Betting out of it: 2012 National Gambling Study data on gambling and drugs

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2012/2013

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- National Research Bureau
  - Reference Group
  - Funded by Ministry of Health

* “NGS” is the acronym that will be used for convenience

- **Epidemiological** – health event/s distribution in population
- **Prevalence** – number/percentage of people with condition/s at a particular time
- **Follow-up** – developments in people who were measured/screened for condition/s at an earlier time
- **Prospective** – include people identified with and without condition/s at baseline. Re-measure/re-screen same people retained on follow-up/s to identify maintained status, transitions from condition/s to non-condition/s, as well as incidence
- **Incidence** – new occurring number/percentage of the population developing condition/s over time

(Abbott et al., 2004; Wikipedia, 2012, as cited in Volberg, 2013; Binde 2009)
Main interests of study

- The incidence of problem gambling
- Problem gambling risk and protective factors
- Factors associated with ‘natural’ recovery and help seeking for gambling problems, and other transitions
- Relationships between co-occurring conditions
Design

Pilot Survey (2011)

Wave 1 (2012)

- 1,000 Aotearoa/New Zealand* mesh-blocks randomly selected
- Face-to-face household interview-survey
- Computer assisted

*The acronym “NZ” will be used for convenience
Wave 1
(2012)
N=6,251

Response rate 64%
Ethnic breakdown of participants

Wave 1 - 2012

- European/Other: 65%
- Māori: 19%
- Pacific Islander: 13%
- Asian: 13%
Leisure activities
Gambling participation
Past gambling and recent gambling behaviour change
Problem gambling (identification; help seeking over; recent changes; in households and effects of)
Life events and ongoing hassles
Attitudes about gambling in NZ
Mental health
Substance use/misuse (screens/consumption and help seeking)
Health conditions
Social connectedness
Demographics
Addiction-relevant main interests

- Gambling participation
- The prevalence of problem gambling
- Negative effects of gambling on other people
- Relationships with co-occurring use/misuse of intoxicating substances (drugs)
## Screen for problem gambling

### Problem Gambling Severity Index (PGSI)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Thinking about the last 12 months . .</th>
<th>Never</th>
<th>Sometimes</th>
<th>Most of the time</th>
<th>Almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problem gambling behaviour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you bet more than you could really afford to lose?</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Have you needed to gamble with larger amounts of money to get the same feeling of excitement?</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>When you gambled, did you go back another day to try to win back the money you lost?</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Have you borrowed money or sold anything to get money to gamble?</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Negative effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you felt that you might have a problem with gambling?</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Has gambling caused you any health problems, including stress or anxiety?</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Have people criticised your betting or told you that you had a gambling problem?</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Has your gambling caused any financial problems for you or your household?</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Have you felt guilty about the way you gamble or what happens when you gamble?</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

- Non-gamblers (not gambled in the past 12 months)
- Non-problem gamblers (score 0)
- Low-risk gamblers (score 1-2) = relatively little current harm, with potential to experience harms in the future
- Moderate-risk gamblers (score 3-7) = may/may not currently experience harms, but at moderate/high risk of future harm
- Problem gamblers (score 8+) = currently experiencing significant harms from gambling
## Problem gambling level in the 2012 NGS: Prevalence, and estimated numbers of people in the NZ population

<table>
<thead>
<tr>
<th>Problem gambling level</th>
<th>Prevalence %</th>
<th>(Estimated number, 95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total adults</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-gambler</td>
<td>19.6</td>
<td>(617,828 - 701,772)</td>
</tr>
<tr>
<td>Non-problem gambler</td>
<td>73.0</td>
<td>(2,404,156 - 2,498,173)</td>
</tr>
<tr>
<td>Low-risk gambler</td>
<td>5.0</td>
<td>(144,384 - 191,392)</td>
</tr>
<tr>
<td>Moderate-risk gambler</td>
<td>1.8</td>
<td>(47,009 - 73,871)</td>
</tr>
<tr>
<td>Problem gambler</td>
<td>0.7</td>
<td>(16,789 - 30,220)</td>
</tr>
<tr>
<td>Combined problem and moderate-risk gambler</td>
<td>2.5</td>
<td>(67,155 - 97,375)</td>
</tr>
</tbody>
</table>
**Combined problem and moderate-risk gambling levels:**
**NGS 2012 - Sex and ethnicity**

**Age-standardised ratio**
(adjustments made to account for variations in age groupings of different ethnic groups)

Likelihood of being a problem or moderate-risk gambler:

- **Males** - highest likelihood to lowest likelihood compared to the total population:
  - Pacific, then Māori, then Asian, then European/Other

- **Females** - highest likelihood to lowest likelihood compared to the total population:
  - Māori, then Pacific, then European/Other, then Asian
It is calculated that every problem gambling person negatively affects between five to ten people (Ministry of Health, 2010a).

At the very most conservative calculation using:
- 2012 NGS estimates of the lowest range estimated number of problem gamblers in NZ
- the lowest estimated number of people (n=5) who are negatively affected by a problem gambler

83,000 people are affected by problem gambling others

In reality the number is likely a lot higher than this conservative calculation.
Sex, ethnicity and age group: People most effected by others’ gambling

Raw data (confidence intervals not calculated) indicate that of the top six of 13 harms borne by people due to others’ gambling demonstrate:

- An economic harm is the greatest sort, followed by a social harm, and four personal harms
- Women bore harms more than men
- Māori bore harms more than other ethnic groups
- Most harms were borne by 25-65 year olds

(see Appendix 7 in Abbott et al., 2014b)
Assertion on co-occurrence

- Public health in relation to gambling mostly focuses on problem gamblers – and with justification, given the personal, family, social and economic harms that can accrue.
- The harms of gambling are compounded when considered in the context of co-occurring drug issues.
- From public health and psychosocial perspectives, the increased percentages of drugs use that co-occurs with increased gambling levels are of interest and concern.
- There is 2012 NGS evidence of generally higher percentages of drug use by gamblers than non-gamblers.
- There are sizeable percentages of people estimated as living with moderate-risk and low-risk gambling problems.
  - The 2012 NGS indicates that many of those people may also have co-occurring drug issues in their lives.
  - This effect may even extend to non-problem gamblers.
1991 - The first longitudinal study of problem gambling in NZ:

- also included measures of alcohol use/misuse
- seven-year follow up of 143 frequent but not problem gamblers and problem gamblers, identified in 1991
- 57 in 1991 had experienced alcohol related problems
- Sixty one percent (n = 35) of participants continued to experience alcohol related problems in 1998
- Nine percent who did not have alcohol problems in 1991 had developed alcohol problems in 1998

(Abbott & Volberg, 1992; Abbott, Williams & Volberg, 1999)
Logistic regression analysis of 2006/07 New Zealand Health Survey (NZHS) data

Compared to non-problem gamblers:

- **problem gamblers were 5.20 times (CI, 2.70 – 10.01) more likely to be hazardous drinkers.**

(Ministry of Health, 2009a. Data adjusted for confounding factors of sex, age group, prioritised ethnic group, educational achievement, work force status, deprivation level and rural or urban living area)
Alcohol Use Disorders Identification Test (AUDIT) – C (AUDIT-C) used in the NGS

- AUDIT-C uses the first three items of the full AUDIT (10 items) - concerned with hazardous drinking
  - consumption in the last 12 months

- “... excellent discriminatory ability in detecting dependence and risk drinking” (Lundin et al., 2015, p. 161)
Drinking status and problem gambling level 2012 NGS

- Hazardous drinking in the total population – 38.8%
  - 59.6% of problem gamblers - hazardous drinkers
  - 53.2% of low-risk gamblers – hazardous drinkers
  - 50.2% of moderate-risk gamblers – hazardous drinkers
  - 41.4% of non-problem gamblers - hazardous drinkers

- Compared to non-gamblers, any gambling was more highly correlated with hazardous drinking, as:
  - 23.7% of non-gamblers were hazardous drinkers
Overall, the raw percentages indicate that increased likelihood of being a hazardous drinker if:

- Male
- Māori
- aged 18-24 years

Additionally, those who were of hazardous drinking status *equal to or more than* the total population (38.8%) were participants:

- who participated in gambling in the past 12 months
- aged between 18-34 years
- of European/Other ethnicity
Alcohol and gambling: Limitation and implications

**Limitation**

- Cannot with certainty connect co-occurrence of problem gambling and alcohol by sex, ethnicity or age.

**Implications**

- Need further analyses of data
- Speculate high likelihood that being male, Māori, and young, in combination with gambling level indicates co-occurrence of hazardous drinking (and possible dependence on alcohol)
The 1999 National Prevalence Study on gambling found high levels of tobacco use by problem gamblers - 36% \textit{smoked once or more per day} compared to:

- 21% of the total sample
- 23% to 25% - the estimated range of total population, according to the 1996/97 National Health Survey

(Ministry of Health, 1999, as cited in Abbott, 2001a)
The NGS 2012 asked mostly very similar, and, some exact questions about tobacco use as those found in:

- NZHS (e.g. Ministry of Health, 2012a, 2014a)
- New Zealand Tobacco Use Surveys (e.g. Ministry of Health, 2006b, 2008a, 2009b)
- New Zealand Smoking Monitor (Health Promotion Agency, 2011/12, 2014/15)
The confidence intervals are quite wide, so caution is needed in interpreting the finding, but

- moderate-risk gamblers (70.5%) smoked at least once a day the most - the highest percentage of all gambling level groups – and nearly twice that of the total population (36.5%)
No discrepancy in findings between the two studies

• except perhaps for 55-64 year old smokers (19.9%, 2011/12 NZHS; 26.6%, 2012 NGS)

(2011/12 NZHS 1-5 cigarettes day data sourced from Ministry of Health, 2012c)
Tobacco and gambling: Limitations and implication

Limitations
- Cannot be certain on exactness of increased problem gambling level co-occurring with tobacco use
- Demographic problem gambling level and tobacco use have not been calculated together

Implication
- General trend of co-occurrence of increased problem gambling level and tobacco use
Other drugs: Comparison

- Earlier comparative data - the 2007/08 New Zealand Alcohol and Drug Use Survey (NZDUS) - though “adults” were defined as being 16 years of age and over.

- Any adult other drug use (NSDUS) was 14.6% (and 16% in 2012 NGS).

Of the other drugs used in the last 12 months reported in the NZDUS percentages were (and compare with 2012 NGS as):

- cannabis, 14.6% (13.3%, 2012 NGS)
- amphetamines, 2.1% (1.3%, 2012 NGS),
- BZP, 5.6% (3.0%, legal party pills, 2012 NGS)
- prescription sedatives, 0.6% (0.5%, benzodiazepines, 2012 NGS)
- any opiate, 1.1% (0.0% heroin; 1.8% codeine/morphine painkillers, 2012 NGS),
- hallucinogens, 3.9% (1.5%, 2012 NGS)
- cocaine, 0.6% (0.6%, 2012 NGS)

(2007/08 NZ Alcohol and Drug Use Survey data from Ministry of Health, 2010b)
More non-gamblers, and non-problem gamblers, than the total (84%) did not use other drugs in last 12 months, and:

- 69.0% low-risk gamblers didn’t use other drugs
- 67.3% moderate-risk gamblers didn’t use other drugs
- 52.8% problem gamblers didn’t use other drugs

Other drugs used

- cannabis use was more prevalent amongst:
  - problem gamblers (41.5%), compared to low-risk (28.8%), and moderate-risk gamblers (26.0%)
- Ecstasy, amphetamine and legal party pills, stimulants and benzodiazepine use was also greater in higher problem gambling groups
Limitation

- No calculations of demographic groups’ drug use by problem gambling level

Implication

- Need analyses to determine prevalence of problem gambling and co-occurrence of other drug use by demographic groups
NGS major limitations and strength

Limitations

- Low number of harmful gambling level (particularly “problem gambler”) participants in the study means some results must be treated with caution
- Co-occurring “addiction” to drug/s cannot be fully determined (but AUDIT-C results are compelling)

Strength

- NGS puts *same* questions, using *same* technique, to *same* participants over time (superior to prevalence-type survey/interview studies in which participants are different at each data gathering point)
To increase statistical power - additional 100 participants who score 3 or more on the PGSI, are being recruited from venues (casino, pubs and clubs), and via advertisements in four cities.

- Slow recruitment progress due to secrecy of regular gamblers – to date 54 have completed the baseline (2012) survey.

- Participants will be followed up after 12 months.
Some critics within gambling studies - in pointing to industry-state relations and interests in regard to prevalence rates:

- question the focus on “problem gambler” as part of “normalisation”, pathologising sections of the population for the targeting of interventions through policy and practice (Young, 2013)

- claim that the focus on “problem gamblers” has a silencing effect on state and industry relationships of compromise by blaming “bad” gambling individuals (Cassidy, Loussouarn & Pisac, 2013)

**BUT**

It can be countered that a focus on problem groups is actually justified, not for the purposes of supporting stigmatisation, exclusion, or compromise, but grounded in the harms experienced by gamblers and borne by the people around them.
Critics suggest that gambling population groups other than “problem gamblers” need to be given more consideration in public health. It is suggested, here, that this should be supported.

- *Not* specifically for avoiding “normalisation” or expanding the phenomenon to wider population groups for blame, stigmatising or exclusion, nor for critiquing state or industry compromises

- *Because*, the evidence is that gambling and drug use behaviours of people other than “problem gamblers” suggests there is a significant degree of potentially hazardous/addictive co-occurring drug use activity in moderate-risk and low-risk gambling populations

\[n=191,000 \text{ – conservatively estimated}\]
Why look outside “problem gambling”?

- The evidence supports a *broadened focus* by zooming out to examine the wider population of people consuming gambling and drugs.

- Reframing the situation may generate significant insights:
  - into stigmatising and exclusion
  - of relevance to state and industry relationships
Reports on the NGS are being released, when approved by Ministry of Health

2. Search “National Gambling Study”
3. Full reports (and summaries of them) are available for downloading.
4. Report number 2 contains 2012 problem gambling and drugs data (Abbott et al., 2014b)

Non-NGS research team researchers are invited to seek “approved researcher” status from AUT to access the 2012 NGS external data set for further analyses
Some suggestions for further analyses of the 2012 NGS data set for problem gambling and drug use/misuse:

- Sex, ethnicity and age group, drug use and PGSI analyses
- Logistic regression analyses of sex, ethnicity and age group, drug use and PGSI scores
- Removing 15, 16, and 17 year old NZHS and NZDUS participant data from those data sets, for direct comparison with the NGS data set to compare over time
- Removing data on the seven AUDIT items not used in the AUDIT-C, for direct comparison between NZHS and NGS data set on alcohol use/misuse, to compare over time