates - such as poverty, drugs, availability of guns, and gangs - the researchers found that higher densities of liquor stores, providing easy access to alcoholic beverages, contributed significantly to higher youth homicide rates.

Parker RN, Williams KR, McCaffree KJ, et al. Alcohol availability and youth homicide in the 91 largest US cities, 1984-2006. Drug and Alcohol Review, 2011; 30(5): 505-514.

Per capita alcohol consumption and suicide mortality in a panel of US states from 1950 to 2002

In this study Kerr and colleagues (2011) established a link between per capita alcohol consumption and suicide rates in the United States. The researchers used 53 years of data from 48 US states/state groups to estimate relationships between total and beverage-specific alcohol consumption measures and age-standardised suicide mortality rates. They found that an additional litre of ethanol from total alcohol sales was

estimated to increase suicide rates by 2.3%. Spirits were more linked to female suicide rates, whereas beer and wine were related to male suicide rates. Majority of the effect were mediated by the chronic effects of long-term alcohol consumption.

Kerr WC, Subbaraman M, & Ye Y. Per capita alcohol consumption and suicide mortality in a panel of US states from 1950 to 2002. Alcohol and Drug Review, 2011; 30(5): 473-480.

Population drinking and homicide in Australia: A time series analysis of the period 1950-2003.

In this Australian study, Ramstedt conducted a time-series analysis to analyse the association between population drinking and overall homicide rates (in Australia). Using homicide data from 1950 to 2003 the author found that, a one-litre increase in per capita consumption was followed by an 8% increase in both overall and male homicide rates, and a 6% increase in female homicide rates. The trend was mainly driven by beer consumption.

Ramstedt M. Population drinking and homicide in Australia: A time series analysis of the period 1950-2003. Drug and Alcohol Review, 2011; 30(5):466-472.

ENVIRONMENT

Alcohol outlet density, levels of drinking and alcohol-related harm in New Zealand: a national study.

This cross-sectional study found an association between binge drinking and the density of off-licence liquor outlets within 1km of home with a 4% increase in the odds of binge drinking for every additional outlet. The frequency of self-reported harm (including trouble with the law, involvement in fights, unhealthy relationships, workplace abstinence, job problems) due to drinking was positively associated with density of outlets close to home for all types of liquor outlets (off and on licences). The authors conclude that the difference between 5 and 15 off-licence outlets is associated with a 48% increase in the odds of binge drinking and 26% increase in alcohol-related harm.

Connor JL, Kypri K, Bell ML, Cousins K. Alcohol outlet density, levels of drinking and alcohol-related harm in New Zealand: a national study. Journal of Epidemiology & Community Health 2011; 65(10): 841-846.

Neighbourhood matters: Perceptions of neighbourhood cohesiveness and associations with alcohol, cannabis and tobacco use.

This study by Lin, Witten, Casswell and You examined the relationships between perceived neighbourhood cohesion and alcohol, tobacco and cannabis consumption in New Zealand.

Researchers analysed the results collected from two Health Behaviours Survey's (Drugs and Alcohol) conducted in 2003 and 2004 with a sample of 14,575 individuals and found that individual level neighbourhood cohesion was significantly associated with people's alcohol, tobacco and cannabis use. People who perceived their neighbourhood as more cohesive drank alcohol more frequently but in smaller quantities on each drinking occasion. It seemed that people living in a more cohesive neighbourhood (from the perspective of the individual) were better able to control their alcohol consumption.

A unit increase in individual-level neighbourhood cohesion increased the frequency of alcohol consumption by 22%, but decreased the amount of alcohol consumption on a typical occasion by 14%.

Lin EY, Witten K, Casswell S, You RQ. Neighbourhood matters: Perceptions of neighbourhood cohesiveness and associations with alcohol, cannabis and tobacco use. Drug and Alcohol Review 2011; Online version first published 5 Dec 2011. DOI: 10.1111/j.1465-3362.2011.00385.x

Alcohol Outlets, Neighbourhood Characteristics, and Intimate Partner Violence: Ecological Analysis of a California City

In this study by Cunradi and colleagues (2011), the researchers assessed the relationship between neighbourhood alcohol outlets and rates of intimate partner violence-related calls to police and crime reports in California, USA. They found that each additional off-premise alcohol outlet was associated with an approximate 4% increase in IPV-related police calls and an approximate 3% increase in IPV-related crime reports.

Cunradi CB, Mair C, Ponicki W, & Remer L. Alcohol outlets, neighborhood characteristics, and intimate partner violence: ecological analysis of a California city. Journal of Urban Health, 2011; 88(2): 191-200.

A longitudinal analysis of alcohol outlet density and domestic violence

This cross-sectional time-series designed study conducted in Melbourne, Australia explored the relationships between alcohol outlet density and domestic violence. The researcher used alcohol outlet density measures for three different types of outlets

(hotel/pub, packaged liquor, on-premise) and domestic violence rates were calculated from police-recorded crime data, based on the victim's postcode. The author reports that alcohol outlet density was associated significantly with rates of domestic violence, over time. All three types of outlets were positively associated with domestic violence rates; these were particularly large for packaged liquor outlets. With each additional packaged outlet there was an increase of 0.66 incidents of domestic violence per 1,000 residents.

Livingston, M. A longitudinal analysis of alcohol outlet density and domestic violence. Addiction, 2011; 106(5): 919-925.

The impact of retail practices on violence: The case of single serve alcohol beverage containers.

This piece of research examined crime rates and individually sold alcohol beverage containers in California, USA. Parker et al. found that violent crime rates were significantly higher in neighbourhoods that had both higher densities of liquor stores and retail outlets that devoted more cooler space for single-serve containers. Single serve containers were those that were sold individually, not in a package that connects them to other similar containers, and are sold chilled. The authors suggest that using a regulatory approach to alcohol availability and, specifically to single serve container availability, may be an effective way to reduce alcohol-related harm, such as violence.

Parker RN, McCaffree KJ, & Skiles D. The impact of retail practices on violence: The case of single serve alcohol beverage containers. Drug and Alcohol Review, 2011; 30(5): 496-504.

The impact of small changes in bar closing hours on violence. The Norwegian experience from 18 cities.

In this study from Norway, Rossow and Noström set out to estimate the effect on violence of small changes in closing hours for on-premise alcohol sales in 18 cities across Norway. Using a quasi-experimental design to analyse the data the researchers found that each one hour extension of closing hours was associated with a statistically significant increase of 5.0 assaults per 100,000 inhabitants per quarter (i.e. an increase of about 16%). The closing hours of premises were between 1am and 3am and the outcome measured was police call outs between 10pm and 5am at weekends.

Rossow, I., & Noström, T. The impact of small changes in bar closing hours on violence. The Norwegian experience from 18 cities. Addiction 2011; 10: 1-8.

HEALTH

Prospective Study of Alcohol Consumption Quantity and Frequency and Cancer-specific Mortality in the US Population

Breslow and co-investigators explored the association between quantity and frequency of alcohol consumption and cancer-specific mortality in a US sample of 323,354 individuals. Researchers found that increased risk of all-site cancer mortality for men was associated with higher-quantity drinking (≥ 3 drinks on drinking days vs. 1 drink on drinking days) and for women, higher-frequency drinking (≥ 3 days/week vs. < 1 day/week) was considered to be high risk.

Higher-frequency drinking was associated with increased mortality risk in prostate in men and breast cancer in women. For colorectal cancer mortality, higher-quantity drinking was associated with increased risk (almost double) among women.

Breslow RA, Chen CM, Graubard BI, Mukamal KJ. Prospective Study of Alcohol Consumption Quantity and Frequency and Cancer-specific Mortality in the US Population. American Journal of Epidemiology 2011; 174(9):1044-1053.

Binge drinking is patterned by demographic and socioeconomic position in New Zealand: largest national survey to date.

This study used data from the longitudinal Survey of Family, Income and Employment that sampled 19,255 adult New Zealanders. The study found that:

- Hazardous drinking pattern were particularly prevalent among men, young adults, Māori and those living in highly deprived communities
- Binge drinking was more common in men than women (monthly, weekly and daily levels)
- Binge drinking was frequent in the 15-24 age group and tended to decline as age group increased
- Māori were found to have high levels of binge drinking at all levels (monthly, weekly and daily) when compared to other ethnic groups
- Compared to other categories, never-married respondents were more likely to binge drink
- Frequency of binge drinking increased as deprivation increased and education levels declined

Jatrana S, Carter K, McKenzie S, & Wilson N. Binge drinking is patterned by demographic and socioeconomic position in New Zealand: largest national survey to date. The New Zealand Medical Journal, 2011; 124(1345): 110-115.

PUBLIC OPINION

Public sentiment towards alcohol and local government alcohol policies in New Zealand.

In this study authors Maclennan and colleagues conducted a cross-sectional survey of New Zealand residents across 7 locations and found that:

- the majority of the participants supported local government to control alcohol availability and promotion, thus encouraging health and wellbeing in the community
- there was strong support for liquor ban to control drinking in public places, stricter enforcement of liquor laws by police and local government personnel, banning alcohol advertisement on council owned property and restricting the number of alcohol outlets & hours of operation
- the majority agreed that local government was responsible for making sure alcohol did not become a problem in the community
- the problem drinking amongst those aged under 25 years was considered to be a major problem
- the majority of respondents in each area believed that alcohol played a major role or the leading role in incidents of violent crime and family violence

Maclennan B, Kypri K, Langley J, Room R. Public sentiment towards alcohol and local government alcohol policies in New Zealand. International Journal of Drug Policy 2012; 23:45-53.



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