

New Zealanders' knowledge, views and experience of gambling and gambling harm

Results from the 2014 Health and Lifestyles Survey

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EXECUTIVE SUMMARY

BACKGROUND

The Health and Lifestyles Survey (HLS) is a biennial, nationally representative, face-to-face, in-home survey that facilitates the monitoring of health behaviours and attitudes of New Zealanders aged 15-years-and-over. The HLS is managed by the Health Promotion Agency (HPA)¹ and collects information relating to the programme areas HPA works in, including minimising harm from gambling.

In 2014, the gambling section of the HLS was designed specifically to be comparable to the 2006/07 Gaming and Betting Activities Survey, a benchmark survey carried out to inform the development of a national health promotion programme aimed at reducing gambling harm. The results for the majority of the 2014 HLS questions were also comparable with those in the 2008, 2010 and 2012 HLS. It is recommended that the findings from this report should be read along with the 2014 HLS report on gambling participation (Tu & Puthipiroj, 2015) and the series of specialised gambling reports from the National Gambling Study (Abbott et al., 2014).

This report uses data from the 2014 HLS to assess experience, knowledge and opinions about gambling harm among New Zealand adults, both overall and among different social and population groups (as defined by gender, ethnicity, neighbourhood deprivation level, risk of gambling harm, type of gambling participation, and number of gambling activities participated in over the past 12 months). Where relevant, results are compared to those from earlier surveys.

INDIVIDUAL AND HOUSEHOLD GAMBLING HARM

A range of measures was used to assess individual and household gambling harm. In 2014, 2.8% of past-year gamblers had gambled more than they meant to on an occasion during that year. One in eight (13.0%) respondents reported that someone close to them had gambled more than they meant to in the past year. Both these figures were significantly lower than in previous years.

Overall, 5.5% of all respondents (n=2,594) reported that in the past 12 months they had experienced at least one household harm because of gambling. This equates to an estimated 175,400 adults in New Zealand. Harms were defined as household experiences of arguments or going without due to someone's gambling. Responses differed by demographics, with Māori and Pacific people being more likely to say that they or their household had been negatively affected by someone's gambling. Consistent with previous surveys, gaming machines (pokies) were the form of gambling most associated with harm.

AWARENESS AND USE OF SUPPORT SERVICES

Six in ten respondents said they were aware of things they could do to help someone who was gambling too much. The most commonly mentioned strategies were talking to the person or getting them professional help. While the majority of respondents did not report having accessed help

¹ HPA is a New Zealand Crown entity formed in 2012 by the merger of the Health Sponsorship Council (HSC) and the Alcohol Advisory Council (ALAC).

services themselves, 82.9% of respondents had heard of at least one service, including 67.3% who had heard about the Gambling Helpline. When past-year gamblers were asked what they would do if they became concerned about their own gambling, the most common response was to call a helpline (22.2%).

Over one-half of respondents (56.1%) had heard or seen advertising on harmful gambling and what they could do about it. Advertising had predominantly been seen on television. People who had not participated in gambling activities were less likely to recall such advertising.

Around two in three (64.0%) of those who had played on pokies in the past 12 months said that they had noticed advertising about help for gambling problems at a venue. Most who had seen this information did not think it was relevant to them.

VIEWS AND KNOWLEDGE OF GAMBLING HARM

The majority of respondents (71.1%) said that there were some forms of gambling that were potentially more harmful than others. The most commonly mentioned forms were pokies, and New Zealand Lotteries products. Compared with 2010, there was a significant drop in the proportion of respondents who thought each of the gambling types asked about were more harmful than others (eg, a smaller proportion of respondents believed gaming machines or pokies at a club were more harmful than other gambling forms in 2014 at 54.9%, than in 2010 at 69.5%).

Most respondents (over 90%) could, when prompted, identify three signs that someone's gambling was becoming harmful. However, two signs that were not examples of gambling becoming risky were mistakenly identified as risky by six in ten (63.0%) and three in ten (29.7%) respondents, respectively.

Just over one-half (52.9%) of respondents said that some forms of gambling were socially undesirable. Pokies were the most likely activity to be considered socially undesirable.

RESPONSES TO HARMFUL GAMBLING

The majority of past-year gamblers (95.2%) had not used any strategies to avoid gambling too much. This was a significant drop since 2012, when 12% of past-year gamblers had reported using strategies. The most commonly reported strategy was setting a limit for how much money to spend before starting to gamble. Around one in twenty (5.5%) past-year gamblers said that in the past 12 months they had had an occasion where they 'checked in' or thought about whether their gambling was still just for fun. Those who gambled more often, and were at greater risk of problem gambling, were more likely to have done this.

GAMBLING HARM IN THE COMMUNITY

More respondents thought that raising money through gambling did *more harm* than good in the community (42.7%), than thought it did *more good* than harm (22.8%). One-quarter of respondents (24.7%) thought that gambling in the community did equal good and harm.

Around two in five respondents (38.9%) were 'not at all concerned' with the level of gambling in their community, while one in ten (10.3%) were 'very concerned'. The remainder were either 'somewhat' or 'a little' concerned or 'did not know'.

PERCEPTIONS OF, AND EXPERIENCES WITH, POKIES

Around two-thirds (64.7%) of respondents disagreed with the statement 'pokie machines make a pub or bar more enjoyable to spend time at', while around one in eight (12.9%) agreed. More of those who were at risk of gambling problems agreed, compared with those who were non-problem gamblers. Two in five (39.7%) respondents agreed that they preferred to drink in pubs or bars that did not have pokie machines, while one in five (20.3%) disagreed.

Around one-fifth (21.5%) of those who had played pokies in the past 12 months reported that they spent more money on the pokies when they drank alcohol. Moderate-risk and problem gamblers (55.1%) were significantly more likely to say that they spent more when they drank alcohol, when compared with non-problem gamblers (19.0%).

Seven in ten (70.3%) of past-year pokie players said that they had had no interaction with staff in gambling venues. The proportion of pokies players who had had no interaction with venue staff did not differ by Problem Gambling Severity Index (PGSI) score. One in ten (10.5%) pokies players were aware that staff members knew their name or recognised them. One in ten (10.4%) were aware that staff members monitored the pokies room, while 3.0% of pokies players said that a staff member had spoken to them about their gambling.

One-third (32.7%) of respondents were aware that venues with pokie machines are required by law to prevent customers' gambling from becoming harmful, but nearly one-half (48.8%) said they did not know whether or not this was the case.

ADVERTISING

All respondents were asked whether they had seen advertising for any gambling activities other than New Zealand Lotteries products. The most commonly seen advertising was around betting on sports events (24.9%), horse or dog races (21.9%) and internet games (21.5%). Nearly one-half of respondents (45.8%) had not seen any such advertising.

Between 2010 and 2014, awareness of advertising and promotion was similar for most gambling types. Awareness of advertising decreased for some activities, including betting on horse or dog races, pokies at casinos, and table games at casinos.

Just under one-half (44.8%) of respondents who had bought New Zealand Lotteries products in the past year said they had bought more tickets or spent more on Lotto products as a result of seeing advertising or promotion for a big jackpot or prize draw. One in eight (12.8%) past-year gamblers reported that seeing advertising or promotion for New Zealand Lotteries products had made them gamble, or gamble more often, on activities other than lotteries.

SUMMARY

Overall, responses to the 2014 HLS showed a decrease in experiences of household gambling harms compared with previous years. There was also a drop in concern about certain forms of gambling and their potential to cause harm, and a drop in use of strategies to avoid gambling too much. These drops might be interpreted as a sign that the harm minimisation messages being promoted in recent years have not had an effect; however the fact that they coincide with lower rates of reported gambling harm may indicate that those who are not experiencing harm take less notice of messages and strategies about harm reduction. Consistent with previous years, ethnic inequalities in household experience of gambling harm persist, and pokies are the form of gambling most linked to harms and most recognised as causing problems.

1. INTRODUCTION

1.1 THE HEALTH AND LIFESTYLES SURVEY

The Health and Lifestyles Survey (HLS) is a monitor of the health behaviour and attitudes of New Zealand adults aged 15-years-and-over (referred to as 'New Zealand adults' in the report). The HLS is managed by the Health Promotion Agency (HPA) and collects information relating to the programme areas HPA works in, including minimising harm caused by gambling. The HLS has been in-field every two years since 2008.

Apart from gambling, the 2014 HLS also included questions relating to tobacco control, healthy eating, physical activity, alcohol, skin cancer prevention, immunisation, and mental health. The section relating to minimising gambling harm was comprehensive and provided comparable measures with previous surveys of New Zealand adults' opinions, knowledge, and behaviour relating to gambling harm: specifically, the 2006/07 Gaming and Betting Activities Survey (GBAS) and the three previous HLSs (2008, 2010 and 2012). One possible issue when comparing responses from the three HLSs and the GBAS is that surveys framed as "gambling surveys" (as the GBAS was) may elicit different measures of gambling harm to those framed as "health surveys" (Williams and Volberg, 2009). In cases where the 2006/07 findings are markedly different from the other three years, some caution in interpretation is therefore advised.

This report presents results from the 2014 HLS on knowledge, views and experiences relating to gambling and gambling harm. Data from the GBAS and the previous HLSs are included where the measures are comparable. Details of the procedures followed to ensure these surveys produced high-quality and robust data can be found in the related methodology reports.²

It is recommended that the findings from this report should be read along with the 2014 HLS report on gambling participation (Tu & Puthipiroj, 2015) and the series of specialised gambling reports from the National Gambling Study (NGS) (Abbott et al., 2014). That study was conducted in 1991, 1999 and 2012 and aims to provide epidemiological information about changes in gambling and problem gambling, attitudes and influences on the transition to risky gambling participation. The New Zealand Health Survey (NZHS) administered by the Ministry of Health also provides population-level estimates of gambling participation and problem gambling from a randomly-selected sample of around 12,000 New Zealand adults. The NZHS finds lower rates of gambling participation and gambling harm compared with the NGS (Rossen, 2015). The HLS finds gambling participation rates (71% in 2014) that are more similar to the NGS (80%) than the NZHS (52%).

1.2 REPORT OBJECTIVES

Using data from the 2014 HLS, HPA has previously published a report on New Zealanders' participation in gambling (Tu & Puthipiroj, 2015). This report complements the previous report by

² Methodology reports for the 2006/07 GBAS and the 2008-2014 HLS methodology reports are available online: <http://www.hpa.org.nz/research-library/research-publications>.

presenting findings about New Zealanders' experiences with gambling harm, knowledge and awareness of gambling harm and solutions, and awareness of and responses to advertising about gambling. The specific objectives are to:

- determine the prevalence of experience, knowledge and opinions about gambling harm among New Zealand adults, both overall and among different social and population groups (as defined by gender, age, ethnicity, type of gambling participation, risk of gambling harm, and deprivation level)
- examine changes since previous surveys in 2012, 2010, 2008, and 2006/07
- demonstrate New Zealanders' current knowledge and perceptions about gambling harm topics that HPA campaigns address.

1.3 GAMBLING AND PUBLIC HEALTH

New Zealanders spend around \$2 billion every year on gambling (Department of Internal Affairs, 2015). For most people in New Zealand gambling can be a recreational activity, enjoyed at a moderate level without harm. However, a significant minority of New Zealanders are identified as 'problem gamblers', and the harm they experience can seriously impact their life and a wider group of family and friends. Although the number of New Zealanders experiencing problem gambling is low, a greater number experience the early signs of their gambling becoming harmful.

A public health approach requires that gambling harms are treated as issues that affect families and communities, not just individual gamblers. New Zealand's integrated problem gambling strategy includes measures to prevent gambling from becoming harmful, treatment for gambling problems, and research and evaluation about the impacts of gambling (Gambling Act, 2003). Dealing with gambling harm from a population health perspective also requires addressing inequities in harm among different population groups. In New Zealand, some populations including Māori, Pacific peoples, some migrant groups and those living in lower socioeconomic areas are at higher risk of harm from their own or someone else's gambling. Even after other demographic variables have been controlled for, surveys have repeatedly found that Māori and Pacific peoples were more likely to experience gambling harm (Abbott, Bellringer, Garrett, & Mundy-McPherson, 2014).

Gambling in New Zealand is regulated by the Gambling Act 2003, and preventing and minimising the harm caused by gambling is one of the purposes of the Act. The Ministry of Health is responsible, under the Act, for the prevention and treatment of problem gambling. As part of the Ministry's strategy to combat problem gambling, HPA has been contracted to deliver a programme that contributes to the reduction of harm through implementation of mass-media campaigns and the development of resources to support public health activities, as well as through research and evaluation. Results from HPA's surveys, along with other data sources, provide important indicators of changes in behaviours and community awareness of gambling harms. In addition, the results facilitate knowledge about the degree to which people are involved in the types of individual, family and community behaviours that the Ministry's strategy is targeting.

2. METHOD

This section provides a brief description of the method of the 2014 HLS, including the sampling frame, data collection approach, response rate, questionnaire, and derived variables. A full description of the survey method is available from a separate report titled '2014 Health and Lifestyles Survey: Methodology Report' (Health Promotion Agency, 2015).

2.1 SAMPLING FRAME

The HLS is a nationwide survey of New Zealand adults aged 15-years-and-over. Participants were recruited using an area-based frame made up of 2013 New Zealand Census of Population and Dwelling meshblocks, the smallest geographical measure used by Statistics New Zealand. Details of the selection process are provided in the 2014 HLS Methodology Report (Health Promotion Agency, 2015), but in brief: the selection process was stratified, where a sample of meshblocks was selected first, then a sample of dwellings within each selected meshblock, and finally one eligible adult selected from each selected dwelling. Respondents could only be interviewed at their own usual residence; that is, if they were visiting a household that was selected for inclusion in the HLS they could not be interviewed as part of that household. This process ensured that people did not have a chance of being counted more than once.

2.2 DATA COLLECTION

Interviews for the survey were conducted between 5 May and 10 August 2014. The survey involved face-to-face interviews in respondents' homes, with a Computer Assisted Personal Interview (CAPI) methodology. Showcards with predetermined response categories were used to assist respondents where appropriate. To maximise the response rate, interviewers made between one and ten visits to each sampled dwelling at different times of the day, and on different days of the week, before accepting that dwelling as a non-contact.

2.3 RESPONSE RATE

The response rate was 68.3%. The response rate is a measure of how many of the people who were selected to take part in the survey actually participated. It reflects the proportion of people interviewed from those who were selected into the sample, and describes the success of the study in terms of achieving cooperation from the population being measured. High response rates imply a smaller potential for nonresponse bias and better survey quality than lower response rates. The response rate for the current study was high for a survey of this type.

There are four components to the response rate calculation:

- *Ineligibles*: vacant sections, vacant dwellings, non-residential dwellings and those not available during the survey period
- *Respondents*: interview conducted, respondent confirmed to be eligible for the survey
- *Eligible non-respondents*: interview not conducted, but enough information collected to indicate that the household did contain an eligible adult

- *Unknown eligibility*: non-contacts and refusals who provided insufficient information to determine eligibility.

The response rate was calculated as follows:

$$\text{Response rate} = \frac{\text{number of respondents}}{\left[\begin{array}{c} \text{number of} \\ \text{respondents} \end{array} \right] + \left[\begin{array}{c} \text{number of eligible} \\ \text{non-respondents} \end{array} \right] + \left[\begin{array}{c} \text{estimated number of eligibles} \\ \text{from the unknowns} \end{array} \right]} \times 100$$

The justification for this response rate was that a proportion of the unknowns were likely to be eligible if contact could have been made. As contact could not be made with the estimated number who would be eligible, they were classified as non-respondents.

The estimated number of unknown eligible was calculated as follows:

$$\left[\begin{array}{c} \text{Estimated number of eligibles} \\ \text{from the unknowns} \end{array} \right] = \left[\begin{array}{c} \text{number of} \\ \text{unknowns} \end{array} \right] \times \frac{\left[\begin{array}{c} \text{number of} \\ \text{respondents} \end{array} \right] + \left[\begin{array}{c} \text{number of eligible} \\ \text{non-respondents} \end{array} \right]}{\left[\begin{array}{c} \text{number of} \\ \text{respondents} \end{array} \right] + \left[\begin{array}{c} \text{number of eligible} \\ \text{non-respondents} \end{array} \right] + \left[\begin{array}{c} \text{number of} \\ \text{ineligibles} \end{array} \right]}$$

A separate response rate was calculated for each meshblock. This was then adjusted to the estimated number of eligible households in that meshblock. Once this was done the average response rate across all of the meshblocks was calculated.

2.4 QUESTIONNAIRE CONTENT

The questionnaire contained 64 questions on gambling and this was the largest section of the questionnaire.³ To facilitate comparisons with previous surveys, the majority of these questions were sourced from the 2006/07 GBAS, previous years of the HLS, and the 2005 Gambling Participation and Attitudes Survey, which was led by the Department of Internal Affairs.

The HLS questionnaire was reviewed each survey year and modified, if necessary, to reflect changes in the gambling environment and priorities for health promotion programmes relating to gambling harm. The questionnaire was also piloted to assess its length, and to ensure that questionnaire items were easy to understand and answer.

2.5 WEIGHTING

To ensure that no population group is under or over-represented in estimates from the survey, weights are calculated for every survey participant. The weight can be thought of as the number of people in the population represented by a given survey participant.

Weights are designed to:

- reflect the probabilities of selection of each respondent

³ The questionnaire is available online: <http://www.hpa.org.nz/research-library/research-publications/the-2014-health-and-lifestyles-survey-questionnaire>

- make use of external population benchmarks (typically obtained from a population census) to correct for any discrepancies between the sample and the population benchmarks - this improves the precision of estimates and reduces bias due to non-response.

The information in this report incorporates weighted responses (number and percentage) to the questions among the total sample and sub-groups.

2.6 RESPONDENTS

The survey was completed by 2,594 respondents and this included 564 Māori, 393 Pacific peoples, 217 Asian people, and 1,420 people of European/Other ethnicity (prioritised ethnicity). Socio-demographic characteristics of the participants are summarised in Table 2-1.

Table 2-1: Sample characteristics (sample size, weighted %) (n = 2,594)

Socio-demographic characteristics	Sample size	Weighted %
Gender		
Male	1,086	47.9
Female	1,508	52.1
Age group		
15-17	64	3.8
18-24	229	13.4
25-44	912	32.1
45-64	797	30.5
65+	592	20.3
Ethnicity (prioritised)		
Māori	564	12.4
Pacific	393	5.3
Asian	217	11.5
European/Other	1,420	70.8
Deprivation status (NZDep2013)		
Low (least deprived)	531	31.8
Moderate	990	43.5
High (most deprived)	1,050	24.2
Missing ⁴	23	0.5
PGSI score		
Non-gambler	761	29.1
Non-problem gambler	1,692	66.3
Low-risk gambler	84	2.7
Moderate-risk/ problem gambler	57	1.9
Gambling type		
Non-gambler ⁵	745	28.8
Infrequent gambler	1,260	51.2

⁴ In the 2014 HLS, 23 respondents were sampled from 3 meshblocks that had a missing deprivation index.

⁵ The proportion of non-gamblers in the gambling type category is different from PGSI and number of gambling activities because there are 19 respondents with missing information in this category.

Frequent, non-continuous gambler	452	16.2
Frequent, continuous gambler	118	3.8
Number gambling activities participated in		
None	761	29.1
1	623	23.3
2	574	21.7
3	318	11.1
4 or more	318	14.8
Total respondents	2,594	100.0

2.7 SAMPLING ERRORS

Sampling error is the type of error that arises when collecting information from a subset (sample) of the population, rather than the whole population. The extent of the sampling error depends on the sample size, variability of the characteristic of interest and the complexity of the sampling design. Sampling errors for survey estimates in the 2014 HLS were calculated using the delete-a-group jack-knife method (Kott, 1998).

2.8 NINETY-FIVE PERCENT CONFIDENCE INTERVALS

In this report, 95% confidence intervals have been used to represent the sample errors for estimates. It should be noted that the confidence interval is influenced by the sample size of the group. When the sample size is small, the confidence interval becomes wider and the exact estimate becomes less accurate.

For proportion estimates not close to 0% or 100%, or with large sample sizes (greater than or equal to 30), the normal approximation confidence interval has been used: that is, the sampling error is multiplied by the z-value corresponding to the confidence level, and added to and subtracted from the estimate, giving the upper and lower confidence limits respectively. The Korn and Graubard (1998) method has been used when the proportion estimates were very small or large, for example, when the normal approximation confidence interval included values outside the range from 0 to 100%, or when groups had small sample sizes (less than 30).

2.9 MARGIN OF ERROR

The margin of error for a sample size of 2,594 is 1.9% at the 95% confidence interval level. In theory, with a sample size of 2,594, one can say with 95% certainty that the results have a statistical precision of plus or minus 1.9 percentage points of what they would be if the entire adult population had been surveyed with complete accuracy. Note however, that percentages not based on the total sample will have larger margin of error, and care should be taken when interpreting those percentages.

2.10 DERIVED VARIABLES

A number of derived variables were created. The following variables are referred to in this report:

2.10.1 Ethnicity

Ethnicity was prioritised, meaning that each person was allocated to a single ethnic group based on the ethnicities they had identified with, and in the prioritised order of Māori, Pacific people, Asian and European/Other (Ministry of Health, 2004). For example, if someone identified as being Chinese and Māori, under the prioritised ethnic group method, they would be classified as Māori for the purpose of analysis. The way that the ethnicity data is prioritised means that the group of European/Other effectively refers to non-Māori, non-Pacific, and non-Asian people. Prioritisation is a method outlined in the *Ethnicity Data Protocols for the Health and Disability Sector* as a useful method for grouping people into independent ethnic groups for analysis (Ministry of Health, 2004).

2.10.2 Neighbourhood socio-economic deprivation: The New Zealand Index of Socioeconomic Deprivation 2013

The New Zealand Index of Socioeconomic Deprivation 2013 (NZDep2013) has been linked to the 2014 HLS data as a measure of neighbourhood socio-economic deprivation and is a proxy for individual socio-economic position. The NZDep2013 was created using nine variables⁶ from the 2013 Census of Population and Dwellings with a decile value calculated for each meshblock (Atkinson, Salmond, & Crampton, 2014).

For the analyses reported here, these deciles have been grouped into low (deciles 1 to 3), medium (deciles 4 to 7), and high (deciles 8 to 10) deprivation groups.

2.10.3 Past-year gambling

Respondents were asked whether they had participated in a pre-defined list of gambling activities in the past 12 months. Those who had not participated in any gambling activity were classified as non-gamblers, while the remaining respondents were past-year gamblers.

2.10.4 Gambling type

Gambling types are often classified into two categories, those where winnings can be immediately 'reinvested' (eg, pokies) and those where they cannot (eg, lottery tickets). The former is commonly referred to as 'continuous' and the latter as 'non-continuous' gambling (Abbott & Volberg, 1996). For the analysis, respondents' participation in these gambling activities in the previous 12 months was combined with their frequency of participation to create four gambling types. This derived variable was created in the same way as for the 2006/07 GBAS (National Research Bureau, 2007).

Definitions of the four gambling types are as below:

- *Non-gamblers*: did not participate in any gambling activities in the previous 12 months
- *Infrequent gamblers*: participated in either continuous or non-continuous gambling activities less often than once a week in the previous 12 months
- *Frequent, non-continuous gamblers*: participated weekly or more often in non-continuous⁷ forms of gambling in the previous 12 months

⁶ Receiving a means-tested benefit, low household income, not owning the home you live in, single-parent family, unemployment, no school qualifications, household overcrowding, no access to internet at home and no access to a car.

⁷ Non-continuous forms of gambling include lottery games, going to casino evenings/buying raffle tickets for fundraising, participating in sweepstakes, making bets with family/friends.

- *Frequent, continuous gamblers*: participated weekly or more often in continuous⁸ forms of gambling in the previous 12 months

In 2014, 19 respondents did not answer all the questions required to classify them into one of the four gambling types. For this reason, all the analyses on gambling type were based on a sub-sample of 2,575 (instead of 2,594). This different sample size resulted in a very small (0.3 percentage-point) difference in the proportion of non-gamblers as indicated by this variable, when compared with the Problem Gambling Severity Index, which is described below.

2.10.5 Problem Gambling Severity Index (PGSI)

To assess people's experiences of gambling-related harm, the 2014 HLS included the Problem Gambling Severity Index (PGSI). The PGSI contains nine questions, which ask about issues and experiences that are known indicators of gambling harm. For example, feeling guilty about gambling, having financial difficulties, or betting more than one can afford (Ferris & Wynne, 2001).

All respondents were asked whether they had experienced each of the signs of gambling harm included in the PGSI and, if so, whether this happened 'sometimes, most of the time or almost always'. They were allocated one point for 'sometimes', two points for 'most of the time' and three points for 'almost always' for each questionnaire item, and can therefore be allocated up to 27 points. Based on their total points, respondents were classified into the following categories:

- *Non-gamblers*: those who did not answer 'yes' to any of the questions about participation in gambling in the previous 12 months
- *Non-problem gamblers*: those who had gambled, but answered 'no' to all the PGSI questions about experiencing harm
- *Low-risk gamblers*: those who got one or two points according to the PGSI
- *Moderate-risk gamblers*: those who got three to seven points
- *Problem gamblers*: those who got eight or more points

Because the number of respondents who were classified as 'problem gamblers' (n=13) was too small to be analysed separately, 'moderate-risk' and 'problem gamblers' were combined into one group, referred to in this report as 'moderate-risk/problem gamblers'.

2.11 DIFFERENCES BETWEEN SUB-GROUPS IN 2014

To understand patterns of gambling behaviour and gambling harm in New Zealand, it is important to compare gambling participation among different population and social groups. To provide this information, univariate logistic regression modelling was used to investigate differential response patterns by sub-groups. Multiple logistic regression modelling would have allowed investigation of potential confounding, however, the aim of this report is to provide a high level overview, and so only univariate results are presented. Confidence intervals and *p* values are presented in each table to identify statistical significance. In future work, multiple logistic regression analyses will be

⁸ Continuous forms of gambling include playing pokies, betting on horse or dog races, or sports events, table games at casinos, housie and bingo, mobile phone games for money, online activities for money or prizes through an overseas website.

conducted for specific topics as required, to address potential confounding and small sample size issues.

2.12 DIFFERENCES OVER TIME

Where the data are comparable with the 2006/07 GBAS and/or the three previous HLSs, responses collected between 2006/07 and 2014 are presented in the report. For most measures, logistic regression modelling was used to determine statistically significant differences over time. The only exception was with variables that allow multiple responses. In which case, use of logistic regression model was not appropriate and the 95% confidence interval was used to determine statistical significant differences.

2.13 HOW TO READ THE TABLES

The figures presented in tables and graphs in this report may not sum to 100% due to rounding. There are also a number of questions where respondents could provide multiple responses, for example, participation in different types of gambling.

The base number of respondents is reported in table and figure headings. Table 2-2 is a compressed excerpt and used to illustrate how to read the tables in this report. The total sample size of that table is all 2,594 respondents. We can see that, overall, 56.1% (52.7 - 59.5%) of the respondents had seen or heard advertising about gambling harm. Of the males interviewed, 56.4% (95% confidence interval: 52.0 - 60.9%) had seen, or heard, advertising about harmful gambling. The difference between male and female respondents was not statistically significant (the confidence intervals for the estimates overlap, and the confidence interval for the odds ratio includes 1). There was a significant difference by ethnicity (highlighted in bold). The largest ethnic group (European/Other) is used as the reference group. We can see that significantly fewer respondents of Asian ethnicity (34.8%, compared with 58.8% for European/Other) had seen or heard advertising about harmful gambling.

Table 2-2: Seen/heard any advertising about harmful gambling, base = all respondents (n=2,594) [Compressed excerpt as an example]

		%	95% CI	Odds ratio	p
Overall rate		56.1	52.7 - 59.5		
Gender	Male	56.4	52.0 - 60.9	1.02 (0.82 - 1.28)	.84
	Female	55.9	51.5 - 60.2	reference	
Prioritised ethnicity	Māori	61.1	55.0 - 67.3	1.10 (0.81 - 1.49)	.54
	Pacific	54.3	45.3 - 63.4	0.83 (0.56 - 1.24)	.36
	Asian	34.8	22.0 - 47.6	0.37 (0.21 - 0.67)	<.01
	European/Other	58.8	54.9 - 62.8	reference	

2.14 DEFINITIONS

In this report, electronic gaming machines are referred to as 'pokies'. Venues that provide pokies for patrons are referred to as 'pokie venues'.

3. INDIVIDUAL AND HOUSEHOLD GAMBLING HARM

This section presents results relating to individual and household gambling harm. The individual harm assessed includes personal experience of gambling more than intended in the previous 12 months and the impact of personal gambling on the individual or others, over their lifetime.

Personal experience of signs of harmful gambling was also assessed in the survey using the PGSI, and the findings have been included in a previously published HPA report (Tu & Puthipiroj, 2015).

Apart from gambling harm that is experienced at an individual level, people who do not themselves gamble at a risky level can still be affected by other people's harmful gambling. The household-related harms assessed in this report include experience of a friend or family member gambling more than intended, household arguments or bills not being paid and lifetime experience of being seriously impacted by someone else's gambling.

3.1 PERSONAL EXPERIENCE OF GAMBLING MORE THAN INTENDED (PAST 12 MONTHS)

Those who had participated in at least one gambling activity in the past 12 months ('past-year gamblers', n=1,833) were asked about their personal experience of gambling harm in the past year. These respondents were asked 'Over the last 12 months, have you had a day, or an outing, where at the end of it you looked back or thought to yourself - I really overdid that. I spent more time or money gambling than I meant to?'

The results showed that 2.8% of past-year gamblers reported gambling more than intended on an occasion in the past 12 months (see Table 3-1). The proportion of past-year gamblers who reported experiencing this harm differed by deprivation level, PGSI score and gambling type. Specifically:

- Those who lived in a high deprivation neighbourhood (6.2%) had increased odds of experiencing harm, when compared with those who lived in a low deprivation neighbourhood (1.4%).
- Compared with non-problem gamblers (0.5%), low-risk gamblers (15.8%) and moderate-risk/problem gamblers (67.0%) also had much higher odds of reporting this personal harm.
- Compared with infrequent gamblers (1.6%), frequent gamblers who participated in continuous types of gambling activities (21.1%) were also more likely to report that they had gambled more than intended.

It should be noted here that there were small sample sizes for some of the sub-group analyses, and hence, large confidence intervals. The results should, therefore, be interpreted with caution.

Table 3-1: Personal experience of gambling more than intended, base= past-year gamblers (n=1,833)

		%	95% CI	Odds ratio	p
Overall rate		2.8	1.5 - 4.1		
Gender	Male	3.8	1.8 - 7.0	2.21 (0.84 - 5.79)	.11
	Female	1.9	0.8 - 2.9	reference	
Prioritised ethnicity	Māori	4.1	2.1 - 7.1	1.87 (0.63 - 5.53)	.26
	Pacific	7.6	3.0 - 15.4	4.23 (0.96 - 18.69)	.06
	Asian	4.3	0.5 - 15.0	2.05 (0.21 - 20.37)	.54
	European/Other	2.1	0.8 - 4.3	reference	
Deprivation	Low (1-3)	1.4	0.5 - 3.0	reference	
	Mid (4 -7)	2.0	1.0 - 3.8	1.45 (0.46 - 4.54)	.53
	High (8 -10)	6.2	1.4 - 11.0	4.98 (1.38 - 17.93)	.01
PGSI	Non-problem gambler	0.5	0.1 - 1.1	reference	
	Low-risk gambler	15.8	8.0 - 26.8	36.86 (10.25 - 132.50)	<.01
	Moderate-risk/problem gambler	67.0	43.3 - 90.7	362.10 (59.85 - 2190.93)	<.01
Gambling type	Infrequent gambler	1.6	0.8 - 2.8	reference	
	Non-continuous gambler	2.2	1.0 - 4.2	1.36 (0.49 - 3.73)	.55
	Continuous gambler	21.1	5.8 - 46.5	17.73 (4.41 - 71.28)	<.01
Number of gambling activities participated in	1	0.4	0.0 - 2.5	reference	
	2	1.2	0.3 - 3.2	3.45 (0.03 - 392.04)	.61
	3	2.6	1.0 - 5.6	7.40 (0.75 - 727.14)	.39
	4 or more	7.7	3.2 - 12.2	23.52 (0.26 - 2142.16)	.17

3.1.1 Changes over time

There appears to be a general decline over time in the proportion of past-year gamblers reporting gambling more than intended on an occasion in the past 12 months (see Table 3-2 and Figure 3-1). The odds ratios indicate that the proportion in 2014 (2.8%) was significantly lower than that in 2012 (6.1%) and 2006/07 (9.5%).

Table 3-2: Changes over time - Personal experience of gambling more than intended, 2006/07-2014, base = past-year gamblers

Year	%	95% CI	Odds ratio (ref: 2006/07)	Odds ratio (ref: 2012)
2006/07	9.5	7.7 - 11.3	reference	-
2008	9.1	6.7 - 11.6	0.96 (0.64 - 1.28)	-
2010	7.3	5.5 - 9.2	0.77 (0.53 - 1.02)	-
2012	6.1	4.5 - 7.8	0.64 (0.43 - 0.86)	reference
2014	2.8	1.5 - 4.1	0.29 (0.14 - 0.45)	0.46 (0.20 - 0.71)

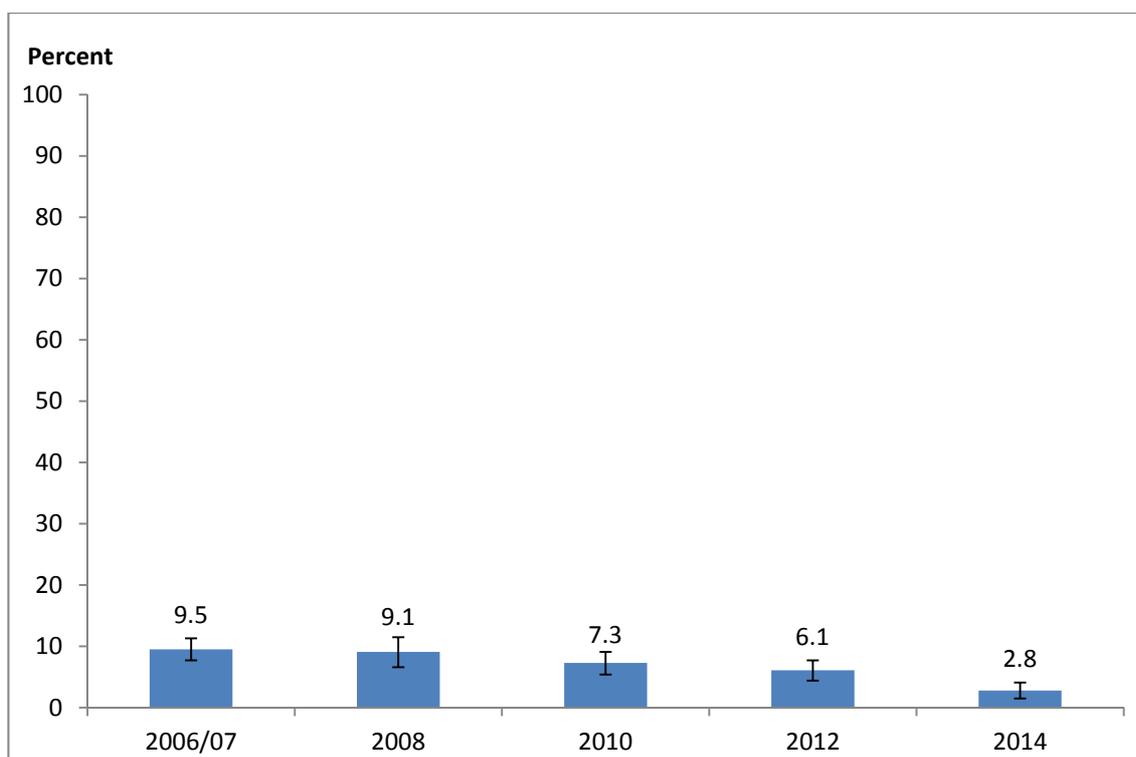


Figure 3-1: Experience of gambling more than intended in the past 12 months, 2006/07-2014, base = past-year gamblers

3.1.2 Frequency of gambling more than intended

Past-year gamblers who reported an occasion during the previous year where they spent more time or money than they had intended to on gambling (n=60) were then asked how many times this had happened in the past 12 months. One in four (24.9%) had gambled more than they had intended once, while one in five (20.9%) had done so more than 20 times (see Table 3-3). (The wide confidence intervals around these estimates should be noted when interpreting these findings).

Table 3-3: Frequency of gambling more than intended during the previous 12 months, base = gambled more than intended in past 12 months (n=60)

Number of times	%	95% CI
Once	24.9	9.1 - 47.8
2 - 5 times	36.3	15.6 - 61.7
6 - 10 times	9.8	1.0 - 32.4
11 - 20 times	3.7	0.5 - 12.6
More than 20 times	20.9	0.7 - 71.2
Don't know/Refused	4.5	0.1 - 24.9

3.1.3 Gambling activities where people gambled more than intended

Past-year gamblers who reported an occasion during the previous year where they spent more time or money than they had intended to on gambling (n=60) were also asked about which gambling activities they were engaged in on that occasion. Over one-half (58.3%) of respondents identified gaming machines at a pub or club, one in five (21.2%) betting on horse or dog races, and one in seven (14.2%) betting on sports events (see Table 3-4).

Table 3-4: Gambling activities in which people gambled more than intended in the previous 12 months, base = gambled more than intended in past 12 months (n=60)

Type of gambling activity	%	95% CI
Gaming machines or pokies at a pub or club	58.3	33.6 - 83.0
Betting on horse or dog races	21.2	6.7 - 44.2
Betting on sports events	14.2	2.1 - 40.7
Gaming machines or pokies at one of the six casinos	12.4	3.8 - 27.9
Lotto, Keno, Strike, Powerball, Big Wednesday, Instant Kiwi or scratch tickets	9.6	1.0 - 32.2
Table games, such as card games or dice, at one of the six casinos	9.2	0.7 - 33.6
Going to a gaming or casino evening, or buying a raffle ticket	7.2	0.1 - 20.2
Bullseye tickets	6.3	3.2 - 11.0
Making money bets with family or friends	5.9	0.1 - 14.9
Housie or bingo	3.0	0.2 - 13.1

3.2 IMPACT OF PERSONAL GAMBLING ON INDIVIDUAL OR OTHERS

All respondents were asked to think about their lifetime, and indicate how much they agreed or disagreed with the statement ‘My gambling has had a serious impact on me or on others’. Three in one hundred (3.1%) respondents either ‘strongly agreed’ or ‘agreed’, almost three-quarters (73.2%) ‘disagreed’ or ‘strongly disagreed’, and close to one in four (22.5%) said the question was not applicable to them because they had never gambled (see Figure 3-2).

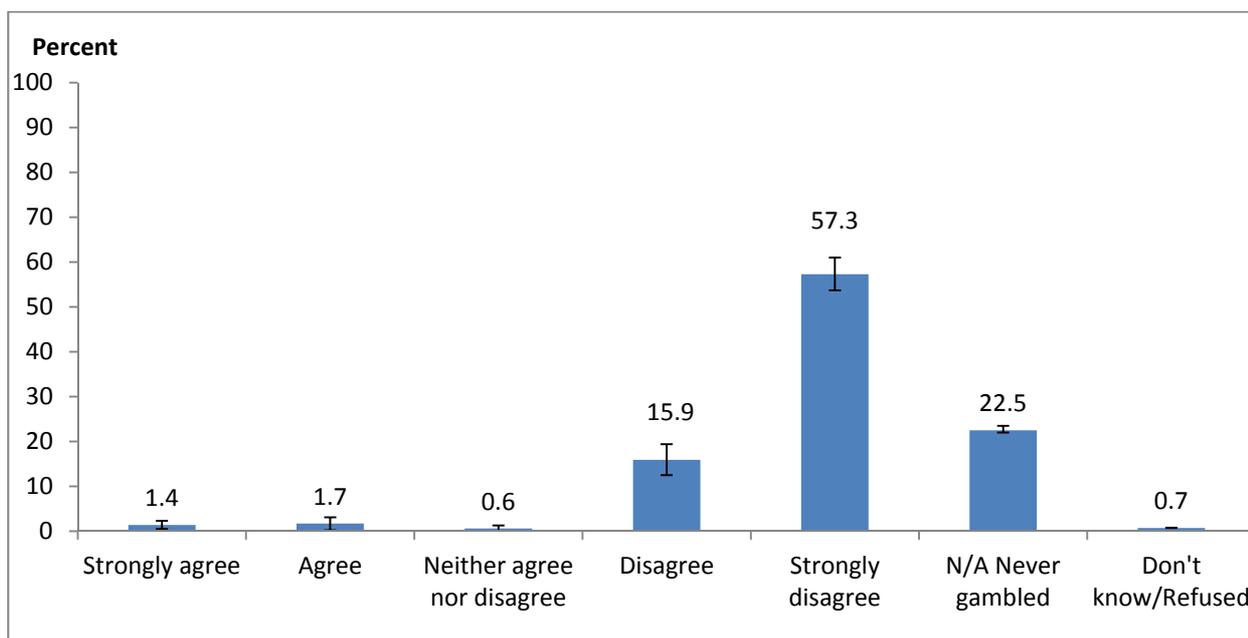


Figure 3-2: Agreement that gambling has had a serious impact on individual or others over respondents' lifetime, base = all respondents (n=2,594)

The proportion of respondents who ‘agreed’ or ‘strongly agreed’ that, over their lifetime, their gambling has had a serious impact on them or others, differed by PGSI score and the type of gambling activities participated in over the past year (see Table 3-5). Specifically, moderate-risk/problem gamblers (29.5%) had increased odds of agreeing with the statement (compared with non-problem gamblers, 2.7%); frequent gamblers who participated in continuous type of gambling (21.7%) also had increased odds of agreeing (compared with non-gamblers, 2.4%).

Table 3-5: Agreement that gambling has had a serious impact on individual or others over respondents' lifetime, base = all respondents (n=2,594)

		%	95% CI	Odds ratio	p
Overall rate		3.1	1.7 - 4.4		
Gender	Male	4.3	1.6 - 7.0	2.22 (0.85 - 5.82)	.11
	Female	2.0	1.0 - 3.4	reference	
Prioritised ethnicity	Māori	2.3	1.2 - 4.1	0.82 (0.31 - 2.16)	.69
	Pacific	3.1	1.1 - 6.6	1.10 (0.34 - 3.51)	.88
	Asian	5.3	2.0 - 11.3	1.95 (0.60 - 6.27)	.26
	European/Other	2.8	1.3 - 5.3	reference	
Deprivation	Low (1-3)	2.1	0.8 - 4.4	reference	.46
	Mid (4-7)	3.1	1.6 - 5.4	1.50 (0.51 - 4.39)	.33
	High (8-10)	4.4	1.2 - 10.8	2.15 (0.45 - 10.13)	
PGSI	Non-gambler	2.3	0.6 - 6.1	0.86 (0.20 - 3.65)	.83
	Non-problem gambler	2.7	1.0 - 4.4	reference	
	Low-risk gambler	1.0	0.2 - 3.0	0.34 (0.62 - 1.90)	.22
	Moderate-risk/problem gambler	29.5	9.3 - 58.0	14.90 (3.78 - 58.77)	<.01
Gambling type	Non-gambler	2.4	0.6 - 6.2	reference	
	Infrequent gambler	2.2	1.2 - 3.8	0.94 (0.23 - 3.87)	.94
	Non-continuous gambler	2.6	0.8 - 6.1	1.09 (0.20 - 5.77)	.92
	Continuous gambler	21.7	3.5 - 55.7	11.44 (1.23 - 106.50)	.03
Number of gambling activities participated in	None	2.3	0.6 - 6.1	reference	
	1	2.0	0.8 - 4.2	0.88 (0.20 - 3.90)	.87
	2	3.5	1.4 - 7.1	1.32 (0.27 - 6.40)	.73
	3	1.1	0.1 - 2.8	0.58 (0.12 - 2.83)	.50
	4 or more	6.3	1.8 - 15.0	3.29 (0.54 - 20.09)	.20

3.3 FRIEND OR FAMILY MEMBER'S GAMBLING MORE THAN INTENDED (PAST 12 MONTHS)

All respondents (n=2,594) were asked 'Over the last 12 months, do you feel that someone close to you, like a friend, family member or partner, has had a day or occasion where they spent much more time or money than they meant to, on gambling?'. Overall, 13.0% of respondents felt that someone close to them had gambled more than intended in the previous 12 months.

The proportion of respondents who had felt that someone close to them had gambled more than intended in the past 12 months differed by ethnicity, their own PGSI scores, gambling type, and the number of gambling activities the respondents themselves had participated in over the past 12 months (see Table 3-6). The groups that were more likely to have reported this gambling-related harm in the past 12 months were:

- Māori (25.8%) and Pacific peoples (20.2%), compared with those of European/Other ethnicity (10.2%)

- low-risk gamblers (31.3%) and moderate-risk/problem gamblers (55.3%), compared with non-problem gamblers (12.9%)
- infrequent gamblers (14.2%) and non-continuous gamblers (14.1%), compared with non-gamblers (8.9%). Although the difference in percentage points between non-gamblers (8.9%) and continuous gamblers (23.8%) appeared to be big, the difference was not statistically significant.
- those who had participated in two or more types of gambling activities (14.2%-20.3%), compared with those who had not gambled in the past 12 months (8.7%).

Table 3-6: Experience of someone close gambling more than intended in past 12 months, base = all respondents (n=2,594)

		%	95% CI	Odds ratio	p
Overall rate		13.0	11.1 - 14.9		
Gender	Male	12.6	10.0 - 15.2	0.94 (0.66 - 1.33)	.73
	Female	13.3	10.5 - 16.1	reference	
Prioritised ethnicity	Māori	25.8	20.5 - 31.2	3.06 (2.11 - 4.45)	<.01
	Pacific	20.2	14.4 - 26.1	2.23 (1.45 - 3.44)	<.01
	Asian	12.7	6.3 - 22.0	1.28 (0.60 - 2.73)	.52
	European/Other	10.2	8.0 - 12.4	reference	
Deprivation	Low (1-3)	12.0	7.9 -16.1	reference	
	Mid (4-7)	11.2	8.8 - 13.6	0.92 (0.57 - 1.50)	.74
	High (8-10)	17.7	13.0 - 22.4	1.57 (0.94 - 2.63)	.08
PGSI	Non-gambler	8.7	6.0 -11.4	0.65 (0.43 - 0.97)	.04
	Non-problem gambler	12.9	10.5 - 15.3	reference	
	Low-risk gambler	31.3	16.3 - 15.3	3.08 (1.42 - 6.71)	<.01
	Moderate-risk/problem gambler	55.3	26.5 - 81.7	8.37 (2.74 - 25.51)	<.01
Gambling type	Non-gambler	8.9	6.1 - 11.6	reference	
	Infrequent gambler	14.2	11.4 - 17.0	1.71 (1.13 -2.58)	.01
	Non-continuous gambler	14.1	10.1 - 18.1	1.69 (1.05 - 2.73)	.03
	Continuous gambler	23.8	8.0 - 47.7	3.21 (0.97 - 10.61)	.06
Number of gambling activities participated in	None	8.7	6.0 - 11.4	reference	
	1	10.3	5.6 - 15.1	1.28 (0.69 - 2.37)	.44
	2	14.2	9.4 - 18.9	1.68 (1.01 - 2.81)	.05
	3	15.3	10.3 - 20.4	1.99 (1.16 - 3.39)	.01
	4 or more	20.3	14.4 - 26.2	3.76 (1.62 - 4.68)	<.01

3.3.1 Gambling activities where more time/money than intended was spent

Among those who reported that someone close to them had gambled more than they had intended in the previous 12 months (n=404), nearly two-thirds (64.9%) reported the person had done so on gaming machines or pokies. This included 49.8% of those who mentioned gaming machines or pokies at a pub or club, and 15.1% who mentioned gaming machines or pokies at a casino.

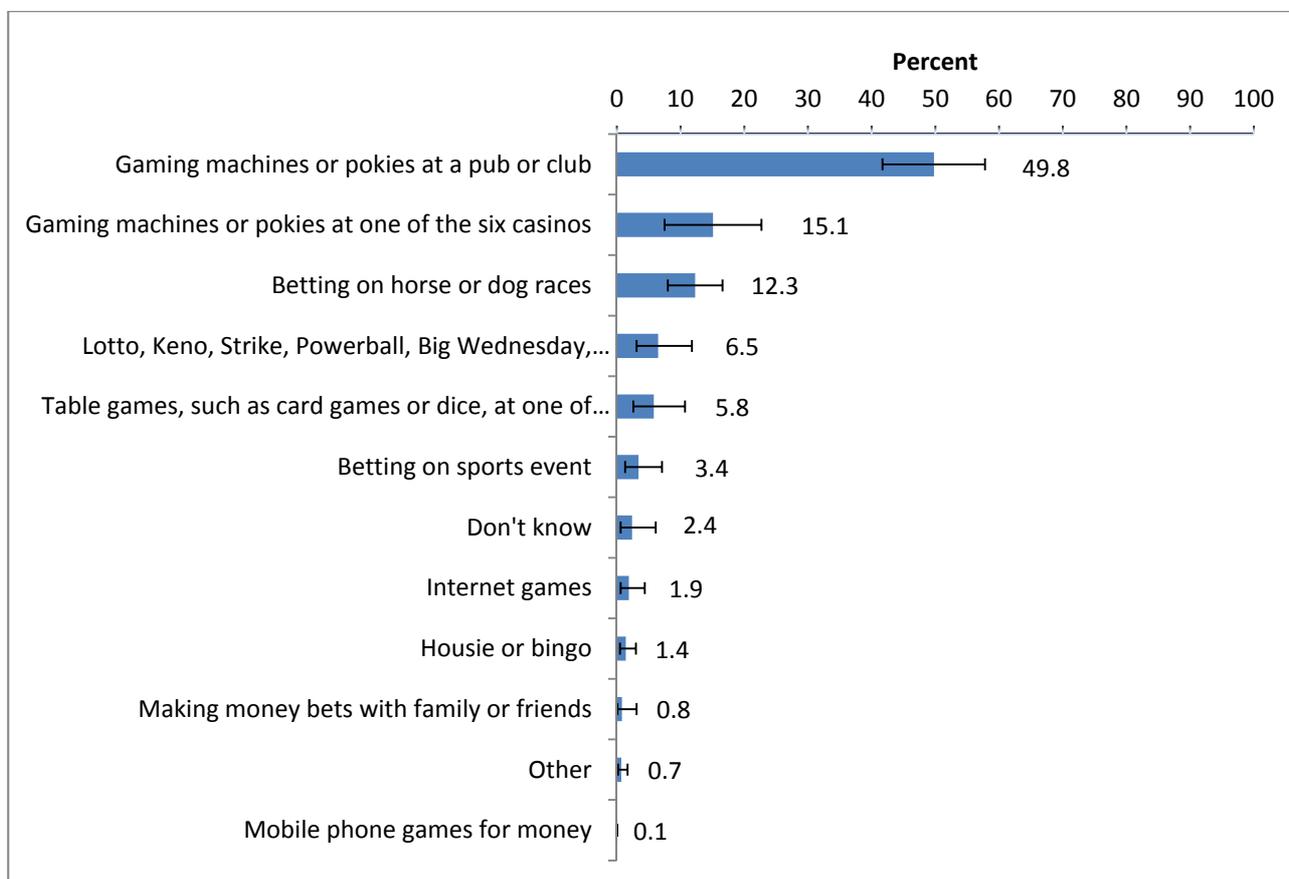


Figure 3-3: Experience of someone close gambling more than intended in past 12 months, by gambling activities (n=404)

3.3.2 Changes over time

This question was not asked in the 2008 HLS. Considering responses collected in 2006/07, 2010, 2012 and 2014, there appears to be a general decline over time in the proportion of respondents who had experienced someone close to them gambling more than intended. Compared to 2012 (17.9%) and 2006/07 (35.3%), respondents in 2014 (13.0%) were significantly less likely to report experiencing this gambling harm (see Table 3-7, Figure 3-4).

Table 3-7: Changes over time - Experience of someone close gambling more than intended in past 12 months, 2006/07-2014, base=all respondents (n=2,594)

Year	%	95% CI	Odds ratio (ref: 2006/07)	Odds ratio (ref: 2012)
2006/07	35.3	32.3 - 38.3	reference	-
2010	21.5	18.7 - 24.2	0.61 (0.51 - 0.70)	-
2012	17.9	15.7 - 20.0	0.51 (0.43 - 0.58)	reference
2014	13.0	11.1 - 14.9	0.83 (0.68 - 0.98)	0.73 (0.59 - 0.87)

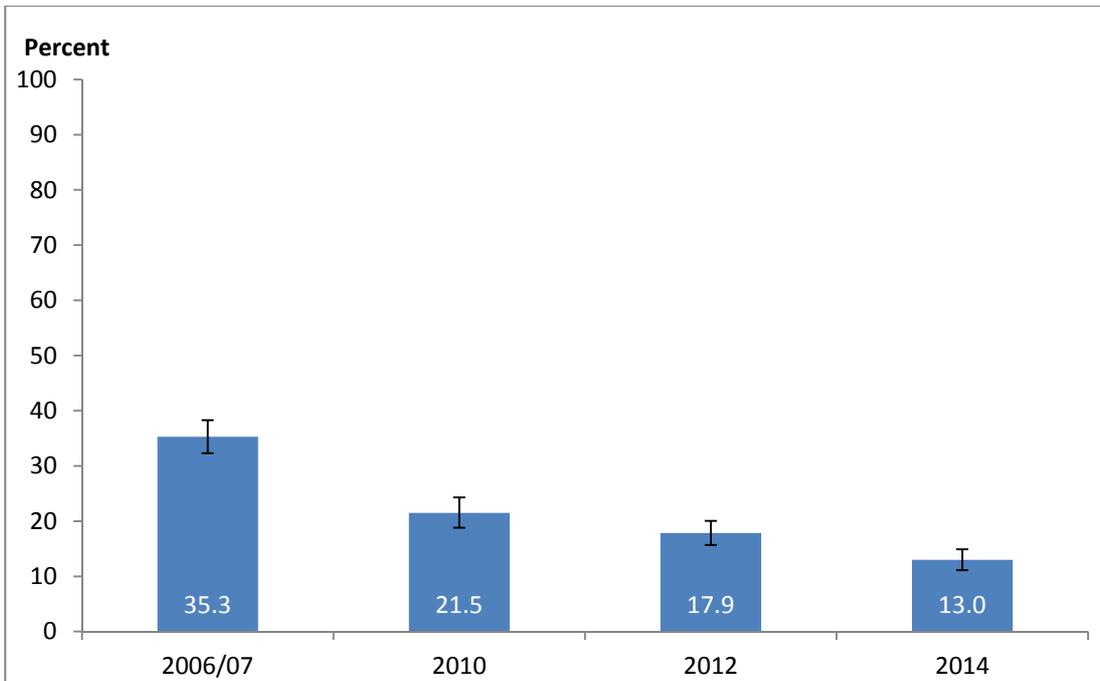


Figure 3-4: Experience of someone close gambling more than intended in the past 12 months, 2006/07-2014, base = all respondents

3.4 HOUSEHOLD LEVEL HARMS FROM GAMBLING

3.4.1 Arguments about time or money spent on gambling

All respondents were asked whether there had been 'some argument about time or money spent on betting or gambling' in their wider family or household, whether or not they were part of the argument. In 2014, 3.9% said this had happened in the previous 12 months. A further 6.7% indicated that this had happened in the past, but not in the previous 12 months (see Figure 3-5).

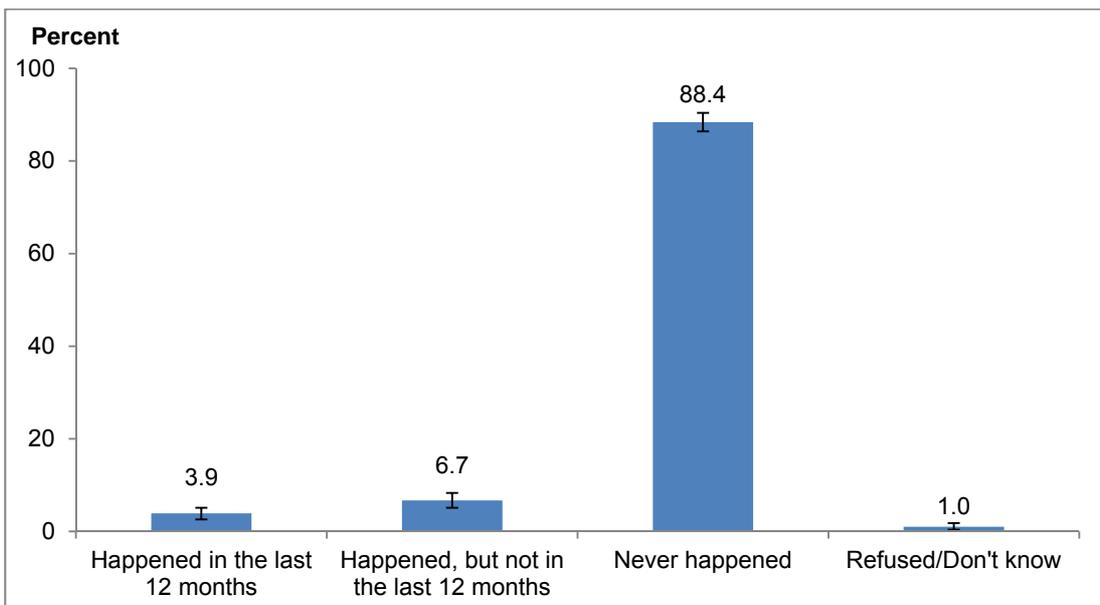


Figure 3-5: Arguments in the wider family or household about time or money spent on gambling, 2014, base = all respondents (n=2,594)

The proportion of respondents who had indicated experiencing this gambling-related household harm were compared by socio-demographic and gambling-related characteristics (see Table 3-8). Those who were more likely to have experienced this harm were:

- Māori (8.7%) and Pacific people (7.4%), compared with those of European/Other ethnicity (1.4%)
- those living in a high deprivation neighbourhood (3.9%), compared with those living in a low deprivation neighbourhood (1.8%)
- low-risk gamblers (7.0%) and moderate-risk/problem gamblers (16.6%), compared with non-gamblers (3.1%)
- continuous gamblers (20.1%), compared with non-gamblers (3.1%)
- those who had participated in four or more gambling activities in past 12 months (9.6%), compared with those who had not participated in any gambling activity (3.1%).

Table 3-8: Arguments in the family or household about gambling in the past 12 months, base= all respondents (n=2,594)

		%	95% CI	Odds ratio	p
Overall rate		3.9	2.6 - 5.1		
Gender	Male	3.3	1.1 - 5.5	0.73 (0.47 - 1.15)	.18
	Female	4.4	3.2 - 5.7	reference	
Prioritised ethnicity	Maori	8.7	4.4 - 12.9	1.98 (1.36 - 2.89)	<.01
	Pacific	7.4	4.6 - 10.2	2.03 (1.20 - 3.42)	.01
	Asian	3.3	1.7 - 5.0	0.79 (0.16 - 3.89)	.78
	European/Other	1.4	0.3 - 3.9	reference	
Deprivation	Low (1-3)	1.8	1.0 - 3.1	reference	
	Mid (4-7)	6.6	2.4 - 10.8	1.12 (0.66 - 1.88)	.68
	High (8-10)	3.9	2.5 - 5.3	1.98 (1.07 - 3.69)	.03
PGSI	Non-gambler	3.1	1.5 - 4.6	0.99 (0.60 - 1.63)	.97
	Non-problem gambler	3.8	2 - 5.5	reference	
	Low-risk gambler	7.0	2.6 - 14.7	2.80 (1.21 - 6.46)	.02
	Moderate-risk/problem gambler	16.6	5.5 - 34.9	8.41 (2.39 - 29.62)	<.01
	Non-gambler	3.1	1.6 - 4.7	reference	
Gambling type	Infrequent gambler	3.5	2.4 - 4.6	1.06 (0.64 - 1.75)	.83
	Non-continuous gambler	2.8	1.3 - 5.1	0.92 (0.50 - 1.68)	.78
	Continuous gambler	20.1	2.7 - 54.9	4.68 (1.31 - 16.74)	.02
Number of gambling activities participated in	None	3.1	1.5 - 4.6	reference	
	1	2.7	1.5 - 4.4	0.86 (0.40 - 1.84)	.70
	2	2.7	1.5 - 4.6	0.85 (0.50 - 1.42)	.53
	3	3.2	1.3 - 6.4	1.21 (0.64 - 2.27)	.55
	4 or more	9.6	2.6 - 16.6	2.33 (1.19 - 4.57)	.01

Changes over time

Responses were collected in 2008, 2010, 2012 and 2014 (see Table 3-9). The proportion of respondents who reported having arguments in their wider family or household about gambling in the past 12 months was generally low, except for in 2012 (8.6%). There is no obvious explanation for the abnormality observed in the 2012 data. In 2014, the proportion of respondents who experienced this gambling-related harm (3.9%) was not significantly different to that in 2008 (5.2%), but was significantly lower than in 2012 (8.6%).

Table 3-9: Changes over time - Arguments in the family or household about gambling in the past 12 months, 2008-2014, base = all respondents

Year	%	95% CI	Odds ratio (ref: 2008)	Odds ratio (ref: 2012)
2008	5.1	3.4 - 6.8	reference	-
2010	5.2	3.7 - 6.7	1.02 (0.56 -1.48)	-
2012	8.6	7.1 - 10.1	1.68 (1.04 - 2.41)	reference
2014	3.9	2.6 - 5.1	0.76 (0.40 -1.13)	0.45 (0.28 -0.63)

3.4.2 Going without because too much money was spent on gambling

All respondents were also asked whether someone in their wider family or household ‘had to go without something they needed, or some bills weren’t paid, because too much was spent on gambling by another person’. It was found that 3.7% of respondents had experienced this gambling-related household harm in the past 12 months (equivalent to an estimated 118,000 adults in New Zealand). Another 3.7% of respondents said this had happened in the past, but not in the previous 12 months (see Figure 3-6).

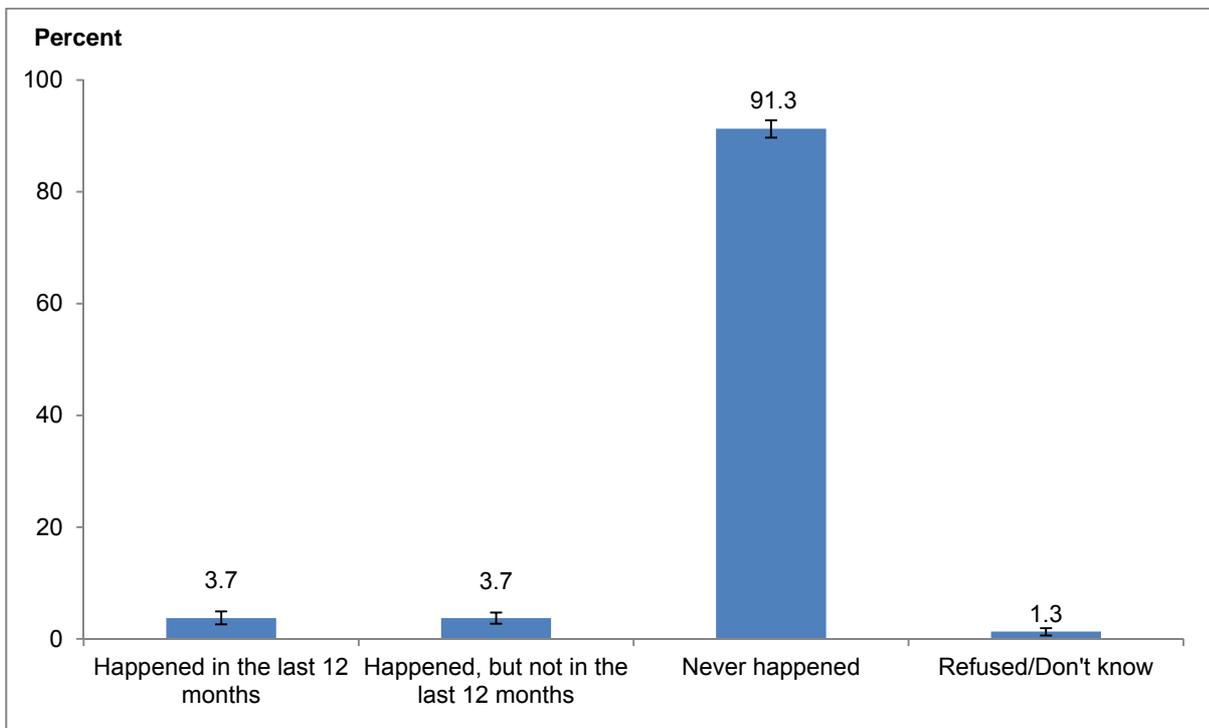


Figure 3-6: Experience going without or an unpaid bill because someone spent too much on gambling, 2014, base =all respondents (n=2,594)

Those more likely to report going without in the last 12 months due to someone else's gambling were (see Table 3-10):

- Māori (7.4%) and Pacific peoples (8.9%), compared to those of European/Other ethnicity (1.2%).
- those living in a high deprivation neighbourhood (7.0%), compared to those living in a low deprivation neighbourhood (2.2%).
- low-risk (12.1%) and moderate-risk/ problem gamblers (32.1%), compared with non-problem gamblers (3.0%).

Table 3-10: Going without because of someone's gambling in the household in the past 12 months, base = all respondents (n=2,594)

		%	95% CI	Odds ratio	p
Overall rate		3.7	2.6 - 4.9		
Gender	Male	4.4	2.4 - 6.3	0.86 (0.56 - 1.31)	.47
	Female	3.2	2.1 - 4.2	reference	
Prioritised ethnicity	Māori	7.4	3.5 - 11.2	2.99 (1.95 - 4.59)	<.01
	Pacific	8.9	5.6 - 12.1	2.17 (1.22 - 3.86)	.01
	Asian	3.0	1.6 - 4.4	0.42 (0.15 - 1.23)	.11
	European/Other	1.2	0.1 - 4.8	reference	
Deprivation	Low (1-3)	2.2	1 - 4.3	reference	
	Mid (4-7)	3.1	1.8 - 4.4	1.22 (0.69 - 2.15)	.49
	High (8-10)	7.0	3.6 - 10.4	2.26 (1.22 - 4.17)	.01
PGSI	Non-gambler	3.0	1.4 - 4.5	0.99 (0.59 - 1.66)	.96
	Non-problem gambler	3.0	1.9 - 4	reference	
	Low-risk gambler	12.1	3.8 - 26.8	2.92 (1.25 - 6.80)	.01
	Moderate-risk/problem gambler	32.1	5.5 - 72.3	10.62 (2.69 - 41.95)	<.01
Gambling type	Non-gambler	3.0	1.4 - 4.6	reference	
	Infrequent gambler	3.5	2.3 - 4.8	1.15 (0.68 - 1.95)	.61
	Non-continuous gambler	3.2	1.3 - 6.3	1.09 (0.56 - 2.13)	.79
	Continuous gambler	15.3	2.3 - 42.7	2.93 (0.55 - 15.47)	.21
Number of gambling activities participated in	None	3.0	1.4 - 4.5	reference	
	1	2.4	1.2 - 4.3	0.74 (0.39 - 1.44)	.38
	2	3.3	1.6 - 5	1.05 (0.58 - 1.89)	.87
	3	5.5	2.5 - 10.3	1.85 (0.96 - 3.57)	.07
	4 or more	6.8	2.5 - 14.3	1.90 (0.90 - 4.00)	.09

Changes over time

Responses were collected in 2008, 2010, 2012 and 2014 (see Table 3-11). Comparing the responses over time, a similar pattern was observed for 'going without' as for having arguments in the wider family or household. The proportion of respondents who reported going without has remained low over time, except for 2012 at 8.2%. In 2014, the proportion of respondents who experienced this gambling-related harm (3.7%) was not significantly different to that in 2008 (3.2%), but was significantly lower than in 2012 (8.2%).

Table 3-11: Changes over time - Going without because of someone's gambling in the household in the past 12 months, 2008-2014, base = all respondents

Year	%	95% CI	Odds ratio (ref: 2006/07)	Odds ratio (ref: 2012)
2008	3.2	2.3 - 4.1	reference	-
2010	4.7	3.3 - 6.0	1.47 (0.86 - 2.08)	-
2012	8.2	6.7 - 9.7	2.60 (1.71 - 3.48)	reference
2014	3.7	2.6 - 4.9	1.19 (0.69 - 1.68)	0.46 (0.30 - 0.62)

3.4.3 Gambling activities related to household harm

Overall, 5.5% of all respondents reported experiencing in the past 12 months at least one household harm because of gambling (either having an argument about time or money spent on gambling, or someone having to go without because too much was spent on gambling by another person). This equates to an estimated 175,400 adults in New Zealand.

To provide further contextual information, respondents who had experienced one or both types of household harm (n=178) were also asked about the type of gambling such harm occurred most often with. The most commonly mentioned form of gambling activities associated with household harm was gaming machines in pubs or clubs, at 49.9% (see Figure 3-7).

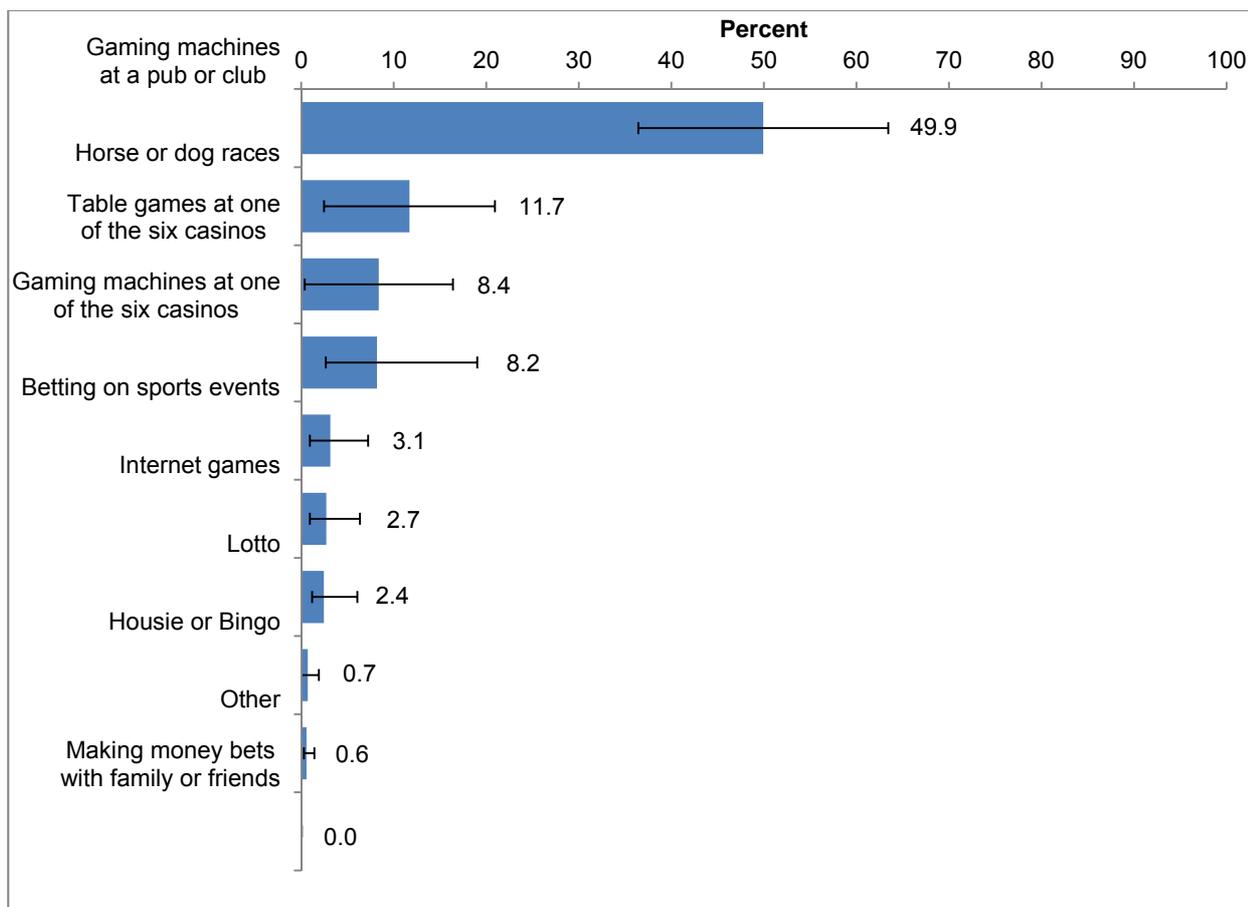


Figure 3-7: Gambling activities most often related to household harm in the past 12 months, base = respondents who had experienced household harm as a result of gambling (n= 178)

3.5 IMPACT OF SOMEONE ELSE'S GAMBLING

All respondents were asked to think about their lifetime, and indicate their level of agreement with the following statement: 'Someone else's gambling has had a serious impact on me'. One in ten (10.1%) either 'strongly agreed' or 'agreed'; 86.8% either 'disagreed' or 'strongly disagreed' (see Figure 3-8).

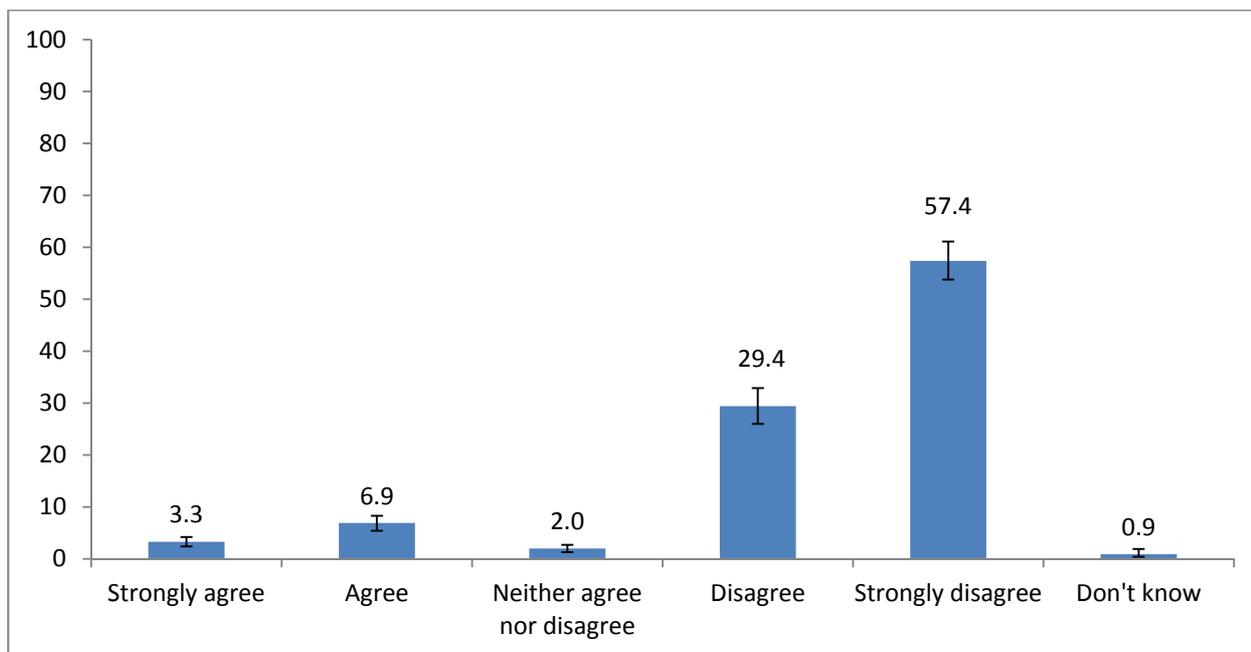


Figure 3-8: Someone else's gambling has had a serious impact on individual over their lifetime, base = all respondents (n = 2,594)

Responses differed only by ethnicity and PGSI scores (see Table 3-12). Those more likely to say someone's gambling had a serious impact on them at some point in their life were:

- Māori (20.7%), compared with those of European/Other ethnicity (8.7%)
- moderate-risk/ problem gamblers (26.8%), compared to non-problem gamblers (9.7%).

Table 3-12: Someone else’s gambling has had a serious impact on individual over their lifetime, strongly agree and agree grouped, base = all respondents (n=2,594)

		%	95% CI	Odds ratio	p
Overall rate		10.1	8.5 - 11.8		
Gender	Male	8.4	6.3 - 10.6	0.70 (0.48 - 1.01)	.06
	Female	11.7	9.2 - 14.2	reference	
Prioritised ethnicity	Māori	20.7	16.0 - 25.5	2.73 (1.87 - 3.99)	<.01
	Pacific	12.5	8.0 - 17.0	1.49 (0.90 - 2.48)	.12
	Asian	6.2	3.3 - 10.3	0.68 (0.36 - 1.31)	.25
	European/Other	8.7	6.7 - 10.8	reference	
Deprivation	Low (1-3)	8.9	5.2 - 12.7	reference	
	Mid (4-7)	10.0	7.8 - 12.3	1.14 (0.67 - 1.94)	.64
	High (8-10)	12.1	9.1 - 15.1	1.41 (0.82 - 2.42)	.22
PGSI	Non-gambler	9.5	6.4 - 12.7	0.98 (0.62 - 1.57)	.95
	Non-problem gambler	9.7	7.5 - 11.8	reference	
	Low-risk gambler	16.9	7.5 - 30.9	1.90 (0.82 - 4.45)	.14
	Moderate-risk/problem gambler	26.8	9.8 - 51.0	3.43 (1.22 - 9.62)	.02
Gambling type	Non-gambler	9.7	6.5 - 12.8	reference	
	Infrequent gambler	10.4	7.8 - 13.0	1.09 (0.67 - 1.77)	.74
	Non-continuous gambler	10.3	6.6 - 13.9	1.07 (0.63 - 1.83)	.80
	Continuous gambler	11.1	3.9 - 23.4	1.17 (0.40 - 3.44)	.78
Number of gambling activities participated in	None	9.5	6.4 - 12.7	reference	
	1	7.7	5.0 - 10.4	0.77 (0.45 - 1.31)	.33
	2	11.6	6.8 - 16.4	1.30 (0.72 - 2.33)	.39
	3	10.9	6.4 - 15.4	1.40 (0.76 - 2.55)	.28
	4 or more	12.1	7.7 - 16.4	1.14 (0.60 - 2.20)	.69

4. AWARENESS AND USE OF SUPPORT SERVICES

A number of services are available in New Zealand to help people who are experiencing harm from gambling, as well as for those who are concerned about someone else. The Ministry of Health funds the Gambling Helpline, which offers free and confidential telephone advice and support across New Zealand. It also funds the local Minimising Gambling Harm services, which offer free face-to-face counselling to individuals and concerned others. Advertising for HPA's minimising gambling harm programme, features information about how to get help for harmful gambling via the Gambling Helpline and the Choice Not Chance website. Both the Gambling Helpline and Choice Not Chance website refer users on to minimising gambling harm face-to-face counselling services. The Choice Not Chance website also promotes various self help tools.

People at risk of harm from gambling may also experience problems with alcohol, depression, smoking, relationships and finances (Ministry of Health, 2009). Gamblers and their family members may therefore access services to help with one of the aforementioned issues, rather than gambling itself. Counsellors and other support services may become aware of an issue with gambling and then provide support, or refer the client to a specific minimising gambling harm service.

Discussed in the following section are the awareness and use of support services for minimising gambling harm.

4.1 KNOWLEDGE OF HOW TO GET HELP FOR A FRIEND OR FAMILY MEMBER WHO GAMBLES TOO MUCH

All respondents (n=2,594) were asked 'Do you know what you could do to help a friend or family member who was gambling too much?' Six in ten (59.5%) respondents reported that they knew what they could do to help.

The proportion of respondents who believed they were aware of how to get help differed by ethnicity, PGSI scores, gambling type and the number of gambling activities the respondents had participated in over the past 12 months (see Table 4-1). Groups that were more likely to indicate having the knowledge were:

- those of European/Other ethnicity (63.4%), compared with Asian (36.5%)
- non-problem gamblers (61.5%), compared with non-gamblers (53.3%)
- infrequent gamblers (62.8%), compared with non-gamblers (53.3%)
- those who had participated in three or more gambling activities in the past 12 months (69.9%), compared with those who had not participated in any (53.4%).

Table 4-1: Knowledge of how to help a friend or family member who was gambling too much, base = all respondents (n = 2,594)

		%	95% CI	Odds ratio	p
Overall rate		59.5	56.4 - 62.6		
Gender	Male	59.3	55.0 - 63.7	0.98 (0.78 - 1.24)	.90
	Female	59.7	55.7 - 63.8	reference	
Prioritised ethnicity	Māori	58.1	52.0 - 64.3	0.80 (0.60 - 1.08)	.14
	Pacific	61.7	53.5 - 69.8	0.93 (0.64 - 1.35)	.70
	Asian	36.5	26.8 - 46.1	0.33 (0.21 - 0.51)	<.01
	European/Other	63.4	59.7 - 67.1	reference	
Deprivation	Low (1-3)	60.8	54.7 - 66.8	reference	
	Mid (4 -7)	59.0	53.9 - 64.2	0.93 (0.66 - 1.31)	.68
	High (8-10)	59.1	53.3 - 65.0	0.93 (0.65 - 1.33)	.70
PGSI	Non-gambler	53.4	47.1 - 59.8	0.72 (0.54 - 0.96)	.03
	Non-problem gambler	61.5	57.8 - 65.1	reference	
	Low-risk gambler	66.1	48.4 - 83.8	1.22 (0.54 - 2.78)	.63
	Moderate-risk/problem gambler	77.4	54.9 - 99.8	2.14 (0.56 - 8.23)	.27
Gambling type	Non-gambler	53.3	46.9 - 59.7	reference	
	Infrequent gambler	62.8	58.7 - 66.9	1.48 (1.07 - 2.04)	.02
	Non-continuous gambler	58.1	51.6 - 64.5	1.21 (0.86 - 1.72)	.28
	Continuous gambler	70.1	54.6 - 85.6	2.05 (0.94 - 4.48)	.07
Number of gambling activities participated in	None	53.4	47.1 - 59.8	reference	
	1	56.7	50.4 - 63.1	1.16 (0.81 - 1.66)	.42
	2	56.9	50.1 - 63.6	1.28 (0.88 - 1.86)	.20
	3	69.9	62.1 - 77.7	1.87 (1.20 - 2.90)	.01
	4 or more	69.9	63.4 - 76.5	1.94 (1.26 - 2.99)	<.01

4.1.1 Changes over time

Responses were collected in 2006/07, 2010, 2012 and 2014. The proportion of respondents reported knowing how to help a friend or family members ranged from 45.6% to 71.2% (see Table 4-2, Figure 4-1). The knowledge level was highest in 2006/07 (71.2%), when compared with all subsequent years including 2014 (59.5%). However when compared with 2012 (45.6%), knowledge levels in 2014 had increased significantly.

Table 4-2: Changes over time – Knowledge of how to help a friend or family member who was gambling too much, 2006/07-2014, base = all respondents

Year	%	95% CI	Odds ratio (ref: 2006/07)	Odds ratio (ref: 2012)
2006/07	71.2	67.9 - 74.3	reference	-
2010	61.8	58.1 - 65.5	0.87 (0.80 - 0.93)	-
2012	45.6	42.3 - 49.0	0.64 (0.59 - 0.70)	reference
2014	59.5	56.4 - 62.6	0.84 (0.78 - 0.89)	1.30 (1.19 - 1.42)

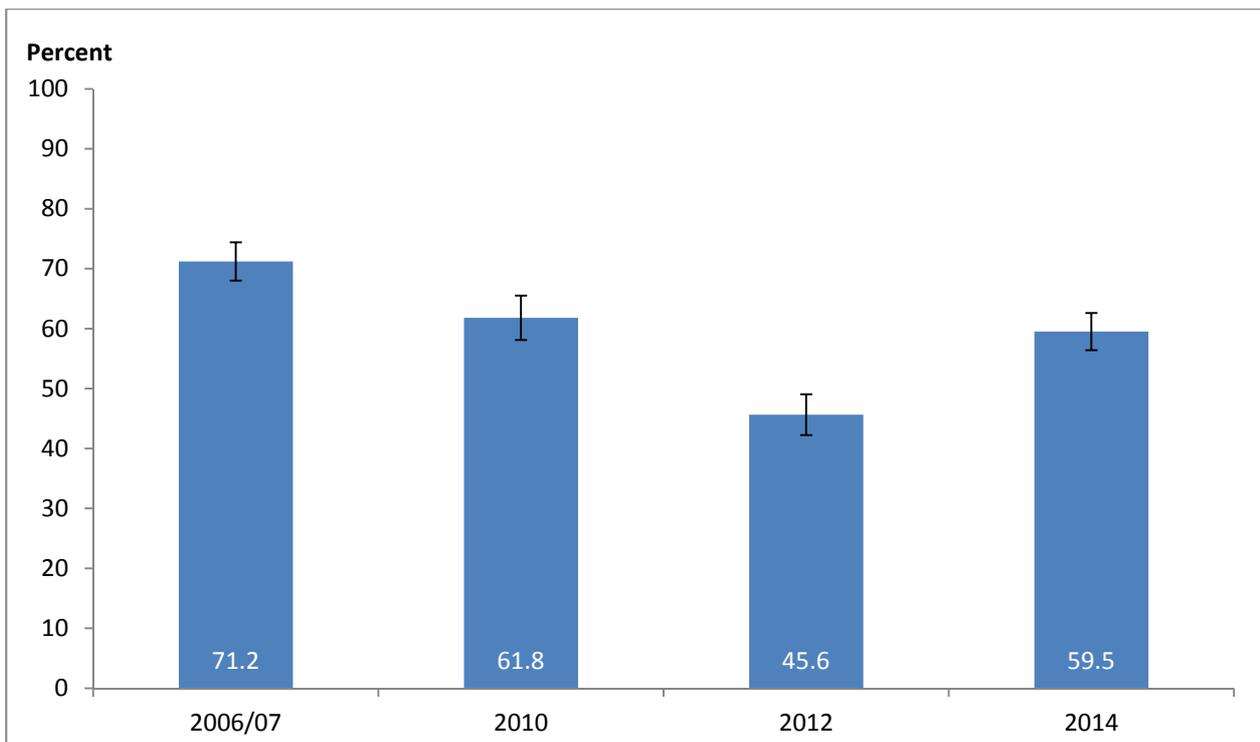


Figure 4-1: Knowledge of how to help a friend or family member who was gambling too much 2006/07-2014, base = all respondents

4.1.2 Strategies/actions to help someone who is gambling too much

Respondents who reported they knew what they could do to help a friend or family member who was gambling too much (n=1,591), were then asked what that was. Respondents were not probed, and could give multiple responses (see Table 4-3).

Table 4-3 presents the list of actions and strategies identified by respondents. About one-half (45.5%) indicated that they would have a conversation with the person who is gambling too much, and 40.8% indicated they would tell them to get help or seek professional advice.

Table 4-3: Actions and strategies identified to help someone who is gambling too much (multiple response, base = knew of strategies or actions to help (n =1,591))

Response	%	95% CI
Talk to them/make them aware of dangers/open discussion/confront them	45.5	40.6 - 50.4
Tell them to get help/help them seek professional advice	40.8	37.0 - 44.5
Ring/direct them to helpline	28.3	24.5 - 32.0
Be supportive/listen to them/spend time with them	19.3	15.6 - 23.0
Search online/direct them to a website	8.8	6.6 - 11.0
Involve family/friends	6.1	4.2 - 8.0
Stop/discourage gambling/limit access to gambling venues/exclude from gambling venues	5.0	3.5 - 6.5
Exercise tough love/discipline them/let them bear the consequences	4.7	3.1 - 6.4
Offer alternative activities/sports	4.5	2.9 - 6.0
Don't bail them out/don't lend them money	4.1	2.6 - 5.6
Cut off/control their money for them	4.1	2.6 - 5.6
Help them with money management/budgeting/setting limits	3.0	1.8 - 4.1
Get medical help	3.0	1.7 - 4.3
Txt/direct them to a txt helpline service	2.7	1.3 - 4.0
Pray for them/invite them to church	2.2	1.2 - 3.1
Give them brochures/show ads/expose them to other gamblers' experiences	2.0	1.1 - 2.8
Encourage them to talk to bar staff	0.6	0.1 - 1.1
Other	7.9	6.0 - 9.8

4.2 ACTIONS TAKEN IF CONCERNED ABOUT OWN GAMBLING

Respondents who had gambled in the past-year (n=1,833) were asked, 'If you were concerned about your own gambling, what would you do?' Respondents were not probed, and multiple responses were allowed. The most likely action reported by past-year gamblers was ringing an 0800 helpline (see Table 4-4).

Table 4-4: Actions and strategies reported by individual if they were concerned about their own gambling (multiple response allowed), base = past- year gamblers (n=1,833)

Response	%	95% CI
Ring an 0800 helpline	22.2	18.7 - 25.6
Stop gambling	14.3	12.0 - 16.6
Talk to someone (family/friends/partner)	11.9	9.1 - 14.7
Do nothing	9.9	7.5 - 12.3
Seek help from a GP, practice nurse or other health professional	9.6	7.1 - 12.0
Get face-to-face counselling	8.4	6.3 - 10.5
Look on the Internet for support	6.5	4.6 - 8.4
Support groups	5.1	3.3 - 6.8
Get someone you trust to manage the money	3.6	2.1 - 5.0
Avoid places that have betting or gambling as an attraction	3.4	2.1 - 4.7
Look on the Internet for self-help	3.2	1.9 - 4.4
Txt a helpline service	2.6	1.4 - 3.9
Tell someone (unspecified)	1.8	1.0 - 2.7
Keep busy with other activities	1.7	1.0 - 2.5
Separate money for betting from other money	1.6	0.8 - 2.4
Seek help (not internet)	1.4	0.5 - 2.3
Leave ATM and credit cards at home	1.0	0.5 - 1.6
Have yourself excluded from a gambling venue	0.8	0.1 - 1.5
Set a dollar figure before starting	0.7	0.3 - 1.1
Citizens Advice Bureau	0.7	0.2 - 1.1
Talk to staff at gambling venue	0.4	0.0 - 0.9
Church	0.4	0.1 - 0.7
Set a time limit	0.4	0.0 - 0.9
Wouldn't be concerned	0.4	0.1 - 0.7
Hide/deny it	0.3	0.0 - 0.6
Slap self / lose temper	0.2	0.0 - 0.5
Block or restrict times on gambling websites on your computer	0.2	0.0 - 0.5
Move away / distance	0.2	0.0 - 0.3
Address underlying issue	0.1	0.0 - 0.3
Don't know	0.0	0.0 - 0.1
Refused to answer	13.0	10.3 - 15.7
Other	1.2	0.6 - 1.7

4.3 KNOWLEDGE AND USE OF SUPPORT SERVICES FOR GAMBLING HARM

To assess knowledge of support services for gambling harm, all respondents (n=2,594) were presented with a list of the types of services (see Table 4-5) to help people who gamble too much, and asked which of the services they had heard of before. Multiple responses were permitted.

A total of 82.9% of respondents had heard of at least one service. Over two-thirds (67.3%) had heard of an 0800 telephone helpline, while 38.0% had heard of support groups, and 31.0% face-to-face counselling. Comparatively fewer people had heard of internet self-help websites (13.8%). Fifteen percent of respondents had not heard of any support service (see Table 4-5).

Table 4-5: Gambling help services recognised, multiple response, base = all respondents (n=2,594)

Response	%	95% CI
0800 telephone helpline	67.3	64.4 - 70.2
Support groups	38.0	34.6 - 41.4
Face-to-face counselling	31.0	28.1 - 34.0
Help from a GP, practice nurse or other health professional	26.8	24 - 29.6
Internet site – self-help	13.8	11.6 - 16.0
Txt a helpline service	9.3	7.7 - 10.8
Don't know	2.1	1.3 - 2.9
None	15.0	12.8 - 17.1
Other	3.3	2.1 - 4.5

Table 4-5b shows the proportion of respondents in each PGSI group who recognised each of the gambling help services asked about.

Table 4-5b: Proportion of services recognised, by PGSI, base = all respondents (n=2,594)

Response	Non- gambler	Non-problem gambler	Low-risk gambler	Moderate-risk/problem gambler
0800 telephone helpline	61.3 (55.4 -67.2)	69.5 (66.0 -73.0)	72.5 (54.8 -90.1)	78.0 (59.2 -96.7)
Support groups	32.6 (26.2 -39.1)	39.7 (35.6 -43.7)	49.9 (31.7 -68.1)	44.2 (12.2 -76.3)
Face-to-face counselling	27.4 (21.6 -33.3)	32.2 (28.6 -35.8)	33.3 (18.4 -48.2)	43.2 (11.8 -74.5)
Help from a GP, practice nurse or other health prof.	20.0 (15.3 -24.8)	29.5 (26.0 -33.0)	31.0 (15.5 -46.5)	29.3 (6.0 -6.6)
Internet site – self-help	9.1 (5.8-12.4)	15.1 (12.5 -17.9)	19.5 (7.8-31.3)	32.0 (7.8 -31.3)
Txt a helpline service	9.4 (6.4-12.4)	9.3 (7.4 -11.2)	7.0 (.71-13.9)	9.0 (4.0 -18.4)

4.3.1 Changes over time

Awareness of gambling help services appeared to be constant from 2006/07 to 2010, and then dropped in 2012 (see Table 4-6, Figure 4-2). In 2014, the proportion of respondents who were aware of any of the listed services (80.1%) was lower than that in 2006/07 (85.3%), but not significantly different from that in 2012 (76.7%).

Table 4-6: Heard of at least one type of the service to help people who gamble too much, 2006/07-2014, base = all respondents

Year	%	95% CI	Odds ratio (ref: 2006/07)	Odds ratio (ref: 2012)
2006/07	85.3	83.3 - 87.4	reference	-
2008	85.6	82.9 - 88.3	1.00 (0.96 - 1.04)	-
2010	86.3	84.4 - 88.2	1.01 (0.98 - 1.04)	-
2012	76.7	74.1 - 79.3	0.90 (0.86 - 0.94)	reference
2014	80.1	77.5 - 82.6	0.94 (0.90 - 0.98)	1.04 (1.00 - 1.09)

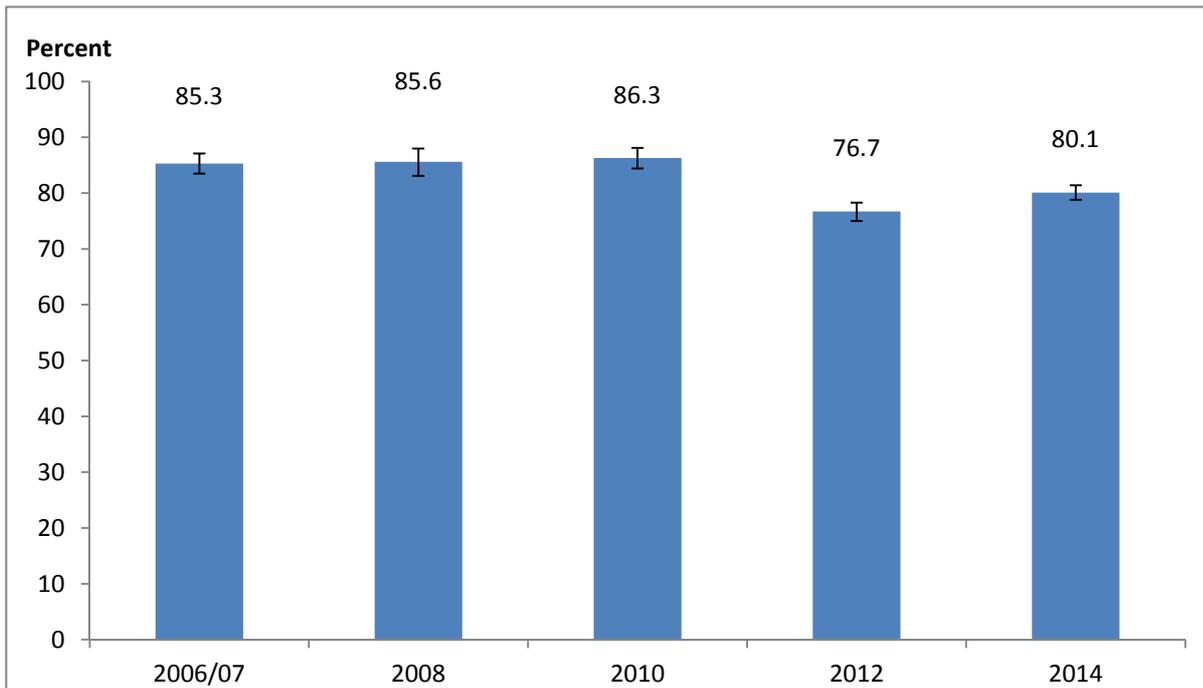


Figure 4-2 Heard of at least one type of service to help people who gamble too much, 2006/07-2014, base = all respondents

4.4 CONTACT MADE WITH SUPPORT SERVICES

Respondents who had heard of any of the support services listed (n=2,178) were asked if they had ever accessed any of the services for themselves or someone else. It was found that 92.7% of them had not accessed any of the services for themselves or someone else (see Table 4-7).

Table 4-7: Accessed gambling help services, base = respondents who had heard of any of the listed services (n=2,178)

Response	%	95% CI
None/I haven't had to	92.7	91.0 - 94.5
0800 telephone helpline	3.0	1.9 - 4.2
Face-to-face counselling	1.3	0.1 - 2.5
Support groups	1.1	0.6 - 2.0
Internet site – self-help	0.7	0.3 - 1.6
Help from a GP, practice nurse or other health professional	0.4	0.2 - 0.8
Txt a helpline service	0.4	0.0 - 0.8
Other	0.5	0.1 - 1.6
Don't know	2.1	1.3 - 2.9

4.5 AWARENESS OF ADVERTISING ABOUT ADDRESSING GAMBLING HARM

All respondents (n=2,594) were asked whether, in the last three months, they had seen or heard any advertising about harmful gambling and what they can do about it. Over one-half (56.1%) said they had. There were differences by ethnicity, deprivation level, PGSI scores, gambling type and the number of gambling activities participated in. Respondents who were significantly more likely to have recently seen or heard advertising about addressing gambling harm were (see Table 4-8):

- people of European/Other ethnicity (58.8%), compared to Asian people (34.8%)
- those living in low deprivation neighbourhoods (62.6%), compared to those living in mid deprivation neighbourhoods (53.1%)
- non-problem gamblers (62.3%), low-risk gamblers (67.6%), moderate-risk/problem gamblers (69.8%), compared to non-gamblers (40.1%)
- infrequent gamblers (65.0%), non-continuous gamblers (54.2%) and continuous gamblers (68.2%), compared with non-gamblers (40.3%)
- those who had participated in one or more gambling activities in the past 12 months (55.5% - 72.1%), compared to those who did not participated in any gambling activities (40.1%).

Respondents who had seen or heard any advertising related to gambling harm (n=1,384) were asked to identify where they had seen or heard that advertising. Advertising was predominantly seen on television (85.0%), followed by being heard on the radio (26.3%) (see Table 4-9).

Table 4-8: Seen/heard any advertising about harmful gambling, base = all respondents (n=2,594)

		%	95% CI	Odds ratio	p
Overall rate		56.1	52.7 - 59.5		
Gender	Male	56.4	52.0 - 60.9	1.02 (0.82 - 1.28)	.84
	Female	55.9	51.5 - 60.2	reference	
Prioritised ethnicity	Māori	61.1	55.0 - 67.3	1.10 (0.81 - 1.49)	.54
	Pacific	54.3	45.3 - 63.4	0.83 (0.56 - 1.24)	.36
	Asian	34.8	22.0 - 47.6	0.37 (0.21 - 0.67)	<.01
	European/Other	58.8	54.9 - 62.8	reference	
Deprivation	Low (1-3)	62.6	55.6 - 69.6	reference	
	Mid (4-7)	53.1	48.8 - 57.4	0.68 (0.48 - 0.95)	.02
	High (8-10)	53.5	47.6 - 59.4	0.69 (0.47 - 1.01)	.05
PGSI	Non-gambler	40.1	34.6 - 45.7	0.41 (0.31 - 0.52)	<.01
	Non-problem gambler	62.3	58.7 - 65.9	reference	
	Low-risk gambler	67.6	51.6 - 83.6	1.26 (0.61 - 2.62)	.53
	Moderate-risk/problem gambler	69.8	45.6 - 94.1	1.40 (0.44 - 4.51)	.57
Gambling type	Non-gambler	40.3	34.7 - 45.9	reference	
	Infrequent gambler	65.0	61.0 - 69.0	2.75 (2.10 - 3.58)	<.01
	Non-continuous gambler	54.2	47.1 - 61.3	1.75 (1.23 - 2.49)	<.01
	Continuous gambler	68.2	52.0 - 84.4	3.18 (1.46 - 6.91)	<.01
Number of gambling activities participated in	None	40.1	34.6 - 45.7	reference	
	1	55.5	49.4 - 61.6	1.96 (1.45 - 2.67)	<.01
	2	61.6	55.5 - 67.7	2.35 (1.70 - 3.25)	<.01
	3	63.9	55.8 - 71.9	3.00 (2.04 - 4.39)	<.01
	4 or more	72.1	66.5 - 77.8	3.67 (2.49 - 5.41)	<.01

Table 4-9: Where advertising on gambling harm was seen or heard, base = respondents who had seen or heard any advertising about harmful gambling and what they can do about it (n=1,384)

Channel	%	95% CI
Television	85.0	82.0 - 88.0
Radio	26.3	22.2 - 30.4
National newspapers	6.1	4.3 - 7.9
Community newspapers	6.6	4.8 - 8.4
The Internet	5.8	3.8 - 7.7
Public signs or billboards	6.3	4.2 - 8.3
Leaflets or posters	5.9	3.8 - 8.0
Information at pokie venues	4.7	3.0 - 6.3
Logos on clothing or other gear	0.5	0.2 - 1.2
Other	3.8	4.0 - 5.5

4.5 Early signs of gambling harm

All respondents (n=2,594) were read out a list of five things that can happen when people gamble, and asked whether they thought each was an early sign that a person's gambling was becoming risky. The list included three items that are signs of risky gambling and are described in the Choice Not Chance health promotion campaign (i.e. "they don't want anyone else to know that they are gambling", "their gambling sometimes causes them stress" and "they go back to the pub to try to win back last night's loss"). Two items were not signs of risky gambling ("they set aside a certain amount of money a month to spend on gambling" and "they go to a casino with their friends for a birthday celebration").

4.5.1 Recognition of early signs of gambling harm

Nine in ten respondents recognised each of the three accurate signs of risky gambling (marked by an asterisk) (see Table 4-10). Over six in ten (63.0%) respondents said that setting aside a certain amount of money to spend on gambling is an early sign of gambling becoming risky. This can, too, be a strategy to keep control of the amount spent, and to avoid gambling becoming risky, particularly when playing continuous gambling activities. Finally, three in ten (29.7%) respondents mistakenly thought that going to a casino with their friends for a birthday celebration is an early sign of gambling becoming risky.

Table 4-10: Early signs of gambling harm identified, base = all respondents (n=2,594)

Statement	%	95% CI
They don't want anyone else to know that they are gambling*	89.9	87.7 - 92.1
Their gambling sometimes causes them stress*	90.1	87.8 - 92.4
They go back to the pub to try to win back last night's loss*	91.1	88.9 - 93.2
They set aside a certain amount of money to spend on gambling	63.0	60.1 - 65.9
They go to a casino with their friends for a birthday celebration	29.7	26.7 - 32.8

5. VIEWS AND KNOWLEDGE OF GAMBLING HARM

5.1 POTENTIALLY HARMFUL GAMBLING ACTIVITIES

Some forms of gambling are associated with harm more than others. Continuous forms in which money can be rapidly reinvested are particularly associated with problem gambling risk (Abbott, 2001). In New Zealand surveys, pokies are the most commonly cited cause of gambling problems (Health Promotion Agency, 2015; Rossen, 2015; Tu & Puthipiroj, 2015). Other continuous forms of gambling include track betting, casino table games and some internet games.

5.1.1 Whether some types of gambling are more harmful than others

All respondents (n=2,594) were asked 'Do you think that any of these types of gambling are more likely than others to attract people into playing more often, or for more money, than they should?'

The majority of respondents (71.1%) said that there were some forms of gambling that were potentially more harmful than others. Responses differed by ethnicity, PGSI scores, the type of gambling activities people had participated in the past 12 months, and the number of activities they had participated in over the past 12 months. Groups more likely to think that some types of gambling were more harmful than others were (see Table 5-1):

- people of European/Other ethnicity (72.4%), compared to Asian (61.0%)
- non-problem gamblers (74.0%), compared with non-gamblers (62.6%)
- infrequent gamblers (76.5%), compared with non-gamblers (62.7%)
- those who had participated in two or more gambling activities in the past 12 months (74.6%-81.4%), compared with those who did not participated in any (62.6%).

Table 5-1: Belief that some types of gambling are more harmful than others, base = all respondents (n=2,594)

		%	95% CI	Odds ratio	p
Overall rate		71.1	67.6 - 74.6		
Gender	Male	69.3	64.7 - 73.9	0.85 (0.66 - 1.08)	.12
	Female	72.7	68.8 - 76.7	reference	
Prioritised ethnicity	Māori	72.2	65.8 - 78.7	0.99 (0.69 - 1.43)	.14
	Pacific	72.6	65.1 - 80.1	1.01 (0.67 - 1.52)	.15
	Asian	61.0	49.9 - 72.1	0.60 (0.36 - 0.98)	.03
	European/Other	72.4	68.3 - 76.5	reference	
Deprivation	Low (1-3)	74.4	67.2 - 81.5	reference	
	Mid (4-7)	70.4	65.5 - 75.3	0.82 (0.52 - 1.28)	.25
	High (8-10)	68.1	61.5 - 74.8	0.74 (0.45 - 1.20)	.14
PGSI	Non-gambler	62.6	56.6 - 68.6	0.59 (0.45 - 0.77)	<.01
	Non-problem gambler	74.0	70.2 - 77.7	reference	
	Low-risk gambler	83.2	72.8 - 93.6	1.74 (0.82 - 3.68)	.15
	Moderate-risk/problem gambler	83.9	60.3 - 96.4	1.84 (0.48 - 7.11)	.38
Gambling type	Non-gambler	62.7	56.6 - 68.8	reference	
	Infrequent gambler	76.5	72.6 - 80.4	1.94 (1.44 - 2.61)	.01
	Non-continuous gambler	70.4	63.7 - 77.1	1.42 (0.98 - 2.06)	.36
	Continuous gambler	67.2	50.4 - 84.0	1.22 (0.56 - 2.68)	.48
Number of gambling activities participated in	None	62.6	56.6 - 68.6	reference	
	1	66.7	60.3 - 73.0	1.27 (0.90 - 1.79)	.12
	2	74.6	68.8 - 80.4	1.71 (1.18 - 2.47)	.01
	3	79.5	72.0 - 87.1	2.71 (1.64 - 4.46)	.03
	4 or more	81.4	75.3 - 87.5	2.43 (1.51 - 3.91)	<.01

5.1.2 Types of gambling which are more harmful

Those who agreed that some types of gambling were more harmful (n=1,803) were shown a list of gambling activities and asked to identify which forms of gambling these were. Multiple responses were allowed. The most commonly nominated types of gambling people thought were more harmful than others were pokies at pubs or clubs (54.9%), followed by New Zealand Lotteries products (43.7%), and gambling machines or pokies at casinos (39.6%) (see Figure 5-1).

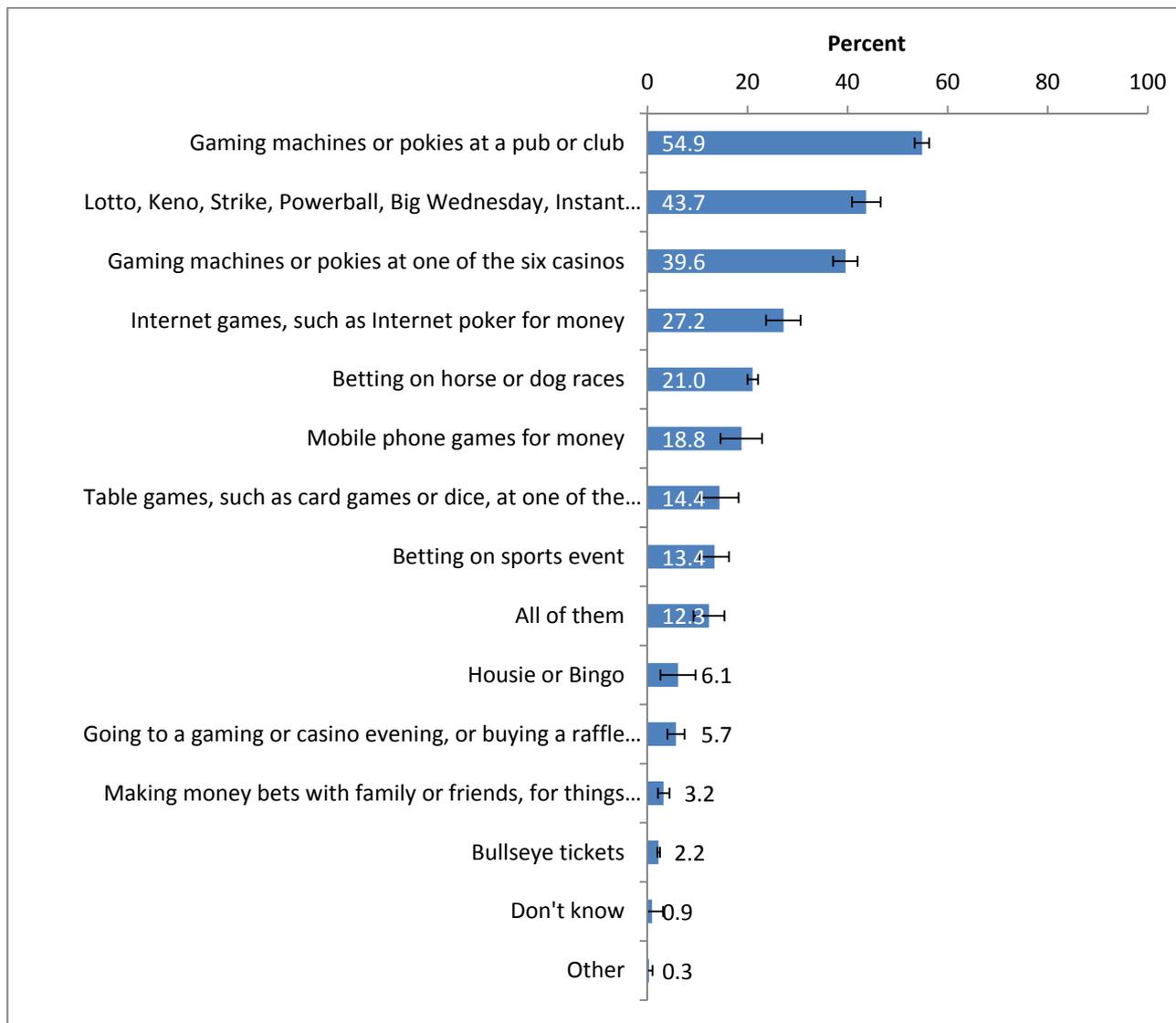


Figure 5-1: Types of gambling that are seen as more harmful than others (multiple response), base = respondents who thought there were some gambling types that were more harmful than others (n=1,803)

5.1.3 Changes over time

This question was only included in the 2010 and 2014 HLS. Comparing the responses over time, the proportion of respondents who had selected each of the gambling types had dropped significantly (See Figure 5-2). For example, the proportion of the sub-group who believed that pokies at a pub or club were more harmful than other gambling activities dropped significantly from 69.5% in 2010 to 54.9% in 2014.

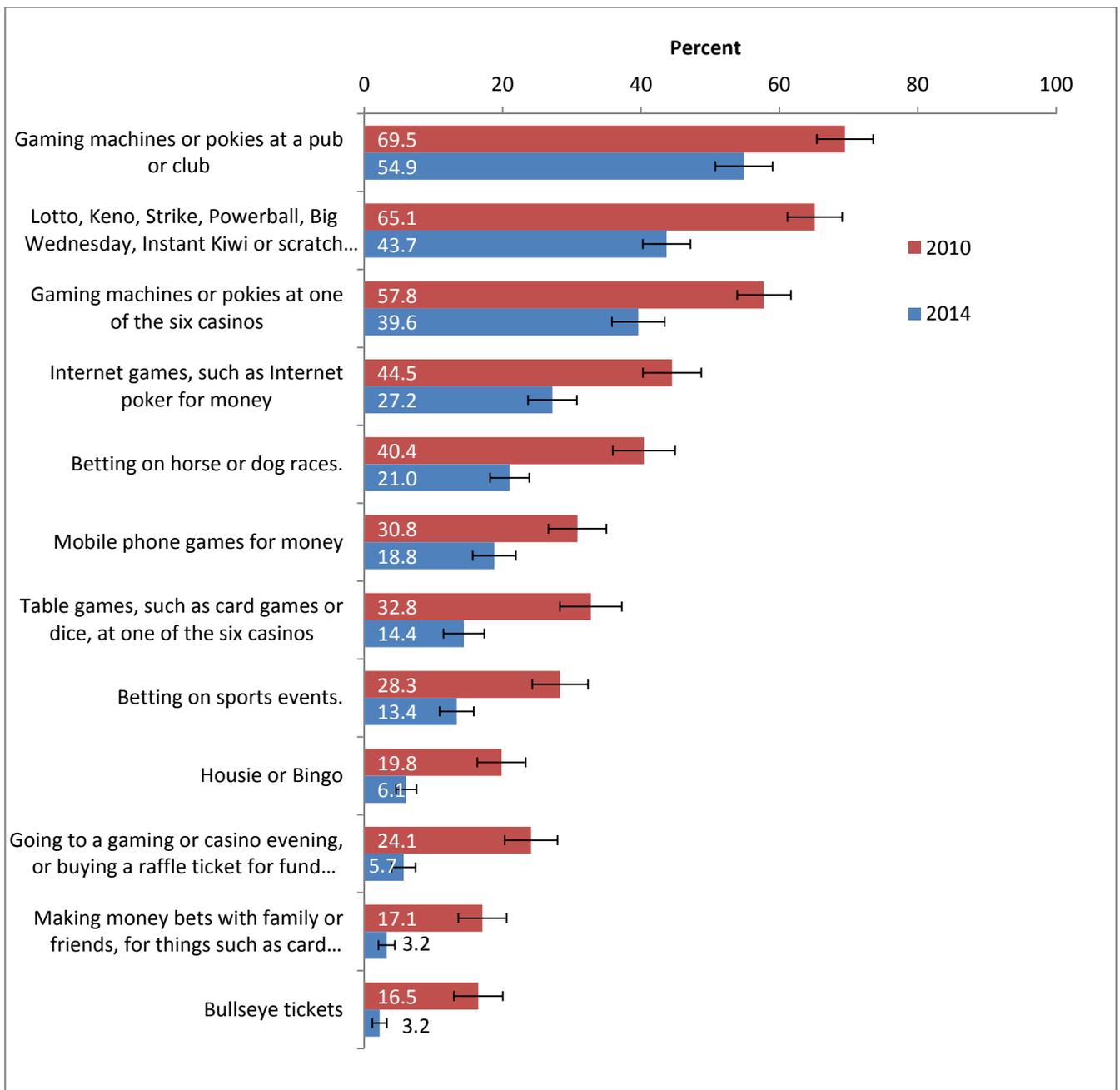


Figure 5-2: Types of gambling that are seen as more harmful than others, 2010 and 2014, base = all respondents (n=2,594)

5.2 'SOCIAL UNDESIRABILITY' OF GAMBLING ACTIVITIES

All respondents were shown a list of gambling activities and asked whether they thought any of those activities were 'socially undesirable'. If the respondent was unsure of the meaning of 'socially undesirable', the interviewer would explain that 'you wouldn't want this activity in your community'.

5.2.1 Perceptions about whether certain types of gambling are socially undesirable

Just over one-half (52.9%) of respondents said some forms of gambling were socially undesirable. This belief was more common among females (compared to males) and those who had participated in two gambling activities in the past 12 months, compared to those who had not participated in any (see Table 5-2).

Table 5-2: Belief that some gambling activities are socially undesirable, base = all respondents (n=2,594)

		%	95% CI	Odds ratio	p
Overall rate		52.9	49.7 - 56.2		
Gender	Male	48.5	43.9 - 53	0.71 (0.55 - 0.91)	.01
	Female	57.1	52.6 - 61.5	reference	
Prioritised ethnicity	Māori	54.7	47.8 - 61.6	1.08 (0.78 - 1.50)	.65
	Pacific	62.9	53.9 - 71.8	1.51 (0.99 - 2.31)	.06
	Asian	47.2	35.4 - 59	0.80 (0.49 - 1.30)	.37
	European/Other	52.8	48.9 - 56.8	reference	
Deprivation	Low (1-3)	54.9	48.3 - 61.5	reference	
	Mid (4-7)	51.1	46.3 - 55.9	0.86 (0.62 - 1.19)	.36
	High (8-10)	54.2	48.7 - 59.6	0.97 (0.69 - 1.37)	.86
PGSI	Non-gambler	49.4	43 - 55.8	0.85 (0.63 - 1.13)	.26
	Non-problem gambler	53.6	49.8 - 57.4	reference	
	Low-risk gambler	62.7	45.2 - 80.1	1.46 (0.66 - 3.21)	.35
	Moderate-risk/problem gambler	72.3	52.9 - 91.8	2.26 (0.87 - 5.86)	.09
Gambling type	Non-gambler	49.7	43.2 - 56.2	reference	
	Infrequent gambler	55.4	51.1 - 59.6	1.26 (0.93 - 1.70)	.14
	Non-continuous gambler	52.3	46 - 58.6	1.11 (0.77 - 1.58)	.58
	Continuous gambler	50.6	29.2 - 71.9	1.03 (0.42 - 2.56)	.94
Number of gambling activities participated in	None	49.4	43 - 55.8	reference	
	1	52.3	45.4 - 59.2	1.14 (0.82 - 1.59)	.42
	2	62.6	55.7 - 69.6	1.82 (1.24 - 2.66)	<.01
	3	56.5	48.2 - 64.8	1.15 (0.76 - 1.74)	.52
	4 or more	46.3	38.4 - 54.2	0.81 (0.52 - 1.27)	.36

5.2.2 Types of gambling activity considered socially undesirable

Those who thought some gambling activities were socially undesirable (n=1,424) were asked which specific activities they thought were undesirable. The most likely activity to be considered socially undesirable was pokies in pubs or clubs (54.9%), followed by pokies at casinos (40.9%), Internet gambling (24.6%) and mobile phone games for money (21.5%). Nearly one in five respondents (19.3%) said all of the listed activities were socially undesirable (see Figure 5-3).

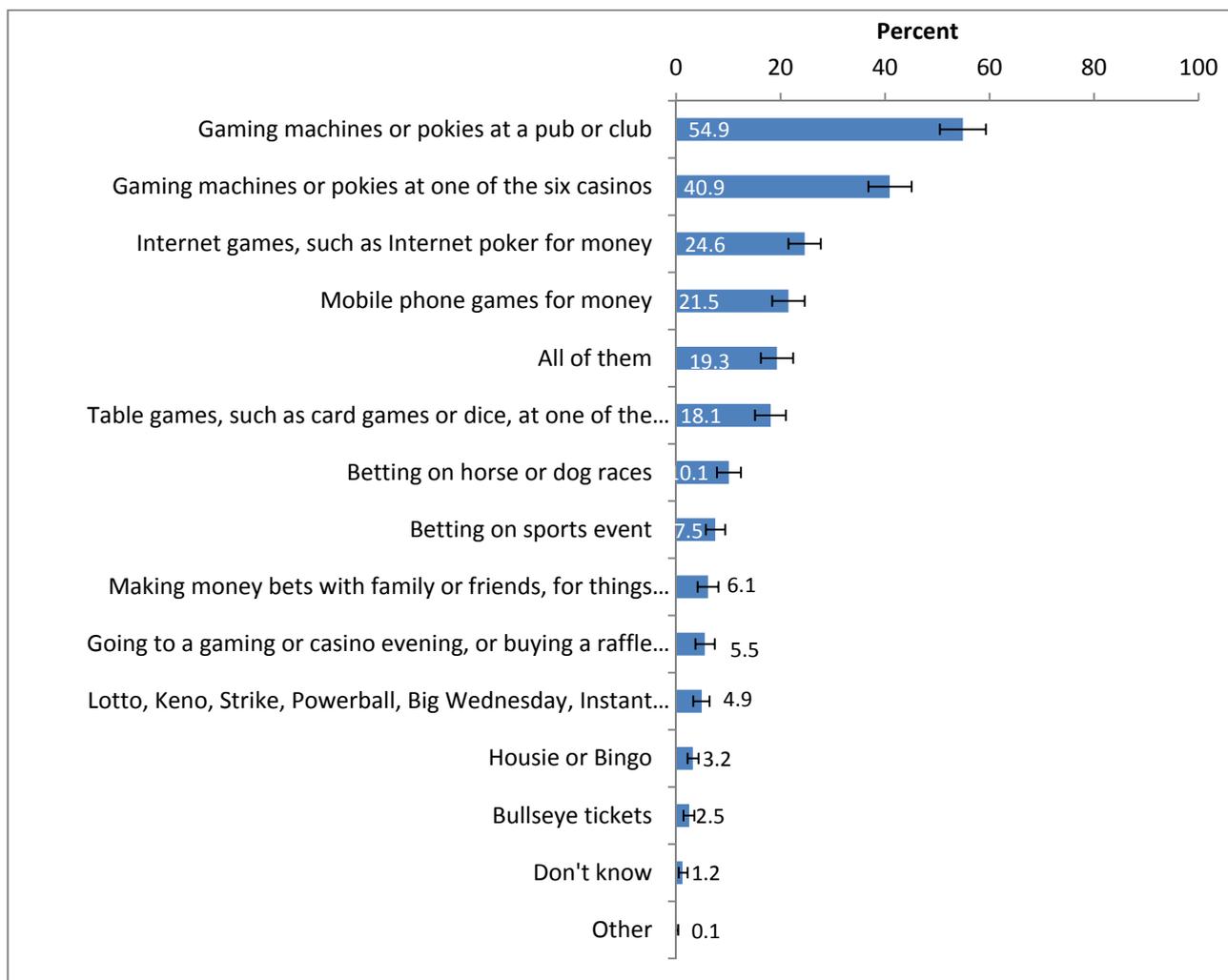


Figure 5-3: Gambling activities seen as socially undesirable, base = those who said they thought some gambling activities were socially undesirable (n=1,424)

5.2.3 Changes over time

Responses regarding which gambling activities respondents viewed as socially undesirable were collected in 2010 and 2014 (see Figure 5-4). In both years, the most likely activities to be considered socially undesirable had not changed significantly. These were gaming machines in pubs or clubs, gaming machines or pokies at casinos, internet gambling and mobile phone games.

A substantial drop was observed in a number of activities and this included betting on horse or dog races, betting on sports events, New Zealand Lotteries products, Housie or bingo and bullseye tickets.

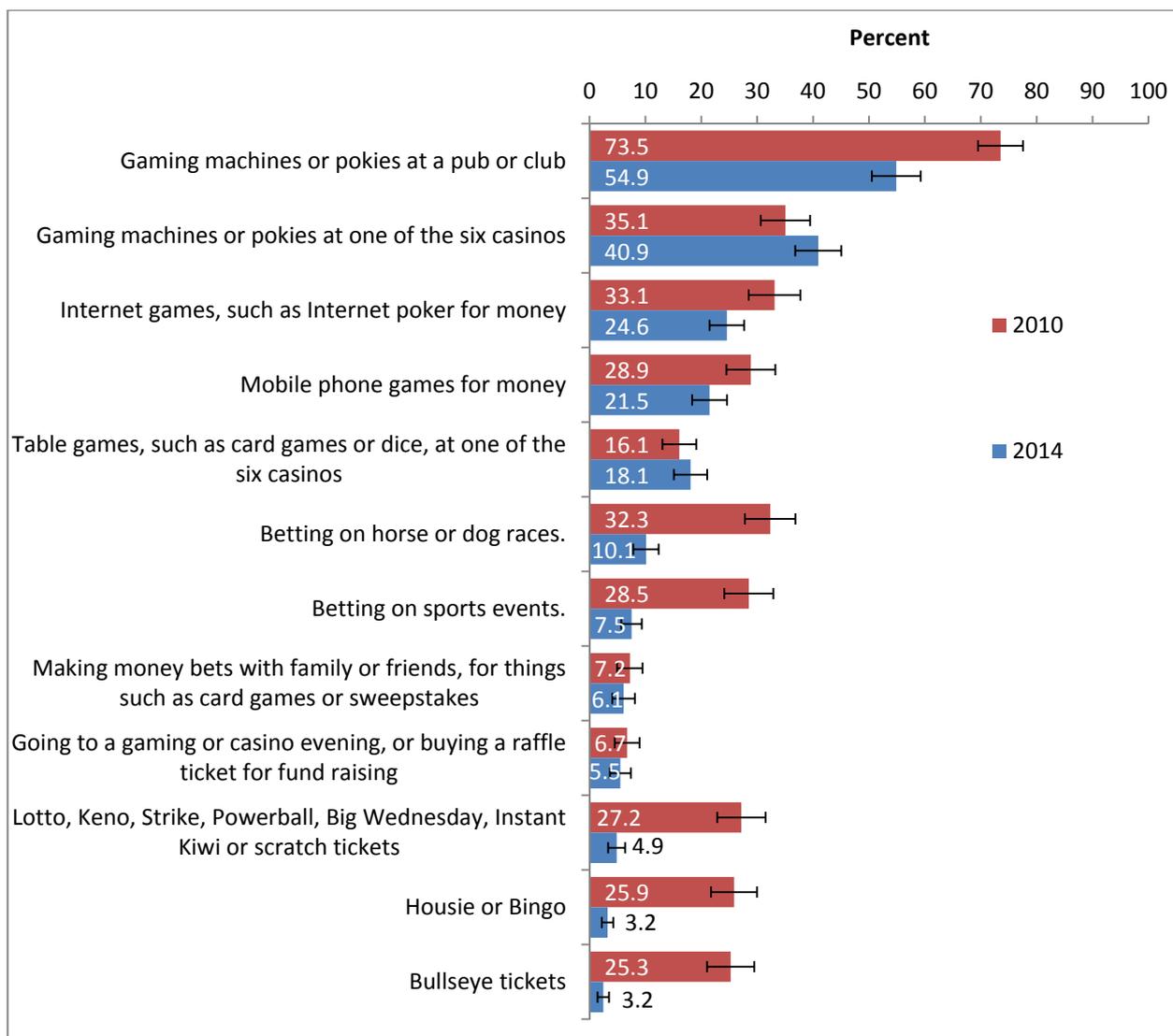


Figure 5-4: Gambling activities seen as socially undesirable, 2010 and 2014, base = all respondents

6. RESPONSES TO HARMFUL GAMBLING

6.1 STRATEGIES TO AVOID GAMBLING TOO MUCH

Past-year gamblers (n=1,833) were shown a list of strategies and asked whether they had used any of these ways to avoid gambling too much in the past 12 months. Most (95.2%) said that they had not used, or not needed to use, any strategies to avoid gambling too much.

The most commonly used strategy was setting a dollar figure before starting, reported by 3.2% of all past-year gamblers. Around 1% of past-year gamblers reported using the following strategies: leaving ATM and credit cards at home, stopping gambling, keeping busy with other activities and separating money for betting from other money (see Table 6-1).

Table 6-1: Strategies used to avoid gambling too much (multiple response), base = past-year gamblers (n= 1,833)

Strategy	%	95% CI
None/I haven't had to	95.2	93.4 - 97.0
Setting a dollar figure before starting	3.2	1.6 - 4.8
Leaving ATM and credit cards at home	1.2	0.4 - 2.9
Stopped gambling	1.2	0.3 - 3.2
Keep busy with other activities	1.1	0.3 - 3.1
Separating money for betting from other money	0.9	0.2 - 2.7
Getting someone you trust to manage the money	0.5	0.0 - 2.8
Setting a time limit	0.5	0.2 - 1.2
Block or restrict times on gambling websites on your computer	0.5	0.1 - 1.7
Avoiding places that have betting or gambling as an attraction	0.2	0.0 - 0.5
Talk to staff at gambling venue	0.0	0.0 - 0.0
Other strategies	0.1	0.0 - 0.3
Don't know	0.4	0.1 - 0.9

6.1.1 Changes over time

Table 6-2 shows responses in 2012 and 2014 of past-year gamblers using strategies to avoid gambling too much. The proportion of past-year gamblers who had used any strategies decreased significantly from 12.0% to 4.4% in 2014.

Table 6-2: Used any strategies to avoid gambling too much, 2012 and 2014, base = past-year gamblers

Year	%	95% CI	Odds ratio (ref: 2012)
2012	12.0	9.8 - 14.2	reference
2014	4.4	2.7 - 6.2	0.28 (0.02 - 0.54)

6.2 'CHECKING IN' ABOUT YOUR GAMBLING

To assess whether respondents had 'checked in' with themselves about their gambling, past-year gamblers (n=1,833) were asked whether, in the last 12 months, they had had an occasion where they thought about whether their gambling was still just for fun. Around one in twenty (5.5%) past-year gamblers said they had done so in the past 12 months.

Responses differed by gender, deprivation level, PGSI, gambling type and the number of gambling activities participated in the past 12 months (see Table 6-3). Groups that were more likely to have 'checked in' about their gambling in the past 12 months were:

- males (8.6%), when compared with females (2.5%)
- those living in a high deprivation neighbourhood (11.9%), when compared with those living in a low deprivation neighbourhood (2.9%)
- low-risk gamblers (20.9%) and moderate-risk/problem gamblers (57.0%), when compared with non-problem gamblers (3.4%)
- those who had participated in two or more types of gambling activity in the past 12 months (4.0-10.3%), compared to those who had participated in one (1.2%).

Table 6-3: 'Checking in' with themselves about their gambling, in the last 12 months, base = past-year gamblers (n= 1,833)

		%	95% CI	Odds ratio	p
Overall rate		5.5	3.4 - 7.5		
Gender	Male	8.6	4.5 - 12.7	4.18 (1.84 - 9.52)	<.01
	Female	2.5	1.2 - 3.8	reference	
Prioritised ethnicity	Māori	6.9	3.7 - 11.4	1.48 (0.62 - 3.55)	.38
	Pacific	12.1	6.2 - 20.6	2.86 (0.99 - 8.29)	.05
	Asian	7.7	2 - 19	2.17 (0.41 - 11.49)	.36
	European/Other	4.5	2 - 7.1	reference	
Deprivation	Low (1-3)	2.9	1.2 - 5.7	reference	
	Mid (4-7)	4.2	2.3 - 7	1.76 (0.56 - 5.52)	.33
	High (8-10)	11.9	4.6 - 19.1	4.80 (1.66 - 13.86)	<.01
PGSI	Non-problem gambler	3.4	1.5 - 5.2	reference	
	Low-risk gambler	20.9	10.1 - 35.9	7.02 (2.51 - 19.69)	<.01
	Moderate-risk/problem gambler	57.0	28.2 - 82.6	50.68 (14.23 - 180.47)	<.01
Gambling type	Infrequent gambler	3.3	2 - 4.7	reference	
	Non-continuous gambler	5.8	2.6 - 11	1.64 (0.60 - 4.47)	.33
	Continuous gambler	32.2	10 - 62.8	12.97 (3.34 - 50.45)	<.01
Number of gambling activities participated in	1	1.2	0.4 - 2.6	reference	
	2	4.0	1.9 - 7.3	5.36 (1.57 - 18.34)	.01
	3	9.0	4.2 - 16.2	9.11 (2.73 - 30.39)	<.01
	4 or more	10.3	3.5 - 17.2	11.54 (3.18 - 41.87)	<.01

Past-year gamblers who reported having thoughts about whether their gambling was still just for fun (n=89) were asked which type of gambling these thoughts happened most often with (see Figure 6-1). The most commonly mentioned type of gambling was pokies in pubs and clubs (44.5%), followed by New Zealand Lotteries products (30.6%).

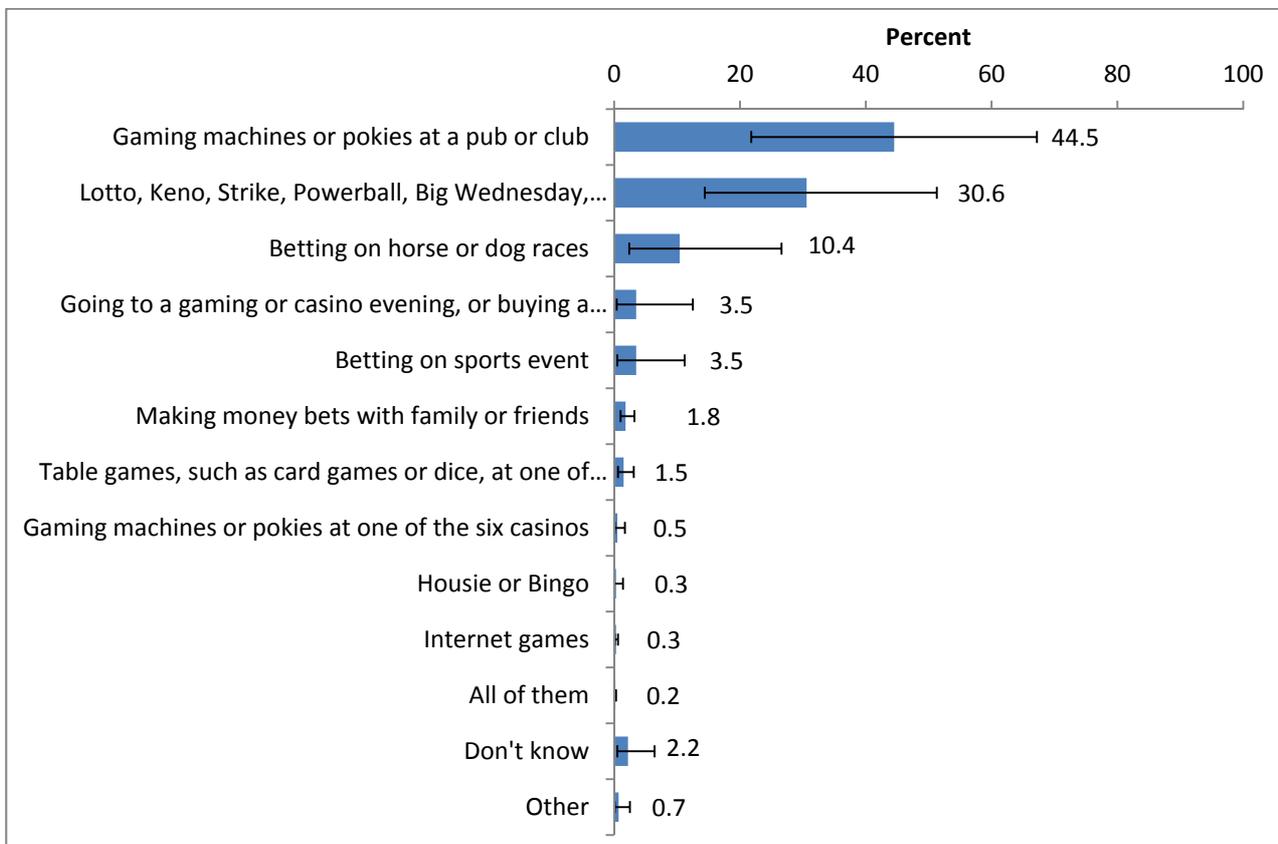


Figure 6-1: Gambling activities that have most often prompted respondents to 'check in' with themselves about their gambling, base= had an occasion in the last 12 months when thought about whether gambling was still just for fun (n=89)

7. GAMBLING HARM IN THE COMMUNITY

7.1 PERCEPTIONS ABOUT WHETHER FUNDRAISING FROM GAMBLING DOES MORE HARM THAN GOOD

All participants (n=2,594) were asked ‘Do you think raising money through gambling does more good than harm, or more harm than good, in the community?’ Five response options ranged from ‘does a lot more good than harm’ to ‘does a lot more harm than good’ (see Figure 7-1). Forty-three percent (42.7%) of respondents thought that raising money through gambling did *more harm* than good in the community. One-quarter of respondents (24.7%) thought that gambling in the community did equal good and harm, while 22.8% thought it did *more good* than harm.

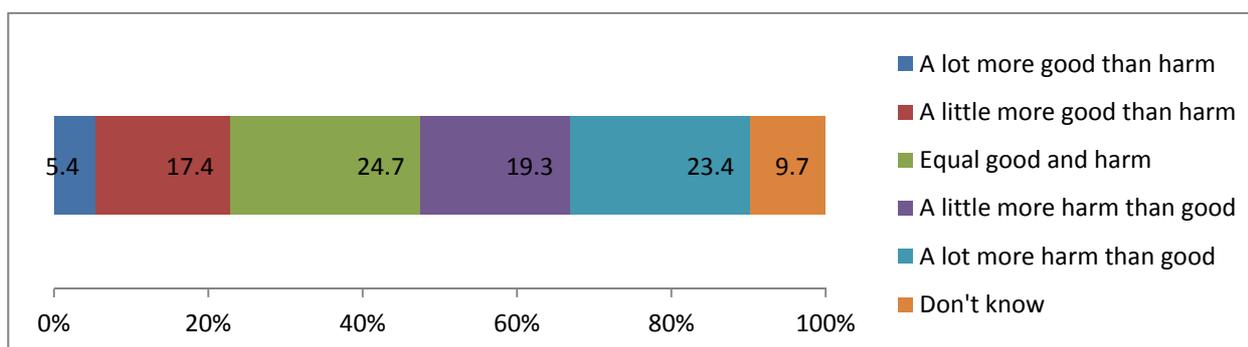


Figure 7-1: Views about effects on a community from raising funds through gambling, base = all respondents (n=2,594)

7.1.1 Changes over time

In 2014, more respondents than in previous years said they did not know whether fundraising through gambling did more good or harm (see Figure 7-2). Logistic regression modelling was used to determine if the proportion of respondents who believed that fundraising through gambling did equal good and harm had changed over time (see Table 7-1). It was found that compared with 2006/07 (19.1%), a higher proportion of respondents believed it did equal good and harm in 2014 (24.7%). Comparable data were not available from the 2012 HLS; however, when comparing the responses between 2010 and 2014, the proportion had not changed, at about 24%.

Table 7-1: Belief that communities raising funds through gambling does equal good and harm, 2006/07-2014, base = all respondents

Year	%	95% CI	Odds ratio (ref: 2006/07)	Odds ratio (ref: 2010)
2006/07	19.1	16.4 - 21.9	reference	-
2008	24.9	21.4 - 28.4	1.30 (1.04 - 1.56)	-
2010	23.0	20.0 - 25.9	1.20 (0.97 - 1.43)	reference
2014	24.7	21.6 - 27.9	1.29 (1.05 - 1.54)	1.08 (0.88 - 1.27)

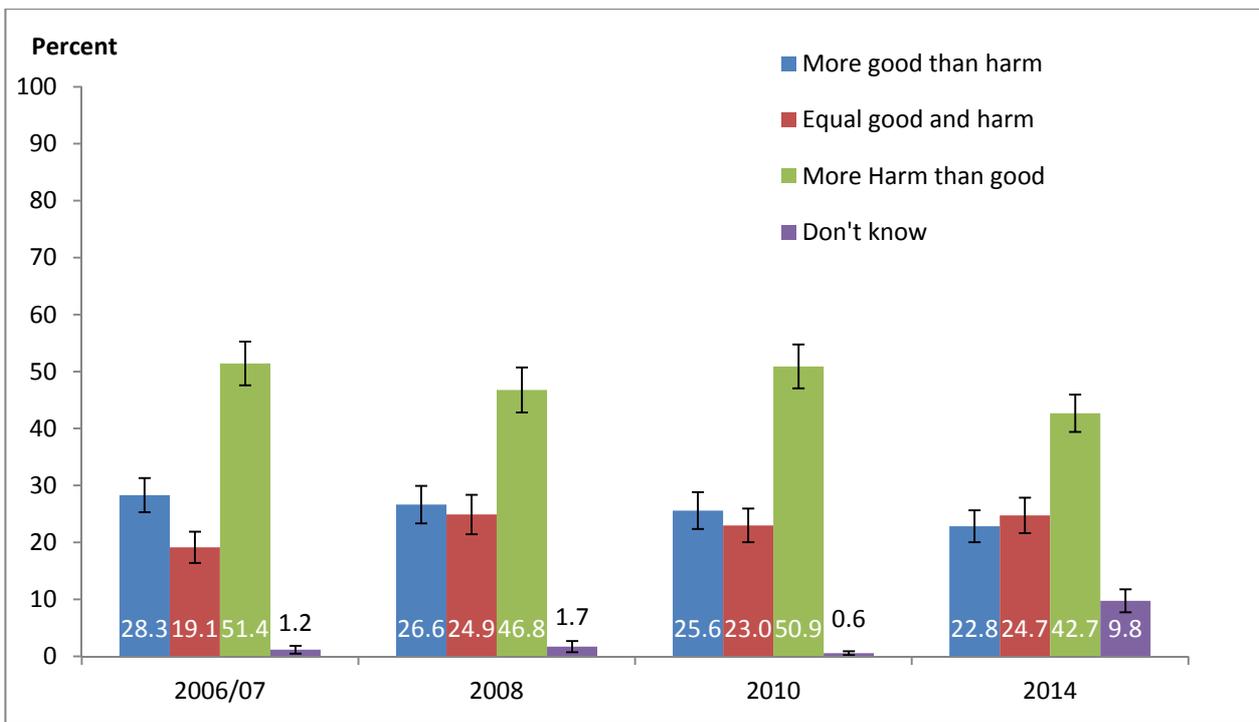


Figure 7-2: Views about effects on a community from raising funds through gambling, 2006/07-2014, base = all respondents

7.2 CONCERN WITH THE LEVEL OF GAMBLING IN THE COMMUNITY

All respondents (n=2,594) were asked ‘How concerned are you about the level of gambling in your community?’ Two in five respondents (38.9%) were ‘not at all concerned’ with the level of gambling in their community, while one in ten (10.3%) were ‘very concerned’ (see Figure 7-3).

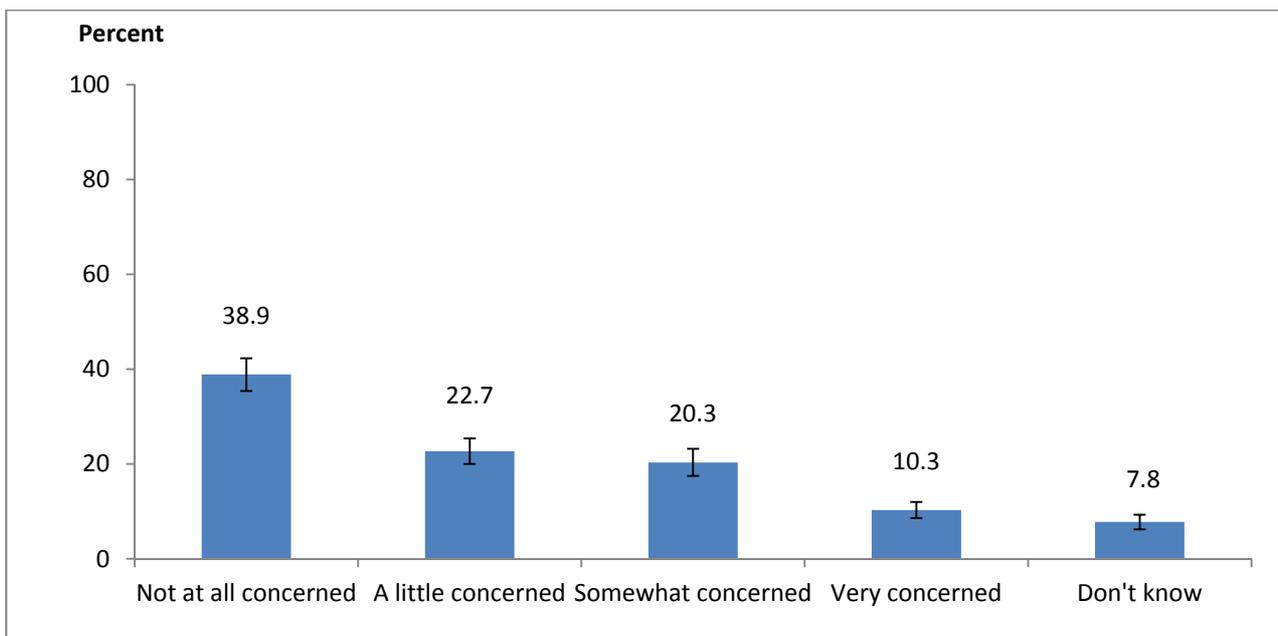


Figure 7-3: Level of concern about gambling in the community, base = all respondents (n=2,594)

8. CLASS 4 VENUES AND ELECTRONIC GAMING MACHINES ('POKIES')

Because electronic gaming machines or pokies are the gambling product most associated with harm (Abbott et al., 2014; Rossen, 2015; Tu & Puthipiroj, 2015), a particular focus of HPA's recent work has been to address harm minimisation in pokie venues. These machines are installed in casinos and also in some pubs and clubs, known as Class 4 venues. There are currently over 12,000 Class 4 venues with pokies in New Zealand (Department of Internal Affairs, 2015). Under the Gambling (Harm Prevention and Minimisation) Regulations 2004, a person trained in problem gambling awareness must be present when machines are available; however, venue staff may experience barriers to identifying and approaching potential problem gamblers (Armstrong, 2014). Further, drinking and gambling may be connected for some people as problem gambling is associated with other potentially addictive behaviours such as hazardous drinking (Abbott et al., 2014; Rossen, 2015).

This section reports on a series of questions that were introduced in the 2014 HLS around pokies in pubs and bars.

8.1 VIEWS ON POKIES IN PUBS AND BARS

All respondents were asked how much they agree or disagree with the statement 'Pokie machines make a pub or bar more enjoyable to spend time at.' Around one in eight (12.9%) respondents 'agreed' or 'strongly agreed' with this statement, while two in three (64.7%) reported they 'disagreed' or 'strongly disagreed' with it (Figure 8-1).

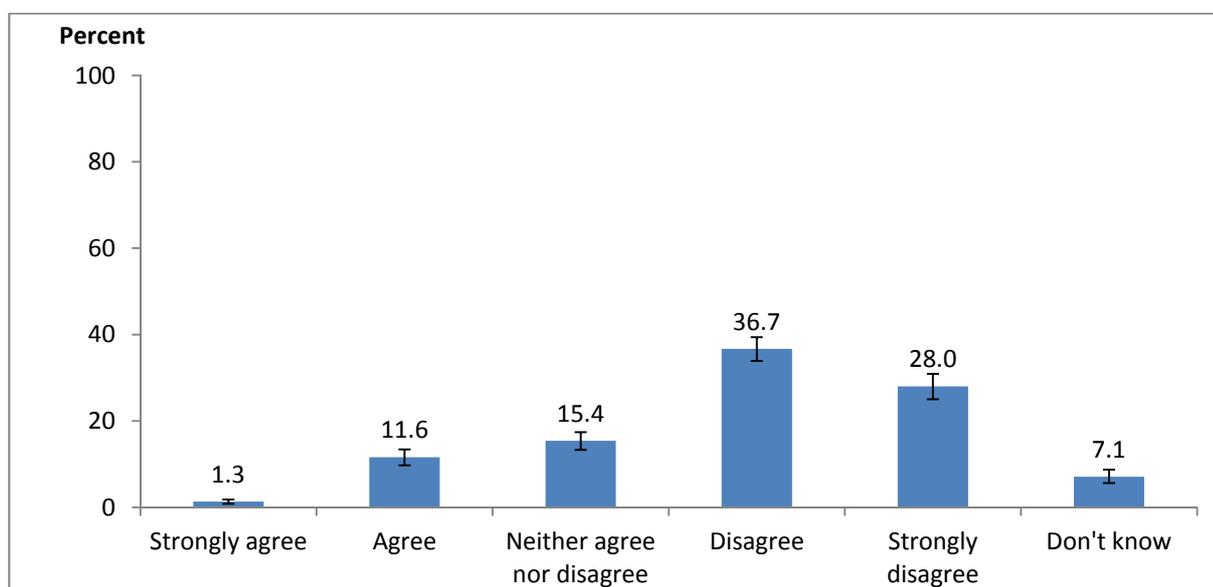


Figure 8-1: Opinion on whether pokie machines make a pub or bar more enjoyable to spend time at, base = all respondents (n=2,594)

The proportion of respondents who 'agreed' or 'strongly agreed' that pokies make a pub or bar more enjoyable to spend time at differed by ethnicity, PGSI, gambling type and the number of gambling activities participated in over the past 12 months. Respondents who were more likely to indicate agreement with the statement were:

- Māori (20.0%) and Pacific (24.3%) people, compared with those of European / Other ethnicity (10.6%)
- low-risk (37.7%) and moderate-risk/ problems gamblers (36.5%), compared with non-problem gamblers (12.1%)
- those who frequently participated in continuous gambling activities (26.5%), compared with non-gamblers (10.6%)
- those who had participated in four or more gambling activities in the past 12 months (20.5%), when compared with those who did not gamble (9.1%).

Table 8-1: Agreement that pokie machines make a pub or bar more enjoyable to spend time at, base = all respondents (n =2594)

		%	95% CI	Odds ratio	p
Overall rate		12.9	11.0 - 14.7		
Gender	Male	13.4	10.4 - 16.3	1.1 (0.77 - 1.53)	.62
	Female	12.4	10.0 - 14.8	reference	
Prioritised ethnicity	Māori	20.0	14.9 - 25.1	2.11 (1.43 - 3.11)	<.01
	Pacific	24.3	17.6 - 30.9	2.71 (1.74 - 4.22)	<.01
	Asian	13.9	7.7 - 22.5	1.36 (0.70 - 2.67)	.36
	European/Other	10.6	8.4 - 12.8	reference	
Deprivation	Low (1-3)	12.4	8.1 - 16.7	reference	
	Mid (4-7)	11.0	8.5 - 13.6	0.88 (0.54 - 1.42)	.59
	High (8-10)	17.0	13.5 - 20.4	1.45 (0.89 - 2.34)	.13
PGSI	Non-gambler	10.8	7.5 - 14.1	0.88 (0.59 - 1.32)	.54
	Non-problem gambler	12.1	9.8 - 14.4	reference	
	Low-risk gambler	37.3	20.4 - 54.2	4.32 (1.96 - 9.56)	<.01
	Moderate-risk/problem gambler	36.5	14.7 - 63.3	4.18 (1.50 - 11.63)	<.01
Gambling type	Non-gambler	10.6	7.3 - 14.0	reference	
	Infrequent gambler	13.0	10.5 - 15.5	1.26 (0.83 - 1.92)	.28
	Non-continuous gambler	12.8	8.6 - 17.1	1.24 (0.74 - 2.09)	.41
	Continuous gambler	26.5	12.5 - 40.6	3.04 (1.39 - 6.67)	.01
Number of gambling activities participated in	None	9.1	5.8 - 12.3	reference	
	1	11.3	7.5 - 15.0	1.12 (0.67 - 1.87)	.66
	2	7.8	5 - 10.7	0.81 (0.49 - 1.35)	.42
	3	14.0	9 - 18.9	1.46 (0.88 - 2.42)	.14
	4 or more	20.5	14.4 - 26.7	2.38 (1.40 - 4.03)	<.01

All respondents were also asked about their agreement level with the statement 'I prefer to drink in pubs or bars that do not have pokie machines'. Two in five (39.7%) respondents 'agreed', while one in five (20.3%) 'disagreed' (see Figure 8-2).

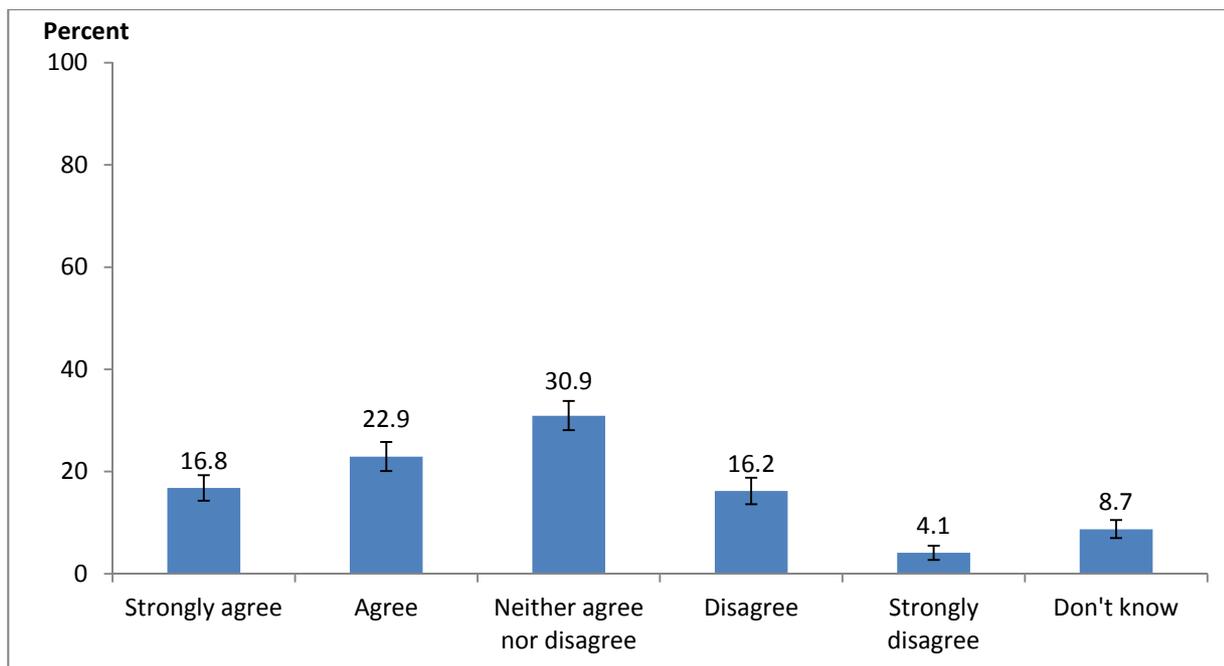


Figure 8-2: Preference to drink in pubs or bars that do not have pokie machines, base = all respondents (n=2,594)

The proportion of respondents who 'agreed' or 'strongly agreed' that they preferred to drink in pubs or bars without pokie machines differed by PGSI, gambling type and the number of gambling activities people had participated in the past 12 months (see Table 8-2). Respondents who were more likely to have indicated agreement with the statement were:

- 'Non-problem' gamblers (41.8%), compared with non-gamblers (35.1%)
- Those who infrequently participated in gambling activities (42.5%), compared with non-gamblers (35.2%)
- Those who had participated in two gambling activities in the past 12 months (26.0%), compared with non-gamblers (35.1%)
- Those who did not participate in any gambling activities in the past 12 months (35.1%), compared to those who participated in four or more activities (16.0%).

Table 8-2: Agreement with preferring to drink in pubs and bars that do not have pokie machines, base = all respondents (n=2,594)

		%	95% CI	Odds ratio	<i>p</i>
Overall rate		39.7	36.4 - 43.1		
Gender	Male	39.3	34.8 - 43.8	0.96 (0.77 - 1.20)	.74
	Female	40.2	36.1 - 44.2	reference	
Prioritised ethnicity	Māori	38.1	31.8 - 44.5	0.88 (0.64 - 1.19)	.40
	Pacific	40.4	31.9 - 48.9	0.96 (0.66 - 1.41)	.85
	Asian	31.4	21.0 - 41.9	0.65 (0.39 - 1.10)	.11
	European/Other	41.3	37.2 - 45.4	reference	
Deprivation	Low (1-3)	43.6	37.1 - 50.1	reference	
	Mid (4-7)	38.0	32.9 - 43.1	0.79 (0.56 - 1.12)	.18
	High (8-10)	38.0	32.1 - 44.0	0.79 (0.55 - 1.14)	.21
PGSI	Non-gambler	35.1	29.3 - 40.8	0.75 (0.57 - 0.99)	.04
	Non-problem gambler	41.8	37.9 - 45.7	reference	
	Low-risk gambler	30.0	15.0 - 49.0	0.60 (0.27 - 1.35)	.22
	Moderate-risk/problem gambler	52.9	24.2 - 80.3	1.56 (0.50 - 4.85)	.44
Gambling type	Non-gambler	35.2	29.3 - 41.0	reference	
	Infrequent gambler	42.5	38.3 - 46.7	1.36 (1.03 - 1.80)	.03
	Non-continuous gambler	42.0	35.5 - 48.5	1.34 (0.92 - 1.94)	.13
	Continuous gambler	28.7	9.7 - 47.8	0.74 (0.27 - 2.00)	.55
Number of gambling activities participated in	None	35.1	29.3 - 40.8	reference	
	1	26.9	20.4 - 33.3	1.36 (0.96 - 1.92)	.09
	2	26.0	19.8 - 32.2	1.97 (1.39 - 2.79)	<.01
	3	42.4	34.6 - 50.2	1.36 (0.92 - 2.02)	.12
	4 or more	16.0	10.8 - 21.2	0.64 (0.41 - 0.99)	.05

8.2 POKIES AND ALCOHOL

Respondents who had played pokies in the past 12 months (referred to here as 'pokie players', n=380) were asked 'Do you spend more on the pokies when you drink alcohol?' Overall, 21.5% of pokie players reported that they did (see Table 8-3). There were no socio-demographic differences in responses, but moderate/high-risk gamblers (55.1%) were more likely than non-problem gamblers (19.0%) to say that they spent more when they drank alcohol.

Table 8-3: Spending more on the pokies when alcohol is consumed, base = pokie players (n=380)

		%	95% CI	Odds ratio	p
Overall rate		21.5	11.6 - 31.4		
Gender	Male	27.6	8.6 - 46.7	2.13 (0.64 - 7.06)	.22
	Female	16.0	8.4 - 23.6	reference	
Prioritised ethnicity	Maori	17.1	7.4 - 26.8	0.74 (0.25 - 2.18)	.58
	Pacific	26.7	1.4 - 54.9	1.31 (0.20 - 8.49)	.78
	Asian	22.7	8.8 - 54.2	1.05 (0.11 - 9.96)	.96
	European/Other	21.8	8.9 - 34.6	reference	
Deprivation	Low (1-3)	15.6	4.8 - 26.3	reference	
	Mid (4-7)	20.4	10.5 - 30.3	1.39 (0.50 - 3.90)	.53
	High (8-10)	28.6	3.6 - 53.7	2.18 (0.44 - 10.70)	.34
PGSI	Non-problem gambler	19.0	7.9 - 30.0	reference	
	Low-risk gambler	14.3	0.6 - 29.3	0.71 (0.16 - 3.24)	.66
	Moderate/high-risk gambler	55.1	28.9 - 81.4	5.25 (1.43 - 19.27)	.01
Gambling type	Infrequent gambler	19.6	11.3 - 27.9	reference	
	Non-continuous gambler	18.8	6.1 - 31.5	0.95 (0.34 - 2.67)	.92
	Continuous gambler	32.0	11.8 - 75.8	1.93 (0.14 - 26.90)	.63
Number of gambling activities participated in	1	20.9	0.0 - 0.5	reference	
	2	3.3	0.1 - 7.4	0.18 (0.03 - 1.32)	.09
	3	20.9	4.6 - 37.3	0.84 (0.13 - 5.30)	.85
	4 or more	25.9	11.8 - 39.9	1.57 (0.31 - 8.00)	.58

8.3 POKIE VENUES AND STAFF INTERACTION

Pokie players (n=380) were also asked about their interaction with staff in gambling venues. Among those who reported some interactions with venue staff, multiple responses relating to the type of interaction were allowed. One in ten (10.5%) pokie players were aware that staff members knew their name or recognised them (see Figure 8-4). One in ten (10.4%) were aware that a staff member monitored the pokie room. Only 3.0% of pokie players said that a staff member had spoken to them about their gambling. Seven in ten (70.3%) said that they had had no interaction with staff whilst gambling.

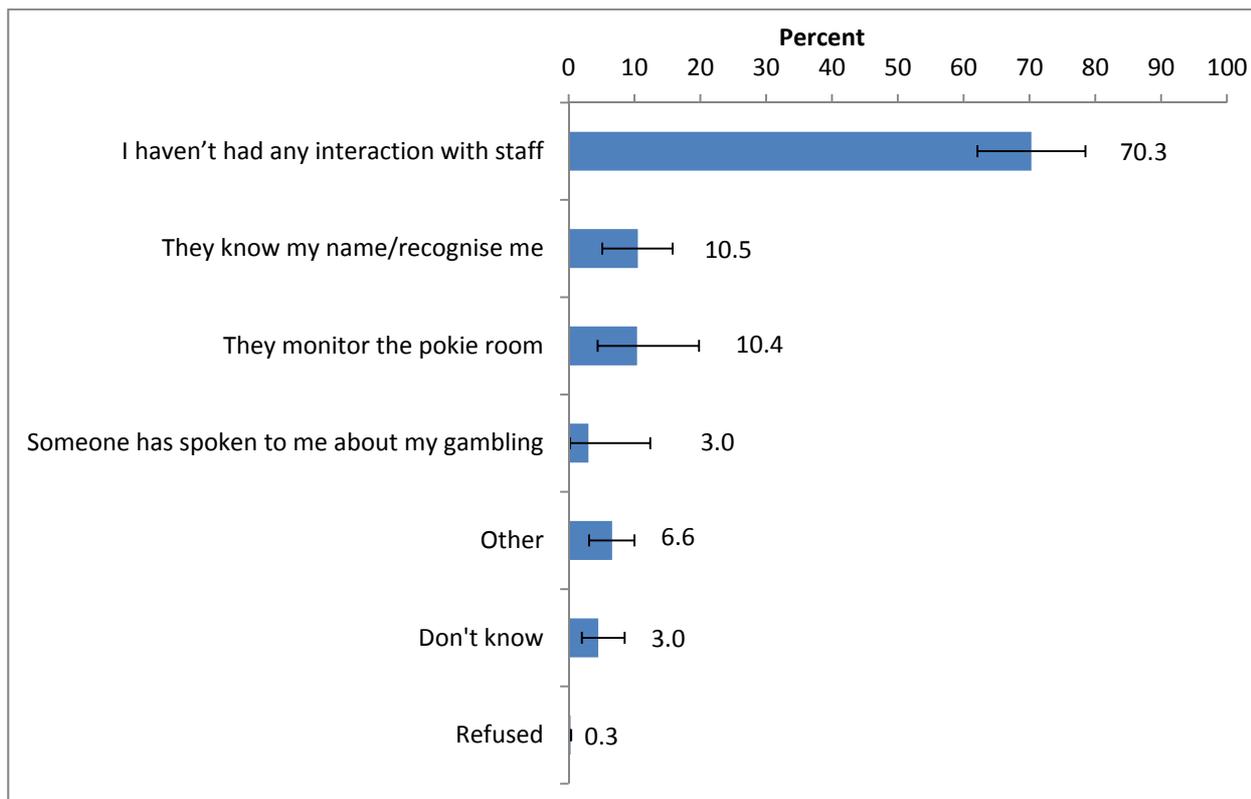


Figure 8-4: Interaction with staff at pokie venues when being there to gamble, base = pokie players (n=380)

The proportion of pokie players who had had no interaction with venue staff did not differ by demographics, but those who engaged in continuous gambling activities (40.8%) were less likely than those infrequently gambled (75.2%) to say that they had had no interactions with venue staff (see Table 8-4).

Table 8-4: No interaction with staff at pokie venues when being there to gamble, base = pokie players, (n=380)

		%	95% CI	Odds ratio	p
Overall rate		70.3	62.1 -78.5		
Gender	Male	63.8	50.0 -77.6	0.54 (0.25 - 1.13)	.10
	Female	76.7	69.0 - 84.4	reference	
Prioritised ethnicity	Maori	68.9	55.9 - 81.9	0.95 (0.43 - 2.07)	.89
	Pacific	75.3	54.7 - 95.9	1.30 (0.40 - 4.22)	.66
	Asian	73.7	35.3 -100.0	1.20 (0.11 - 13.35)	.88
	European/Other	70.0	59.7 - 80.5	reference	
Deprivation	Low (1-3)	71.5	58.0 - 85.0	reference	
	Mid (4-7)	78.8	70.2 - 87.4	1.48 (0.63 - 3.50)	.37
	High (8-10)	55.7	35.9 -75.5	0.50 (0.17 - 1.44)	.20
PGSI	Non-problem gambler	74.9	66.0 - 83.7	reference	
	Low-risk gambler	53.9	30.7 - 77.1	0.39 (0.14 - 1.10)	.08
	Moderate/high-risk gambler	43.7	11.9 -75.4	0.26 (0.06 - 1.05)	.06
Gambling type	Infrequent gambler	75.2	67.5 - 82.9	reference	
	Non-continuous gambler	77.1	65.7 - 88.6	1.11 (0.50 - 2.46)	.79
	Continuous gambler	40.8	10.6 - 71.0	0.23 (0.06 - 0.82)	.02
Number of gambling activities participated in	1	85.0	67.4 - 100.0	reference	
	2	73.3	58.6 - 88.1	0.49 (0.09 - 2.76)	.42
	3	58.8	43.7 - 73.9	0.25 (0.05 - 1.35)	.11
	4 or more	71.6	60.1 - 83.1	0.45 (0.09 - 2.34)	.34

8.4 HELP SERVICES ADVERTISED AT POKIE VENUES

The questionnaire also included two questions specifically around help services advertised at pokie venues. Respondents who had played pokies in the past 12 months (n=380) were first asked whether they had seen help services advertised at pokie venues. Those who had seen help service advertised (n=233) were then asked about how they responded to these advertisements.

Around two in three (64.0%) of those who had played pokies in the previous 12 months said that they had noticed advertising about help for gambling problems at a venue. Of these, most said that they either read the information but did not think it was useful for them (41.6%), or did not take

notice because they did not feel it was relevant to them (38.2%) (see Figure 8-3). One in eight (11.5%) said that they read the information and thought about changing their behaviour.

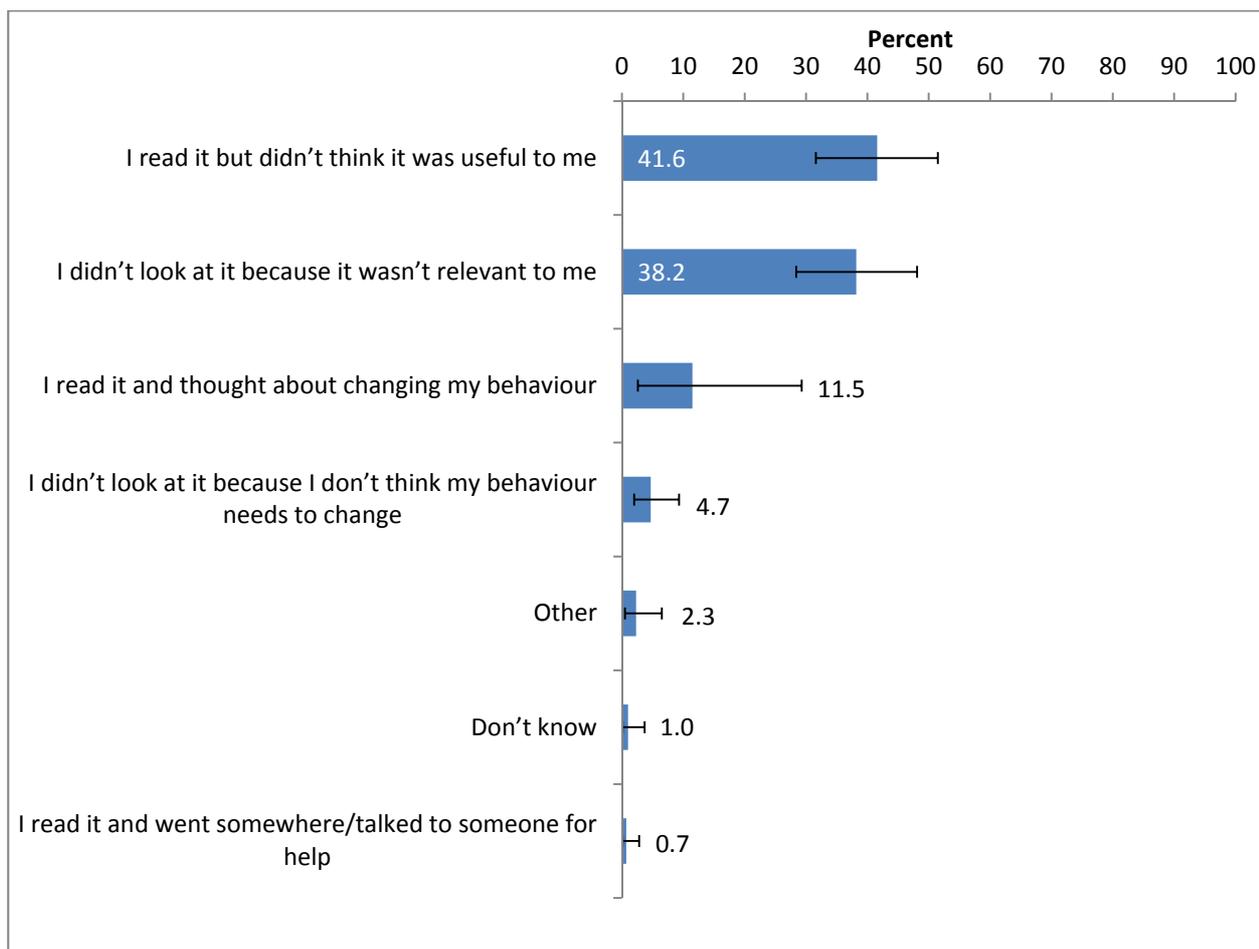


Figure 8-5: Response to help service advertising at pokie venues, base=pokie players & seen/noticed information at pokie venues (n= 233)

8.5 KNOWLEDGE OF HOST RESPONSIBILITY REQUIREMENTS

All respondents were asked 'Do you know if venues with pokie machines are required, by law, to prevent their customers' gambling from becoming harmful?' One-third (32.7%) of respondents thought that venues with pokie machines are required by law to prevent customers' gambling from becoming harmful (see Figure 8-3). Nearly one-half of the respondents said they did not know (48.8%).

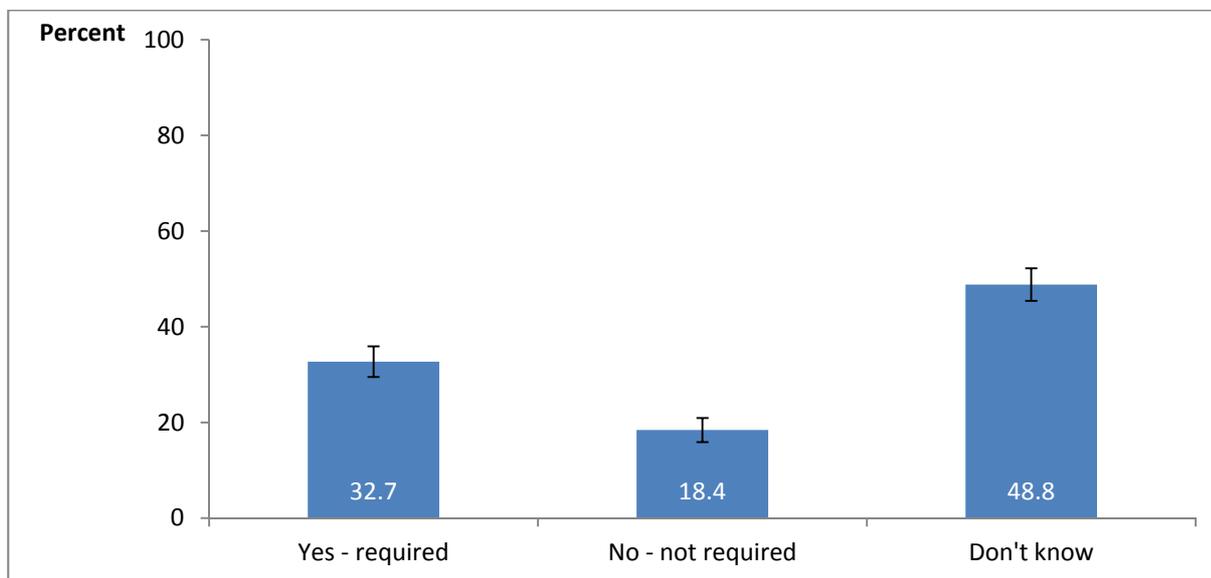


Figure 8-6: Awareness of legal requirement for venues with pokie machines to prevent their customers' gambling from becoming harmful, base = all respondents (n=2,594)

9. ADVERTISING

9.1 ADVERTISING OF GAMBLING ACTIVITIES

All respondents (n=2,594) were shown a list of gambling activities (other than New Zealand Lotteries products) and asked which they had seen any advertising or promotion for in the last 12 months. Nearly one-half (45.8%) of respondents had not seen advertising for any of the activities (see Figure 9-1). The most commonly seen advertising or promotion was around betting on sports events (24.9%), horse or dog races (21.9%) and internet games (21.5%).

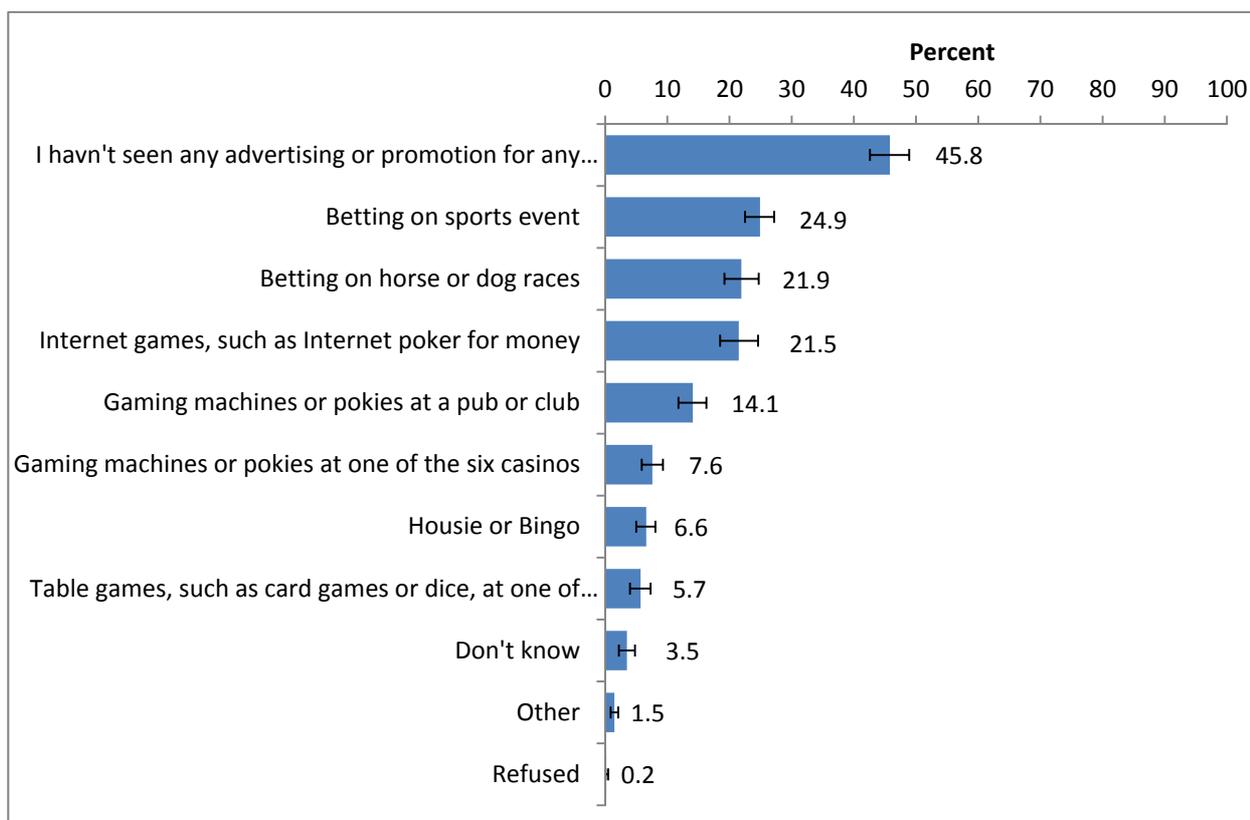


Figure 9-1: Gambling activities that respondents had seen advertising or promotion about, base = all respondents (n = 2,594)

9.1.1 Changes over time

Awareness of gambling advertising and promotion was assessed in 2010 and 2014. Over time, the level of awareness was similar for most gambling types. A decrease in the level of awareness was found around certain activities, including betting on horse or dog races, gaming machines or pokies at casinos, and table games at casinos (see Figure 9-2).

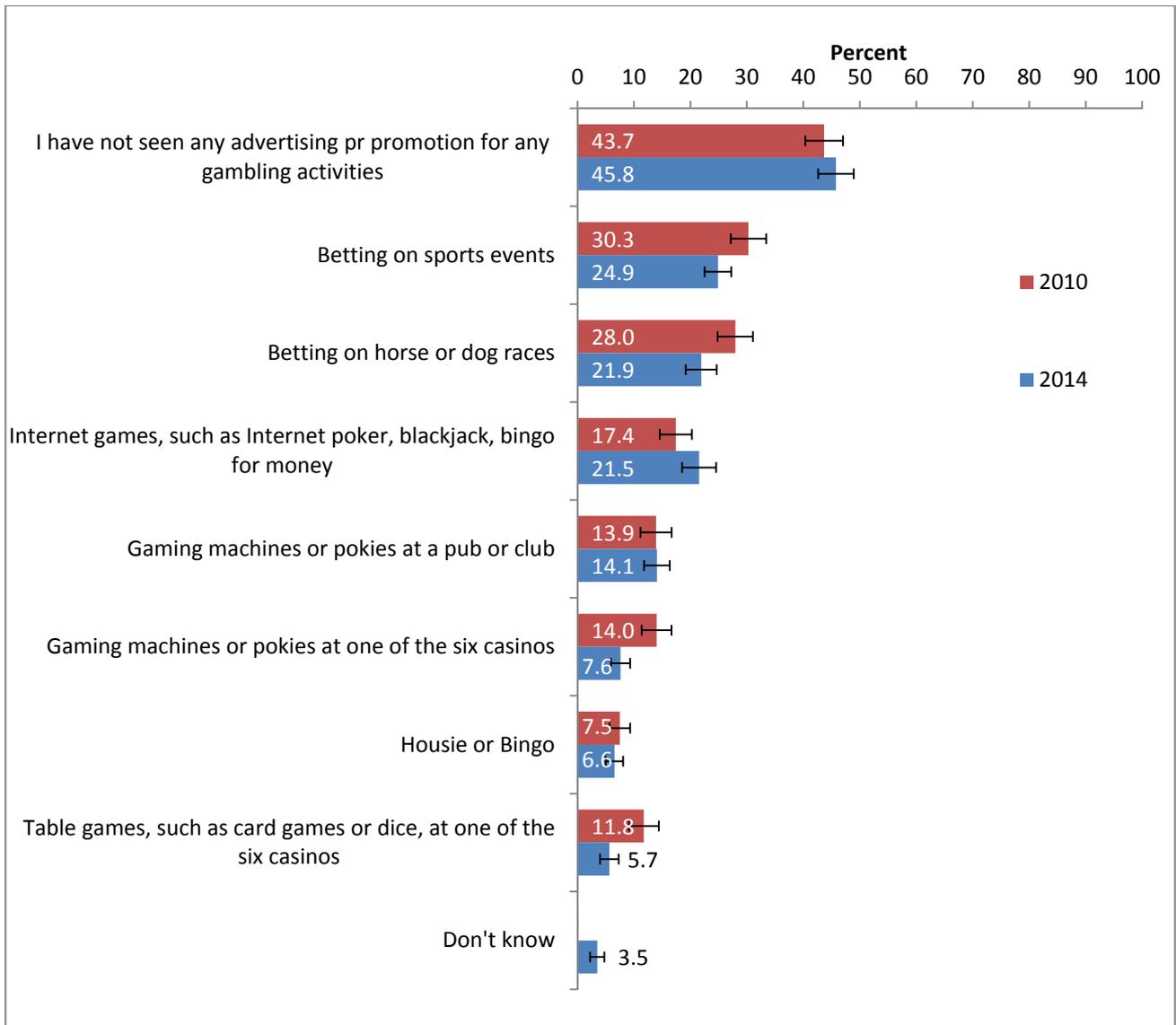


Figure 9-2: Awareness of advertising for gambling activities, 2010 and 2014, base = all respondents

9.2 RESPONSE TO LOTTO ADVERTISING

9.2.1 Buying more Lotto tickets as a result of advertising for big draws

Respondents who had bought New Zealand Lotteries products (Lotto, Strike, Powerball, Big Wednesday tickets; Instant Kiwi or scratch tickets; or Keno or Bullseye tickets) in the past year (n = 1,572) were asked 'In the last 12 months, have you bought more Lotto tickets or spent more on Lotto products as a result of seeing Lotto advertising or promotion for a big jackpot or prize draw? Just under one-half (44.8%) said yes. There were no differences by demographic and gambling-related measures (see Table 9-1).

Table 9-1: Bought more Lotto tickets as a result of advertising for big draws, base = buyers of New Zealand Lotteries products (n=1,572)

		%	95% CI	Odds ratio	p
Overall rate		44.8	40.7 - 48.9		
Gender	Male	41.9	35.7 - 48	0.79 (0.57 - 1.09)	.15
	Female	47.5	42.7 - 52.3	reference	
Prioritised ethnicity	Māori	46.2	38.4 - 54.1	1.10 (0.73 - 1.66)	.65
	Pacific	48.7	34.5 - 62.9	0.94 (0.52 - 1.70)	.83
	Asian	63.9	45.5 - 82.3	2.36 (0.72 - 7.76)	.16
	European/Other	42.1	37.4 - 46.9	reference	
Deprivation	Low (1-3)	47.5	38.6 - 56.4	reference	
	Mid (4-7)	46.6	41.1 - 52	0.93 (0.57 - 1.50)	.76
	High (8-10)	37.3	29.8 - 44.8	0.70 (0.40 - 1.21)	.20
PGSI	Non-problem gambler	44.3	40.2 - 48.4	reference	
	Low-risk gambler	53.3	36.3 - 70.3	1.47 (0.62 - 3.47)	.38
	Moderate-risk/problem gambler	51.2	18.7 - 83	1.23 (0.27 - 5.70)	.79
Gambling type	Infrequent gambler	47.9	43 - 52.8	reference	
	Non-continuous gambler	38.3	31.6 - 45	0.75 (0.52 - 1.10)	.14
	Continuous gambler	37.6	13.3 - 61.9	0.81 (0.26 - 2.60)	.73
Number of gambling activities participated in	1	46.4	38 - 54.9	reference	
	2	44.9	38.4 - 51.4	0.99 (0.62 - 1.57)	.95
	3	38.9	31.1 - 46.7	0.82 (0.47 - 1.42)	.47
	4 or more	47.5	38.7 - 56.3	1.17 (0.69 - 1.98)	.57

9.2.2 Gambling more on other activities as a result of advertising for Lotto products

Past-year gamblers (n=1,833) were asked whether they gambled, or gambled more often, on activities *other than* Lotto as a result of seeing or hearing any advertising or promotion for Lotto products. One in eight (12.8%) past-year gamblers reported that advertising or promotion for Lotto products had led them to do so. Those who had participated in three gambling activities in the past year (6.3%) were less likely to report the influence Lotto advertising had on their gambling, when compared with those who only took part in one gambling activity (16.2%) (see Table 9-2). It is possible that this significant difference resulted from confounding variables that were not identified in the univariate regression analyses. In order to identify these variables, the use of multiple logistic regression analyses would be required.

Table 9-2: Gambled more on other activities as a result of advertising for Lotto products, base = past-year gamblers (n=1,833)

		%	95% CI	Odds ratio	p
Overall rate		12.8	10 -15.6		
Gender	Male	13.1	9.7 -16.4	1.05 (0.72 - 1.52)	.83
	Female	12.6	9 -16.1	reference	
Prioritised ethnicity	Maori	14.1	9.3 -18.8	1.19 (0.74 - 1.90)	.49
	Pacific	16.5	4.2 -38.6	1.43 (0.33 - 6.13)	.63
	Asian	14.6	6.7 - 26.5	1.24 (0.58 - 2.65)	.62
	European/Other	12.1	9 -15.2	reference	
Deprivation	Low (1-3)	12.9	6.8 -18.9	reference	
	Mid (4-7)	14.1	10.3 -17.9	1.10 (0.59 - 2.09)	.94
	High (8-10)	10.6	6.5 -14.7	0.80 (0.39 - 1.62)	.63
PGSI	Non-problem gambler	12.6	9.8 -15.5	reference	
	Low-risk gambler	10.6	3.5 - 23.2	0.82 (0.29 - 2.36)	.80
	Moderate-risk/problem gambler	21.7	6.6 - 45.9	1.92 (0.60 - 6.10)	.33
Gambling type	Infrequent gambler	13.5	10.1 -16.9	reference	
	Non-continuous gambler	11.1	7.6 -14.6	0.80 (0.52 - 1.24)	.50
	Continuous gambler	11.2	4.7 -21.4	0.81 (0.37 - 1.75)	.59
Number of gambling activities participated in	1	16.2	10.6 -21.8	reference	
	2	11.8	8.2 -15.4	0.67 (0.42 - 1.08)	.11
	3	6.3	3.2 -11.1	0.35 (0.17 - 0.70)	.01
	4 or more	13.6	8.3 -18.8	0.96 (0.52 - 1.78)	.87

10. CONCLUSIONS

This report provides in-depth information around New Zealand adults' knowledge, views and experience of gambling and gambling harm by: 1) presenting the latest data from the HLS, and 2) examining the changes in responses between 2006/07 and 2014 where the data were comparable.

We recommend reading this report in conjunction with the 2014 HLS New Zealanders' Participation in Gambling report published by Tu and Puthipiroj, (2015), as it provides important contextual information around the general gambling participation rate and the prevalence of problem gambling. Key findings from that report included a drop in the overall past-year gambling participation rate among New Zealand adults, from 82.4% in 2006/07 to 71.0% in 2014. It was also found that the proportion of adults who met the PGSI criteria for 'problem gambling' remained unchanged between 2010 (0.7%), 2012 (0.2%) and 2014 (0.7%).

10.1 EXPERIENCES OF GAMBLING HARM

The current report provides further analysis around different types of personal and household harm caused by gambling. In 2014, 3.1% of all respondents indicated that over their lifetime, their gambling had had a serious impact on themselves or others. When focusing on harm experienced in the past 12 months, 2.8% of past-year gamblers indicated that they had gambled more than intended.

Household harm from gambling was assessed among all respondents. It was found that 13.0% of respondents felt that someone close to them had gambled more than intended in the past 12 months, 3.9% reported that there had been some argument in the wider family or household about time or money spent on gambling and 3.7% reported that their wider family or household had to go without something or some bills weren't paid.

Experiences of personal and/or household harm from gambling in the past 12 months are summarised in Table 10-1. For all four measures, the rate reported in 2014 was lower than in 2012. Household-level harms (arguments or going without) were not significantly different in 2014 compared with 2008 and 2010. Reporting of personally gambling too much and of a close person gambling too much have both reduced significantly over time.

Taking into consideration both the drop in the overall gambling participation rate and the drop in past-year gamblers' self-reported personal harm between 2006/07 and 2014, there has been a significant reduction in the proportion of New Zealand adults affected by the three types of gambling measured. However, it should be noted that the HLS does not measure all possible forms of gambling harm, and therefore caution should be taken when interpreting these findings.

It is also worth pointing out the high prevalence of two out of three types of household harm in 2012. The increase in the prevalence (when compared with 2008 and 2010) has previously been noted in a published paper, and the authors attributed the increase to the economic recession at the time (Tu, Gray, & Walton, 2014).

Table 10-1: Summary of the proportion of respondents experiencing personal or household harm from gambling in the past 12 months, 2006/07-2014 (% and 95% confidence interval)

Type of harm	2006/07	2008	2010	2012	2014
Personal experience of gambling more than intended (base = all past-year gamblers)	9.5 (7.7 - 11.3)	9.1 (6.7 - 11.6)	7.3 (5.5 - 9.2)	6.1 (4.5 - 7.8)	2.8 (1.5 - 4.1)
Arguments in the family or household about gambling (base = all respondents)	-	5.2 (3.7- 6.7)	5.2 (3.7- 6.7)	8.6 (7.1- 10.1)	3.9 (2.6 - 5.1)
Going without because of someone's gambling in the household (base = all respondents)	-	3.2 (2.3 - 4.1)	4.7 (3.3 - 6.0)	8.2 (6.7 - 9.7)	3.7 (2.6 - 4.9)
Someone close had experience of gambling more than intended (base = all respondents)	35.3 (32.3 - 38.3)	-	21.5 (18.7 - 24.2)	17.9 (15.7 - 20.0)	13.0 (11.1 - 14.9)

Note: Some questions were not asked in all survey years.

10.2 AWARENESS OF SUPPORT SERVICES

The current report also provides estimates on a range of measures around New Zealand adults providing help and support to people around them who might require help to address their gambling harm, and the recognition of early signs of harmful gambling. One of the measures related to awareness of services to help people who gamble too much, which are available in New Zealand. The proportion of New Zealand adults who were aware of at least one such service was stable between 2006/07 and 2010 (around 86%), but dropped substantially to 76.7% in 2012 and 80.1% in 2014.

10.3 IMPACT OF LOTTO ADVERTISING ON GAMBLING ACTIVITIES

Data collected in 2014 indicated that exposure to Lotto advertising motivates people to gamble more. For example, among those who had bought New Zealand Lotteries products in the past year, 44.8% indicated that they had bought more Lotto tickets or spent more on Lotto products as a result of seeing Lotto advertising or promotion for a big jackpot or prize draw. Exposure to advertising for Lotto products also appeared to relate to increased chances of gambling more on other gambling activities, with 12.8% of past-year gamblers indicating that advertising or promotion for Lotto products had made them gamble, or gamble more often on other activities. These findings accord with previous research that indicates that although advertising is not highly cited as the main trigger for problematic gambling, it can increase already high levels of gambling or make it difficult for gamblers to cut back (Binde, 2009).

10.4 ATTITUDES AND BEHAVIOURS RELATING TO POKIE MACHINES

The 2014 HLS provided novel information on people's perceptions of pokie machines in pubs and bars. Only 12.9% of New Zealand adults agreed that having pokie machines in a pub or bar made it more enjoyable to spend time at, and 39.7% agreed that they preferred to drink in bars that did not have pokie machines. Consistent with this finding was the notable proportion of adults who thought that playing pokie machines at a pub or club was socially undesirable (54.9% among those who thought that some gambling activities were socially undesirable, and this converted to about 30% of the total respondents).

Importantly, the survey also assessed self-reported behaviour in relation to playing pokies and drinking alcohol. It was found that among those who had played pokies in the past 12 months, 21.5% spent more money on the pokies when they drank alcohol. This finding provides insight into the relationship between alcohol and gambling. This is consistent with previous research by Rossen (2015), which notes alcohol use as a risk factor for gambling problems.

10.5 LIMITATIONS

Throughout the report, the differential response pattern by socio-demographic variables and past 12-month gambling activities were compared and commented on where the differences reached statistical significance. However, it is important to note that some of the estimates had a wide confidence intervals, and therefore some of the big differences observed in the percentage-points (even though not statistically significantly different) also warrant attention. It should also be noted that only univariate analyses were conducted for this report, and that potentially confounding variables were not adjusted for.

Another limitation of the findings presented in this report concerned the small number of moderate-risk and problem gamblers in the sample. These two groups of respondents were grouped together to increase the statistical power for the sub-group analyses, however this approach removed the ability to examine the unique needs and experiences of problem gamblers. Future studies might be required to profile the characteristics, experience, attitudes and behaviours of problem gamblers to inform future health promotion and intervention development. A potential issue when comparing responses from the three HLSs and the GBAS may be that surveys framed as "gambling surveys" (as the GBAS was) may draw out different measures of harm to those framed as "health surveys" (Williams and Volberg, 2009).

10.6 CONCLUSION

This report has provided some encouraging results around the drop in the prevalence of New Zealand adults who had experienced individual and household gambling-related harm in the past 12 months. The new questions included in the 2014 survey, particularly those around pokie machines, provide new knowledge and have important implications around health promotion strategies.

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