Project title: Changes in perception about the amount of standard alcohol use without doing any harm: results from five waves of National Drug Strategy Household Survey

Background / rationale: Alcohol is consumed widely in Australia. Harmful levels of alcohol consumption are a major public health concern. During 2004–05, the cost to the Australian community of alcohol-related social problems such as crime, road accidents or loss of workplace productivity, was estimated to be $15.3 billion. Given that it is one of the major public health concerns, Australian Government uses a range of measures to minimise alcohol-related harms in the community. Raising awareness of the risk of excessive alcohol use is one of such measures. Among the general population, we know that many drinkers underestimate the risk of harm from their alcohol use (Chomynova, Miller, & Beck, 2009). Individuals’ perception of their susceptibility to illness is an important determinant of whether they act to reduce the risks of illness and/or seek health care (Brewer, Weinstein, et al, 2004; Islam et al 2013). It is also important to examine how the perception on safe amount alcohol consumption is changing over time. No studies have examined this so far using data from all the five waves of the survey.

Aim: The overall aim is to examine the perception of the amount of alcohol consumption without any risk and its impact on reduction of use of alcohol.

Objective:

1) Explore the perceptions of the average number of standard drinks an adult could drink per day before someone puts his/her health at risk and compare it to the standard set by AIHW and NHMRC.
2) Examine the trends and changes of this perception over the years.
3) Explore the determinants of safe drinking perceptions.
4) Examine if this perception has any implications on the reduction of alcohol use in the last 12 months.

Methods:
Five waves (in year 2001, 2004, 2007, 2010 and 2013) of data of National Drug Strategy Household Survey were collected from the AIHW. The following questions will be used as key outcome measures.

Q1. How many “standard drinks” do you believe an adult male could drink every day for many years without adversely affecting his health?

Q2. How many “standard drinks” do you believe an adult female could drink every day for many years without adversely affecting her health?

Q3. Again thinking in terms of “standard drinks”, how many drinks do you believe an adult male could drink in a six hour period before he puts his health at risk?

Q4. Again thinking in terms of “standard drinks”, how many drinks do you believe an adult female could drink in a six hour period before she puts her health at risk?
Q5. In the last 12 months have you reduced the amount of alcohol you drink at any one time? (Mark all that apply)
1) reduced the amount of alcohol you drink at any one time
2) reduced the number of times you drink
3) switched to drinking more low-alcoholic drinks than you used to
4) stopped drinking alcohol
5) changed your main drink
6) none of the above

Firstly, we will do a descriptive analysis of the perception on the amount of alcohol consumption without any risk (objective 1). We will then compare the mean amount to the standard set by AIHW/NHMRC (objective 1). Participants will be categorised as having clear or unclear perception of safe drinking on the basis of AIHW/NHMRC standard. The characteristics of these two groups will be compared. A random effects (to take into account of multiple measurements) multivariable logistic regression analyses will be conducted to examine the determinants of the clear perception (Objective 3). A trend analysis will be conducted to explore how the perception is changing over time and what are the determinants of the change (objective 2).

In order to achieve objective 4 we will find out what proportion of participants have reduced alcohol consumption and at what level from Q5. A random effects multivariable logistic regression model will be used to examine the association between reduction of alcohol use and perception of safe drinking amount after adjusting for other factors.

Appropriate sampling weights will be used in all the analyses to obtain an unbiased estimate of the standard error. All the analyses will be conducted using statistical package Stata 14.

Note: the students will be able to access statistical package Stata 14 using my access on their personal computers as well as on mobile devices for analyses. If needed, the supervisor will be able to provide a copy of the software on their personal computer for the duration of the project.

**Anticipated outcomes / significance (point form):** Five waves of data, together, will leverage enough information to have a precise and more reliable estimate of the perceptions by age and gender. Findings may have policy implications and stimulate further research. Findings will be shared with AIHW, leveraging opportunity of bringing positive change. A research report as well as potential manuscript for publication will be prepared.

**Ethics:**
This survey already has ethics approval and the proposed analyses are covered under that. The student and supervisors will need to complete a data request from and submit to AIHW to obtain permission for the use of the data. The approval process doesn’t take more than two weeks.

**Timeframe:**
1. ILP research project over 32 weeks to achieve objectives 1 to 4.

For ILP students, sufficient statistical supports will be provided to conduct the analysis.

If you are interested in undertaking this special research project please contact Md Bayzidur Rahman, bayzid@unsw.edu.au
References:

