ACIL ALLEN CONSULTING

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FOURTH SOCIAL AND ECONOMIC IMPACT STUDY OF GAMBLING IN TASMANIA (2017)

VOLUME 2: PREVALENCE SURVEY

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CONTENTS

CONTENTS

CONTENTS

CONTENTS

FIGURES

C O N T E N T S

TABLES

C O N T E N T S

C O N T E N T S

C O N T E N T S

GLOSSARY OF TERMS

ACG	Allen Consulting Group
Affected others	A person that has indicated the occurrence of at least one of the items on the gambling harms checklist
AUDIT	The Alcohol Use Disorders Identification Test (AUDIT) is a 10-item instrument designed to screen for problematic alcohol use in adults
Binge drinkers	Binge drinking is defined as 7 or more (for men) and 5 or more (for women) standard drinks on one occasion two to three times a month or more
CATI	Computer Assisted Telephone Interviewing
CI	Confidence interval
Correlation	A correlation refers to a measure of the direction and strength of relationships between variables
CPGI	Canadian Problem Gambling Index
DSM-IV	Refers to the DSM (Diagnostic and Statistical Manual of Mental Disorders) classification for pathological gambling, as modified in 1994 (DSM-IV). This classification was first established in 1980 (DSM-III) and previously modified in 1987 (DSM-III-R). The DSM-IV largely focuses on pathological behaviours and significant consequences
EGM	Electronic Gaming Machine
EUROHIS	The EUROHIS-QOL-8 is used to assess quality of life. It consists of eight items, across four domains: Psychological (2 items), Physical (2 items), Social (2 items) and Emotional (2 items). Scores are derived by calculating the sum of the eight items and dividing by four, with higher scores indicative of greater quality of life
GAD-2	Generalised Anxiety Disorder-2 (GAD-2) measures generalised anxiety. This brief screener comprises the first two items of the Generalised Anxiety Disorder (GAD) questionnaire, and represents the core DSM-IV items for generalised anxiety disorder. Scores range from 0 to 6 and a score of 3 or greater indicates a positive screen for generalised anxiety disorder
Gambling harms checklist	Contains a variety of financial, relationship, work or study related, emotional, and health related harms experienced by gamblers
GIG	Gambling Industry Group
LGA	Local Government Area

Low risk gambler	Defined as those that are unlikely to have experienced any adverse consequences from gambling and will have answered 'never' to most of the indicators of behavioural problems in the PGSI. Low risk gamblers have scores of 1 or 2 on the PGSI
M	Mean
Mdn	Median
Moderate risk gambler	Defined as those who have responded 'never' to most of the indicators of behavioural problems in the PGSI, but who are likely to score one or more on 'most of the time' or 'always' responses. This group may or may not have experienced adverse consequences from gambling. Moderate risk gamblers have scores of 3 to 7 on the PGSI
Non-gambler	Defined as those who have not participated in any gambling activity in the previous 12 months
Non-problem gambler	Defined as those who have responded never to all of the indicators of behavioural problems. Members of this group may still be frequent gamblers with heavy involvement in gambling in terms of time and money, but they will not have experienced any adverse consequences. Non-problem gamblers have scores of 0 on the PGSI
Non-regular gambler	Person that participated in gambling activity in the past 12 months, but less frequently than once a week
Online gambler	Person who has participated in a gambling activity online in the past 12 months
OR	Odds ratio
PGRTC	Problem Gambling Research and Treatment Centre
PGSI	Problem Gambling Severity Index. The nine-item Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI) evaluates problem gambling severity. Scores on the PGSI can be used to classify individuals as non-problem gamblers (score of 0), low risk gamblers (scores of 1 or 2), moderate risk gamblers (scores between 3 and 7), or problem gamblers (scores of 8 or higher)
PHQ-2	Physical Health Questionnaire-2 (PHQ-2) is a brief screener for depression that comprises the first two items of the Physical Health Questionnaire, and represents the core DSM-IV items for major depressive disorder. Scores range from 0 to 6 and a score of 3 or greater indicates a positive screen for major depressive disorder
Problem gambler	Defined as those who have experienced adverse consequences as a result of their gambling and who may have lost control of their gambling behaviour. Involvement in gambling may be at any level, but is likely to be heavy. Problem gamblers have scores of 8 or more on the PGSI
RDD	Random digit dialling
Regular gambler	Those who have reported gambling at least once a week on any activity except for lotteries, scratch tickets or bingo
RSE	Relative standard error
SD	Standard deviation
SE	Standard error
SES	Socio-economic status
SRC	The Social Research Centre
Tasmanian Gambling Exclusion Scheme	Provides a means for patrons to exclude themselves from gambling. People can be excluded from gambling in a number of different ways: self-exclusion, venue operator exclusion, third party exclusion and self-exclusion from internet-based gambling

Tetrachoric correlations	Tetrachoric correlation is used to measure correlation in binary data, that is, data with two possible answers — for example right or wrong.

EXECUTIVE SUMMARY

Introduction

A consortium comprising ACIL Allen Consulting, Deakin University, Central Queensland University and the Social Research Centre has been engaged by the Tasmanian Department of Treasury and Finance ('the Department') to carry out the 2017 Social and Economic Impact Study of gambling (SEIS) in Tasmania.

The 2017 Tasmanian SEIS is comprised of two Volumes:

- Volume 1 focuses on the policy context and structure of the gambling industry, trends in gambling expenditure and government revenue, and the economic footprint of the gambling industry.
- Volume 2 (this report) details the 2017 SEIS prevalence survey results, and reports on interviews with gamblers and affected others.

Approach to Volume 2 analysis

The focus of this SEIS was on gambling harms and included multiple methodologies to provide insights into gambling harms and their effects. The methods used included quantitative descriptive data from the prevalence survey, an Ecological Momentary Assessment, and qualitative interviews with gamblers and affected others.

The method for Volume 2 comprises four components.

Prevalence survey

The 2017 Tasmanian Gambling Prevalence Survey data was collected through 5,000 telephone interviews with persons aged 18 years and over across Tasmania. The survey took place over the period 13 June to 7 August 2017. The average duration of the interviews was 15 minutes.

Analysis of harms

Using data from the prevalence survey, the incidence and quantum of gambling harms were analysed. This included the analysis of the costs and benefits of gambling to gamblers and affected others; and developing a set of empirically based low-risk gambling limits.

Ecological Momentary Assessment

An Ecological Momentary Assessment (EMA) was administered via a smartphone app to explore the antecedents and gambling harms of gambling episodes as they occur in real life. The EMA took place with 98 monthly gamblers, and had a four-week duration with each gambler.

Interviews with gamblers and affected others

Qualitative interviews were conducted with 20 monthly gamblers in which their experiences of gambling-related harms using the Gambling Harms Checklist were explored. Similar interviews were conducted with 20 affected others using the Gambling Harms Checklist for Affected Others.

Gambling participation, frequency and individual expenditure

The 2017 prevalence survey collected data on gambling participation and frequency, and individual gambling expenditure. The following sections summarise the key results.

Gambling participation

Three-fifths (58.5%) of the Tasmanian population reported participating in some form of gambling activity in the past 12 months. Since the 2013 survey there has been a significant decline in the proportion of Tasmanian adults who participated in any gambling activity (from 61.2% in 2013 to 58.5% in 2017) (Table ES 1).

Playing the lotteries continues to be the most commonly reported gambling activity (38.5%) and was the most commonly reported activity among almost all socio-demographic subgroups, with the exception of people aged 18 to 24 years and 25-34 years.[1] Playing keno was the second most commonly reported gambling activity, with approximately one-quarter (25.9%) of the Tasmanian adult population having played keno in the past 12 months. Other commonly reported gambling activities were purchasing instant scratch tickets (20.5%) and playing EGMs (18.6%).

TABLE ES 1 PAST YEAR PARTICIPATION IN DIFFERENT GAMBLING ACTIVITIES OVER TIME - TASMANIAN ADULTS (2005, 2008, 2011, 2013 AND 2017)

Gambling activity	2005	2008	2011	2013	2017
Tasmanian adults (n)	6,048	4,051	4,303	5,000	5,000
	%	%	%	%	%
EGMs	na	28.5	20.7	18.6	18.6
Horse or greyhound races	na	16.8	14.5↑	10.5	9.9
Instant scratch tickets	31.8	31.3	24.4↑	20.6	20.5
Lotteries	52.3	51.3	46.3↑	43.0↑	38.5
Keno	na	25.9	24.4	26.0	25.9
Casino table games	5.2	7.0	5.8	6.3	5.1
Bingo	2.2	1.8	1.9	1.7	1.9
Sporting or other event	3.5	3.9	4.1	4.4	3.6
Informal private games	4.6	5.3	3.2	2.6	2.8
Any other gambling activity	na	1.4	0.4ǂ	0.6	0.4‡
Net: Any of the above gambling activities	**na**	**71.7**	**64.8↑**	**61.2↑**	**58.5**

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 (p<0.05). Significance testing has not been done back to 2005 and 2008 due to the data not being available. 'na' refers to data not available due to question not being asked.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2005, 2008, 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEYS. 2017 Q. B1.

Online gambling

More than one-in-ten (10.8%) Tasmanian adults had participated in some form of online gambling in the last 12 months, up from 7.0% in the 2013 survey. The most common forms of online gambling

[1] People aged 18 to 24 years and 25-34 years reported higher participation of playing EGMs (24.3% and 26.2%, respectively), keno (23.0% and 33.7%) and instant scratch tickets (17.5% and 27.1%) than they did for buying lottery tickets (10.8% and 23.2%).

activities in the 2017 survey were: buying lottery tickets (6.2% of all adults); betting on horse or greyhound racing (3.8%); and betting on sporting or other events (2.6%).

Online gambling was most commonly undertaken on a mobile device; 8.2% of Tasmanian adults compared to 4.7% who used a desktop computer. This trend appears consistent across most gambling activities.

Participation in any gambling activity on the internet via a mobile device was significantly higher in 2017 (8.2%) than 2013 (3.9%), and betting on horse or greyhound races via a mobile device increased significantly, from 1.9% in 2013 to 3.3% in 2017.

The increase in online gambling use may partially be a result of a general shift of Australians towards the use of online services and greater internet access. The number of households with access to the internet at home increased from 83% in 2012–13 to 86% 2014–15, with 61% of internet users purchasing goods or services over the internet (ABS 2016b).

Gambling frequency

One-in-five (18.8%) Tasmanian adults had participated in some form of gambling at least once a week and, on average, Tasmanian adults had participated in 24.3 gambling sessions per year. Among past year gamblers, one-in-three (32.2%) had participated in some form of gambling at least once a week and, on average, had participated in 41.6 gambling sessions per year. Approximately two-fifths (41.5%) of Tasmanian adults in 2017 reported they had not participated in any gambling activity in the previous 12 months.

Regular gamblers[2] represented 5.7% of the Tasmanian adult population and 9.5% of Tasmanian adult gamblers. The prevalence of regular gambling was significantly higher among males (8.7%), those in paid full-time employment (7.9%), born in Australia (6.2%), who did not complete Year 12 (7.4%), and with annual personal incomes between $80,000 and $119,999 (9.6%).

Individual gambling expenditure

The average annual spend in 2017 among gamblers in Tasmania was $950; comparable to figures from the 2011 ($1,054) and 2013 ($927) surveys. Higher annual spends were seen among males ($1,288), those born in Australia ($985) and those who had not completed Year 12 ($1,196).

The highest mean annual spends among participants in each gambling activity were for betting on horse or greyhound races ($1,266), playing EGMs ($655) and betting on sporting or other events ($633). A significant increase in mean annual expenditure on lotteries was noted between 2013 and 2017 (from $431 to $518).

Problem gambling prevalence

The nine-item Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI) (Ferris & Wynne, 2001) was employed in the survey to evaluate problem gambling severity. The following sections summarise the prevalence of problem gambling in Tasmania.

Problem gambling results from the 2017 prevalence survey

The 2017 survey found that 0.6% of Tasmanian adults were classified as problem gamblers, 1.4% were considered to gamble at a moderate level of risk and 4.8% were low risk gamblers (Table ES 2). These estimates were comparable to those seen in 2011 and 2013; the slight decrease in the proportion of low risk gamblers noted in the 2013 survey has not been sustained.

[2] Where a regular gambler is defined as those who reported gambling at least once a week on any activity except for lotteries, scratch tickets or bingo.

TABLE ES 2 GAMBLING SEVERITY AMONG TASMANIAN ADULTS (2011, 2013 AND 2017)

PGSI category	2011	2013	2017
Tasmanian adults (n)	n=4,303	n=5,000	n=5,000
	%	%	%
Non-gamblers	35.2↓	38.8↓	41.5
Non-problem gamblers	56.7↑	54.9↑	51.8
Low risk gamblers	5.2	3.9	4.8
Moderate Risk gamblers	1.6	1.8	1.4
Problem Gamblers	0.7	0.5	0.6
Moderate risk / problem gamblers	**2.4**	**2.4**	**2.0**

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 ($p<0.05$).

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEYS, Q. E1.

In 2017, the proportion of non-gamblers (41.5%) continues to be significantly higher than 2011 and 2013, while the proportion of non-problem gamblers (51.8%) is significantly lower.

Gambling severity—comparisons with other states/territories

The prevalence of problem gambling in recent surveys in other Australian states and territories has been measured using the PGSI, with some minor methodological differences (Davidson et al., 2015; Sproston, Hing & Palankat, 2012; Stevens, 2017; Queensland Government, 2012; Social Research Centre, 2013; Hare, 2015).

The estimate of 0.6% of problem gambling in the 2017 Tasmanian study is towards the middle of the range of problem gambling estimates, compared to recent surveys conducted in other Australian states and territories—in these surveys, 0.4% to 0.8% of the population are classified as problem gamblers.

The estimate of 1.4% for moderate risk gambling in the 2017 Tasmanian study is at the lower end of the range of moderate risk gambling estimates from recent surveys conducted in other Australian states and territories. In these surveys, 1.1% to 2.9% are classified as moderate risk problem gamblers using the PGSI.

Quantifying gambling harms

A new component of the prevalence survey in 2017 allowed for the assessment of the gambling harms in Tasmania. Gambling harms are diverse and can potentially affect multiple domains of health and well-being. They can be experienced by individual gamblers and their family and friends (Browne et al., 2016).

This approach acknowledges that gambling may yield recreational benefits for gamblers, and allows for a 'net' cost-benefit assessment of the harms and benefits of gambling.

Method

The 2017 survey allowed the measurement of harms to gamblers and affected others in three ways:

- A sequential discrete choice protocol using a Time-Tradeoff (TTO) task
  - Respondents were asked the amount of time of their life they would be prepared to 'give up' in order to avoid the harmful effects or gain the beneficial impacts of gambling.[3]
- Direct solicitation on the impact of gambling

[3] Both gamblers and affected others were asked to respond to a set of nested binary choices intended to elicit the benefits and costs associated with gambling. This binary format was developed for the present study, and is based on the WHO Burden of Disease Time-Trade-Off (TTO) protocol for assessing the impact of chronic diseases to quality of life (Arnesen & Trommald, 2005; Attema, Edelaar-Peeters, Versteegh, & Stolk, 2013).

  - Respondents were asked directly whether their life had been made better or worse by gambling; and subsequently, how much (as a percentage) their life had been made better or worse.
- the Short Gambling Harms Scale (SGHS) and disability weights
  - Respondents were asked the 10-item SGHS, and the results were mapped to disability weights.

All three methods allow integration of varying degrees of condition severity, using the common metric of Years of Life Lost (YLL) in the population per year due to diminished quality of life from gambling harms.

Estimates of gambling harms

Time-Tradeoff (TTO) and direct solicitation results

The sequential discrete choice protocol and direct questions on the impact of gambling estimates showed that the vast majority of gamblers indicate that gambling neither significantly helps nor hurts their quality of life. Like most entertainment products, the consumer benefit from expenditure on gambling is small in comparison to total quality of life.

For the smaller set of people for whom gambling does affect their quality of life, the estimates of 'how much' vary according to method. Using the direct solicitation of quality of life, four times as many gamblers indicated that their lives had been improved rather than harmed by gambling. Moreover, the average and modal benefit nominated by gamblers showed gambling improved their life about 2%. In contrast, using the TTO method, where the harms are rated separately from benefits, the net utility from gambling was estimated as modestly negative (-1.7%).

Given the divergent results, it is not possible to know definitively if gamblers are on average helped or harmed by their gambling. Nevertheless, the combination of both results suggests that gamblers do not, at least on average, experience either large harms or benefits to their quality of life as a result of gambling. There is, however, an observable small subset of gamblers who are harmed a lot by gambling while there is minor enjoyment of the majority.

Benefit/Harm to Affected Others

About half of affected others indicated that gambling had made their lives worse, whereas less than 6% said their lives were made better, and the rest were unchanged. On average, affected others estimated that their lives were made 18% worse by someone else's gambling by the direct solicitation method. In contrast, the TTO method estimated that affected others' lives were made 26.7% worse. Both of these methods produced estimates that are surprisingly high. Consistent with results for the net calculations for gamblers, the TTO method had more negative estimates than the direct solicitation method.

On average, affected others indicated that they are much worse off due to someone else's gambling. It is hard to know if the respondents are exaggerating their experience of harm. Nevertheless, taken at face value, gambling is producing strong negative effects for people surrounding the gambler.

Short Gambling Harms Screen and disability weights results

The SGHS disability weights mapping estimates that 5,531 years of life were lost (CI: 4,714, 6,523) per annum in Tasmania due to gambling-related impact on quality of life. The SGHS scores pertain to diminished quality of life to the gambler themselves; accordingly, the YLL figures do not incorporate harms to affected others.

Analysis of SGHS scores, and gambler demographics and gambling mode activity, shows:

- older and female participants tended to have lower gambling harm
- other than bingo, engagement with all other modes of gambling, is associated with greater gambling harm
- the strongest risk factor for gambling harm is EGM play
- the next most impactful modes on gambling harm are 'other' and sports betting

- both individual gambling expenditure and gambling frequency were independently positively associated with gambling harm.

The YLL figures calculated in this survey can be compared to other jurisdictions in which the approach has been implemented. In Victoria, the YLL for gamblers was estimated to be 101,675 years. Adjusting both estimates by adult population size (Tasmania: 404,704, Victoria: 3,709,209), the rate of harm from gambling in Tasmania in 2017 is 49.8%—or just under half—of that found in Victoria in 2016. This difference can be partially attributed to the relatively lower prevalence of problem gambling in Tasmania compared to Victoria, as indicated by the prevalence of the three problem gambling risk categories in the 2017 survey.

Summary of gambling harms measurements

The estimates show either a slightly positive or negative net effect to gamblers with regard to how gambling affects their quality of life, with most people indicating neither an increase nor decrease. However, net harms nominated by affected others are large. The net weight of gambling harms appears to be borne by people who are largely unable to benefit, but suffer by virtue of a significant relationship with the gambler.

The various estimates must be considered preliminary given some of the inconsistencies revealed though the use of multiple measurement procedures. Nevertheless, they indicate that more attention needs to be paid to the burden of harm on people related to the gambler. Regardless of measurement technique, the impact on these affected others is evident in their survey responses.

The identification of low-risk gambling limits

The availability of data on gambling harms allows for the development of low-risk gambling limits, which can be used in prevention and intervention policies and programs. This is similar to the alcohol literature, where low-risk drinking limits that distinguish between low and high-risk drinking behaviour have been developed. From these, low-risk drinking guidelines have been promoted to the general public, to help individuals make informed decisions about their drinking habits. An example of these low-risk drinking guidelines include: drinking no more than 2 standard drinks on any day for healthy men and women, and 4 standard drinks on any single occasion for healthy men and women (National Health and Medical Research Council, 2009).

Method for identification of low-risk gambling limits

The low-risk gambling limits were based on survey respondents' gambling behaviour (on multiple indices including gambling frequency, gambling expenditure, gambling expenditure as a proportion of income, number of gambling activities, and gambling duration); gambling harms were measured using 1+ and 2+ cut-off scores on the SGHS.

Advanced statistical analysis was conducted to identify optimal low-risk gambling limits across the multiple gambling behaviour indices and measures of harm. Only gamblers (i.e. respondents who reported past-year gambling participation) were included in these analyses.

This analysis examined the ability of a test (i.e. the low-risk gambling limit) to correctly identify individuals in the population who actually have gambling-related harm. Each test result (called AUC, or Area Under the Curve) ranges from 0, indicative of 100% misclassification, to 1, indicative of 100% correct classification. For the purpose of this analysis, an AUC value ≥ 0.70 was considered as an acceptable classification accuracy.[4]

[4] The classification accuracy of the AUCs was interpreted based on established guidelines, whereby an AUC between 0.50 and 0.70 is considered to be small, an AUC between 0.70 and 0.90 is considered to be moderate, and an AUC over 0.90 is considered to be high (Swets et al., 2000). Although the choice of cut-off can be guided by several factors, there is currently no prevailing conceptual rationale for prioritising either sensitivity or specificity in the identification of low-risk gambling limits. With the exception of the most recent longitudinal research (Currie et al., 2017), all of the previous research in this area has selected cut-offs that give equal weighting to the optimisation of sensitivity and specificity given the preliminary state of the evidence. This approach equally minimises false positives and false negatives. Therefore, the level of gambling behaviour that had the maximum Youden Index value (Youden, 1950), relative to all other levels of gambling behaviour, was deemed the optimal cut-off (with equal weighting given to sensitivity and specificity) (see Ruopp et al., 2008, for relevant formulas).

Low-risk gambling limits results

Endorsement of two or more items on the SGHS was selected as the superior definition of harm as it produced consistently acceptable AUC values for all five gambling behaviour indices (gambling frequency, gambling expenditure, gambling expenditure as a proportion of income, number of gambling activities and gambling duration).

Using this selected definition of harm, the proposed gambling limits for the Tasmanian population are:

- 30 times per year for gambling frequency
- $510 per year for gambling expenditure
- 10% for gambling expenditure as a proportion of gross personal income
- 400 minutes (6.67 hours) per year for gambling duration
- 2 gambling activities for number of gambling activities.

Comparison of low-risk gambling limits analysis

The low-risk gambling limits using the SGHS are consistent with limits based on the PGSI using the 2011 and 2013 SEIS surveys (Dowling et al., 2017), with the exception of the gambling expenditure as a proportion of gross personal income limit, which is considerably higher using the SGHS (10.2%) than the PGSI (1.7%). Given that the gambling expenditure limit is very similar using these two measures, the most likely explanation is the use of very refined personal gross income categories in the current SEIS. The similar limits found across both the PGSI and the SGHS, for four of the five proposed gambling limits, provide some indication of the robustness of the PGSI-based low-risk gambling limits proposed by Dowling et al. (2017).

These low-risk gambling limits are generally at the lower end of the range identified in the previous population-representative studies conducted in Canada (Currie et al., 2006, 2008, 2009, 2017) and elsewhere (Brosowski et al., 2015). Although only a selection of the low-risk gambling limits were acceptable across gambling activities (i.e., AUC values ≥ 0.70), the limits identified for EGM, keno, and bingo gamblers were also very consistent with those previously identified in Tasmania by Dowling et al. (2017).

Ecological Momentary Assessment

An exploration of the antecedents and consequences of gambling episodes as they occur in real life was examined using an innovative ecological momentary assessment (EMA) delivered via a smartphone app. Generally, EMA involves the repeated data collection of people's current behaviours and experiences, in real time and in their natural environments (i.e., as they go about their daily lives).

EMA method

This study examined the associations between proximal antecedents, gambling episodes and gambling consequences (acute consequences, participant appraisal of the effects of gambling episodes, and gambling-related harms) over a four-week EMA period with 98 regular (monthly) gamblers (excluding lotteries). Using a smartphone application, gamblers were prompted to complete a series of single items (i.e., time-based assessments), at random times during two time periods (i.e., morning and evening).

EMA results

Across the 98 EMA participants, a total of 5,165 time-based assessments were completed. The rate of compliance for the time-based assessments was 87.8%. The mean number of assessments completed by each participant was 52.70 and the mean number of gambling events was 4.84 per participant over the four weeks period. Of the variables conceptualised as proximal antecedents, the following positively predicted the subsequent occurrence of gambling episodes: excitement, stress, the occurrence of a gambling urge, gambling urge magnitude, and situational self-efficacy; while anger negatively predicted the subsequent occurrence of gambling episodes.

The occurrence of gambling episodes positively predicted the occurrence of: a gambling urge, gambling urge magnitude, importance of change, and subjective alcohol intoxication; and negatively predicted: subsequent boredom and situational self-efficacy.

Expenditure during a gambling event positively predicted: subsequent boredom, the occurrence of a gambling urge, gambling urge magnitude, punishment appraisals (that gambling made mood worse), financial gambling-related harms, and emotional gambling-related harms; and negatively predicted: subsequent excitement, positive reinforcement appraisals (that gambling was pleasurable), and negative reinforcement appraisals (that gambling relieved unpleasant feelings).

The duration of a gambling event positively predicted: the occurrence of a gambling urge, gambling urge magnitude, subjective alcohol intoxication, positive reinforcement appraisals (that gambling was pleasurable), negative reinforcement appraisals (that gambling relieved unpleasant feelings), punishment appraisals (that gambling made mood worse), financial gambling-related harms, and emotional gambling-related harms.

Interviews on harms with gamblers and affected others

The 20 gamblers interviewed comprised non-problem gamblers (25%), low-risk gamblers (35%), moderate-risk gamblers (15%) and problem gamblers (25%). The 20 affected others were mostly older women who were reporting on the harms resulting from the gambling of their current or ex-partner (35%), mother (15%), sibling (15%), or friend (15%).

Findings from interviews with gamblers

Financial impacts were the most common, with three-quarters of the gamblers reporting impacts relating to reduction in available spending money, just over half reporting a reduction in savings and just under half reporting less spending on recreational activities. Some of these financial impacts were severe, with three participants indicating increased credit card debt, two indicating late payment on bills and one participant selling personal items and requiring assistance from a welfare organisation.

Emotional impacts were also common, with just under half of the gamblers reporting feelings of distress about their gambling. In addition, approximately one-quarter of the sample reported feelings of shame, anger, hopelessness and failure in relation to their gambling. Across these impacts common themes arose, including feelings of distress and shame due to perceived lack of willpower and self-control.

Health impacts were less common, with less than a quarter of the gamblers reporting a loss of sleep due to stress or worry about gambling or gambling-related problems, not eating as much or as often, and increased alcohol consumption.

Findings from interviews with affected others

Relationship impacts were the most common, with at least half of the affected others reporting impacts relating to spending less time with loved ones, lowered enjoyment from time spent with loved ones, spending less time attending social events, experiencing greater tension in relationships, experiencing greater conflict in relationships, and feeling belittled in relationships. Some of the relationship impacts were quite severe, with eight of the affected others indicating that they had separated or ended a relationship.

Emotional impacts were also very common, with at least half of the affected others reporting that they felt distressed about the gambling, felt ashamed of the other person's gambling, felt angry about the lack of their control over the gambling, feeling hopeless about the gambling, and feeling extreme distress.

Financial impacts were also relatively common, with at least half of the affected others reporting on impacts related to a reduction in their savings, a reduction of available spending money, and spending less on recreational activities. Some of the financial impacts were quite severe, with several affected others indicating that they had lost significant assets or had declared bankruptcy.

1 INTRODUCTION

This chapter details the content and scope of Volume 2, alongside information on the data collection and analysis method.

1.1 Study overview

A consortium comprising ACIL Allen Consulting, Deakin University, Central Queensland University and the Social Research Centre has been engaged by the Tasmanian Department of Treasury and Finance ('the Department') to carry out the 2017 Social and Economic Impact Study of gambling (SEIS) in Tasmania.

Under Section 151(5) of the *Gaming Control Act 1993* (the Act), '[t]he Treasurer must:

- cause an independent review of the social and economic impact of gambling in Tasmania to be carried out every three years.
- cause the findings of each such review (or a report of those findings) to be tabled in each House of Parliament within 20 sitting days of that House after the completion of the review'.[5]

1.1.1 Previous studies

The 2017 Tasmanian Gambling Prevalence Survey represents the seventh in the time series, with previous surveys having been undertaken in 1994, 1996, 2000, 2005, 2007, 2011 and 2013:

- The 1994 and 1996 surveys were undertaken by the Australian Institute for Gambling Research with the assistance of Roy Morgan Research and the 2000 and 2005 surveys were undertaken solely by Roy Morgan Research (Roy Morgan Research, 2006).
- The 2008 study was undertaken by the South Australian Centre for Economic Studies, assisted by Harrison Health (South Australian Centre for Economic Studies, 2008).
- The 2011 and 2013 surveys were undertaken by a consortium led by ACIL Allen in collaboration with the Social Research Centre and the University of Melbourne's Problem Gambling Research and Treatment Centre (Allen Consulting Group, Social Research Centre, & the Problem Gambling Research and Treatment Centre, 2011).
- The 2017 survey has been undertaken by a consortium again led by ACIL Allen in collaboration with the Social Research Centre, Deakin University and Central Queensland University.

As a result of amendments to the *Gaming Control Act 1993* (Tas), a distinguishing feature of the surveys from 2007 onwards is an increased focus on the social and economic impact of gambling.

[5] Under the Act, the term 'independent review' means 'a review by persons (only one of whom may be employed by the State of Tasmania or a State Service Agency) who, in the Treasurer's opinion, possess appropriate expertise or qualifications to carry out the review'.

While this Volume makes some comparisons with the 2005 and 2008 surveys, the main comparison years are 2011 and 2013, as these studies were conducted, by and large, before and after Tasmanian Government introduced the Responsible Gambling Mandatory Code of Practice for Tasmania (see Volume 1, Chapter 2).

Structure of the 2017 Tasmanian SEIS

The 2017 Tasmanian SEIS is comprised of two Volumes:

- Volume 1 focuses on the policy context and structure the gambling industry, trends in gambling expenditure and government revenue, and the economic footprint of the gambling industry.
- Volume 2 (this report) details the 2017 SEIS prevalence survey results, and reports on interviews with gamblers and affected others.

1.2 Approach to Volume 2 analysis

The method for Volume 2 comprises:

1. Prevalence survey.
2. Analysis of harms.
3. Ecological Momentary Assessment.
4. Interviews with gamblers and affected others.

1.2.1 Prevalence survey

The 2017 Tasmanian Gambling Prevalence Survey data was collected through 5,000 telephone interviews with persons aged 18 years and over across Tasmania. The survey took place over the period 13 June to 7 August 2017. The average duration of the interviews was 15 minutes.

The overarching research objectives of the 2017 Tasmanian Gambling Prevalence Survey were to identify trends in, and correlates of, gambling participation and impact among the Tasmanian adult population. The more specific research objectives were to examine:

- trends in gambling consumer behaviour
- characteristics of Tasmanian gamblers
- the distribution of the Tasmanian population across the categories of the Problem Gambling Severity Index (PGSI)
- the health and wellbeing of gamblers
- whether gamblers sought help for issues associated with their gambling
- harms experienced by gamblers and affected others
- low-risk gambling limits.

1.2.2 Analysis of harms

Using data from the prevalence survey, the incidence and quantum of gambling harms were analysed. This included the analysis of:

- the costs and benefits of gambling to gamblers and affected others
- gambling harms and other prevalence survey data to identify a set of empirically based low-risk gambling limits.

1.2.3 Ecological Momentary Assessment

An Ecological Momentary Assessment (EMA) was administered via a smartphone app to explore the antecedents and gambling harms of gambling episodes as they occur in real life. EMA involves repeated sampling of symptoms, affect, behaviour, and cognitions close to the time at which they are experienced and in natural environments.

The EMA took place with 98 regular (monthly) gamblers (excluding lotteries), and had a four-week duration with each gambler. The gamblers were recruited through the prevalence survey.

1.2.4 Interviews with gamblers and affected others

Qualitative interviews were conducted with 20 monthly gamblers in which their experiences of gambling-related harms using the Gambling Harms Checklist were explored. Similar interviews were conducted with 20 affected others using the Gambling Harms Checklist for Affected Others.

Interviewees were recruited through the prevalence survey.

1.3 About Volume 2

Volume 2 report is structured as follows:

- Chapter 1: Introduction
- Chapter 2: Survey method

Part I: Findings from the 2017 prevalence survey

- Chapter 3: Introduction to Part 1
- Chapter 4: Participation in gambling activities
- Chapter 5: Gambling frequency
- Chapter 6: Gambling expenditure
- Chapter 7: Prevalence of problem gambling
- Chapter 8: Additional details on EGM gambling / internet-based gambling
- Chapter 9: Help seeking
- Chapter 10: Psychosocial characteristics

Part II: Analysis of gambling harms using the 2017 prevalence survey

- Chapter 11: Introduction to Part II
- Chapter 12: Costs and benefits associated with gambling
- Chapter 13: Assessing harm from gambling using the Short Gambling Harms Screen
- Chapter 14: Developing a Short Gambling Harms Screen for Affected Others
- Chapter 15: Identification of low-risk gambling limits

Part III: Ecological Momentary Assessment and interviews with gamblers and affected others

- Chapter 16: Introduction to Part III
- Chapter 17: Ecological Momentary Assessment
- Chapter 18: Qualitative interviews on harms with gamblers
- Chapter 19: Qualitative interviews on harms with affected others

Volume 2 also includes three appendices:

- Appendix A: Prevalence survey technical and method notes
- Appendix B: Scales and derived items
- Appendix C: 2017 prevalence survey questionnaire

Volume 1 (in a separate document) of this study contains analysis of the Tasmanian gambling industry, expenditure data, and support services provided.

2 SURVEY METHOD

2.1 Method

The 2017 Tasmanian Gambling Prevalence Survey was conducted via Computer Assisted Telephone Interviews (CATI) with residents of Tasmania aged 18 years and over. The total achieved sample size was n=5000 (see Table 2.1).

A dual frame sample design was again employed for the 2017 survey, with a 50% landline and 50% mobile split. Sample was drawn from three sources: random digit dial (RDD) landline, pre-screened RDD mobile sample and listed mobile phone numbers. Due to a focus on state-level estimates, sample was stratified according to broad geographic regions (North, North West and South) and allocated in proportion to population.

The questionnaire instrument for the 2017 survey largely replicated measures from previous waves to ensure comparability to prior years. Despite minimal changes to these key items, several new measures reflective of current issues and interest areas were added. Given the complexity of the questionnaire structure and due to the addition of new measures, a pilot test of 50 interviews was undertaken to ensure internal logic. For more information on the main differences between the 2013 and 2017 questionnaires see Section 2.3.

While the main aim was to replicate procedures of recent surveys to ensure comparability, some methodological changes were implemented to improve estimates and ensure the survey was conducted in line with current best practice.

Key methodological changes in the 2017 survey were:

- Sample design—involved a random sample of Tasmanians aged 18 years or older stratified per broad geographic regions, instead of a disproportionate stratified design by local government area (LGA), as well as an increase in the proportion of interviews conducted via the mobile sample frame from 30% to 50%.
- Mobile sample frame—involved a combination of RDD (pre-screened) and listed mobile sample, instead of solely listed mobile sample.
- Changes to the questionnaire—this included the removal of respondent sub-sampling, and administering all items to all respondents instead of having a core and supplementary section (administered only to a selection of respondents) of the questionnaire.

A more detailed outline of the method employed in 2017, along with further information on methodological changes between the 2013 and 2017 surveys, can be found in Appendix A.

TABLE 2.1 PREVALENCE SURVEY SAMPLE SIZE BY YEAR

	Total sample
Year	**N**
2005	6048
2008	4051
2011	4303
2013	5000
2017	5000

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEYS

2.2 Weighting

When undertaking a survey, the sample of people you reach (i.e. survey), and their associated characteristics such as age or gender, may not reflect the broader population. As such, it is best and common practice to account for this by weighing the survey results to reflect the properties of the broader population.

It is usual to weight the data collected via sample surveys in order to:

- adjust for unequal probabilities of selection both at the unit and within-unit level
- properly combine the landline and mobile phone samples
- compensate for the effects of non-coverage and non-response.

Weighting survey data improves the ability to draw inferences about the population based on the sample surveyed. The results presented in this report are weighted survey results.

The broad approach adopted to weighting the 2017 survey data involved a two-stage approach.

- A design weight was calculated to adjust for the probability of being sampled into the survey.
- This design weight was adjusted to so the final weight conformed to population benchmarks by iterative proportion fitting.

The first weight uses the inverse of the probability of selection as the design weight. The probability of selection into the survey for dual frame surveys is:

$$p = p_{LL} + p_{MP}$$

Where p_{LL} is the probability the respondent will be selected into the survey by landline and p_{MP} is the probability they'll be selected into the survey by mobile phone. This formula can be further broken down into:

$$p = \frac{S_{LL}(LL)}{U_{LL}AD_{LL}} + \frac{(S_{RMP} + S_{LMP}A_{LMP})MP}{U_{MP}}$$

where:

S_{LL} is the number of survey respondents contacted by landline

U_{LL} is the population of the universe of landline numbers

LL indicates the number of landlines in the respondent's household

AD_{LL} is the number of in-scope adults in the respondent's household

S_{RMP} is the number of survey respondents contacted by RDD mobile

A_{LMP} is the probability of the case being part of the listed mobile sample adjusted to have a mean of 1.

S_{LMP} is the number of survey respondents contacted by listed mobile

U_{MP} is the population of the universe of mobile numbers

MP indicates the presence of a mobile phone

A_{LMP} is calculated using a logistic regression predicting membership in the listed mobile sample using cases from the combined listed and random samples by region. The formula produced by this regression was also applied to landline cases with a mobile phone to give them a value for this as well. To prevent outliers A_{LMP} was converted to probability classes (i.e. the sample was split into 5 groups based on their probability and each case was given the median probability for their class).

The final step in the weighting calibrated this design weight to population benchmarks for telephone status (based on ACMA and ABS National Health Survey 2014-15 data (Australian Bureau of Statistics, 2016)), age, sex (based on the ABS Estimated Resident Population December 2016 (Australian Bureau of Statistics, 2017)), and region, education and country of birth (Australian Bureau of Statistics, 2011). Benchmarks used in weighting are provided in Appendix A.

2.3 Questionnaire

The core questionnaire modules used for the 2013 and 2017 survey instruments were similar, with many questions identical to enable time series comparisons to be made. Table 2.2 sets out the main differences in questionnaire modules between the two years. Differences mainly relate to additions and removals between the years.

TABLE 2.2 STRUCTURE OF 2017 QUESTIONNAIRE

Topic / module	Included in 2013	Included in 2017
Module B - Gambling participation	✓	✓
Module E - Problem gambling severity (PGSI)	✓	✓
Module S - Gambling harms (Gamblers)		✓
Module T - Gambling harms (Affected others)		✓
Module K - Help-seeking	✓	✓
Module L - Quality of life	✓	✓ (abbreviated scale)
Module N - Mental health comorbidities	✓	✓ (depression and anxiety only)
Module M - Substance abuse	✓	✓
Module P - Demographics	✓	✓
Module Q - Telephone status	✓	✓
Module R - Future research	✓	✓

[a] Depression and anxiety only included in 2017 questionnaire. [b] Brief disability weight quality of life elicitation protocol for gamblers, upside protocol for gamblers and downside protocol for gamblers added to 2017 questionnaire.

Note: Module references relate to 2017 questionnaire

Further, some of the themes explored in the 2013 survey were not included in 2017. These included: gambling expectancies, alternative expenditure and activities, family member problem gambling and positive mental health measures.

Specific measures removed from the 2017 survey were:

- Detailed questions relating to EGM gambling participation (i.e. spins per line and measures to reduce harm) and day trading
- Spend questions relating to 'other' gambling activity
- Quality of life questions were reduced to EUROHIS
- Mental health questions were reduced to only include depression and anxiety sub-scales.

Measures introduced in the 2017 survey include:

- duration of specific gambling activities
- gambler harms among gamblers and affected others.

A modified version of the 2017 questionnaire, with some of the more complex programming and sequencing instructions removed to make it more accessible, is provided as Appendix C. Information on scale items used in the 2017 questionnaire is provided in Appendix B.

2.4 Ethics and quality assurance

All research activities were undertaken in accordance with the Privacy Act (1988), the Australian Privacy Principles, the Australian Market and Social Research Society's Code of Professional Practice, the Market and Social Research Privacy Principles, and ISO 20252 standards. Further, the survey was reviewed and approved by the Deakin University Human Research Ethics Committee (Protocol # 2017-145) prior to commencement.

In order to help ensure the informed consent of survey participants, a detailed explanation about the survey was read out prior to seeking consent. It was also made known to survey participants that further information about the survey was available on the Social Research Centre's website.

Interviewer training was provided on the administering of the survey and dealing with sensitive situations and adverse events that may arise. Interviewers are also trained in appropriate call escalation procedures. A total of 17 call alerts were raised by interviewers for review by a supervisor. These ranged in nature from an emotional response to some of the questions, being upset by a recent bereavement and cases where the interviewer was concerned about the wellbeing of the respondent.

Further, depending on their answers to specific questions throughout the survey, respondents were offered telephone numbers for a range of crisis services ranging from Lifeline and Gamblers Help, to tailored services for drug and alcohol abuse, and mental health support.

I

FINDINGS FROM THE 2017 PREVALENCE SURVEY

3 INTRODUCTION TO PART I

This chapter provides background to Part 1, particularly around the analytical approach taken to the survey analysis.

3.1 Overview

Part I provides the key findings which emerged from the 2017 prevalence survey. This Part is primarily designed with a policy and service provider audience in mind, with a secondary audience being those involved in gambling research.

Several points should be kept in mind when considering the findings presented in this Part:

- Firstly, unless otherwise noted, all estimates included in this Part are based on weighted survey estimates (see Appendix A). This applies to all results expressed as percentages and means, but not to the bases (n) shown in the tables and graphs.
- As the results presented in this Volume are based on a sample rather than a census of the Tasmanian population aged 18 years and over, some variation between the results from previous surveys and between sub-groups within each survey will occur by chance. To help decide whether differences are meaningful (that is, whether they represent genuine changes or differences rather than just random variation), testing of the statistical significance of these differences has been carried out. Throughout Part I, arrows indicate results that are statistically significantly higher (↑) or lower (↓) than those obtained for others or the comparator group ($p<0.05$).
- Where figures have been rounded in Part I, discrepancies may occur between sums of the component items and totals. Net percentages (where results for two categories have been added together) are calculated prior to rounding of the figures and therefore some slight discrepancy may exist between these percentages and those that could be calculated from the rounded figures shown in the tables or charts.

3.2 Analytical approach

3.2.1 Variable analysis

The bulk of the analysis in Part I relies on simple descriptive statistics, such as means, frequencies and distributions based on univariate analysis and bivariate analysis, in the latter case comparing two or more variables via cross tabulations of the survey data. Consistent with the approach adopted for the 2013 report 'don't know' and 'refused' responses have been included in the base for most questions, so as to maintain a consistent base for population and sub-population estimates throughout Part I.

At some junctures, more complex statistical methods were used to explore relationships in the data. Ordinal logistic regressions were employed to examine the relative strength of the 'contributing factors'

(such as gambling activity, quality of life, substance use and mental health) to problem gambling severity. Ordinal logistic regressions were employed because of the significant positive skewness of the Problem Gambling Severity Index (PGSI) and in preference to other regression analyses due to the high frequency of zero scores. PGSI category (non-gambling/non-problem gambling, low risk gambling, moderate risk/problem gambling) was the dependent variable in all models. Socio-demographic characteristics—including gender (male), age, dependent children in the household, living with a partner, currently being in paid employment (full-time, part-time, or casual), annual personal income, Australia as country of birth, Australian as cultural identity, and completion of secondary school—were controlled for in all models. These ordinal logistic regressions were conducted in STATA (v14), using the ologit function.

3.2.2 Scales and subscales

Subscales comprising multiple items were also constructed from the raw data, including PGSI, short gambling harms, quality of life, depression and anxiety. A detailed description of each of these measures is provided in Appendix B.

Respondents completing less than 30% of any of these scales or subscales were excluded from the analysis associated with that scale or subscale. Responses for cases missing up to 30% of the items for a scale or subscale were imputed through nearest neighbour imputation. This method finds the 5 complete cases most similar to the missing case, and takes the median (for continuous variables) or mode (for categorical variables) of the 5 values for each missing variable. Similarity was determined through the calculation of Gower's distance for the following respondent characteristics: region, age, gender, household structure, employment status, birthplace, education, gambling status and PGSI category. Imputation was carried out in R (R Core Team, 2016) using the VIM package (Kowarik and Temp, 2016).

3.2.3 Treatment of extreme outliers in expenditure data

The outlier treatment involved 1) identifying 2017 values of total activity spend that were larger than the indexed maximum 2011 values, and then 2) imputing both the frequency and spend values for these cases. This means that the following total expenditure items (casino table games, EGMs, keno, lotteries, horse or greyhound races, instant scratch tickets and sporting or other events) will have new values for some respondents (n=16).

As it is impossible to know for certain which value is the cause of the outlier and since the total is the product of the frequency and the spend, the best approach is to impute all values for the activity.

3.2.4 Statistical significance testing

Stratified variance estimates were obtained through Taylor linearization (Rao, Yung & Hidiroglou, 2002). Tests of statistical significance used t-tests to compare proportions and means based on these variance estimates (Rao & Scott, 1984, Heeringa, West, & Berglund, 2010). Statistical estimates were made within the R statistical software environment using the survey add-on package. While these tests make the best use of variance information available, it should be clear that all survey research involves estimation and the results presented should be considered as estimates only.

3.2.5 Suppression rules

Consistent with previous years of the survey, analyses were conducted under agreed suppression rules. These rules were implemented to mitigate the quality of results attributable to small cell size and volatile weights, which may then generate large relative standard errors (RSE). The rules were:

- if the RSE was greater than 50% an ‡ appears next to the estimate and cautions the reader that this score is unreliable for general use. Statistically significant differences from a comparative result are also suppressed for such estimates, and
- if the RSE was between 30% and 50% an † appears next to the estimate that cautions the reader that this score does not meet established standards for reliability. Note it is possible for a statistic to have a RSE of between 30% and 50% and still be statistically significantly different from a comparative result.

Further, the research team agreed that the potential for small cell numbers should be monitored with the heuristic adopted that a minimum number of 10 data points per cell were needed to calculate point estimates. The abbreviation 'np' in the table refers to data not available due to insufficient responses or breaching relative standard error criteria.

3.3 Structure of Part I

Part I is structured as follows:

- Chapter 4: Participation in gambling activities
- Chapter 5: Gambling frequency
- Chapter 6: Gambling expenditure
- Chapter 7: Prevalence of problem gambling
- Chapter 8: Additional details on EGM gambling / internet-based gambling
- Chapter 9: Help seeking
- Chapter 10: Psychosocial characteristics

4 PARTICIPATION IN GAMBLING ACTIVITIES

This chapter provides estimates for past year participation in the range of gambling activities among Tasmanian adults (aged 18 years or over) assessed in the 2017 survey. These activities are: betting on electronic gaming machines/poker machines (EGMs), lottery, keno (including TasKeno), casino table games, bingo, horses or greyhounds, sporting events or other events, informal private games, instant scratch tickets, or any other gambling activity.

The specific topics presented are: gambling participation in Tasmania as a whole, participation in gambling activities in relation to selected demographic characteristics of the population, and participation in gambling activities by gambling medium or venue. This chapter also explores the extent to which gambling participation varies between population subgroups and has changed over time, with particular reference to the 2011 and 2013 surveys.

4.1 Key findings

- Three fifths (58.5%) of the Tasmanian population reported participating in some form of gambling activity in the past 12 months. This was significantly lower than participation rates recorded in previous prevalence surveys.
- Participation in any form of gambling was significantly higher among people aged 45 to 54 years (65.2%) and 55 to 64 years (64.1%), those in full-time employment (67.0%), those with personal annual incomes between $40,000 and $119,999—$40,000 and $59,999 (66.6%); $60,000 and $79,999 (64.9%); $80,000 and $199,999 (64.0%)—those born in Australia (59.9%), those with a vocational or trade qualification (62.3%) and those who had not completed Year 12 (62.0%)
- The most common forms of gambling in 2017 were buying lottery tickets (38.5%), playing keno (25.9%), instant scratch tickets (20.5%) and playing EGMS (18.6%). Approximately one-quarter (23.5%) of Tasmanian adults reported participating in one gambling activity only in the previous 12 months in 2017, while one-quarter (26.2%) participated in two to three activities and almost one-in-ten (8.8%) reported participating in four or more.
- There was a significant decrease in 2017 in the proportion of Tasmanian adults purchasing lottery tickets (43.0% to 38.5%), but no other forms of gambling.

  There was a significant decrease in the proportion of Tasmanian adults betting on horses or greyhounds at the race course (3.7%) and off-course venues (6.4%) (5.0% and 7.9% in 2013, respectively) in 2017, as well as purchasing lottery tickets in a newsagents or Tattersalls outlet (35.0% in 2017 versus 40.3% in 2013). These decreases were offset to some extent however, by significant increases in the proportion betting on horses or greyhounds over the internet (3.8% versus 2.5% in 2013) and purchasing lottery tickets via internet (6.2% versus 3.7% in 2013). Further, participation in playing keno in a casino in 2017 (5.2%) was significantly lower than seen in 2011 (7.5%), but comparable to 2013 (6.3%).

4.2 Gambling participation by activity in the previous 12 months

All survey respondents from the 2017 prevalence survey were asked if they had participated in a range of gambling activities in the past 12 months. Results presented in Table 4.1 indicate:

- approximately three fifths (58.5%) of the Tasmanian adult population had participated in any form of gambling activity in the past 12 months
- playing the lotteries continues to be the most commonly reported gambling activity (38.5%) and was the most commonly reported activity among almost all socio-demographic subgroups. The exception was among people aged 18 to 24 years and 25-34 years who reported higher participation of playing EGMs (24.3% and 26.2% respectively), keno (23.0% and 33.7%) and instant scratch tickets (17.5% and 27.1%) than they did for buying lottery tickets (10.8% and 23.2%)—(see Table 4.6)
- playing keno was the second most commonly reported gambling activity, with approximately one quarter (25.9%) of the Tasmanian adult population having played keno in the past 12 months
- other commonly reported gambling activities were purchasing instant scratch tickets (20.5%) and playing EGMs (18.6%)
- approximately one-in-ten Tasmanian adults had placed bets on horse or greyhound races in the past 12 months (9.9%), while less than one-in-twenty had participated in casino table games (5.1%), sporting or other event betting (3.6%), informal private games (2.8%) or bingo (1.9%).

TABLE 4.1 PAST YEAR PARTICIPATION IN DIFFERENT GAMBLING ACTIVITIES AMONG TASMANIAN ADULTS

Gambling activity	2017
Tasmanian adults (n)	5,000
	%
Played poker machines or EGMs	18.6
Bet on horse or greyhound races	9.9
Purchased instant scratch tickets	20.5
Played a lottery	38.5
Played keno	25.9
Played casino table games such as blackjack, roulette or poker	5.1
Played bingo	1.9
Bet on sporting events or other events such as TV show results, election results	3.6
Bet on informal private games	2.8
Participated in any other gambling activity	0.4‡
Participation in any gambling activity	**58.5**

ł RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q. B1

4.3 Gambling participation over time

Table 4.2 presents a comparison of prevalence estimates of various gambling activities among the Tasmania adult population obtained from the 2017 survey and previous surveys in the time series.

As can be seen, since the 2013 survey there has been a significant decline in the proportion of Tasmanian adults who participated in any gambling activity (from 61.2% in 2013 to 58.5% in 2017), as well as purchasing lottery tickets (43.0% to 38.5%). Other apparent changes in gambling participation between 2013 and 2017 were not statistically significant.

TABLE 4.2 PAST YEAR PARTICIPATION IN DIFFERENT GAMBLING ACTIVITIES OVER TIME - TASMANIAN ADULTS (2005, 2008, 2011, 2013 AND 2017)

Gambling activity	2005	2008	2011	2013	2017
Tasmanian adults (n)	6,048	4,051	4,303	5,000	5,000
	%	%	%	%	%
EGMs	na	28.5	20.7	18.6	18.6
Horse or greyhound races	na	16.8	14.5↑	10.5	9.9
Instant scratch tickets	31.8	31.3	24.4↑	20.6	20.5
Lotteries	52.3	51.3	46.3↑	43.0↑	38.5
Keno	na	25.9	24.4	26.0	25.9
Casino table games	5.2	7.0	5.8	6.3	5.1
Bingo	2.2	1.8	1.9	1.7	1.9
Sporting or other event	3.5	3.9	4.1	4.4	3.6
Informal private games	4.6	5.3	3.2	2.6	2.8
Any other gambling activity	na	1.4	0.4ǂ	0.6	0.4‡
Net: Any of the above gambling activities	**na**	**71.7**	**64.8↑**	**61.2↑**	**58.5**

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 ($p<0.05$). Significance testing has not been done back to 2005 and 2008 due to the data not being available. na Data not available due to question not being asked.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater

SOURCE: 2005, 2008, 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEYS. 2017 Q. B1.

Table 4.3 shows the past year participation in various gambling activities among gamblers in Tasmania from the 2011, 2013 and 2017 prevalence surveys.

Consistent with trends seen among the total Tasmanian adult population, the most commonly reported gambling activity among gamblers in 2017 was buying lottery tickets (65.8%). This was followed by playing keno (44.2%), purchasing instant scratch tickets (35.1%), playing EGMs (31.9%) and placing bets on horse or greyhound races (16.9%).

Further, since the 2013 survey there have been significant decreases in participation among gamblers in purchasing lottery tickets (from 70.2% to 65.8%). Other estimates among gamblers were comparable to those seen in 2013.

TABLE 4.3 PAST YEAR PARTICIPATION IN DIFFERENT GAMBLING ACTIVITIES - TASMANIAN GAMBLERS (2011, 2013 AND 2017)

Gambling activity	2011	2013	2017
Tasmanian gamblers (n)	n=2,796	n=3,145	n=2,873
	%	%	%
EGMs	31.9	30.4	31.9
Horse or greyhound races	22.4↑	17.2	16.9
Instant scratch tickets	37.6	33.7	35.1
Lotteries	71.5↑	70.2↑	65.8
Keno	37.7↓	42.5	44.2
Casino table games	9.0	10.3	8.7
Bingo	3.0	2.7	3.2
Sporting or other event	6.3	7.1	6.2
Informal private games	4.9	4.3	4.9
Any other gambling activity	0.6	1.0	0.6‡

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 ($p<0.05$).

ŧ RSE between 30% and 50%. ‡ RSE 50% or greater

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEYS. 2017 SURVEY Q. B1.

Table 4.4 shows the number of different gambling activities that Tasmanian adults reported participating in during the previous 12 months.

As can be seen, approximately one-quarter (23.5%) of Tasmanian adults reported participating in one gambling activity only in the previous 12 months in 2017. Further, approximately one-quarter (26.2%) participated in two to three activities, while one-in-ten (10.2%) reported participating in four or more. These results were comparable to those seen in 2013, although the proportion of Tasmanian adults who reported participating in four or more gambling activities in the previous 12 months was significantly lower than seen in 2011.

TABLE 4.4 NUMBER OF GAMBLING ACTIVITIES IN WHICH TASMANIAN ADULTS PARTICIPATED IN THE LAST 12 MONTHS (2011, 2013 AND 2017)

Number of Gambling activities	2011	2013	2017
Tasmanian adults (n)	4,303	5,000	5,000
	%	%	%
None	35.2↓	38.8↓	41.5
One gambling activity	24.1	24.9	23.5
Two gambling activities	18.0	16.4	15.9
Three gambling activities	11.6	10.7	10.2
Four or more gambling activities	11.1↑	9.6	8.8

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 ($p<0.05$). The none category includes cases where gambling status was unknown

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEYS. 2017 SURVEY Q.S C1, D1-8.

4.4 Gambling participation by demographic characteristics

Overall past year gambling participation was compared across a range of demographic subgroups of the population. Table 4.5 shows the findings of this comparison.

In 2017, significantly higher overall gambling participation was seen among people aged 45 to 54 years (65.2%) and 55 to 64 years (64.1%), those in full-time employment (67.0%), those with personal annual incomes between $40,000 and $119,999—$40,000 and $59,999 (66.6%); $60,000 and

$79,999 (64.9%); $80,000 and $199,999 (64.0%)—those born in Australia (59.9%), those with a vocational or trade qualification (62.3%) and those who had not completed Year 12 (62.0%).

By contrast, significantly lower overall gambling participation was evident among people aged 18 to 24 years (45.1%) and 65 years and over (55.3%), those describing their occupational status as home duties (48.8), students (38.6%), those with personal annual incomes of less than $20,000 (51.8%), those born overseas in a non-English speaking country (45.7%) and university graduates (44.1%).

TABLE 4.5 OVERALL PARTICIPATION IN ANY GAMBLING ACTIVITY IN THE PAST 12 MONTHS BY SELECTED DEMOGRAPHIC CHARACTERISTICS (2017)

Demographic characteristic	Tasmanian adults	Any gambling	Demographic characteristic	Tasmanian adults	Any gambling
	n	%		n	%
Tasmanian adults as a whole	**5,000**	**58.5**	**Tasmanian adults as a whole**	**5,000**	**58.5**
Gender			**Annual personal income**		
Male	2,464	59.7	Less than $20,000	814	51.8↓
Female	2,534	57.3	$20,000-$39,999	1,451	58.7
Age group			$40,000 to $59,999	761	66.6↑
18 to 24 years	156	45.1↓	$60,000 to $79,999	480	64.9↑
25 to 34 years	323	58.9	$80,000-$119,999	501	64.0↑
35 to 44 years	533	58.6	$120,000-or more	175	61.2
45 to 54 years	811	65.2↑	**Educational attainment**		
55 to 64 years	1,205	64.1↑	Less than Year 12	1,132	62.0↑
65 years or more	1,972	55.3↓	Year 12	754	58.6
Household structure			Vocational or trade qualifications	1,643	62.3↑
Couple no children	492	57.6	University graduate	1,395	44.1↓
Couple children at home	1,248	58.6	**Place of birth**		
Couple children left home	1,484	59.4	Australia	4,182	59.9↑
Single person	660	55.7	Overseas (ESB)	572	54.1
Single children at home	261	57.6	Overseas (NESB)	239	45.7↓
Single children left home	518	57.8			
Group or shared household	136	62.4			

Demographic characteristic	Tasmanian adults	Any gambling	Demographic characteristic	Tasmanian adults	Any gambling
Occupational status					
Paid full-time employed	1,391	67.0↑			
Paid part-time employed	914	56.9			
Household duties	131	48.8↓			
Student	82	38.6↓			
Retired	1,851	56.2			
Looking for work	111	54.9			
Unable to work / pensioner	361	55.8			
Unpaid voluntary worker	50	48.2			

Note: Arrows show results that are significantly higher (↑) or lower (↓) than the average result of all other categories (p<0.05).
SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S A4, A5, B1, AND P1-6.

Table 4.6 provides a demographic summary of gambling participation by activity. The following sections describe demographic subgroups for whom participation in each gambling activity was significantly higher or lower than other adults in the Tasmanian population.

4.4.1 EGMs

Higher levels of past year EGM play was seen among people aged 25 to 34 years (26.2%), those living in a group or shared household (29.9%) or as a single parent with children still at home (25.2%), those born in Australia (19.9%) and those who had not completed Year 12 (23.9%).

By contrast, significantly lower levels of participation in EGM play was seen among people aged 65 years and over (16.5%), those living in a couple whose children have left home (15.9%), those with personal annual incomes of $120,000 or more (12.1%), those born overseas—English speaking background (11.9%); non-English speaking background (10.0%)—and university graduates (8.9%).

4.4.2 Horse or greyhound racing

Higher levels of participation in betting on horse or greyhound racing in the past years was seen among males (14.3%), those in full-time paid employment (14.7%), those with annual personal incomes between $80,000 and $119,000 (19.1%) and those born in Australia (10.8%).

Conversely, lower levels of participation were evident among females (5.7%), those aged 65 years and over (7.1%), single parents whose children have left home (6.6%), those in part-time employment (7.8%), retirees (7.8%), those with a personal annual income of less than $20,000 (5.3%), those from an English-speaking background born outside Australia (6.0%) and university graduates (7.4%).

4.4.3 Instant scratch tickets

Higher levels of participation in purchasing instant scratch tickets in the past year was evident among females (23.4%), people aged 25-34 years (27.1%), those living in a group or shared household (32.0%), those born in Australia (21.1%) and those with a vocational or trade qualification (22.6 %).

Lower levels of participation in purchasing instant scratch tickets was noted among males (17.5%), people aged 65 years and over (17.2%), those living alone (16.0%), retirees (17.1%), those from a non-English-speaking background born outside Australia (15.2%) and university graduates (13.7%).

4.4.4 Lotteries

Purchase of lottery tickets in the past year was significantly higher among people aged 45 and over—45-54 years (49.4%); 55-64 years (52.0%); 65 and over (42.7%)—those living in a couple (46.5%) or single parent (43.9%) whose children had left home, those in paid full-time employment (45.0%), retirees (43.4%), those with an annual personal income between $40,000 and $119,999—$40,000-$59,999 (45.1%); $60,000-$79,999 (44.9%); $80,000-$119,999 (44.7%)—those who had not completed Year 12 (45.3%) or had a vocational or trade qualification (451.0%).

By contrast, purchase of lottery tickets in the past year was significantly lower among people aged below 34 years—18-24 years (10.8%); 25-34 years (23.2%)—those living in a couple (34.2%) or single parent (30.0%) with children still at home, those looking for work (24.9%), those in part-time employment (33.4%), those with annual personal income less than $20,000 (28.6%) and university graduates (26.9%).

4.4.5 Keno

Past year participation in keno play was significantly higher among people aged 25 to 34 years (33.7%), those living in a couple with children still at home (28.2%), those people in paid full-time employment (34.5%), those with an annual personal income between $40,000 and $119,999—$40,000-$59,999 (32.9%); $60,000-$79,999 (34.1%); $80,000-$119,999 (32.8%)—those born in Australia (28.2%) and those who had not completed Year 12 (28.8%) or had a vocational or trade qualification (29.5%).

Lower participation was reported by people aged over 65 years (18.4%), those living alone (21.4%) or those living in a couple (23.0%) or single parent (18.6%) whose children have left home, retirees (20.2%), those with annual personal income less than $20,000 (21.7%), people born overseas — English speaking background (14.1%); non-English speaking background (10.1%)—and university graduates (12.7%).

4.4.6 Casino table games

Higher levels of participation in playing casino table games was seen among males (7.7%), people aged below 35 years—18-24 years (11.7%); 25-34 years (9.4%)—those living in a couple with children still at home (6.8%) or living in a group or shared household (15.6%), those in paid full-time employment (9.1%), those with personal incomes between $80,000 and $119,999 per annum (12.8%), those born in Australia (5.5%) and those who had completed Year 12 (7.6%).

Lower participation was seen among females (2.6%), people aged 45 years and over—45-54 years (3.6%); 55-64 years (2.6%); 65 years and over (1.0%)—those living in a couple whose children had left home (1.5%), retirees (1.2%), those with personal incomes between $20,000 and $39,999 (2.8%), those who had not completed Year 12 (3.2%) and university graduates (3.7%).

4.4.7 Bingo

Past year participation in keno play was significantly higher among females (2.6%), but was lower among males (1.1%).

4.4.8 Sporting or other events

Higher levels of past year betting on sporting or other events in the past year was seen among males (6.2%), people aged 25 to 34 years (7.5%), those living in a couple with children still at home (5.0%), those in paid full-time employment (7.0%), those born in Australia (3.9%) and those with personal annual incomes of $80,000 and $119,999 per annum (10.1%).

By contrast, females (1.2%), those aged 55 years and over—55-64 years (1.4%); 65 years and over (0.6%)—those living in a couple whose children had left home (0.9%), and retirees (0.7%) reported significantly lower participation.

4.4.9 Informal private games

Betting informal private games in the past year was significantly higher among males (4.0%), people aged 25 to 44 years—25-34 years (5.4%); 35-44 years (5.2%)—those living in a couple whose children were still at home (4.0%), those in full-time paid employment (5.4%), those born in Australia (3.1%) and those with personal incomes between $80,000 and $119,999 per annum (8.4%).

Lower participation in betting on informal private games was seen amongst females (1.7%); people aged over 65 years (0.7%), those living in a couple whose children had left home (1.2%), retirees (1.1%) and those who had not completed Year 12 (1.4%).

4.4.10 Other gambling activities

No significant demographic differences were seen within the Tasmanian adult population relating to past year participation in other gambling activities.

TABLE 4.6 PARTICIPATION IN SPECIFIC GAMBLING ACTIVITIES BY SELECTED DEMOGRAPHIC CHARACTERISTICS (2017)

Demographic characteristic	Tasmanian adults	EGMs	Horse/grey-hound racing	Instant scratch tickets	Lotteries	Keno	Casino table games	Bingo	Sporting or other events	Informal private games
	n	%	%	%	%	%	%	%	%	%
Tasmanian adults as a whole	**5,000**	**18.6**	**9.9**	**20.5**	**38.5**	**25.9**	**5.1**	**1.9**	**3.6**	**2.8**
Gender										
Male	2,464	17.3	14.3↑	17.5↓	39.5	27.3	7.7↑	1.1↓	6.2↑	4.0↑
Females	2,534	19.9	5.7↓	23.4↑	37.5	24.5	2.6↓	2.6↑	1.2↓	1.7↓
Age group										
18 to 24 years	156	24.3	8.3	17.5	10.8↓	23.0	11.7↑	np	6.9	np
25 to 34 years	323	26.2↑	11.6	27.1↑	23.2↓	33.7↑	9.4↑	np	7.5↑	5.4↑
35 to 44 years	533	15.8	10.7	22.7	38.9	29.4	7.2	np	5.0	5.2↑
45 to 54 years	811	16.2	11.9	20.8	49.4↑	28.8	3.6↓	2.3	3.5	2.5
55 to 64 years	1,205	16.4	10.5	19.1	52.0↑	25.2	2.6↓	1.2	1.4↓	2.1
65 years or more	1,972	16.5↓	7.1↓	17.2↓	42.7↑	18.4↓	1.0↓	2.3	0.6↓	0.7↓
Household structure										
Couple no children	492	19.2	10.1	18.0	37.7	26.2	4.0‡	3.0‡	4.5‡	3.4‡
Couple children at home	1,248	17.3	10.1	21.3	34.2↓	28.2↑	6.8↑	1.3	5.0↑	4.0↑
Couple children left home	1,484	15.9↓	9.6	19.2	46.5↑	23.0↓	1.5↓	1.4	0.9‡	1.2↓
Single person	660	17.8	10.4	16.0↓	38.5	21.4↓	4.4	1.2‡	3.1	1.7‡
Single children at home	261	25.2↑	6.7	25.1	30.0↓	31.0	np	np	np	np
Single children left home	518	16.0	6.6↓	19.0	43.9↑	18.6↓	np	2.3	np	np
Group or shared household	136	29.9↑	13.1	32.0↑	37.6	30.4	15.6↑	np	9.9‡	np
Occupational status										
Paid full-time employed	1,391	19.2	14.7↑	22.2	45.0↑	34.5↑	9.1↑	1.6	7.0↑	5.4↑
Paid part-time employed	914	20.7	7.8↓	23.2	33.4↓	25.2	4.0	1.3‡	2.9	2.3
Household duties	131	13.1	np	18.6	31.8	19.2	np	np	np	np

Demographic characteristic	Tasmanian adults	EGMs	Horse/grey-hound racing	Instant scratch tickets	Lotteries	Keno	Casino table games	Bingo	Sporting or other events	Informal private games
Student	82	18.7	np	np	8.9‡	np	np	np	np	np
Retired	1,851	16.8	7.8↓	17.1↓	43.4↑	20.2↓	1.2↓	2.2	0.7↓	1.1↓
Looking for work	111	27.0	np	27.5	24.9↓	25.3	np	np	np	np
Unable to work/pensioner	361	18.8	7.9	19.6	39.4	22.1	np	3.8‡	np	np
Unpaid voluntary worker	50	np	np	18.9	38.5	np	np	np	np	np
Annual personal income										
Less than $20,000	814	17.6	5.3↓	17.8	28.6↓	21.7↓	3.9	2.3	2.2‡	1.4‡
$20,000-$39,999	1,451	21.0	9.1	22.8	38.6	24.8	2.8↓	1.7	1.7‡	1.1‡
$40,000 to $59,999	761	22.0	11.8	23.1	45.1↑	32.9↑	6.6	1.3‡	5.4	4.3
$60,000 to $79,999	480	18.4	12.1	20.0	44.9↑	34.1↑	6.8	3.2‡	4.5	4.5
$80,000-$119,999	501	15.4	19.1↑	20.0	44.7↑	32.8↑	12.8↑	np	10.1↑	8.4↑
$120,000-or more	175	12.1↓	13.1	23.3	42.1	22.7	np	np	np	np
Educational attainment										
Less than Year 12	1,132	23.9↑	10.8	21.0	45.3↑	28.8↑	3.2↓	2.1	2.5	1.4↓
Year 12	754	21.7	9.3	21.4	35.7	26.5	7.6↑	2.7	5.4	3.1
Vocational or trade qualifications	1,643	18.1	10.6	22.6↑	41.0↑	29.5↑	5.5	1.7	3.3	3.3
University graduate	1,395	8.9↓	7.4↓	13.7↓	26.9↓	12.7↓	3.7↓	np	4.2	3.4
Place of birth										
Australia	4,182	19.9↑	10.8↑	21.1↑	38.7	28.2↑	5.5↑	1.9	3.9↑	3.1↑
Overseas (ESB)	572	11.9↓	6.0↓	18.5	41.3	14.1↓	np	2.3	np	2.5‡
Overseas (NESB)	239	10.0↓	np	15.2↓	33.8	10.1↓	5.1‡	np	np	np

Note: Arrows show results that are significantly higher (↑) or lower (↓) than the average result of all other categories ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable.

† RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S A4, A5, B1, AND P1-6.

Table 4.7 shows a count of gambling activities in which participation among sub-groups was significantly higher or lower than other Tasmanian adults. For example, males had significantly lower levels of participation in two gambling activities and significantly higher levels of participation in four gambling activities.

Overall, the groups with significantly higher participation in the most gambling activities were males, people aged 25 to 34, those living in a couple with children at home or in a group or share household, those in full-time employment, those with a personal annual income of between $80,000 and $119,999, people born in Australia and those who had a vocational or trade qualification.

The groups with significantly lower participation in the most gambling activities were females, people aged 65 years or more, those living in a couple whose children have left home, retirees, people whose annual personal income was less than $20,000 and university graduates.

TABLE 4.7 NUMBER OF SIGNIFICANTLY DIFFERENT GAMBLING ACTIVITIES BY DEMOGRAPHIC CHARACTERISTICS (2017)

Demographic characteristic	No. of significantly lower activities	No. of significantly higher activities	Demographic characteristic	No. of significantly lower activities	No. of significantly higher activities
Gender			**Annual personal income**		
Males	2	4	Less than $20,000	3	-
Females	4	2	$20,000-$39,999	1	-
Age group			$40,000 to $59,999	-	2
18 to 24 years	1	1	$60,000 to $79,999	-	2
25 to 34 years	1	6	$80,000-$119,999	-	6
35 to 44 years	-	1	$120,000-or more	1	-
45 to 54 years	1	1	**Educational attainment**		
55 to 64 years	2	1	Less than Year 12	2	3
65 years or more	7	1	Year 12	-	1
Household structure			Vocational or trade qualifications	-	3
Couple no children	-	-	University graduate	6	-
Couple children at home	1	4	**Place of birth**		
Couple children left home	4	1	Australia	-	7
Single person	2	-	Overseas (ESB)	3	-
Single children at home	1	1	Overseas (NESB)	3	-
Single children left home	2	1			
Group or shared household	-	3			
Occupational status					
Paid full-time employed	-	6			
Paid part-time employed	2	-			
Household duties	-	-			
Student	-	-			
Retired	6	1			
Looking for work	1	-			
Unable to work pensioner	-	-			
Unpaid voluntary worker	-	-			

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY.

4.5 Gambling participation by location or medium

All respondents who participated in each of the various gambling activities measured in the 2017 prevalence survey were asked about the locations and/or mediums where participation took place.

Table 4.8 shows the participation rate for each gambling activity by venue or medium among the Tasmanian adult population. The most common locations or mediums for each gambling activity are outlined below.

- EGMs—in a club or hotel (14.9% of Tasmanian adults) or casino (11.0%)
- horse or greyhound racing—at an off-course venue (6.4%) or at the race course (3.7%)
- instant scratch tickets—in a newsagent or Tattersalls outlet (20.2%)
- lotteries—in a newsagent or Tattersalls outlet (35.0%), or over the internet (6.2%)
- Keno—in a club or hotel (24.1%) or at a casino (5.2%)
- casino table games—at a casino (4.7%)
- bingo—in a club or a hall (1.6%)
- betting on sporting or other events—over the internet (2.6%) or at an off-course venue (1.5%).

Participation in gambling activities via the internet was generally low compared to overall participation in each gambling activity. The highest levels of participation in internet-based gambling were purchasing lottery tickets (6.2%), betting on horse or greyhound racing (3.8%) and betting on sporting or other events (2.6%). Overall, 10.8% of the Tasmanian adult population had participated in internet-based gambling in the past year.

TABLE 4.8 LOCATION OR MEDIUM OF GAMBLING PARTICIPATION - TASMANIAN ADULTS (2017)

Gambling activity	Participation rate	
	Tasmanian adults	Participated in gambling activity
	(n=5,000)	Variable
	%	%
		(n=794)
EGMs	**18.6**	**100.0**
In club or hotel	14.9	80.1
In a casino	11.0	59.2
Over the internet	0.5	2.6
		(n=467)
Horse or greyhound races	**9.9**	**100.0**
At an off-course venue	6.4	65.0
At the race course	3.7	37.8
By telephone/SMS	1.0	9.9
Over the internet	3.8	38.7
		(n=916)
Instant scratch tickets	**20.5**	**100.0**
In a newsagents or Tattersalls	20.2	98.4
Over the internet	np	np
		(n=2,106)
Lotteries	**38.5**	**100.0**
In a newsagents or Tattersalls	35.0	90.8
Over the internet	6.2	16.0

Gambling activity	Participation rate	
	Tasmanian adults	Participated in gambling activity
		(n=1,119)
Keno	**25.9**	**100.0**
In a club or hotel (TasKeno)	24.1	93.0
In a casino (TasKeno)	5.2	20.0
Over the internet	np	np
		(n=166)
Casino table games	**5.1**	**100.0**
In a casino	4.7	92.7
Over the internet[a]	np	np
		(n=85)
Bingo	**1.9**	**100.0**
In a club or hall	1.6	86.7
Over the internet	np	np
		(n=126)
Sporting or other event	**3.6**	**100.0**
At an off-course venue	1.5	42.1
By telephone/SMS	np	np
Over the internet	2.6	70.2
		(n=111)
Informal private games	**2.8**	**100.0**
		(n=2873)
Any gambling activity	**58.5**	**100.0**

[a] Casino table games over the internet comprise games like roulette and blackjack which can be played by Tasmanians using internet-based providers located outside of Australia.

Note: np Data not available for publication due to insufficient responses but included in totals where applicable.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, QS: C1, D1-8

4.6 Gambling participation by location or medium over time

Table 4.9 summarises reported participation in specific gambling activities by location or medium for the 2011, 2013 and 2017 prevalence surveys. In summary:

- significantly lower participation in horse or greyhound betting at the race course (3.7%) and off-course venues (6.4%) was reported in 2017 as compared to 2013 (5.0% and 7.9%, respectively); however, this decline was offset to some extent by a significant increase in the prevalence of horse or greyhound betting over the internet (3.8% versus 2.5% in 2013)
- significantly lower participation in purchasing lottery tickets in a newsagent's or Tattersalls outlet was reported in 2017 (35.0% versus 40.3% in 2013); however, possibly due to the introduction of companies such as Lottoland that offer online lottery betting services, significantly higher participation in purchasing lottery tickets via internet was reported in 2017 (6.2% versus 3.7% in 2013)
- participation in playing keno in a casino in 2017 (5.2%) was comparable to that seen in 2013 (6.3%); however, levels of participation was significantly lower than seen in 2011 (7.5%).

TABLE 4.9 LOCATION OR MEDIUM OF GAMBLING PARTICIPATION OVER TIME - TASMANIAN ADULTS (2011, 2013 AND 2017)

Gambling activity	2011	2013	2017
Tasmanian adults (n)	4,303	5,000	5,000
	%	%	%
EGMs	**20.7**	**18.6**	**18.6**
In club or hotel	16.5	16.0	14.9
In a casino	13.2	10.8	11.0
Over the internet	na	0.4	0.5
Horse or greyhound races	**14.5↑**	**10.5**	**9.9**
At an off-course venue	10.4↑	7.9↑	6.4
At the race course	7.8↑	5.0↑	3.7
By telephone/SMS	1.7	1.0	1.0
Over the internet	2.3↓	2.5↓	3.8
Instant scratch tickets	**24.4↑**	**20.6**	**20.5**
In a newsagents or Tattersalls	na	20.2	20.2
Over the internet	na	0.2‡	np
Lotteries	**46.3↑**	**43.0↑**	**38.5**
In a newsagents or Tattersalls	na	40.3↑	35.0
Over the internet	na	3.7↓	6.2
Keno	**24.4**	**26.0**	**25.9**
In a club or hotel (TasKeno)	22.4	23.7	24.1
In a casino (TasKeno)	7.5↑	6.3	5.2
Over the internet	np	np	np
Casino table games	**5.8**	**6.3**	**5.1**
In a casino	4.9	5.7	4.7
Over the internet[a]	0.4ŧ	0.2ŧ	np
Bingo	**1.9**	**1.7**	**1.9**
In a club or hall	na	1.3	1.6
Over the internet	na	np	np
Sporting or other event	**4.1**	**4.4**	**3.6**
At an off-course venue	2.1	2.2	1.5
By telephone/SMS	0.3ŧ	0.2ŧ	np
Over the internet	1.3	2.3	2.6
Informal private games	**3.2**	**2.6**	**2.8**
Any gambling activity	**64.8↑**	**61.2↑**	**58.5**
In person gambler	*	59.2↑	55.8
Online gambler	*	7.0↓	10.8

[a] Casino table games over the internet comprise games like roulette and blackjack which can be played by Tasmanians using internet-based providers located outside of Australia. * A comparable online gambling figure could not be calculated due to changes in questionnaire items to measure online participation.

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable. Na Data not available due to question not being asked.

ŧ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, QS: C1, D1-8.

5 GAMBLING FREQUENCY

This chapter examines the frequency of past year gambling among Tasmanian adults. Consideration is given to the range of gambling activities undertaken, the mean annual frequency of gambling by activity, by type of gambler and by location or medium where gambling takes place.

Frequency of gambling activity is grouped into four ranges: less than once per month, one to three times per month, once a week and no gambling activity. Consistent with the approach used in the previous prevalence surveys, people who reported gambling at least once a week on any activity except for lotteries, scratch tickets or bingo, are defined as regular gamblers.

5.1 Key findings

- One-in-five (18.8%) of all Tasmanian adults had participated in some form of gambling at least once a week and, on average, Tasmanian adults participated in 24.3 gambling sessions per year. Among past year gamblers, one-in-three (32.2%) had participated in some form of gambling at least once a week and, on average, had participated in 41.6 gambling sessions per year.
- The most common weekly gambling activity among gamblers was purchasing lottery tickets (35.1%), followed by betting on horse or greyhound racing (20.3%), bingo (18.7%) and sporting or other events (17.2%). In terms of mean annual frequency of participation, betting on sporting or other events (33.8 times per year) and horse or greyhound races had the highest mean annual frequency (32.1 times per year), followed by purchasing lottery tickets was the most frequent activity (29.1 times per year).
- The mean number of times Tasmanian adults purchased instant scratch tickets continued to decrease, declining from 3.0 per year in 2011 to 1.8 per year in 2017; there was also a significant decrease between 2013 and 2017 in the mean number of times Tasmanian adults had bet on casino tables games (declining from 0.5 in 2013 to 0.2 in 2017).
- Regular gamblers represented 5.7% of the Tasmanian adult population and 9.5% of Tasmanian adult gamblers. The prevalence of regular gambling was significantly higher among males (8.7%), those in paid full-time employment (7.9%), born in Australia (6.2%), who did not complete Year 12 (7.4%) and with annual personal incomes between $80,000 and $119,999 (9.6%).
- The most common gambling activities among regular gamblers were keno (74.9%), horse or greyhound races (62.0%) and EGMS (60.8%).
- The majority of regular gamblers (56.3% versus 10.6% among non-regular gamblers) participated in four or more gambling activities (excluding scratch tickets, lotteries or bingo) and, on average, regular gamblers participated in 166.6 gambling sessions in the past year (as compared with 28.0 sessions for non-regular gamblers).

5.2 Annual gambling frequency

Table 5.1 shows the frequency (as a percentage of the total Tasmanian adult population) of each gambling activity in the previous 12 months.

Approximately two fifths (41.5%) of Tasmanian adults in 2017 reported they had not participated in any gambling activity in the previous 12 months. Further, over one fifth (23.2%) reported participating in any gambling activity less than once per month, 15.1% reported participating 1 to 3 times per month and approximately one-in-five (18.8%) reported participating once a week or more.

Purchase of lottery tickets was the most commonly reported weekly gambling activity, with 13.5% of the Tasmanian adult population participating at this frequency. The prevalence of weekly participation in all other gambling activities was low and did not exceed one-in-twenty: betting on horse or greyhound races (2.0%), playing keno (1.9%), EGM gambling (1.2%) and purchasing of instant scratch tickets (1.2%).

TABLE 5.1 PAST YEAR FREQUENCY OF GAMBLING ACTIVITY – TASMANIAN ADULTS (2017)

Gambling Activity	Less than once per month	1 to 3 times per month	Once per week or more	Have not participated in last 12 months
Tasmanian adults (n=5,000)	%[a]	%	%	%
EGMs	13.3	3.8	1.2	81.4
Horse or greyhound races	5.6	2.1	2.0	90.1
Instant scratch tickets	15.5	3.6	1.2	79.5
Lotteries	16.3	8.4	13.5	61.5
Keno	17.2	6.4	1.9	74.1
Casino table games	4.8	0.3‡	np	94.9
Bingo	1.4	np	0.3	98.1
Sporting or other events	2.2	0.8	0.6	96.4
Informal private games	2.2	0.3	0.3‡	97.2
Any gambling activity	**23.2**	**15.1**	**18.8**	**41.5**

[a]Includes respondents who reported zero.

Note: np Data not available for publication due to insufficient responses but included in totals where applicable. Rows in the above table may not add to 100% as there are small numbers of participants for whom a frequency could not be calculated.

ǂ RSE 30%-50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S B1; C1; D1A, 2A,3A,4A,5A,6A,7A,8A

Table 5.2 shows the frequency of gambling by activity in the previous 12 months (as a percentage of gamblers who participated in each gambling activity).

Approximately one third (32.2%) of gamblers reported participating in some form of gambling activity at least weekly. One quarter (25.8%) reported participating in gambling activities 1 to 3 times per month and two-fifths (39.7%) reported less than monthly participation.

Weekly participation was most common for lotteries (35.1%), betting on horse or greyhound racing (20.3%) and bingo (18.7%) among gamblers, while monthly participation was most common for keno (24.8%), sporting or other events (22.0%) and lottery (21.9%).

TABLE 5.2 PAST YEAR FREQUENCY OF GAMBLING ACTIVITY – TASMANIAN GAMBLERS (2017)

Gambling Activity	Less than once per month	1 to 3 times per month	Once per week or more
	%	%	%
EGMs (n=794)	71.4	20.4	6.6
Horse or greyhound races (n=467)	56.7	21.4	20.3
Instant scratch tickets (n=916)	75.4	17.4	5.9
Lotteries (n=2,106)	42.3	21.9	35.1
Keno (1,119)	66.6	24.8	7.4
Casino table games (n=166)	94.0	5.4‡	np
Bingo (n=85)	73.1	np	18.7
Sporting or other events (n=126)	60.7	22.0	17.2
Informal private games (n=111)	78.3	9.6	9.1‡
Any gambling activity (n=2,873)	**39.7**	**25.8**	**32.2**

Note: np Data not available for publication due to insufficient responses but included in totals where applicable. Rows in the above table may not add to 100% as there are small numbers of participants for whom a frequency could not be calculated.

ł RSE 30%-50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S B1; C1; D1A, 2A,3A,4A,5A,6A,7A,8A

5.3 Annual gambling frequency over time

Table 5.3 compares the frequency of past year gambling activity among the Tasmanian adult population in 2011, 2013 and 2017.

As can be seen, there has been a significant decrease in the proportion of Tasmanian adults who gambled on a less than monthly basis (down from 25.8% in 2013 to 23.2% in 2017). The mean number of gambling sessions among Tasmanian adults in 2017 was 24.3 per year, comparable to 24.0 per year in 2013 and significantly lower than 29.5 per year in 2011.

The following trends were evident among the Tasmanian adult population relating to the frequency of participation in specific gambling activities:

- the proportion who bet on horse or greyhound races on a less than monthly basis declined from 7.1% in 2013 to 5.6% in 2017; the mean number of sessions per year in 2017 was however, comparable to 2013
- the mean number of times Tasmanian adults purchased instant scratch tickets continued a downwards trend, declining from 3.0 per year in 2011 to 1.8 per year in 2017
- the proportion who purchased lottery tickets less than once a month declined from 19.5% in 2013 to 16.3% in 2017. The mean number of sessions per year in 2017 was however, comparable to 2013
- the mean number of sessions per year Tasmanian adults played casino tables games declined from 0.5 in 2013 to 0.2 in 2017
- the proportion who played bingo on a less than monthly basis continued an upwards trend, increasing from 0.9% in 2011 to 1.4% in 2017
- no change in the frequency of playing EGMs, keno, betting on sporting or other events or informal private games in the past year was noted between 2013 and 2017.

TABLE 5.3 PAST YEAR FREQUENCY OF GAMBLING ACTIVITY OVER TIME – ALL TASMANIAN ADULTS (2011, 2013 AND 2017)

Gambling activity	Annual frequency of participation	2011	2013	2017
Tasmanian adults (n)		4,303	5,000	5,000
		%	%	%
EGMs	Once a week or more	1.3	1.1	1.2
	1 to 3 times a month	4.6	3.3	3.8
	Less than once a month	14.6	13.6	13.3
	Mean Frequency (/year)	*2.6*	*2.5*	*2.2*
Horse or greyhound races	Once a week or more	3.1↑	1.7	2.0
	1 to 3 times a month	2.1	1.7	2.1
	Less than once a month	9.3↑	7.1↑	5.6
	Mean Frequency (/year)	*6.4↑*	*2.5*	*3.2*
Instant scratch tickets	Once a week or more	2.7↑	2.0↑	1.2
	1 to 3 times a month	6.0↑	3.4	3.6
	Less than once a month	15.3	15.1	15.5
	Mean Frequency (/year)	*3.0↑*	*2.4*	*1.8*
Lotteries	Once a week or more	16.8↑	14.7	13.5
	1 to 3 times a month	8.1	8.4	8.4
	Less than once a month	21.0↑	19.5↑	16.3
	Mean Frequency (/year)	*12.3*	*11.3*	*11.2*
Keno	Once a week or more	2.3	2.3	1.9
	1 to 3 times a month	5.6	5.5	6.4
	Less than once a month	16.3	17.7	17.2
	Mean Frequency (/year)	*4.1*	*3.7*	*3.7*
Casino table games	Once a week or more	np	0.2ŧ	np
	1 to 3 times a month	0.5	0.5 ŧ	0.3‡
	Less than once a month	5.2	5.6	4.8
	Mean Frequency (/year)	*0.2*	*0.5↑*	*0.2*
Bingo	Once a week or more	0.4 ŧ	0.3 ŧ	0.3
	1 to 3 times a month	0.7↑ ŧ	0.1 ŧ	np
	Less than once a month	0.9↓	1.2	1.4
	Mean Frequency (/year)	*0.4*	*0.3*	*0.3*
Sporting or other event	Once a week or more	0.3 ŧ	0.4 ŧ	0.6
	1 to 3 times a month	0.7	1.1	0.8
	Less than once a month	2.7	2.9	2.2
	Mean Frequency (/year)	*0.8*	*1.0 ŧ*	*1.2‡*
Informal private games	Once a week or more	np	np	0.3‡
	1 to 3 times a month	0.6 ŧ	0.4 ŧ	0.3
	Less than once a month	2.2	2.2	2.2
	Mean Frequency (/year)	*0.3*	*0.2*	*0.3*
Any gambling activity	Once a week or more	22.6↑	19.3	18.8

Gambling activity	Annual frequency of participation	2011	2013	2017
	1 to 3 times a month	15.8	14.8	15.1
	Less than once a month	25.2	25.8↑	23.2
	Mean Frequency (/year)	*29.5↑*	*24.0*	*24.3*

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable. Columns in the above table may not add to 100% as there are small numbers of participants for whom a frequency could not be calculated.

ǂ RSE 30%-50%. ‡ RSE 50% or greater.

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S B1, C1, D1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 9A, 10A.

Table 5.4 compares the frequency of past year gambling activity among all Tasmanian gamblers in 2011, 2013 and 2017. Insofar as any form of gambling was concerned, the proportion of gamblers who participated less than once a month, one to three times a month, or once a week or more often has remained steady since 2013. The mean number of gambling sessions per year in 2017 (41.6 times per year) was also comparable to 2013 (40.0 times per year). Further, the 2017 frequency estimates were comparable to 2011.

Among past year participants of particular gambling activities, the following significant changes were evident between 2013 and 2017:

- the proportion of horse or greyhound gamblers who participated less than once a month declined from 67.5% in 2013 to 56.7% in 2017. However, no change in the mean number of sessions was noted between 2013 and 2017
- the proportion of gamblers who purchased instant scratch tickets once a week or more (from 9.5% in 2013 to 5.9% in 2017) and the mean number of sessions (from 11.5 per year to 8.7 per year) significantly decreased.

TABLE 5.4 PAST YEAR GAMBLING FREQUENCY BY TYPE OF GAMBLING ACTIVITY (2011, 2013 AND 2017)

Gambling activity	Annual frequency of participation	2011	2013	2017
		%	%	%
		(n=828)	(n=899)	(n=794)
EGMs	Once a week or more	6.2	6.0	6.6
	1 to 3 times a month	22.4	17.8	20.4
	Less than once a month	70.8	73.1	71.4
	Mean Frequency (/year)	*12.6*	*13.9*	*11.8*
		(n=632)	*(n=477)*	*(n=467)*
Horse or greyhound races	Once a week or more	21.1	16.6	20.3
	1 to 3 times a month	14.6	15.8	21.4
	Less than once a month	64.1	67.5↑	56.7
	Mean Frequency (/year)	*43.8*	*24.1*	*32.1*
		(n=969)	*(n=1,001)*	*(n=916)*
Instant scratch tickets	Once a week or more	10.9↑	9.5↑	5.9
	1 to 3 times a month	24.5	16.6	17.4
	Less than once a month	62.8↓	73.4	75.4
	Mean Frequency (/year)	*12.7↑*	*11.5↑*	*8.7*
		(n=2,116)	*(n=2,379)*	*(n=2,106)*
Lotteries	Once a week or more	36.4	34.2	35.1
	1 to 3 times a month	17.5↓	19.6	21.9
	Less than once a month	45.4	45.5	42.3
	Mean Frequency (/year)	*26.8*	*26.5*	*29.1*

Gambling activity	Annual frequency of participation	2011	2013	2017
		(n=1,044)	*(n=1,274)*	*(n=1,119)*
Keno	Once a week or more	9.4	8.9	7.4
	1 to 3 times a month	22.8	21.2	24.8
	Less than once a month	66.8	68.2	66.6
	Mean Frequency (/year)	*16.9*	*14.3*	*14.2*
		(n=182)	*(n=181)*	*(n=166)*
Casino table games	Once a week or more	np	2.8 ŧ	np
	1 to 3 times a month	9.3ŧ	7.5 ŧ	5.4
	Less than once a month	89.5	89.5	94.0
	Mean Frequency (/year)	*4.2*	*7.9*	*3.4*
		(n=82)	*(n=99)*	*(n=85)*
Bingo	Once a week or more	20.3	19.5	18.7
	1 to 3 times a month	35.3↑	8.3 ŧ	np
	Less than once a month	44.4↓	72.2	73.1
	Mean Frequency (/year)	*21.0*	*15.7*	*15.3*
		(n=138)	*(n=158)*	*(n=126)*
Sporting or other event	Once a week or more	7.5 ŧ	8.8 ŧ	17.2
	1 to 3 times a month	18.3	25.4	22.0
	Less than once a month	66.5	65.8	60.7
	Mean Frequency (/year)	*21.0*	*21.9 ŧ*	*33.8*
		(n=86)	*(n=79)*	*(n=111)*
Informal private games	Once a week or more	np	np	9.1
	1 to 3 times a month	17.2 ŧ	14.7 ŧ	9.6
	Less than once a month	68.5	82.3	78.3
	Mean Frequency (/year)	*10.5*	*6.7*	*9.1*
		(n=2,796)	*(n=3,145)*	*(n=,2873)*
Any gambling activity	Once a week or more	34.9	31.5	32.2
	1 to 3 times a month	24.4	24.3	25.8
	Less than once a month	39.0	42.1	39.7
	Mean Frequency (/year)	*46.3*	*40.0*	*41.6*

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable. Columns in the above table may not add to 100% as there are small numbers of participants for whom a frequency could not be calculated.

ŧ RSE 30%-50%. ‡ RSE 50% or greater.

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S B1, C1, D1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 9A, 10A.

5.4 Annual gambling frequency by demographic characteristics of gamblers

Table 5.5 and Table 5.6 display the mean frequency of past year participation in specific gambling activities by demographic sub-groups.

Higher average annual frequency of any type of gambling activity was found among males (52.3 sessions per year), people aged 65 and over (47.5), retirees (50.2) and those who left school without completing Year 12 (49.3). By contrast, lower levels were found among females (31.1), those living in a couple with children at home (33.3), those in paid part-time employment (32.7), those with annual

personal incomes of less than $20,000 (32.8) and university graduates (25.9). Broadly, these results are comparable with findings from previous prevalence surveys.

The following sections describe demographic subgroups for gambling frequency in each gambling activity was significantly higher or lower than other participants in the particular gambling activity.

5.4.1 EGMs

Compared to other past year EGM players, significantly higher average annual frequency of playing EGMs was seen among males (14.2), people aged 65 years and over (16.2), those living in a couple whose children have left home (15.6) and retirees (16.3).

Lower annual frequency of playing EGMs was seen among females (9.8), those living as a single parent with children at home (7.2) and those living in a couple with children at home (7.6), those in paid part-time employment (7.5), those with annual personal incomes of less than $20,000 (7.2) and those born in Australia (11.1).

5.4.2 Horse or greyhound racing

Compared to others who bet on horse or greyhound racing in the past year, significantly higher average annual frequency of participation was seen among males (40.4) and people aged 65 years and over (49.1). By contrast, lower frequency participation was seen among females (12.1) and those aged 45 to 54 years (17.9).

5.4.3 Instant scratch tickets

Compared to others who purchased instant scratch tickets in the past year, significantly higher average annual frequency of participation was seen among those aged 65 years and over (11.7), single parents whose children have left home (14.7) and retirees (11.8). Lower frequency participation was seen among those aged 35 to 44 years (6.0), those living in a couple with children at home (6.7) and those whose annual personal income was between $40,000 and $59,999 (6.8).

5.4.4 Lotteries

Compared to other purchasers of lottery tickets in the past year, males (31.5), people aged 55 years and over—55 to 64 years (33.4); 65 years and over (34.6)—those living in a couple whose children have left home (34.5), retirees (36.0) and those who did not complete Year 12 (33.6) reported significantly higher average annual frequency of buying lottery tickets.

Conversely, people aged 25 to 34 years (16.5) or 35 to 44 years (18.0), single parents with children at home (22.6) or a couple with children at home (24.2), people working part-time (24.1) or looking for work (13.5), those whose annual personal income was between $60,000 and $79,999 (23.4) and university graduates (21.1), reported significantly lower average annual frequency of buying lottery tickets.

5.4.5 Keno

Compared to other past year keno players, males (17.0), those aged 65 years and over (18.4), retirees (21.0) and those whose annual personal income was between $20,000 and $39,999 (20.4) reported significantly higher average annual frequency of playing.

Lower frequency of annual participation among past year keno players seem among females (11.3), those aged 25 to 34 years (9.4), those living in a couple with children at home (10.7), those describing their occupational status as working part-time (9.6), those whose annual personal income was less than $20,000 (9.8) or $120,000 or more (9.4), those from a non-English speaking background born outside Australia (6.5) and university graduates (7.5).

5.4.6 Casino table games

Compared to other past year casino table players, those born in Australia (3.6) reported significantly higher average annual frequency of playing. By contrast, those aged 35 to 44 years (1.7), people working in part-time employment (2.2), those who did not complete Year 12 (2.0), or have a vocational or trade qualification (2.2) and those from a non-English speaking background born outside Australia (2.0) reported significantly lower average annual frequency of playing.

5.4.7 Bingo

Compared to other past year bingo players, females (20.5) reported a significantly higher average annual frequency of playing. Those living in a couple with children at home (4.7) reported significantly lower average annual frequency of playing.

5.4.8 Sporting or other events

Compared to others who bet on sporting other events in the past year, those with a vocational or trade qualification (13.0) reported significantly lower average annual frequency of playing.

5.4.9 Informal private games

Compared to other past year informal private games players, retirees (26.2) reported significantly higher average annual frequency of playing.

TABLE 5.5 MEAN PAST YEAR GAMBLING FREQUENCY BY ACTIVITY BY SELECTED DEMOGRAPHIC CHARACTERISTICS (2017)

Demographic characteristic	EGMs	Horse/grey-hound racing	Instant scratch tickets	Lotteries	Keno
	(n=794)	(n=467)	(n=916)	(n=2,106)	(n=1,119)
All participants in each activity	**11.8**	**32.1**	**8.7**	**29.1**	**14.2**
Gender					
Male	14.2↑	40.4↑	9.9	31.5↑	17.0↑
Females	9.8↓	12.1↓	7.9	26.7	11.3↓
Age group					
18 to 24 years	5.1‡	9.2‡	7.5‡	34.6 ŧ	12.1
25 to 34 years	8.9	30.0‡	7.8	16.5↓	9.4↓
35 to 44 years	17.1	43.7	6.0↓	18.0↓	12.1
45 to 54 years	9.9	17.9↓	8.1	29.8	15.7
55 to 64 years	13.7	35.3	10.4	33.4↑	17.3
65 years or more	16.2↑	49.1↑	11.7↑	34.6↑	18.4↑
Household structure					
Couple no children	12.0	28.9	12.3‡	29.1	21.5
Couple children at home	7.6↓	32.4	6.7↓	24.2↓	10.7↓
Couple children left home	15.6↑	39.9	9.0	34.5↑	14.9
Single person	14.9	41.7	8.3	31.7	15.7
Single children at home	7.2↓	10.6‡	9.5	22.6↓	14.0
Single children left home	24.8‡	21.2	14.7↑	26.1	11.7
Group or shared household	16.9	26.2	9.5	23.8	20.1
Occupational status					

Demographic characteristic	EGMs	Horse/grey-hound racing	Instant scratch tickets	Lotteries	Keno
Paid full-time employed	12.8	31.0	7.5	28.6	13.7
Paid part-time employed	7.5↓	32.0‡	7.6	24.1↓	9.6↓
Household duties	4.0‡	np	7.1‡	36.0‡	6.1‡
Student	4.0‡	np	np	3.7‡	np
Retired	16.3↑	41.0	11.8↑	36.0↑	21.0↑
Looking for work	16.1‡	np	10.2	13.5↓	13.8‡
Unable to work- pensioner	14.1	27.7	11.4	28.0	21.1
Unpaid voluntary worker	np	np	14.7‡	18.9‡	np
Annual personal income					
Less than $20,000	7.2↓	26.3	8.9	29.0	9.8↓
$20,000-$39,999	11.4	24.6	8.9	32.9	20.4↑
$40,000 to $59,999	12.5	44.3	6.8↓	27.6	12.3
$60,000 to $79,999	20.5	31.9	7.8	23.4↓	13.9
$80,000-$119,999	11.8	31.7‡	10.5‡	27.9	10.3
$120,000-or more	10.8‡	13.0‡	6.4‡	33.4	9.4↓
Educational attainment					
Less than Year 12	13.0	35.3	9.6	33.6↑	16.1
Year 12	9.6	50.0	8.9	25.6	13.9
Vocational or trade qualifications	12.2	26.0	8.7	30.0	14.2
University graduate	10.3	17.6‡	6.3↓	21.1↓	7.5↓
Place of birth					
Australia	11.1↓	32.8	8.8	28.6	13.7
Overseas (ESB)	19.5	24.2‡	7.9	28.5	29.7‡
Overseas (NESB)	18.4‡	np	9.5‡	38.9	6.5↓

Note: Arrows show results that are significantly higher (↑) or lower (↓) than the average result of all other categories ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S A1,4 AND 5, B.1, C.1., D1A-8A AND P1-6.

TABLE 5.6 MEAN PAST YEAR GAMBLING FREQUENCY BY ACTIVITY BY SELECTED DEMOGRAPHIC CHARACTERISTICS (2017)

Demographic characteristic	Casino table games	Bingo	Sporting or other events	Informal private games	Any gambling activity
	(n=166)	(n=85)	(n=126)	(n=111)	(n=2,873)
All participants in each activity	3.4	15.3	33.8‡	9.1	41.6
Gender					
Male	3.8	2.3‡	39.4‡	9.4	52.3↑
Females	2.6	20.5↑	6.4‡	8.6	31.1↓
Age group					
18 to 24 years	5.6‡	np	66.9 ŧ	np	28.6
25 to 34 years	2.4	np	24.8‡	7.4‡	39.4
35 to 44 years	1.7↓	np	33.4 ŧ	9.6‡	36.7
45 to 54 years	3.1	20.8 ŧ	17.9	5.4‡	40.1
55 to 64 years	3.0	22.8‡	26.7‡	18.2	47.4
65 years or more	7.2 ŧ	19.1	11.7‡	16.2‡	47.5↑
Household structure					
Couple no children	3.3	12.9‡	24.5	10.5 ŧ	45.8
Couple children at home	2.8	4.7↓ ŧ	35.1	7.9	33.3↓
Couple children left home	6.1 ŧ	7.6‡	24.2‡	22.0‡	46.5
Single person	7.3 ŧ	17.5‡	14.3	7.7‡	45.2
Single children at home	np	np	np	np	58.2‡
Single children left home	np	30.9	np	np	38.1
Group or shared household	3.0‡	np	4.3‡	np	46.5
Occupational status					
Paid full-time employed	3.0	12.3 ŧ	27.0	8.1	42.1
Paid part-time employed	2.2↓	2.3‡	82.2 ŧ	5.6‡	32.7↓
Household duties	np	np	np	np	80.0 ŧ
Student	np	np	np	np	11.1‡
Retired	7.0 ŧ	20.5	17.2‡	26.2↑	50.2↑
Looking for work	np	np	np	np	32.8
Unable to work- pensioner	np	24.6‡	np	np	42.7
Unpaid voluntary worker	np	np	np	np	27.8
Annual personal income					
Less than $20,000	5.8‡	8.5‡	99.6 ŧ	8.7 ŧ	32.8↓
$20,000-$39,999	3.7 ŧ	20.0	22.4	13.3‡	46.0
$40,000 to $59,999	2.8	28.6 ŧ	28.0‡	8.5‡	42.6
$60,000 to $79,999	3.1	3.0‡	10.0‡	6.8‡	38.6
$80,000-$119,999	3.0‡	np	42.7‡	10.9‡	51.0
$120,000-or more	np	np	np	np	37.9
Educational attainment					
Less than Year 12	2.0↓	31.9‡	28.8 ŧ	17.5‡	49.3↑

Demographic characteristic	Casino table games	Bingo	Sporting or other events	Informal private games	Any gambling activity
Year 12	5.5	14.6‡	61.0 ɬ	7.2‡	43.5
Vocational or trade qualifications	2.2↓	5.9‡	13.0↓	8.0	40.6
University graduate	2.5	np	34.0‡	9.2	25.9↓
Place of birth					
Australia	3.6↑	14.6	36.3‡	8.8	41.7
Overseas (ESB)	np	22.2	np	13.4 ɬ	41.3
Overseas (NESB)	2.0↓	np	np	np	40.1

Note: Arrows show results that are significantly higher (↑) or lower (↓) than the average result of all other categories ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable.

ɬ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S A1,4 AND 5, B.1, C.1., D1A-8A AND P1-6.

5.5 Annual gambling frequency by location or medium

Table 5.7 displays the frequency and mean number of annual gambling sessions (based to all participants of the particular gambling activity) by the location or medium where the gambling took place. The following summarises the most common locations or mediums from the 2017 survey. For more detail on participation in online gambling see Section 8.3.

5.5.1 EGMs

- EGMs were played most often in clubs or hotels, followed by in a casino.
- Most (80.1%) EGM gamblers had played in a club or hotel, while 59.2% had played in a casino. The average number of times of EGM gamblers had played in a club or hotel in the past year was 7.7 times, as compared to 3.4 times in a casino.
- Weekly participation among EGM gamblers however, was approximately comparable between clubs or hotels (4.4%) and casinos (2.2%).

5.5.2 Horse or greyhound racing

- Betting on horse or greyhound races most often occurred at an off-course venue.
- Approximately, two-thirds (65.0%) of those who gambled on horse or greyhound racing did so at an off-course venue, with 10.3% doing this on a regular basis of at least once a week. Further, one third (37.8%) had placed a bet on horse or greyhound racing at a race course and two-fifths (38.7%) had placed a bet over the internet.
- Despite the lower overall prevalence of betting on horse or greyhound racing over the internet, the average number of times people who bet on horse or greyhound had done so over the internet (15.9 times per year) was higher than at off-course venues (11.6 times per year).

5.5.3 Instant scratch tickets

- Instant scratch tickets were most often purchased from a newsagents or Tattersalls outlet; 98.4% of purchasers had bought instant scratch tickets at this type of venue.
- Most (74.8%) purchasers of instant scratch tickets had bought tickets less than once a month at a newsagent or Tattersalls, although 5.8% had bought tickets weekly. On average, instant scratch tickets are purchased 8.5 times per year from a newsagent or Tattersalls.

5.5.4 Lotteries

- Lottery tickets were most often purchased from a newsagents or Tattersalls outlet (90.8% of purchasers), although 16.0% had purchased lottery tickets over the internet.
- On average, purchasers of lottery tickets did so 24.6 times per year at a newsagent or Tattersalls, 4.6 times per year over the internet.

- Further, one third of those who purchased lottery tickets did so on a weekly basis at a newsagent or Tattersalls (32.2%) and 3.4% did so on a weekly basis over the internet.

5.5.1 Keno

- Keno was played most often in clubs or hotels, followed by in a casino.
- The majority (93.0%) of all keno players had played in a club or hotel, while 20.0% had played in a casino. The average number of times of keno players had played in a club or hotel in the past year was 13.0 times, as compared to 1.4 times in a casino.
- Weekly keno play was also higher at a club or hotel (7.0%), as compared to a casino (0.7%).

5.5.2 Casino table games

- Casino table games were most often played in a casino.
- Nine in ten (92.7%) people who played casino table games played in a casino, with most (87.7% of all casino players) playing in a casino less often than once a month. On average, casino players did so 3.2 times per year in a casino.

5.5.3 Bingo

- Bingo was most often played at a club or hall.
- Nine in ten (86.7%) bingo players played at a club or hall, with one in five (18.1%) playing on a weekly basis. On average, bingo players did so 15.0 times per year at a club or hall.

5.5.4 Sporting and other events

- Sports or other events betting most often occurred over the internet, followed by off-course venues.
- More than two thirds (70.2%) of all those who bet on sporting or other events did so over the internet, while two fifths (42.1%) bet at an off-course venue. The average number of times those who bet on sporting or other events did so over the internet was 28.9 times, as compared to 4.7 times at an off-course venue.
- Weekly betting on sports or other events was also higher over the internet (14.3%)

TABLE 5.7 PAST YEAR GAMBLING FREQUENCY BY LOCATION OR MEDIUM (2017)

Gambling activity	Not in the past year	Less than once per month	1 to 3 times per month	Once a week or more	Any play	Mean Frequency of Participation*
	%	%	%	%	%	Times per year
EGMs (*n=794*)	**-**	**71.4**	**20.4**	**6.6**	**100.0**	**11.8**
In club or hotel	19.9	59.9	15.7	4.4	80.1	7.7
In a casino	40.8	50.2	6.8	2.2	59.2	3.4
Over the internet	97.4	1.9‡	np	np	2.6	0.8‡
Horse or greyhound races (*n=467*)	**-**	**56.7**	**21.4**	**20.3**	**100.0**	**32.1**
At the race course	62.2	30.3	4.9	2.6	37.8	3.3
At an off-course venue	35.0	40.5	14.1	10.3	65.0	11.6
By telephone/SMS	90.1	4.1	np	3.7	9.9	3.3
Over the internet	61.3	19.0	9.2	10.4	38.7	15.9
Instant scratch tickets (*n=916*)	**-**	**75.4**	**17.4**	**5.9**	**100.0**	**8.7**
At newsagent/Tattersalls	1.6	74.8	17.7	5.8	98.4	8.5
Over the internet	98.5	np	np	np	np	0.3 ł
Lotteries (*n=2,106*)	**-**	**42.3**	**21.9**	**35.1**	**100.0**	**29.1**
At newsagent/Tattersalls	9.2	39.9	18.7	32.2	90.8	24.6
Over the internet	84.0	7.5	5.0	3.4	16.0	4.6
Keno (*n=1,119*)	**-**	**66.6**	**24.8**	**7.4**	**100.0**	**14.2**
In a club or hotel	7.0	63.1	23.0	7.0	93.0	13.0
In a casino	80.0	16.6	2.7	0.7	20.0	1.4
Over the internet	99.7	np	np	np	np	0.1 ł
Casino table games (*n=166*)	**-**	**94.0**	**5.4‡**	**np**	**100.0**	**3.4**
In a casino	7.3‡	87.7	np	np	92.7	3.2
Over the internet	95.3	np	np	-	np	0.2‡
Bingo (*n=85*)	**-**	**73.1**	**np**	**18.7**	**100.0**	**15.3**
At a club or hall	13.3‡	60.4	np	18.1	86.7	15.0
Over the internet	99.4	-	-	np	np	0.3 ł
Sporting or other event (*n=126*)	**-**	**60.7**	**22.0**	**17.2**	**100.0**	**33.8‡**
At an off-course venue	57.9	31.0	np	np	42.1	4.7‡
By telephone/SMS	97.9	np	np	-	np	0.2 ł
Over the internet	29.8	38.1	17.8	14.3	70.2	28.9‡
Informal private games[a] (*n=2,873*)	**-**	**78.3**	**9.6**	**9.1‡**	**100.0**	**9.1**
Any location/medium	**95.8**	**3.3**	**0.5**	**0.4‡**	**4.2**	**9.1**

[a] Location/mode of play information was not collected for this gambling form.

Note: * Mean includes respondents who reported zero. Due to a small group for whom frequency of participation could not be calculated, row totals do not add to exactly to the figure shown in the column headed 'Any play'. np Data not available for publication due to insufficient responses but included in totals where applicable.

ł RSE between 30% and 50%.‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S B1, C1, D1A-8A

5.6 Regular gamblers

Regular gamblers are defined as people who gamble at least once a week on any activity, except lotteries, scratch tickets or bingo. When considering the data below it is important to bear in mind that some regular gamblers engage in multiple gambling activities (excluding lotteries, scratch tickets or bingo) and may be regular gamblers in more than one activity.

Overall, regular gamblers represent 5.7% of the Tasmanian adult population (or 9.5% of Tasmanian adult gamblers).

5.6.1 Demographic characteristics

Table 5.8 shows the proportions of regular gamblers in selected demographic subgroups across the total Tasmanian population.

Higher levels of regular gambling were evident among males (8.7%), those in paid full-time employment (7.9%), those born in Australia (6.2%), those who did not complete Year 12 (7.4%) and those with annual personal incomes between $80,000 and $119,999 (9.6%). Conversely, lower levels of regular gambling were evident among females (3.0%), those living in a couple with children at home (4.2%), those in part-time employment (3.8%), those with annual personal incomes below $20,000 (3.9%) and university graduates (2.3%).

TABLE 5.8 REGULAR GAMBLERS BY SELECTED DEMOGRAPHIC CHARACTERISTICS (2017)

Demographic characteristic	Tasmanian adults	Regular gamblers	Demographic characteristic	Tasmanian adults	Regular gamblers
	n	%		n	%
Tasmanian adults as a whole	**5,000**	**5.7**	**Tasmanian adults as a whole**	**5,000**	**5.7**
Gender			**Annual personal income**		
Male	2,464	8.7↑	Less than $20,000	814	3.9↓
Females	2,534	3.0↓	$20,000-$39,999	1451	5.2
Age group			$40,000 to $59,999	761	7.8
18 to 24 years	156	6.7	$60,000 to $79,999	480	6.8
25 to 34 years	323	6.0	$80,000-$119,999	501	9.6↑
35 to 44 years	533	5.4	$120,000-or more	175	np
45 to 54 years	811	4.9	**Educational attainment**		
55 to 64 years	1,205	5.2	Less than Year 12	1,132	7.4↑
65 years or more	1,972	6.3	Year 12	754	7.5
Household structure			Vocational or trade qualifications	1,643	5.2
Couple no children	492	8.1	University graduate	1,395	2.3↓
Couple children at home	1,248	4.2↓	**Place of birth**		
Couple children left home	1,484	6.0	Australia	4,182	6.2↑
Single person	660	7.1	Overseas (ESB)	572	4.6
Single children at home	261	3.5‡	Overseas (NESB)	239	np
Single children left home	518	5.1			
Group or shared household	136	11.5			
Occupational status					
Paid full-time employed	1,391	7.9↑			
Paid part-time employed	914	3.8↓			
Household duties	131	np			
Student	82	np			
Retired	1,851	6.8			
Looking for work	111	np			
Unable to work/ pensioner	361	5.1			
Unpaid voluntary worker	50	np			

Note: Arrows show results that are significantly higher (↑) or lower (↓) than the average result of all other categories ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%..‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. QS A4, A5, B1 AND P1-P16.

5.6.2 Gambling participation

Table 5.9 shows the proportion of all regular gamblers who engage in each activity compared to the proportion of all other gamblers (that is, non-regular gamblers).

Approximately three quarters (74.9%) of all regular gamblers gambled on keno in the past year, while three fifths gambled on horse or greyhound races (62.0%) or EGMs (60.8%). Approximately one quarter had gambled on sporting or other events (29.7%) or casino table games (25.9%) and 15.3%

had gambled on informal private games. Participation in these activities was significantly higher among regular gamblers than among all non-regular gamblers.

No differences were found between regular and non-regular gambler in the playing of bingo or lotteries or purchase of instant scratch tickets in the past year.

TABLE 5.9 GAMBLING ACTIVITY AMONG REGULAR AND NON-REGULAR GAMBLERS (2017)

Gambling activity	Regular gamblers (n=272) %	Non-regular gamblers (n=2,601) %
EGMs	60.8↑	28.7
Horse or greyhound races	62.0↑	12.0
Keno	74.9↑	40.9
Casino table games	25.9↑	6.9
Sporting or other event	29.7↑	3.7
Informal private games	15.3↑	3.7
Any other gambling activity	np	0.5‡
Forms of gambling which were not included in the definition of Regular Gambling		
Instant scratch tickets *	39.7	34.6
Lotteries *	59.9	66.5
Bingo *	6.4	2.8

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-regular gamblers (p<0.05). np Data not available for publication due to insufficient responses but included in totals where applicable. * Activity not included in the definition of regular gambler.

ŧ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S B1, C1, D1A-8A.

Table 5.10 presents regular gamblers' participation in specific gambling activities by location or medium. Results indicate that:

- **EGMs**—regular gamblers had mainly gambled on EGMs in a club or hotel, or a casino in the previous 12 months. Overall, 52.5% of regular gamblers who had participated in this type of gambling did so in a club or hotel, and 43.1% in a casino. One in twenty (5.4%) had gambled on EGMs over the internet.
- **Horse or greyhound racing**—regular gamblers had mainly bet on horse or greyhound races at an off-course venue (45.1% of regular gamblers). Slightly more than a third (32.4%) had bet over the internet, one quarter (23.1%) at the race course and 9.9% by telephone or SMS.
- **Instant scratch tickets**—regular gamblers had mainly purchased instant scratch tickets in the previous 12 months at newsagents or Tattersalls (39.3% of regular gamblers).
- **Lotteries**—similar to trends seen for instant scratch tickets, regular gamblers had mainly purchased lottery tickets at newsagents and Tattersalls outlets (56.1% of regular gamblers); although one in ten (11.7%) had purchased lottery tickets over the internet.
- **Keno**—regular gamblers had mainly played keno in the previous 12 months in a club or hotel (71.0% of regular gamblers). One fifth (21.1%) of regular gamblers had played keno in a casino.
- **Casino table games**—regular gamblers had mainly played casino table games in the previous 12 months in a casino (24.6%).
- **Bingo**—regular gamblers had mainly bet on bingo at a club or hall (5.0% of regular gamblers).
- **Sporting or other events**—regular gamblers had mainly bet on sporting or other events over the internet (21.7%) or at an off-course venue (15.1%).

TABLE 5.10 LOCATION OR MEDIUM OF GAMBLING PARTICIPATION AMONG REGULAR GAMBLERS (2017)

Gambling Activity	Regular gamblers	Non-regular gamblers
	(n=272) %	(n=2,601) %
EGMs	**60.8↑**	**28.7**
In club or hotel	52.5↑	22.6
In a casino	43.1↑	16.2
Over the internet	5.4‡	np
Horse or greyhound races	**62.0↑**	**12.0**
At the race course	23.1↑	4.6
At an off-course venue	45.1↑	7.3
By telephone/SMS	9.9↑	0.8
Over the internet	32.4↑	3.7
Instant scratch tickets	**39.7**	**34.6**
At newsagent/Tattersalls	39.3	34.0
Over the internet	np	np
Lotteries	**59.9**	**66.5**
At newsagent/Tattersalls	56.1	60.2
Over the internet	11.7	10.4
Keno	**74.9↑**	**40.9**
In a club or hotel	71.0↑	37.9
In a casino	21.1↑	7.5
Over the internet	np	np
Casino table games	**25.9↑**	**6.9**
In a casino	24.6↑	6.3
Over the internet	np	np
Bingo	**6.4**	**2.8**
At a club or hall	5.0	2.5
Over the internet	np	np
Sporting or other event	**29.7↑**	**3.7**
At an off-course venue	15.1↑	1.3
By telephone/SMS	np	np
Over the internet	21.7↑	2.5
Private or informal games	**15.3↑**	**3.7**
Any location/medium	13.3↑	3.2

Note: 'Other gambling activity' appear in this table as location/mode of play information was not collected for this gambling form. Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-regular gamblers (p<0.05). np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S B1, C1, D1A-7A.

Table 5.11 shows the number of past year gambling activities engaged in by regular and other (non-regular) gamblers.

As can be seen, the proportion of regular gamblers participating in four or more activities was significantly higher than among non-regular gamblers (56.3% versus 10.6%). On the other hand, non-regular gamblers were significantly more likely than regular gamblers to participate in one (43.3% versus 11.7%) or two (28.4% versus 16.3%) activities only.

TABLE 5.11 NUMBER OF GAMBLING ACTIVITIES BY TYPE OF GAMBLER (2017)

No. of gambling activities	Regular gamblers	Non-regular gamblers
	(n=272)	(n=2,601)
	%	%
All gambling activities		
One	11.7↓	43.3
Two	16.3↓	28.4
Three	15.6	17.7
Four or more	56.3↑	10.6

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-regular gamblers (p<0.05).

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S B1, C1, D1A-8A.

5.6.3 Gambling frequency

Table 5.12 compares the annual frequency of gambling participation by regular and non-regular gamblers. By definition, other gamblers do not gamble weekly on any one activity (other than potentially on instant scratch tickets, lotteries, or bingo) and would be expected to gamble at lower frequencies than regular gamblers. Thus, while statistically significant differences between regular and other gamblers are indicated in this table, it should be noted that many of these are definitional artefacts, particularly the zero values in the 'less than once a month' frequency category.

Overall, the frequency of participation in any gambling activity among regular gamblers in 2017 was substantially higher than among non-regular gamblers. More specifically, the average annual frequency of gambling participation was 166.6 times per year as compared to 28.0 times among non-regular gamblers. Less often than once a month participation was the most common frequency of gambling among non-regular gamblers (44.0%).

In terms of the frequency of specific gambling activities, regular gamblers reported significantly higher annual frequency of EGM play, horse or greyhound races betting, lottery tickets purchase, keno and casino table play and informal private game betting.

- **EGMs—**one third (34.7%) of regular gamblers who had gambled on EGMs did so at least once a week and more than one third (36.6%) played 1 to 3 times per month. On average, regular gamblers who played EGMs did so 38.4 times a year, as compared with 5.7 times among other EGM gamblers.
- **Horse or greyhound races—**more than half (55.3%) of regular gamblers who had bet on horse or greyhound races did so at least once a week and over one fifth (28.3%) played 1 to 3 times per month. On average, regular gamblers who played bet on horse or greyhound races did so 76.0 times a year, as compared with 7.2 times among others who bet on these types of races.
- **Instant scratch tickets—**one quarter (26.9%) of regular gamblers who had purchased instant scratch tickets did so 1 to 3 times per month. The average purchase frequency was comparable to others who purchased instant scratch tickets (12.8 times per year versus 8.2 times).
- **Lotteries—**half (46.1%) of regular gamblers who had purchased lottery tickets did so at least once a week and one fifth (22.7%) purchased one 1 to 3 times per month. On average, regular gamblers who played purchased lottery tickets did so 40.7 times a year, as compared with 28.0 times among others who purchased lottery tickets.
- **Keno—**two fifths (43.3%) of those regular gamblers who had played keno did so on a weekly basis and one third (32.1%) played 1 to 3 times per month. On average, regular gamblers played keno 52.4 times a year, as compared with 6.6 times a year reported by other keno players.

— **Casino table games, bingo, sports/event betting and informal private games—**the small sample sizes of regular gamblers participating in these activities means results are less statistically reliable. Nevertheless, it was apparent that regular gamblers who participate in these activities tended to do so more frequently than other participants in these gambling activities.

TABLE 5.12 ANNUAL FREQUENCY OF GAMBLING ACTIVITY BY TYPE OF GAMBLER (2017)

Gambling activity	Annual Frequency of Participation	Regular gamblers who participate in each activity	Non-regular gamblers who participate in each activity
		%	%
		(n=154)	*(n=640)*
EGMs	Once a week or more	34.7↑	np
	1 to 3 times a month	36.6↑	16.7
	Less than once a month	28.7↓	81.2
	Mean Frequency (/year)	*38.4↑*	*5.7*
		(n=161)	*(n=306)*
Horse or greyhound races	Once a week or more	55.3↑	np
	1 to 3 times a month	28.3↑	17.5
	Less than once a month	16.3↓	79.4
	Mean Frequency (/year)	*76.0↑*	*7.2*
		(n=92)	*(n=824)*
Instant scratch tickets	Once a week or more	np	5.7
	1 to 3 times a month	26.9	16.2
	Less than once a month	65.0	76.6
	Mean Frequency (/year)	*12.8*	*8.2*
		(n=175)	*(n=1,931)*
Lotteries	Once a week or more	46.1↑	34.0
	1 to 3 times a month	22.7	21.8
	Less than once a month	30.9↓	43.4
	Mean Frequency (/year)	*40.7↑*	*28.0*
		(n=191)	*(n=928)*
Keno	Once a week or more	43.3↑	np
	1 to 3 times a month	32.1	23.3
	Less than once a month	24.6↓	75.0
	Mean Frequency (/year)	*52.4↑*	*6.6*
		(n=44)	*(n=122)*
Casino table games	Once a week or more	np	np
	1 to 3 times a month	np	np
	Less than once a month	82.2↓	98.9
	Mean Frequency (/year)	*6.7↑*	*2.1*
		(n=17)	*(n=68)*
Bingo	Once a week or more	np	16.0‡
	1 to 3 times a month	np	np
	Less than once a month	np	77.2

Gambling activity	Annual Frequency of Participation	Regular gamblers who participate in each activity	Non-regular gamblers who participate in each activity
	Mean Frequency (/year)	*29.7‡*	*11.7*
		(n=54)	*(n=72)*
Sporting or other event	Once a week or more	36.7↑	np
	1 to 3 times a month	23.4	20.8
	Less than once a month	39.8↓	79.2
	Mean Frequency (/year)	*64.4‡*	*6.8*
		(n=33)	*(n=78)*
Informal private games	Once a week or more	29.5↑	np
	1 to 3 times a month	np	10.6
	Less than once a month	63.0↓	85.1
	Mean Frequency (/year)	*20.7↑*	*3.9*
		(n=272)	*(n=2,601)*
Any gambling activity	Once a week or more	99.5↑	24.8
	1 to 3 times a month	np	28.6
	Less than once a month	np	44.0
	Mean Frequency (/year)	*166.6↑*	*28.0*

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those for other gamblers. ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable.

ł RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY. Q.S B1, C1, D1A-8A.

6 GAMBLING EXPENDITURE

This chapter presents details of past year gambling expenditure by Tasmanian adults. The specific topics presented in this chapter are:

- total expenditure by gambling activity
- a comparison between previous surveys of expenditure by gambling activity for all Tasmanian adults and for the participants in each gambling activity
- mean expenditure by activity for demographic sub-groups
- a comparison of highest spend gambling activities in 2011 and 2013 and, for 2017, the number of times per year highest spend activities were played and participants annual expenditure on them.

Estimates of annual expenditure on each gambling activity were calculated by multiplying the estimated frequency of participation per annum by the estimated expenditure per session. Due to the process by which they were calculated, estimates of annual expenditure should be considered nominal. It should be noted that gamblers' self-reported gambling expenditure is typically under-reported compared to government data (Australian Institute for Gambling Research, 2001). Moreover, respondents often answer idiosyncratically (Blaszczynski et al., 2006). Therefore, caution is advised when reporting or basing subsequent calculations using these figures (see Volume 1, Chapter 6 for more information).

All amounts in the tables are reported in Australian dollars.

6.1 Key findings

- The total estimated gambling expenditure for all Tasmanian adults in 2017 was $237.5 million. Lotteries saw the highest estimated expenditure ($80.7m), followed by horse or greyhound racing ($50.6m), EGMs ($49.4m) and keno ($31.2m).
- There was a significant decrease in the proportion of Tasmanian adults who spent $100 or less on any gambling activity (from 22.0% in 2013 to 19.7% in 2017) and lotteries specifically (from 17.2% in 2013 to 13.9% in 2017). However, these changes were not accompanied by significant changes in mean annual expenditure.
- The average annual spend among gamblers in Tasmania in 2017 was $950; comparable to figures from the 2011 ($1,054) and 2013 ($927) surveys. Higher annual spends were seen among males ($1,288 per annum), those born in Australia ($985) and those who had not completed Year 12 ($1,196).
- The highest mean annual spends among participants in each gambling activity were for betting on horse or greyhound races ($1,266 per annum), playing EGMs ($655 per annum) and betting on sporting or other events ($633 per annum). A significant increase in mean annual expenditure on lotteries was noted between 2013 and 2017 (from $431 to $518).

— Purchase of lottery tickets was the most common highest spend activity in 2017 (48.1%), followed by EGMs (15.3%), keno (12.7%) and instant scratch tickets (10.1%). The rank order of highest spend activities did not change between 2013 and 2017, and no significant changes in the estimated prevalence were found.

6.2 Annual gambling expenditure

Table 6.1 shows the estimated total gambling expenditure by gambling activity for the Tasmanian adult population in 2017.

Overall, the total estimated gambling expenditure for the Tasmanian adult population in 2017 was $237.5 million. Insofar as specific gambling activities were concerned, lotteries saw the highest annual spend in 2017 ($80.7m), followed by horse or greyhound racing ($50.6m), EGMs ($49.4m) and keno ($31.2m).

The top four activities in terms of expenditure were the same as 2013. The rank order of estimated expenditure on specific gambling activities was also consistent with 2013 results.

TABLE 6.1 ESTIMATED TOTAL EXPENDITURE BY GAMBLING ACTIVITY—TASMANIA (2011, 2013 AND 2017

	Expenditure					Per cent of total		
Gambling activity	**2011**	**2013**	**2017**	**2017**	**2017**	**2011**	**2013**	**2017**
	$M	$M	$M	Upper bound	Lower bound	%	%	%
EGMs	61.3	43.9	49.4	61.7	37.1	22.7	20.5	20.8
Horse or greyhound races	88.6	45.4	50.6	69.1	32.1	32.8	21.2	21.3
Instant scratch tickets	7.7	7.0	7.1	8.9	5.3	2.9	3.3	3.0
Lotteries	66.4	69.1	80.7	90.3	71.1	24.6	32.3	34.0
Keno	24.2	26.5	31.2	40.8	21.6	9.0	12.4	13.1
Casino table games	8.6	9.0 ǂ	5.6	7.7	3.5	3.2	4.2	2.4
Bingo	2.7	1.2	2.3	3.5	1.1	1.0	0.6	1.0
Sporting or other event	4.1	8.1 ǂ	9.3	15.9	2.7	1.5	3.8	3.9
Informal private games	2.1	1.3 ǂ	1.3	1.8	0.8	0.8	0.6	0.5
Total gambling expenditure	**270.0**	**213.9**	**237.5**	**270.7**	**204.3**	**100.0**	**100.0**	**100.0**

Note: ǂ RSE between 30% and 50%. ‡ RSE 50% or greater. Please note confidence intervals (i.e. upper bound, lower bound) have been provided for 2017 expenditure data.

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEYS. Q.S C2, D1B-D8B

Table 6.2 presents annual gambling expenditure by activity for 2011, 2013 and 2017. The figures shown (both spend categories and means) are per capita expenditure for all Tasmanian adults. To assist in providing a more nuanced view of gambling expenditure, it has been broken down here into annual expenditure categories of less than $100, $101 to $500 and more than $500.

The following trends were evident from the 2017 survey:

— Lotteries—the proportion of people who spent $100 or less on lotteries declined from 17.2% in 2013 to 13.9% in 2017. However, this change was not accompanied by a significant change in mean annual expenditure between 2013 ($181) and 2017 ($199).

— Total gambling expenditure—the proportion of people who spent $100 or less on any gambling activity declined from 22.0% in 2013 to 19.7% in 2017. No increase in mean annual expenditure was noted between 2013 ($536) and 2017 ($556).

— No significant change in annual expenditure was seen for EGMs, horse or greyhound racing, instant scratch tickets, keno, casino table games, bingo, sports or other events, or informal private games.

TABLE 6.2 ANNUAL GAMBLING EXPENDITURE BY ACTIVITY PER TASMANIAN ADULT (2011, 2013 AND 2017)

Gambling activity	Annual gambling expenditure	2011	2013	2017
Tasmanian adults (n)		n=4,303 %	n=5,000 %	n=5,000 %
EGMs	$100 or less	10.8	9.9	9.7
	$101-$500	5.7	4.5	4.7
	More than $500	3.7	3.1	3.6
	Mean annual spend per Tasmanian adult	*$160*	*$115*	*$122*
Horse or greyhound races	$100 or less	7.9↑	5.4	4.8
	$101-$500	2.3	2.6	1.9
	More than $500	3.9	2.4	2.8
	Mean annual spend per Tasmanian adult	*$228↑*	*$119*	*$125*
Instant scratch tickets	$100 or less	18.9	16.1	16.5
	$101-$500	4.1↑	3.4	2.8
	More than $500	0.8	0.9	0.8
	Mean annual spend per Tasmanian adult	*$20*	*$18*	*$18*
Lotteries	$100 or less	20.0↑	17.2↑	13.9
	$101-$500	15.5↑	14.1↑	11.9
	More than $500	9.7↓	10.6	11.6
	Mean annual spend per Tasmanian adult	*$167*	*$181*	*$199*
Keno	$100 or less	16.3	16.7	16.1
	$101-$500	5.3↓	5.9	6.7
	More than $500	2.3	2.6	2.6
	Mean annual spend per Tasmanian adult	*$63*	*$69*	*$77*
Casino table games	$100 or less	3.4	3.6	2.7
	$101-$500	1.5	1.9	1.5
	More than $500	0.6	0.7	0.6
	Mean annual spend per Tasmanian adult	*$20*	*$24*	*$14*
Bingo	$100 or less	0.9	1.3	1.2
	$101-$500	0.6 ŧ	0.1↓ ŧ	0.3
	More than $500	0.4 ŧ	0.2	0.3
	Mean annual spend per Tasmanian adult	*$7*	*$3*	*$6*
Sporting or other event	$100 or less	2.1	2.3	1.9
	$101-$500	0.6	0.9	0.9
	More than $500	0.6	0.8	0.8
	Mean annual spend per Tasmanian adult	*$10*	*$21ŧ*	*$23*
Informal private games	$100 or less	1.7	1.8	1.8
	$101-$500	0.9	0.4 ŧ	0.8
	More than $500	0.1 ŧ	0.2 ŧ	np
	Mean annual spend per Tasmanian adult	*$5*	*$3 ŧ*	*$3*
Any gambling activity	$100 or less	22.6↑	22.0↑	19.7

Gambling activity	Annual gambling expenditure	2011	2013	2017
	$101-$500	20.1↑	18.5	16.8
	More than $500	18.0	17.3	19.0
	Mean annual spend per Tasmanian adult	*$641*	*$536*	*$556*

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 (p<0.05). np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S C2, D1B-D8B

Table 6.3 compares the annual expenditure by participants in each gambling activity for 2011, 2013 and 2017. The following trends were evident from the 2017 survey results:

- Lotteries—the proportion of people who spent $100 or less on lotteries declined from 40.1% in 2013 to 36.1% in 2017 and the proportion who spent $500 or more increased from 24.7% to 30.2%. These changes were accompanied by a significant increase in mean annual expenditure (from $431 to $518).
- Bingo—the proportion of people who spent $100 or less on bingo declined from 78.2% in 2013 to 62.3% in 2017. The proportion who spent $101 to $500 on bingo increased from 5.5% to 18.2%. These changes were not accompanied by a significant change in mean annual expenditure between years.
- No significant change in annual expenditure was evident for EGMs, horse or greyhound racing, instant scratch tickets, keno, casino table games, sports or other events, or informal private games.

TABLE 6.3 ANNUAL GAMBLING EXPENDITURE BY ACTIVITY – PARTICIPANTS IN EACH ACTIVITY (2011, 2013 AND 2017)

Gambling activity	Annual spend	2011	2013	2017
		%	%	%
EGMs	*Base: EGM Gamblers*	*(n=828)*	*(n=899)*	*(n=794)*
	$100 or less	52.4	53.1	52.2
	$101-$500	27.6	24.4	25.4
	More than $500	17.7	16.9	19.3
	Mean spend per participant	*$791*	*$656*	*$655*
Horse or greyhound races	*Base: Bet on horse/greyhound races*	*(n=632)*	*(n=477)*	*(n=467)*
	$100 or less	54.4	51.5	48.2
	$101-$500	15.7	24.9	19.2
	More than $500	27	22.9	28.7
	Mean spend per participant	*$1,615*	*$1,140*	*$1,266*
Instant scratch tickets	*Base: Bought instant scratch tickets*	*(n=969)*	*(n=1,001)*	*(n=916)*
	$100 or less	77.5	77.9	80.5
	$101-$500	16.6	16.4	13.8
	More than $500	3.4 ǂ	4.3	3.7
	Mean spend per participant	*$83*	*$90*	*$86*
Lotteries	*Base: Bought lottery tickets*	*(n=2,116)*	*(n=2,379)*	*(n=2,106)*
	$100 or less	43.2↑	40.1↑	36.1
	$101-$500	33.5	32.8	31.0
	More than $500	20.9↓	24.7↓	30.2
	Mean spend per participant	*$369↓*	*$431↓*	*$518*
Keno	*Base: Played keno*	*(n=1,044)*	*(n=1,274)*	*(n=1,119)*

Gambling activity	Annual spend	2011	2013	2017
	$100 or less	66.9	64.4	62.2
	$101-$500	21.5	22.7	25.9
	More than $500	9.6	10.1	9.9
	Mean spend per participant	*$265*	*$275*	*$298*
Casino table games	*Base: Played casino table games*	*(n=182)*	*(n=181)*	*(n=166)*
	$100 or less	57.8	56.8	52.5
	$101-$500	26.4	30.8	29.9
	More than $500	10.7	11.5	12.6
	Mean spend per participant	*$364*	*$380*	*$272*
Bingo	*Base: Played bingo*	*(n=82)*	*(n=99)*	*(n=85)*
	$100 or less	44.8	78.2↑	62.3
	$101-$500	31.4 ŧ	5.5↓ ŧ	18.2
	More than $500	21.3	13.9	18.3
	Mean spend per participant	*$375*	*$203*	*$308*
Sporting or other event	*Base: Bet on sporting or other event*	*(n=138)*	*(n=158)*	*(n=126)*
	$100 or less	50.9	52.9	52.5
	$101-$500	15.3	21	24.0
	More than $500	14.9	17.6	22.4
	Mean spend per participant	*$313*	*$530*	*$633*
Informal private games	*Base: Bet on informal private games*	*(n=86)*	*(n=79)*	*(n=111)*
	$100 or less	54.1	66.8	64.5
	$101-$500	28.8	16.8 ŧ	28.8
	More than $500	4.5 ŧ	6.3 ŧ	np
	Mean spend per participant	*$196*	*$145*	*$111*
Any gambling activity	*Base: All gamblers*	*(n=2,796)*	*(n=3,145)*	*(n=2,873)*
	$100 or less	34.9	36	33.8
	$101-$500	31.1	30.3	28.7
	More than $500	27.8↓	28.2↓	32.5
	Mean spend per participant	*$1,054*	*$927*	*$950*

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 ($p<0.05$). Columns in the above table do not add to 100% as there are small numbers of participants for whom a frequency could not be calculated.

ŧ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, 2013 Q.S C2, D1B-D10B.

6.3 Expenditure on gambling activities by demographic characteristic

Table 6.4 and Table 6.5 show mean annual expenditure by the participants in each gambling activity by selected demographic characteristic.

In the 2017 survey, higher total gambling expenditure was seen among males ($1,288 per annum), those born in Australia ($985) and those who had not completed Year 12 ($1,196). While lower total gambling expenditure was seen among females ($616 per annum), people aged 18 to 24 years ($456), those who described their occupational status as household duties ($548), those with annual

personal incomes of less than $20,000 ($620), those born overseas in English-speaking countries ($653) and university graduates ($591).

The summaries below describe the significant differences between expenditure by the participants from each demographic subgroup and expenditure by all participants in the activity.

6.3.1 EGMs

Compared to other past year EGM players, those living in a couple with children at home ($1,055 per annum) reported significantly higher annual expenditure. By contrast, lower annual expenditure was seen among those with a personal annual income below $20,000 ($354) and those whose highest level of education was Year 12 ($401)

6.3.2 Horse or greyhound racing

Compared to others who bet on horse or greyhound racing in the past year, males ($1,656) and those born in Australia ($1,334) reported significantly higher annual expenditure.

6.3.3 Instant scratch tickets

Compared to others who purchased instant scratch tickets in the past year, people aged 18 to 24 years ($45) and those in part-time employment ($56) reported significantly lower annual expenditure.

6.3.4 Lotteries

Compared to other purchasers of lottery tickets in the past year, males ($617) and those who did not complete Year 12 ($612) reported significantly higher annual expenditure.

Lower annual expenditure was seen among females ($419), people aged 25 to 34 years ($302), those living in a group or shared household ($328), those who described their occupational status as looking for work ($206), those with personal income of between $60,000 and $79,999 per annum ($391) and university graduates ($376).

6.3.5 Keno

Compared to other past year keno players, males ($419) reported significantly higher annual expenditure. Lower annual expenditure was seen among females ($170), people aged under 35 years—18-24 years ($159); 25-34 years ($176)—those living in a couple with children at home ($184), those in part-time employment ($161), those with personal income of less than $20,000 ($134), those born overseas in a non-English speaking country ($49) and university graduates ($132).

6.3.6 Casino table games

Compared to other past year casino table players, people aged 35 to 64 years—35-44 years ($138); 45-54 years ($150); 55-64 years ($136)—those with personal income of between $20,000 and $39,999 per annum ($90) and those with a vocational or trade qualification ($177) reported significantly lower annual expenditure.

6.3.7 Bingo

Compared to other past year bingo players, females ($406) and those who had not completed Year 12 ($638) reported significantly higher annual expenditure.

6.3.8 Sporting or other events

No differences by demographic characteristics were noted for sporting or other events.

6.3.9 Informal private games

Compared to others who bet on informal private games in the past year, those currently living alone reported significantly lower annual expenditure ($43).

TABLE 6.4 MEAN EXPENDITURE IN SELECTED GAMES BY PARTICIPANT BY DEMOGRAPHIC CHARACTERISTIC (2017)

Demographic characteristic	EGMs	Horse/grey-hound racing	Instant scratch tickets	Lotteries	Keno
Participated in gambling activity (n)	794	467	916	2,106	1,119
	$	$	$	$	$
Gender					
Male	784	1,656↑	104	617↑	419↑
Females	548	328‡	73	419↓	170↓
Age group					
18 to 24 years	110‡	256‡	45↓	652 ŧ	159↓
25 to 34 years	443	2,027‡	105‡	302↓	176↓
35 to 44 years	1,049‡	1,681‡	88	449	347‡
45 to 54 years	752‡	712‡	89	528	489‡
55 to 64 years	816	1,143	89	565	263
65 years or more	810	1,445	78	563	289
Household structure					
Couple no children	434	1,348‡	168 ŧ	593	678‡
Couple children at home	500‡	1,501‡	64	483	184↓
Couple children left home	1,055↑	961	70	537	268
Single person	514‡	1,059‡	73	582	255‡
Single children at home	285‡	534 ŧ	95‡	431	184
Single children left home	1,085‡	979 ŧ	122	408	212
Group or shared household	1,031‡	1,404	81	328↓	749 ŧ
Occupational status					
Paid full-time employed	787	1,268	87	564	347
Paid part-time employed	501	1,669‡	56↓	435	161↓
Household duties	106‡	np	119 ŧ	598	57‡
Student	46‡	np	np	58‡	np
Retired	794	1,183	85	558	332
Looking for work	895‡	np	122‡	206↓	227‡
Unable to work/ pensioner	626‡	915‡	163‡	533	613 ŧ
Unpaid voluntary worker	np	np	139 ŧ	249‡	np
Annual personal income					
Less than $20,000	354↓	659‡	67	480	134↓
$20,000-$39,999	539	950	82	567	420‡
$40,000 to $59,999	734	1,238	68	470	294
$60,000 to $79,999	1,467‡	1,053‡	71	391↓	401‡
$80,000-$119,999	532	2,771‡	146 ŧ	493	205‡
$120,000-or more	1,002 ŧ	427‡	144 ŧ	1,326‡	226‡
Educational attainment					
Less than Year 12	896	1,356	82	612↑	335‡
Year 12	401↓	2,178‡	76	474	367‡

Demographic characteristic	EGMs	Horse/grey-hound racing	Instant scratch tickets	Lotteries	Keno
Vocational or trade qualifications	617	991	98	517	269
University graduate	668‡	579‡	61	376↓	132↓
Place of birth					
Australia	624	1,334↑	86	518	296
Overseas (ESB)	736‡	311‡	89	496	479‡
Overseas (NESB)	1,417‡	np	76‡	555	49↓

Note: Arrows show results that are significantly higher (↑) or lower (↓) than the average result of all other categories for each activity (p<0.05).

np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S A4 AND 5, C1 AND 2, D1B-D8B, P1-6.

TABLE 6.5 MEAN EXPENDITURE IN SELECTED GAMES BY PARTICIPANT BY DEMOGRAPHIC CHARACTERISTIC (2017)

Demographic characteristic	Casino table games	Bingo	Sporting or other events	Informal private games	Any gambling activity
Participated in gambling activity (n)	166	85	126	111	2,873
	$	$	$	$	$
Gender					
Male	306	62‡	744‡	124	1,288↑
Females	178 ǂ	406↑	81‡	83‡	616↓
Age group					
18 to 24 years	313‡	np	915 ǂ	np	456↓
25 to 34 years	402‡	np	918 ǂ	121	1,063
35 to 44 years	138↓	np	245	122‡	1,127
45 to 54 years	150↓	462‡	338	37‡	913
55 to 64 years	136↓	455‡	625‡	221‡	973
65 years or more	464 ǂ	311	162‡	84‡	955
Household structure					
Couple no children	463 ǂ	391 ǂ	405	67‡	1,209
Couple children at home	257	142 ǂ	733‡	130	846
Couple children left home	420‡	138‡	481‡	189‡	947
Single person	380‡	120‡	237‡	43 ǂ ↓	871
Single children at home	np	np	np	np	730
Single children left home	np	747‡	np	np	858
Group or shared household	181‡	np	129‡	np	1,484
Occupational status					
Paid full-time employed	316	161 ǂ	655‡	130	1,132
Paid part-time employed	230‡	95‡	922 ǂ	63 ǂ	810
Household duties	np	np	np	np	548↓
Student	np	np	np	np	177‡
Retired	286 ǂ	388	296‡	145‡	942
Looking for work	np	np	np	np	1,102‡
Unable to work/ pensioner	np	614‡	np	np	1,049

Demographic characteristic	Casino table games	Bingo	Sporting or other events	Informal private games	Any gambling activity
Unpaid voluntary worker	np	np	np	np	312‡
Annual personal income					
Less than $20,000	334‡	136‡	1,555 ǂ	53‡	620↓
$20,000-$39,999	90↓	482‡	291‡	101 ǂ	887
$40,000 to $59,999	440‡	274 ǂ	237	91‡	976
$60,000 to $79,999	242‡	83‡	232‡	139‡	1,027
$80,000-$119,999	287	np	1,191 ǂ	142‡	1,696
$120,000-or more	np	np	np	np	1,408
Educational attainment					
Less than Year 12	312 ǂ	638↑	593 ǂ	149‡	1,196↑
Year 12	378	280 ǂ	1,158 ǂ	114‡	1,109
Vocational or trade qualifications	177↓	133‡	276	111	834
University graduate	313‡	np	497‡	86	591↓
Place of birth					
Australia	280	317	684‡	116	985↑
Overseas (ESB)	np	247‡	np	57‡	653↓
Overseas (NESB)	172	np	np	np	792

Note: Arrows show results that are significantly higher (↑) or lower (↓) than the average result of all other categories for each activity (p<0.05). np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S A4 AND 5, C1 AND 2, D1B-D8B, P1-6.

6.4 Highest spend gambling activities

Table 6.6 shows the proportion of all past year gamblers who spent the most money on that activity; that is, the proportion for whom it was their highest spend gambling activity.

Overall, purchase of lottery tickets was the most common highest spend activity in 2017, with 48.1% of past year gamblers having it as their highest spend activity. This was followed by EGMs (15.3%), keno (12.7%), instant scratch tickets (10.1%) and horse or greyhound races (7.0%). Few past year gamblers had casino table games (2.8%), sporting or other events (1.7%), informal private games (1.3%) or bingo (1.0%) as their highest spend activity.

The rank order of highest spend activities did not change between 2013 and 2017, and no significant changes in the estimated prevalence were found.

TABLE 6.6 HIGHEST SPEND ACTIVITIES (2011, 2013 AND 2017)

Gambling activity	2011	2013	2017
Tasmanian gamblers (n)	n=3,145 %	n=2,873 %	n=2,796 %
EGMs	13.5	12.9	15.3
Horse or greyhound races	9.8↑	6.7	7.0
Instant scratch tickets	9.5	9.2	10.1
Lotteries	48.8	49.0	48.1
Keno	11.4	12.3	12.7
Casino table games	2.6	4.3	2.8

Gambling activity	2011	2013	2017
Bingo	0.8	0.8	1.0
Sporting or other event	0.9	1.5	1.7
Informal private games	1.1	1.1	1.3

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 ($p<0.05$).

ɬ RSE between 30% and 50%.

‡ RSE 50% or greater

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEYS.

Table 6.7 shows the frequency of participation and expenditure for the highest-spend gambling activities; specifically, for each activity it shows the mean annual frequency of participation, the mean annual expenditure and the mean expenditure per session. The 2017 survey results indicate:

- the highest spend activities with the highest frequency of participation were betting on sporting or other events (64.7 sessions) and betting on horse or greyhound racing (57.8 sessions per year), followed by lotteries (33.0 sessions), bingo (28.9 sessions), and keno (23.7 sessions)
- the highest spend activity with by far the highest per session spend was playing casino table games ($166.17 per session). This was followed by EGMs ($49.92), horse or greyhound racing ($40.11) and sporting or other events ($33.25)
- the highest spend activities with the highest annual spend (which reflects the frequency of participation and the amount of money spent at each session) were betting on horse or greyhound racing ($2,775) and EGMs ($1,148). This was followed by sporting or other events ($1,011), keno ($623) and lotteries ($615).

TABLE 6.7 HIGHEST SPEND BY ACTIVITY – MEAN ANNUAL FREQUENCY AND MEAN ANNUAL EXPENDITURE (2017)

Highest spend gambling activity	Annual frequency of participation	Annual expenditure on each activity	Average spend per session
	(times/year)	$/year	$/session
EGMs (*n=362*)	16.2	$1,148	$49.92
Horse or greyhound races (*n=187*)	57.8	$2,775	$40.11
Instant scratch tickets (*n=253*)	11.1	$126	$10.97
Lotteries (*n=1,570*)	33.0	$615	$19.49
Keno (*n=298*)	23.7	$623	$18.09
Casino table games (*n=45*)	4.5	$517	$166.17
Bingo (*n=27*)	28.9‡	$564	$24.52
Sporting or other event (*n=32*)	64.7 ɬ	$1,011‡	$33.25‡
Informal private games (*n=33*)	15.1	$158	$17.23

Note: Base: Participants who spent the most on each activity.

ɬ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY.

7 PREVALENCE OF PROBLEM GAMBLING

This chapter presents survey results relating to the prevalence of problem gambling among Tasmanian adults over the previous 12 months. The chapter reports:

- prevalence of problem gambling and changes over time
- prevalence of problem gambling in comparison to other general population surveys
- prevalence of problem gambling by selected demographic characteristics, types and location/medium of gambling activity, number of gambling activities, and by frequency of participation and gambling expenditure
- results of a statistical analysis designed to identify the degree to which demographic characteristics and gambling participation predict gambling severity.

7.1 Key findings

- 0.6% of Tasmanian adults were classified as problem gamblers in 2017, 1.4% were considered to gamble at a moderate level of risk and 4.8% were low risk gamblers. Approximately half (51.8%) of Tasmanian adults were classified as non-problem gamblers and 41.5% were classified as non-gamblers.
- The proportion of problem gamblers, moderate risk and low risk gamblers was comparable to estimates from the 2011 and 2013 surveys. The proportion of non-gamblers in the Tasmanian adult population was significantly higher than 2011 and 2013, while the proportion of non-problem gamblers was significantly lower.
- Prevalence estimates for moderate risk (1.4%) and low risk (4.8%) gambling in Tasmania were at the lower end of the range of estimates from recent surveys conducted in other Australian states and territories, while the prevalence estimate for problem gamblers was towards the middle of the range of problem gambling estimates. Estimates for non-problem gambling (51.8%) in 2017 were at the lower end when compared to other states and territories, conversely results for non-gambling (41.5%) were at the higher end.
- Low risk gamblers were significantly more likely than non-problem gamblers to report having played EGMs, bet on horse or greyhound races, purchased instant scratch tickets, played keno, played casino table games, bet on sporting or other events, and played informal private games.
- Moderate risk gamblers were significantly more likely than non-problem gamblers to have played EGMs, bet on horse or greyhound races, purchased instant scratch tickets and played keno.
- Gamblers classified with any level of risk in their gambling behaviour were significantly more likely than non-problem gamblers (12.1%) to have participated in four or more different types of gambling (38.7% of low risk gamblers, 35.8% of moderate risk gamblers and 36.5% of moderate/problem gamblers).

- The average number of gambling sessions per year was significantly higher among low risk gamblers (70.6 times per year), and the combined group of moderate risk/problem gamblers (153.9 times per year) than non-problem gamblers (34.7 times per year). This trend was also evident in relation to playing EGMs and keno.
- The average annual spend on gambling was significantly higher among low risk gamblers ($2,466), moderate risk gamblers ($2,625) and the combined group of moderate risk/problem gamblers ($4,363) than non-problem gamblers ($682).
- Taking the influence of socio-demographic characteristics into account, PGSI category was significantly negatively predicted by age, whereby the odds of being classified in the next highest PGSI category decreased with age. Further, taking the influence of socio-demographic characteristics into account, PGSI category was significantly positively predicted by participation in EGMs, horse or greyhound races, instant scratch tickets, lotteries, keno, and casino table games.

7.2 Measuring gambling severity

All survey respondents classified as past year gamblers (i.e. those who had participated in at least one of the gambling activities in the last 12 months) were asked a standard set of nine questions (the PGSI) to ascertain their gambling status (Ferris & Wynne, 2001). Based on their responses, they were classified into one of five categories:

- problem gamblers are defined as those who have experienced adverse consequences as a result of their gambling and who may have lost control of their gambling behaviour. Involvement in gambling may be at any level, but is likely to be heavy. Problem gamblers have scores of 8 or more on the PGSI
- moderate risk gamblers are those who have responded 'never' to most of the indicators of behavioural problems in the PGSI, but who are more likely than low risk gamblers to score one or more on 'most of the time' or 'always' responses. This group may or may not have experienced adverse consequences from gambling. Moderate risk gamblers have scores of 3 to 7 on the PGSI
- low risk gamblers are unlikely to have experienced any adverse consequences from gambling and will have answered 'never' to most of the indicators of behavioural problems in the PGSI. Low risk gamblers have scores of 1 or 2 on the PGSI
- non-problem gamblers are those who have responded never to all of the indicators of behavioural problems. Members of this group may still be frequent gamblers with heavy involvement in gambling in terms of time and money, but they will not have experienced any adverse consequences. Non-problem gamblers have scores of 0 on the PGSI
- non-gamblers are those who have not participated in any gambling activity in the previous 12 months. In this study, these respondents were not administered the PGSI.

A brief description of the PGSI is included in Appendix B, with the specific items contained in question E1 of the questionnaire (see Appendix C).

Further, due to the low population prevalence of moderate risk and problem gambling, an aggregate category of moderate risk/problem gambling has been included in the tables to provide a higher level of statistical reliability for the estimates shown.

7.3 Gambling severity over time

Table 7.1 shows the estimated prevalence of the various levels of gambling severity among the Tasmanian adult population for 2011, 2013 and 2017. Results indicate that in 2017:

- 0.6% of Tasmanian adults were classified as problem gamblers, 1.4% were considered to gamble at a moderate level of risk and 4.8% were low risk gamblers. These estimates were comparable to those seen in 2011 and 2013; the slight decrease in the proportion of low risk gamblers noted in the 2013 survey has not been sustained.
- 51.8% of Tasmanian adults were classified as non-problem gamblers and 41.5% were classified as non-gamblers. The proportion of non-gamblers continues to be significantly higher than 2011 and 2013, while the proportion of non-problem gamblers is significantly lower.

TABLE 7.1 GAMBLING SEVERITY AMONG TASMANIAN ADULTS (2011, 2013 AND 2017)

PGSI category	2011	2013	2017
Tasmanian adults (n)	n=4,303	n=5,000	n=5,000
	%	%	%
Non-gamblers	35.2↓	38.8↓	41.5
Non-problem gamblers	56.7↑	54.9↑	51.8
Low risk gamblers	5.2	3.9	4.8
Moderate Risk gamblers	1.6	1.8	1.4
Problem Gamblers	0.7	0.5	0.6
Moderate risk / problem gamblers	**2.4**	**2.4**	**2.0**

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 ($p<0.05$).

Note: Items used in the PGSI scale are provided in Appendix B.1

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEYS, Q. E1.

7.4 Gambling severity – comparisons with other states/territories

The prevalence of problem gambling in recent surveys in other Australian states and territories has been measured using the PGSI. The results from these surveys can be found in Table 7.2 and are described in relation to the findings of the 2017 Tasmanian Gambling Prevalence Survey below. Note that these comparisons should be interpreted with caution given that there is high heterogeneity in prevalence estimates, even after accounting for methodological variation between prevalence studies (see Markham, Young, Doran and Sugden, 2017).

- The estimate of 0.6% of problem gambling in the 2017 Tasmanian study is towards the middle of the range of problem gambling estimates, compared to recent surveys conducted in other Australian states and territories. In these surveys, 0.4 to 0.8% are classified as problem gamblers using the PGSI.
- The estimate of 1.4% for moderate risk gambling in the 2017 Tasmanian study is at the lower end of the range of moderate risk gambling estimates from recent surveys conducted in other Australian states and territories. In these surveys, 1.1% to 2.9% are classified as moderate risk problem gamblers using the PGSI.
- The estimate of 4.8% for low risk gambling in the 2017 Tasmanian study is at the lower end of the range of low risk gambling estimates from recent surveys conducted in other Australian states and territories. In these surveys, 3.9% to 8.9% are classified as low risk problem gamblers using the PGSI
- The estimate of 51.8% for non-problem gambling in the 2017 Tasmanian study is at the lower end of the range of non-problem gambling estimates from recent surveys conducted in other Australian states and territories. In these surveys, 48.7% to 66.3% are classified as non-problem gamblers using the PGSI.
- In contrast, the estimate of 41.5% for non-gambling in the 2017 Tasmanian study is at the higher end of the range of non-gambling estimates from recent surveys conducted in other Australian states and territories. In these surveys, 24.0% to 46.0% reported not gambling in the previous 12 months.

The PGSI was designed to be administered to individuals who had gambled at least once in the preceding 12 months (Ferris & Wynne, 2001). This was the approach adopted in the 2017 Tasmanian study and is now the approach adopted by the surveys conducted in all of the other states and territories (Australian Capital Territory, New South Wales, Northern Territory, Queensland, South Australia and Victoria).

The 2017 Tasmanian study employed the standard PGSI response options, whereby never = 0, sometimes = 1, most of the time = 2, and almost always = 3 (Ferris & Wynne, 2001). Three other Australian state and territory surveys (Australian Capital Territory, New South Wales, and Northern Territory) also utilised the original PGSI response options (Davidson et al., 2015; Sproston, Hing, & Palankat, 2012; Stevens, 2017). The remaining surveys (Victoria, Queensland, and South Australia) used the modified five response options (never = 0, rarely = 1, sometimes = 1, often = 2, always = 3)

(Hare, 2015; Queensland Government, 2012; Social Research Centre, 2013). This modified response format for the PGSI may compromise the classification accuracy of the PGSI and underestimate the true rate of problem gambling (Jackson et al., 2010; Productivity Commission, 2010). Despite the modified response format, all of the surveys derive total PGSI scores by calculating the sum of the nine items, with total scores ranging from 0-27. In addition, all of the surveys use the four classification categories of non-problem gambler = 0, low-risk gambler = 1-2, moderate risk gambler = 3-7 and 8-27 = problem gambler.

TABLE 7.2 PREVALENCE RATES BY PGSI CATEGORY: RECENT AUSTRALIAN STATE AND TERRITORY SURVEYS

State / territory (study)	Sample size	Non-gambling (95% CI)	Non-problem gambling (95% CI)	Low-risk gambling (95% CI)	Moderate risk gambling (95% CI)	Problem gambling (95% CI)	To whom PGSI was administered	PGSI response options	Sampling frame
Australian Capital Territory (ACT) (Davidson et al., 2015)	2,271	46.00% (no CI reported)	48.70% (no CI reported)	3.90% (no CI reported)	1.10% (no CI reported)	0.40% (no CI reported)	Everyone who was 18 years or older and had participated in at least one gambling activity in the past 12 months.	Standard options: Never = 0, sometimes = 1, most of the time = 2, almost always = 3	Single frame
New South Wales (NSW) (Sproston, Hing & Palankat, 2012)	10,000	35.10% (no CI reported)	52.80% (no CI reported)	8.40% (no CI reported)	2.90% (no CI reported)	0.80% (0.63-0.97)	Everyone who was over 18 years and had gambled in the past 12 months.	Standard options: Never = 0, sometimes = 1, most of the time = 2, almost always = 3	Single frame
Northern Territory (NT) (Stevens, 2017)	4,945	23.96% (21.64-26.45)	64.33% (61.55-67.01)	8.13% (6.55-10.06)	2.90% (2.05-4.09)	0.68% (0.37-1.27)	Everyone who was over 18 years and had gambled in the past 12 months.	Standard options: Never = 0, sometimes = 1, most of the time = 2, almost always = 3	Dual frame (76% landline, 24% mobile telephone)
Queensland (Queensland Government, 2012)	15,000	26.20% (25.40-26.90)	66.30% (65.50-67.10)	5.20% (4.70-5.70)	1.90% (1.70 – 2.10)	0.48% (0.34-0.61)	Everyone who was over 18 years old and had gambled in the past 12 months.	Modified five response options: Never = 0, Rarely = 1, Sometimes = 1, Often = 2, Always = 3.	Single frame
South Australia (SA)(Social Research Centre, 2013)	9,508	31.20% (no CI reported)	58.60% (no CI reported)	7.10% (no CI reported)	2.50% (no CI reported)	0.60% (no CI reported)	Everyone who had participated in at least one gambling activity in the past 12 months.	Modified five response options: Never = 0, Rarely = 1, Sometimes = 1, Often = 2, Always = 3.	Dual frame (75% landline, 25% mobile telephone)
Tasmania (ACIL Allen Consulting, Deakin University, Central Queensland University, & the Social Research Centre, 2017)	5,000	41.50% (no CI reported)	51.80% (no CI reported)	4.80% (no CI reported)	1.40% (no CI reported)	0.60% (no CI reported)	Everyone who had participated in at least one gambling activity in the past 12 months.	Standard options: Never = 0, sometimes = 1, most of the time = 2, almost always = 3	Dual frame (50% landline, 50% mobile telephone)

State / territory (study)	Sample size	Non-gambling (95% CI)	Non-problem gambling (95% CI)	Low-risk gambling (95% CI)	Moderate risk gambling (95% CI)	Problem gambling (95% CI)	To whom PGSI was administered	PGSI response options	Sampling frame
Victoria (Hare, 2015)	13,554	29.90% (27.51-32.40)	57.59% (54.95-60.19)	8.91% (7.18-11.01)	2.79% (1.83-4.23)	0.81% (0.48-1.36)	Everyone who was over the age of 18 and had participated in at least one gambling activity in the past 12 months.	Modified five response options: Never = 0, Rarely = 1, Sometimes = 1, Often = 2, Always = 3.	Dual frame (92% landline, 8% mobile telephone)

7.5 Gambling severity by selected characteristics

7.5.1 Gambling severity by demographic characteristics

The following provides a brief summary of the demographic characteristics of each of the gambling severity categories in 2017. Details are provided in Table 7.3.

Non-problem gamblers

The estimated prevalence of non-problem gambling among Tasmanian adults in 2017 was 51.8%. Non-problem gambling was significantly higher among people aged 45 to 54 years (57.5%) or 55 to 64 years (58.3%), those living in a couple whose children have left home (54.7%), those in full-time paid employment (59.3%), those with personal annual incomes of $40,000 to $59,999 (59.8%) or $80,000 to $119,999 (57.4%), people with a vocational or trade qualification (55.8%) and those born in Australia (53.0%). By contrast, non-problem gambling was significantly lower among people aged 18-24 years (38.1%), students (33.7%), those with personal annual incomes below $20,000 (46.4%), those from a non-English speaking background born outside Australia (38.9%) and university graduates (39.6%).

Low risk gamblers

The estimated prevalence of low risk gambling in 2017 was 4.8%. Low risk gambling was significantly higher among those who had completed Year 12 (6.9%). Conversely, low risk gambling was significantly lower among people aged 65 years or more (2.5%), retirees (2.6%), those with personal annual incomes below $20,000 (2.6%), those from an English speaking background born outside Australia (2.9%) and university graduates (3.2%).

Moderate risk and problem gamblers

Due to the relatively small numbers of moderate risk (1.4%) and problem gamblers (0.6%) identified in the 2017 prevalence survey (and the comparatively high relative standard errors which resulted from this), demographic profile was limited to the combined moderate risk/problem gambler group.

The overall prevalence of moderate risk/problem gambling was 2.0% in 2017. The prevalence of moderate risk/problem gambling was higher among males (2.8%) than among females (1.2%). No other significant sub-group differences were noted in 2017.

TABLE 7.3 GAMBLING SEVERITY BY SELECTED DEMOGRAPHIC CHARACTERISTICS (2017)

Demographic characteristic	Tasmanian adults	Non-gamblers	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers
	n	%	%	%	%	%	%
Tasmanian adults as a whole	**5,000**	**41.5**	**51.8**	**4.8**	**1.4**	**0.6**	**2.0**
Gender							
Male	2,464	40.3	51.6	5.3	1.8	0.9↑	2.8↑
Females	2,534	42.7	51.9	4.2	0.9	np	1.2↓
Age group							
18 to 24 years	156	54.9↑	38.1↓	5.5‡	np	np	np
25 to 34 years	323	41.1	48.7	6.7	np	np	3.5‡
35 to 44 years	533	41.4	51.1	5.9	np	np	np
45 to 54 years	811	34.8↓	57.5↑	5.5	np	np	2.2
55 to 64 years	1,205	35.9↓	58.3↑	4.0	1.0	np	1.8
65 years or more	1,972	44.7↑	51.4	2.5↓	1.3	np	1.4

Demographic characteristic	Tasmanian adults	Non-gamblers	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers
Household structure							
Couple no children	492	42.4	52.3	3.6	np	np	np
Couple children at home	1,248	41.4	51.7	5.1	1.0‡	np	1.8
Couple children left home	1,484	40.6	54.7↑	3.0↓	1.3	np	1.6
Single person	660	44.3	47.9	5.8	1.8‡	np	2.1‡
Single children at home	261	42.4	48.2	7.1	np	np	np
Single children left home	518	42.2	52.0	3.3	np	np	np
Group or shared household	136	37.6	47.8	10.8‡	np	np	np
Occupational status							
Paid full-time employed	1,391	33.0↓	59.3↑	5.6	1.5	np	2.1
Paid part-time employed	914	43.1	49.6	5.9	np	np	1.4‡
Household duties	131	51.2↑	44.0	np	np	np	np
Student	82	61.4↑	33.7↓	np	np	np	np
Retired	1,851	43.8	52.0	2.6↓	1.2	np	1.6
Looking for work	111	45.1	41.9	np	np	np	np
Unable to work/ pensioner	361	44.2	48.2	5.4	np	np	np
Unpaid voluntary worker	50	51.8	41.0	np	np	np	np
Annual personal income							
Less than $20,000	814	48.2↑	46.4↓	2.6↓	2.2‡	np	2.8
$20,000-$39,999	1451	41.3	51.8	4.9	1.1‡	1.0‡	2.0
$40,000 to $59,999	761	33.4↓	59.8↑	5.2	1.6‡	np	1.6‡
$60,000 to $79,999	480	35.1↓	56.7	7.0	np	np	np
$80,000-$119,999	501	36.0↓	57.4↑	4.9	np	np	np
$120,000-or more	175	38.8	52.5	np	np	np	np
Educational attainment							
Less than Year 12	1,132	38.0↓	54.8	5.1	1.4	np	2.0
Year12	754	41.4	50.4	6.9↑	1.0‡	np	1.4‡
Vocational or trade qualifications	1,643	37.7↓	55.8↑	4.2	1.6	np	2.3
University graduate	1,395	55.9↑	39.6↓	3.2↓	0.9‡	np	1.3‡
Place of birth							
Australia	4,182	40.1↓	53.0↑	4.9	1.3	0.6	1.9
Overseas (ESB)	572	45.9	49.5	2.9↓	np	np	np
Overseas (NESB)	239	54.3↑	38.9↓	np	np	np	np

Note: Arrows show results that are significantly higher (↑) or lower (↓) than the average result of all other categories ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S A4 AND A5, E1, P1-6.

7.5.2 Gambling severity by gambling activity

Table 7.4 shows participation in various gambling activities by each category of gambling severity. The following discussion focuses on differences between the behaviour of non-problem gamblers and those whose gambling places them at some level of risk.

Low risk gamblers

Compared to non-problem gamblers, a significantly higher proportion of low risk gamblers:

- played EGMs (58.8% versus 27.8% of non-problem gamblers)
- bet on horse or greyhound races (32.0% versus 15.0%)
- purchased instant scratch tickets (43.1% verses 33.7%)
- played keno (62.4% versus 41.9%)
- played casino table games (24.5% versus 6.9%)
- bet on sporting or other events (15.1% versus 4.9%), and
- informal private games (10.2% versus 4.2%).

Moderate risk gamblers

Compared to non-problem gamblers, a significantly higher proportion of moderate risk gamblers:

- played EGMs (67.8%)
- bet on horse or greyhound races (32.3%)
- purchased instant scratch tickets (51.0%), and
- played keno (59.5%).

Problem gamblers

The sample size of persons identified as problem gamblers on the PGSI was small (n=23). As a consequence, estimates of problem gamblers' participation in various gambling activities are of limited reliability and should be treated with caution.

Nevertheless, it is evident that problem gamblers appear to have particularly high levels of participation in such gambling activities as playing EGMs.

Moderate risk/Problem gamblers

For the combined moderate risk/problem gambler group, higher levels of participation than non-problem gamblers were evident for playing EGMs, betting on horse or greyhound racing, purchasing instant scratch tickets and playing keno.

TABLE 7.4 GAMBLING SEVERITY BY GAMBLING ACTIVITY (2017)

Gambling activity	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers
	(n=2,601) %	(n=188) %	(n=61) %	(n=23) %	(n=84) %
EGMs	27.8	58.8↑	67.8↑	85.1↑	73.0↑
Horse or greyhound races	15.0	32.0↑	32.3↑	np	29.5↑
Instant scratch tickets	33.7	43.1↑	51.0↑	54.5	52.1↑
Lotteries	66.3	66.4	50.6	53.9	51.6↓
Keno	41.9	62.4↑	59.5↑	64.7	61.1↑
Casino table games	6.9	24.5↑	np	np	19.6‡
Bingo	3.0	np	np	np	np
Sporting or other events	4.9	15.1↑	np	np	19.0‡
Informal private games	4.2	10.2↑	np	np	np
Any other activity	np	np	np	np	np

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gambling ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S B1 AND E1.

Table 7.5 shows participation in various gambling activities by location or medium for each of the gambling severity categories. The summaries below draw attention to the significant differences between these categories and non-problem gamblers insofar as the use of these locations/media are concerned.

Low risk gamblers

Compared to non-problem gamblers, low risk gamblers displayed higher participation in:

- playing EGMs at a club or hotel (49.8% versus 21.7%) or at a casino (46.4% versus 15.5%)
- betting on horse or greyhound races at the racecourse (15.2% versus 5.4%), at an off-course venue (19.7% versus 9.9%) and over the internet (15.9% versus 5.4%)
- purchasing instant scratch tickets at the newsagency (43.1% versus 33.1%)
- playing keno at a club or hotel (58.2% versus 38.9%) or casino (19.8% versus 7.3%)
- playing casino table games at a casino (23.8% versus 6.2%), and
- betting on sporting or other events over the internet (9.6% versus 3.6%).

Moderate risk gamblers

Compared to non-problem gamblers, moderate risk gamblers displayed higher participation in playing EGMs at a club or hotel (59.3%) or casino (37.3%). Moderate risk gamblers also displayed higher participation of purchasing instant scratch tickets at the newsagency (51.0%) and playing keno at a club or hotel (56.8%).

Problem gamblers

As previously noted, the small sample size for problem gamblers means the estimates made here are of limited reliability. Nevertheless, it is evident that problem gamblers tended to display high levels of participation in playing EGMs at a club, hotel or casino and playing keno at a club or hotel.

Moderate risk/Problem gamblers

For the combined moderate risk/problem gambler group, higher levels of participation than non-problem gamblers were evident for playing EGMs at a club, hotel or casino, purchasing instant scratch tickets at the newsagency and playing keno at a club, hotel, or casino.

TABLE 7.5 GAMBLING SEVERITY BY GAMBLING LOCATION/MEDIUM (2017)

Gambling activity by location or medium	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers
	(n=2,601) %	(n=188) %	(n=61) %	(n=23) %	(n=84) %
EGMs	**27.8**	**58.8↑**	**67.8↑**	**85.1↑**	**73.0↑**
In club or hotel	21.7	49.8↑	59.3↑	85.1↑	67.0↑
In a casino	15.5	46.4↑	37.3↑	48.4↑	40.6↑
Over the internet	np	np	np	np	np
Horse or greyhound races	**15.0**	**32.0↑**	**32.3↑**	**np**	**29.5↑**
At the race course	5.4	15.2↑	np	np	np
At an off-course venue	9.9	19.7↑	16.5‡	np	17.4
By telephone/SMS	1.6	np	np	np	np
Over the internet	5.4	15.9↑	np	np	np
Instant scratch tickets	**33.7**	**43.1↑**	**51.0↑**	**54.5**	**52.1↑**
At newsagent/Tattersalls	33.1	43.1↑	51.0↑	np	51.0↑
Over the internet	np	np	np	np	np
Lotteries	**66.3**	**66.4**	**50.6**	**53.9**	**51.6↓**
At newsagent/Tattersalls	60.3	59.4	49.4	46.1	48.4
Over the internet	10.5	12.9	np	np	np
Keno	**41.9**	**62.4↑**	**59.5↑**	**64.7**	**61.1↑**
In a club or hotel	38.9	58.2↑	56.8↑	64.7↑	59.2↑
In a casino	7.3	19.8↑	23.8‡	np	22.2↑
Over the internet	np	np	np	np	Np
Casino table games	**6.9**	**24.5↑**	**np**	**np**	**19.6‡**
In a casino	6.2	23.8↑	np	np	19.0‡
Over the internet	np	np	np	np	np
Bingo	**3.0**	**np**	**np**	**np**	**np**
Played at a club or hall	2.5	np	np	np	np
Over the internet	np	np	np	np	np
Sporting or other event	**4.9**	**15.1↑**	**np**	**np**	**19.0‡**
At an off-course venue	1.8	9.4‡	np	np	np
By telephone/SMS	np	np	np	np	np
Over the internet	3.6	9.6↑	np	np	np
Informal private games	**4.2**	**10.2↑**	**np**	**np**	**np**
Any location/medium	3.8	7.5	np	np	np

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gambling ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable. Neither 'informal private games' nor 'other gambling activity' appear in this table as location/mode of play information was not collected for either of these gambling forms.

ŧ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S B1, C1, D1A-D7A AND E1.

7.5.3 Number of gambling activities by gambling severity

Table 7.6 shows the number of different types of activities in which gamblers participated during the past year. As can be seen, a minority (12.1%) of non-problem gamblers participated in four or more different types of gambling activity during the past year. By contrast, those classified as being at any level of risk in their gambling behaviour were less likely to have participated in less than four activities and more likely to have participated in four or more different types of gambling (38.7% of low risk gamblers, 35.8% of moderate risk gamblers and 36.5% of moderate/problem gamblers).

TABLE 7.6 GAMBLING SEVERITY BY NUMBER OF GAMBLING ACTIVITIES PARTICIPATED IN DURING PAST YEAR (2017)

No. of gambling activities	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers
	(n=2,601) %	(n=188) %	(n=61) %	(n=23) %	(n=84) %
Net: One to three	**87.9**	**61.3↓**	**64.2↓**	**62.0↓**	**63.5↓**
One	42.7	21.4↓	21.8↓	np	18.0↓
Two	28.2	15.6↓	26.6	np	29.5
Three	16.9	24.3	15.8‡	np	16.1‡
Net: Four or more	**12.1**	**38.7↑**	**35.8↑**	**np**	**36.5↑**

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gambling (p<0.05). np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, QS B1, C1, D1A-D8A AND E1.

7.5.4 Gambling frequency by gambling severity

Table 7.7 presents the average frequency of participation in each gambling activity by PGSI category for 2017. As with previous tables, the comparison between non-problem gamblers and the other gambling severity categories is the focus of the analysis and discussion.

Overall, non-problem gamblers gambled an average of 34.7 times per year. This frequency was significantly less than low risk gamblers (70.6 times per year), and problem gamblers (157.7 times). This trend was evident across a number of gambling activities. Specifically,

- low risk gamblers played EGMs about four times as frequently, and moderate risk/problem gamblers about seven times as frequently, as non-problem gamblers (11.1 times and 20.1 times respectively, compared to 2.5 times)
- low risk gamblers bet on horse or greyhound races about four times as frequently as non-problem gamblers (16.1 times versus 3.9 times)
- moderate risk/problem gamblers played keno about four times as frequently as non-problem gamblers (21.8 times versus 5.0 times).

TABLE 7.7 GAMBLING SEVERITY BY AVERAGE ANNUAL FREQUENCY OF PARTICIPATING IN GAMBLING ACTIVITIES (2017)

Gambling activity	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers
	(n=2,601)	(n=188)	(n=61)	(n=23)	(n=84)
EGMs	2.5	11.1↑	16.9‡	27.4↑	20.1↑
Horse or greyhound races	3.9	16.1↑	11.6‡	39.2 ǂ	19.9‡
Instant scratch tickets	2.9	4.2	4.9‡	7.2 ǂ	5.6
Lotteries	19.4	17.3	19.0 ǂ	16.2‡	18.1‡
Keno	5.0	13.9↑	13.1↑	41.9‡	21.8↑
Casino table games	0.2	1.6‡	0.4 ǂ	1.3 ǂ	0.7 ǂ
Bingo	0.5	0.9 ǂ	0.0↓ ǂ	0.0↓	0.0↓ ǂ
Sporting or other events	1.0	5.6‡	27.4 ǂ	11.0 ǂ	22.5 ǂ
Informal private games	0.4	0.5‡	0.5 ǂ	2.9 ǂ	1.2 ǂ
Any gambling activity	34.7	70.6↑	152.3‡	157.7↑	153.9↑

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gambling ($p<0.05$). 'np': Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S B1, C1, D1A-D8A AND E1.

7.5.5 Gambling expenditure by gambling severity

Table 7.8 shows the average annual expenditure by activity for each of the PGSI categories. As can be seen, a number of significant differences were evident between non-problem gamblers and the other gambling severity categories according to their average annual expenditure. Notably, as compared to non-problem gamblers,

- low risk gamblers spent more during the past year on EGMs ($595 versus $116)
- low risk gamblers spent more during the past year on keno ($244 versus $94).

Overall, the average total annual spend on gambling activities by non-problem gamblers was $682. The average annual spend by low risk gamblers ($2,466), moderate risk gamblers ($2,625) and the combined group of moderate risk/problem gamblers ($4,363) was significantly higher.

TABLE 7.8 GAMBLING SEVERITY BY AVERAGE ANNUAL EXPENDITURE ON GAMBLING ACTIVITIES (2017)

Gambling activity	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers
	(n=2,601)	(n=188)	(n=61)	(n=23)	(n=84)
	$	$	$	$	$
EGMs	116	595↑	1,240‡	2,860 ǂ	1,727‡
Horse or greyhound races	103	949‡	406‡	3,607 ǂ	1,370 ǂ
Instant scratch tickets	26	54‡	56‡	116 ǂ	74‡
Lotteries	336	389	324‡	406 ǂ	349
Keno	94	244↑	363‡	1,975 ǂ	849‡
Casino table games	13	132‡	20‡	97 ǂ	43 ǂ
Bingo	9	23 ǂ	1↓ǂ	0↓	1↓ǂ
Sporting or other events	13	92 ǂ	418 ǂ	1,054 ǂ	609 ǂ
Informal private games	4	17‡	9 ǂ	43 ǂ	19 ǂ
Any gambling activity	682	2,466↑	2,625↑	8,399‡	4,363↑

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gambling (p<0.05). np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S B1, C2, D1BA-D8B AND E1

Table 7.9 shows the proportion of total expenditure on each activity by PGSI category. As can be seen, the estimated total gambling expenditure in the 2017 survey was $237.5M. Approximately two thirds (63.0%) was spent by non-problem gamblers who represented 88.5% of all gamblers in Tasmania. By contrast,

- 20.2% of total annual gambling expenditure was spent by low risk gamblers who represented 8.1% of all gamblers
- 6.6% was spent by moderate risk gamblers who represented 2.3% of all gamblers, and
- 10.2% was spent by problem gamblers who represented 1.0% of all gamblers in Tasmania.

The combined moderate risk/problem gambler group accounted for 16.8% of estimated total gambling expenditure while making up just 3.3% of all gamblers. Further, this group accounted for 27.7% of EGMs spend and 21.5% of keno spend.

TABLE 7.9 PROPORTION OF TOTAL EXPENDITURE ON EACH ACTIVITY BY PGSI CATEGORY (2017)

Gambling activity	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers	Total expenditure
	(n=2,601)	(n=188)	(n=61)	(n=23)	(n=84)	
	%	%	%	%	%	$M
EGMs	49.1	23.2	13.9ł	13.8ł	27.7	49.4
Horse or greyhound races	42.5	36.1	4.4ł	np	21.4ł	50.6
Instant scratch tickets	77.3	14.5ł	4.3ł	np	8.2ł	7.1
Lotteries	87.3	9.3	2.2ł	np	3.4	80.7
Keno	63.4	15.1	6.4ł	np	21.5ł	31.2
Casino table games	48.7	45.2	np	np	np	5.6
Bingo	80.9	np	np	np	np	2.3
Sporting or other events	29.2ł	np	np	np	np	9.3ł
Informal private games	62.9	25.1ł	np	np	np	1.3
Any gambling activity	63.0	20.2	6.6	10.2ł	16.8	237.5
Proportion of all gamblers	88.5	8.1	2.3	1.0	3.3	-

Note: np Data not available for publication due to insufficient responses but included in totals where applicable.

ł RSE between 30% and 50%

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S B1, C2, D1B-D8B AND E1.

Table 7.10 shows the activities on which gamblers spent the most money during the past year. For example, during the past year, 13.2% of non-problem gamblers spent more on playing EGMs than on any other gambling activity and 50.9% spent more purchasing lottery tickets than on any other gambling activity.

A number of significant differences were evident between non-problem gamblers and the other gambling severity categories according to their highest spend activity. Notably,

- compared to non-problem gamblers, low risk gamblers were more likely to have spent the most during the past year on EGMs (25.4% versus 13.2%) or horse or greyhound racing (14.7% versus 5.9%), but were less likely to have spent the most during the past year on lotteries (31.3% versus 50.9%)
- compared to non-problem gamblers, moderate risk/problem gamblers were more likely to have spent the most during the past year on EGMs (46.1%), but were less likely to have spent the most during the past year on lotteries (15.1%).

TABLE 7.10 HIGHEST SPEND ACTIVITY BY GAMBLING SEVERITY (PGSI) (2017)

Gambling activity	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers
	(n=2,540) %	(n=185) %	(n=59) %	(n=23) %	(n=82) %
EGMs	13.2	25.4↑	42.1↑	55.1↑	46.1↑
Horse or greyhound races	5.9	14.7↑	np	np	16.4‡
Instant scratch tickets	10.6	5.7‡	np	np	np
Lotteries	50.9	31.3↓	19.1↓	np	15.1↓
Keno	13.2	10.0	np	np	np
Casino table games	2.3	8.1‡	np	np	np
Bingo	1.1	np	np	np	np
Sporting or other events	1.5	np	np	np	np
Informal private games	1.2	np	np	np	np

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).

ǂ RSE between 30% and 50%, ‡ RSE 50% or greater.

np Data not available for publication due to insufficient responses but included in totals where applicable.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S B1, C2, D1B-D8B AND E1.

7.5.6 Socio-demographic factors as predictors of gambling severity

An ordinal logistic regression analysis was employed to examine the prediction of PGSI category (non-gambling/non-problem gambling, low risk gambling, and moderate risk/problem gambling) by socio-demographic factors (gender, age, dependent children in the household, living with a partner, currently being in paid employment, annual personal income, country of birth, cultural identity, and education), $\chi 2$ (9) = 17.79, p = .01. Table 7.11 displays the findings from this regression analysis.

Specifically, PGSI category was significantly negatively predicted by age (OR = 0.99, p = .04), whereby the odds of being classified in the next highest PGSI category decreased with age (i.e., younger age associated with greater odds of being in a more severe PGSI category).

TABLE 7.11 MULTIVARIATE ANALYSES EXPLORING PREDICTION OF PGSI CATEGORY BY SOCIO-DEMOGRAPHIC CHARACTERISTICS

Variable	Estimate	SE	95% CI		OR
			Lower	Upper	
Gender (male)	-0.288	0.181	-0.643	0.068	0.750
Age	-0.011*	0.001	-0.022	-0.001	0.989
Dependent children in household	0.036	0.177	-0.311	0.383	1.037
Living with a partner	-0.236	0.185	-0.599	0.128	0.790
Currently in paid employment	0.273	0.221	-0.161	0.707	7.314
Annual income	-0.004	0.032	-0.067	0.058	0.996
Australian born	-0.026	0.243	-0.502	0.450	0.974
Australian cultural identity	-0.208	0.190	-0.580	0.164	0.812
Completion of secondary school	-0.217	0.184	-0.578	0.145	0.805

Note: ** $p < 0.01$, * $p < 0.05$. Estimate = Coefficient estimate of predictor variables. SE = Standard error of coefficient estimate. CI = confidence interval of the estimate. OR = odds ratio.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

7.5.7 Gambling participation as predictors of gambling severity

An ordinal logistic regression analysis was employed to examine the prediction of PGSI category (non-gambling/non-problem gambling, low risk gambling, and moderate risk/problem gambling) by participation in different gambling activities after controlling for socio-demographic characteristics, $\chi 2$ (18) = 317.22, $p < .001$. Table 7.12 displays the findings of this regression analysis.

Specifically, PGSI category was significantly positively predicted by participation in EGMs (OR = 4.856, $p < .001$), horse or greyhound races (OR=1.610, $p = 0.050$), instant scratch tickets (OR=1.604, $p = .037$), lotteries (OR = 1.838, $p = .007$), keno (OR = 1.675, $p = .027$), and casino table games (OR = 2.257, $p = .008$). This means that the odds of being classified in the next highest PGSI category increased with participation in these gambling activities (i.e., greater participation in these gambling activities is associated with greater odds of being in a more severe PGSI category).

TABLE 7.12 MULTIVARIATE ANALYSES EXPLORING PREDICTION OF PGSI CATEGORY BY GAMBLING ACTIVITY PARTICIPATION AFTER CONTROLLING FOR SOCIODEMOGRAPHIC CHARACTERISTICS

Variable	Estimate	SE	95% CI		OR
			Lower	Upper	
EGMs	1.580**	0.218	1.152	2.001	4.856
Horse or greyhound races	0.476*	0.243	0.000	0.952	1.610
Instant scratch tickets	0.473*	0.227	0.029	0.917	1.604
Lotteries	0.609**	0.225	0.168	1.049	1.838
Keno	0.516*	0.233	0.059	0.973	1.675
Casino table games	0.814**	0.306	0.215	1.414	2.257
Bingo	-0.333	0.766	-1.834	1.169	0.717
Sporting or other events	0.560	0.356	-0.137	1.257	1.751
Informal private games	0.129	0.412	-0.680	0.937	1.137

Note: ** $p < 0.01$, * $p < 0.05$. Estimate = Coefficient estimate of predictor variables. SE = Standard error of coefficient estimate. CI = confidence interval of the estimate. OR = odds ratio.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

8 ADDITIONAL DETAILS ON EGM GAMBLING / INTERNET-BASED GAMBLING

This chapter provides more detailed information on the EGM and online gambling behaviour of Tasmanian adults. The specific topics discussed in this chapter include:

- frequency of spending more than one dollar per spin on EGMs
- participation in online gambling
- demographic and gambling severity profile of online gamblers
- gambling frequency and expenditure by online gamblers.

8.1 Key findings

- One in ten Tasmanian adults (9.7%) reported always spending more than one dollar per spin, with a significantly higher proportion of low (16.9%) and moderate risk gamblers (33.5%) reporting they always spend more than one dollar than non-problem gamblers (5.9%).
- One-in-ten (10.8%) Tasmanian adults and one-in-five (18.4%) Tasmanian gamblers had participated in some form of online gambling in the last 12 months. Participation in online gambling in 2017 was significantly higher than what was recorded in the 2013 survey (7.0% and 11.5%, respectively).
- Buying lottery tickets (6.2%), betting on horse or greyhound racing (3.8%) and betting on sports or other events (2.6%) were the most common forms of online gambling among Tasmanian adults.
- Online gambling was most commonly undertaken via a mobile device (8.2% of Tasmanian adults and 13.9% of past year gamblers) than via a desktop computer (4.7% and 8.1%). This trend was consistent across most gambling activities.
- The overall increase in the proportion of online gamblers is associated with significant increases in participation in any gambling activity via a mobile device (from 3.9% in 2013 to 8.2% in 2017), and especially betting on horse or greyhound races (from 1.9% in 2013 to 3.3% in 2017) and buying lottery tickets (from 1.4% in 2013 to 4.2% in 2017).
- Participation in online gambling was significantly higher among males (14.5%), people aged 25 to 34 years (16.2%) and 35 to 44 years (13.7%), those living in a couple with children at home (12.8%), those in paid full-time employment (17.1%), those with personal annual incomes between $40,000 and $59,999 (15.3%), or $80,000 or more—$80,000 to $119,999 (22.7%); $120,000 or more (19.6%)—and those born in Australia (11.3%).
- Participation in online gambling was also higher among low risk gamblers (30.8%).
- Online gamblers reported a significantly higher frequency of participation in any form of gambling (83.3 times per year versus 32.2 times per year) and a higher average annual spend ($2,115 versus $688) than those who did not participate in gambling online.

8.2 Frequency of spending more than $1 per spin on EGMs

All respondents who had played EGMs in the past year were asked to estimate how often they spent more than one dollar per spin.

As seen in Table 8.1, 9.7% of EGM gamblers reported always spending more than one dollar per spin. A similar proportion reported doing this most of the time (8.2%), or sometimes (13.3%), while approximately two-thirds of EGM gamblers reported that they rarely (23.2%) or never (41.8%) spend more than one dollar per spin.

TABLE 8.1 REPORTED FREQUENCY OF SPENDING MORE THAN $1 PER SPIN (2017)

Frequency of spending more than $1 per spin	EGM Gamblers
	(n=794) %
Always (100% of the time)	9.7
Most of the time (more than 50% of the time)	8.2
Sometimes (25% to 50% of the time)	13.3
Rarely (1% to 25% of the time)	23.2
None of the time	41.8
Don't know	3.7

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q. C6

The frequency of spending more than one dollar per spin was compared across gambling severity subgroups. Compared to non-problem gamblers it is evident that:

- a significantly higher proportion of low risk (16.9%) and moderate risk/problem (33.5%) EGM gamblers reported always spending more than one dollar per spin compared to non-problem gamblers (5.9%)
- moderate risk/problem EGM gamblers (19.1%) were significantly less likely to report never spending more than one dollar per spin.

TABLE 8.2 FREQUENCY OF SPENDING MORE THAN $1 PER SPIN BY GAMBLING SEVERITY (2017)

Frequency of spending more than $1 per spin	Non-problem gamblers	Low risk gamblers	Moderate risk / problem gamblers
	(n=633) %	(n=105) %	(n=56) %
Always	5.9	16.9↑	33.5↑
Most of the time	8.1	9.2ǂ	np
Sometimes	11.6	20.1	np
Rarely	24.9	16.0	20.4
None of the time	45.1	36.6	19.1↓
Don't know	4.4	np	np

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05). np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2013 TASMANIAN GAMBLING PREVALENCE SURVEY, C6.

8.3 Participation in online gambling

As seen in Table 8.3, one-in-ten (10.8%) Tasmanian adults had participated in some form of online gambling in the last 12 months; this figure was higher among past year gamblers (18.4%). The most common forms of online gambling activities in the 2017 survey were:

- buying lottery tickets (6.2% of all adults; 10.5% of past year gamblers)
- betting on horse or greyhound racing (3.8% of all adults; 6.5% of past year gamblers), and
- betting on sporting or other events (2.6% of all adults; 4.4% of past year gamblers).

Online gambling was most commonly undertaken on a mobile device; 8.2% (13.9% of past year gamblers) of Tasmanian adults compared to 4.7% who used a desktop computer (8.1% of past year gamblers). This trend appears consistent across most gambling activities.

Some changes between the 2013 and 2017 surveys were noted when comparing device used to access the internet among all Tasmanian adults:

- participation in any gambling activity on the internet via a mobile device was significantly higher in 2017 (8.2%) than 2013 (3.9%)
- betting on horse or greyhound races via a mobile device significantly increased, from 1.9% in 2013 to 3.3% in 2017
- buying lottery tickets via a mobile device increased between 2013 and 2017 (1.4% and 4.2%, respectively).

A similar pattern of results was seen for all past year gamblers.

The increase in online gambling use may partially be a result of a general shift of Australians towards the use of online services and greater internet access. The number of households with access to the internet at home increased from 83% in 2012–13 to 86% 2014–15, with 61% of internet users purchasing goods or services over the internet (ABS 2016b).

TABLE 8.3 PARTICIPATION IN ONLINE GAMBLING ACTIVITIES (2013 AND 2017)

Internet gambling activity	All adults		All past year gamblers	
	2013	2017	2013	2017
Tasmanian adults	(n=5,000) %	(n=5,000) %	(n=3,145) %	(n=2,873) %
Have gambled on the internet in the last 12 months	**7.0↓**	**10.8**	**11.5↓**	**18.4**
Via mobile device	3.9↓	8.2	6.3↓	13.9
Via desktop computer	4.8	4.7	7.8	8.1
Played EGMs on the internet	0.4 ǂ	0.5	0.7 ǂ	0.8
Via mobile device	0.3 ǂ	0.4	0.5 ǂ	0.7
Via desktop computer	0.3 ǂ	np	0.5 ǂ	np
Bet on horses/greyhounds over the internet	2.5↓	3.8	4.1↓	6.5
Via mobile device	1.9↓	3.3	3.1↓	5.6
Via desktop computer	1.3	1.2	2.1	2.1
Bought instant scratch tickets over the internet	0.2 ǂ	np	0.3 ǂ	np
Bought lotto/lottery tickets over the internet	3.7↓	6.2	6.0↓	10.5
Via mobile device	1.4↓	4.2	2.3↓	7.2
Via desktop computer	2.7	2.9	4.5	4.9
Played keno over the internet	np	np	np	np
Played casino table games over the internet	0.2 ǂ	np	0.4 ǂ	np
Played Bingo over the internet	np	np	np	np
Bet on sporting or other events over the internet	2.3	2.6	3.8	4.4
Via mobile device	1.4	2.1	2.4	3.7
Via desktop computer	1.4	0.9	2.2	1.5
Have NOT gambled on the internet in the last 12 months	**93.0↑**	**89.2**	**88.5↑**	**81.6**

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 ($p<0.05$). Due to insufficient responses, figures for use of mobile devices and desktop computers for instant scratch tickets, keno, bingo and casino table games have been merged. np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S C1, D1A, D2A, D3A, D4A, D5A, D6A, D7A, D8AAND D9A.

The frequency of any online gambling activity online, as well as specific gambling activities is shown in Table 8.4. It should be noted statistically reliable estimates for the frequency of online gambling participation could not be generated for many gambling activities (gambling on EGMs, instant scratch tickets, keno, casino table games, bingo, informal private games) due to the small number of participants taking part in those gambling activities online.

As can be seen, the most common frequency was less than once a month for all gambling activities shown, including participation in any online gambling activity. The 2017 results were comparable to 2013, with no differences noted between survey years.

Of the activities shown, betting on sporting or other events was the most frequently undertaken, with a mean frequency of 41.2 times per year, followed by horse or greyhound races online (41.1 times per year) and lotteries (28.5 times per year). No differences in mean frequency of online gambling participation were noted between 2013 and 2017.

TABLE 8.4 FREQUENCY OF ONLINE GAMBLING PARTICIPATION IN PAST YEAR (2017)

Gambling activity	Annual frequency of online participation	2013	2017
		%	%
Horse or greyhound races			
	Base: Bet on horses/greyhounds online	*(n=106)*	*(n=155)*
	Once a week or more	16.9	26.9
	1 to 3 times a month	31.3	23.9
	Less than once a month	51.7	49.2
	Mean Frequency (/year)	*29.8*	*41.1*
Lotteries			
	Base: Purchased lottery tickets online	*(n=192)*	*(n=288)*
	Once a week or more	22.0	21.4
	1 to 3 times a month	23.8	31.5
	Less than once a month	54.2	47.1
	Mean Frequency (/year)	*25.9*	*28.5*
Sporting or other events			
	Base: Bet on sports/events online	*(n=70)*	*(n=82)*
	Once a week or more	8.4ŧ	20.3
	1 to 3 times a month	42.1	25.4
	Less than once a month	49.5	54.3
	Mean Frequency (/year)	*25.7ŧ*	*41.2ŧ*
Any online gambling activity			
	Base: Any online gambling in past year	*(n=317)*	*(n=459)*
	Once a week or more	24.7	25.7
	1 to 3 times a month	31.1	29.9
	Less than once a month	42.4	44.4
	Mean Frequency (/year)	*39.9*	*43.0*

Note: Includes online participation in all other gambling activities assessed in the 2017 survey. Due to high RSEs other gambling activities are not shown individually in this table. They are however included in the total activity measure. Categories do not add to 100% as an overall frequency could not be calculated for a small group (1.7%) of online gamblers.

ŧ RSE between 30% and 50%

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S C1, D1A, D2A, D3A, D4A, D5A, D6A, D7A, AND D8A.

8.4 Profile of online gamblers

8.4.1 Demographic characteristics

Table 8.5 shows the proportions of online gamblers in selected demographic subgroups across the total Tasmanian population.

As can be seen, online gambling was significantly higher among males (14.5%), people aged 25 to 34 years (16.2%) and 35 to 44 years (13.7%), those living in a couple with children at home (12.8%), those in paid full-time employment (17.1%), those with personal annual incomes between $40,000 and $59,999 (15.3%), or $80,000 or more—$80,000 to $119,999 (22.7%); $120,000 or more (19.6%)—and those born in Australia (11.3%).

By contrast, online gambling was significantly lower among females (7.3%), people aged 65 years or more (5.0%), those living in a couple whose children have left home (7.2%) or those single parents whose children have left home (6.3%), retirees (6.3%), those with personal annual incomes of less than $39,999—Less than $20,000 (7.3%); $20,000 to $39,999 (8.7%)—and those who left school without completing Year 12 (8.7%).

8.4.2 Gambling severity

Online gambling participation in the past year by PGSI gambling severity is also presented in Table 8.5. Significantly higher online gambling participation was evident among non-problem gamblers (16.9%), low risk gamblers (30.8%) and moderate risk/problem gamblers (27.7%). Low risk gamblers reported the highest engagement in overall online gambling participation.

TABLE 8.5 ONLINE GAMBLING PARTICIPATION IN PAST YEAR BY SELECTED DEMOGRAPHIC CHARACTERISTICS AND GAMBLING SEVERITY (2017)

Demographic characteristic	Tasmanian adults	Online gambler	Demographic characteristic	Tasmanian adults	Online gambler
	N	%		N	%
Tasmanian adults as a whole	**5,000**	**10.8**	**Tasmanian adults as a whole**	**5,000**	**10.8**
Gender			**Annual personal income**		
Male	2,464	14.5↑	Less than $20,000	814	7.3↓
Females	2,534	7.3↓	$20,000-$39,999	1451	8.7↓
Age group			$40,000 to $59,999	761	15.3↑
18 to 24 years	156	11.3	$60,000 to $79,999	480	12.1
25 to 34 years	323	16.2↑	$80,000-$119,999	501	22.7↑
35 to 44 years	533	13.7↑	$120,000-or more	175	19.6↑
45 to 54 years	811	11.9	**Educational attainment**		
55 to 64 years	1,205	10.1	Less than Year 12	1,132	8.7↓
65 years or more	1,972	5.0↓	Year12	754	13.4
Household structure			Vocational or trade qualifications	1,643	10.9
Couple no children	492	12.9	University graduate	1,395	10.1
Couple children at home	1,248	12.8↑	**Place of birth**		
Couple children left home	1,484	7.2↓	Australia	4,182	11.3↑
Single person	660	9.0	Overseas (ESB)	572	9.6
Single children at home	261	11.2	Overseas (NESB)	239	5.1‡
Single children left home	518	6.3↓	**Gambling severity categories**		
Group or shared household	136	15.3	Non-problem gamblers	2,601	16.9

Demographic characteristic	Tasmanian adults	Online gambler	Demographic characteristic	Tasmanian adults	Online gambler
Occupational status			Low risk gamblers	188	30.8↑
Paid full-time employed	1,391	17.1↑	Moderate risk / problem gamblers	84	27.7
Paid part-time employed	914	10.6	Moderate risk gamblers	61	28.6
Household duties	131	10.5	Problem gamblers	23	np
Student	82	np			
Retired	1,851	6.3↓			
Looking for work	111	8.0			

Note: Arrows show results that are significantly higher (↑) or lower (↓) than the average result of all other categories ($p<0.05$). For gambling severity categories, arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-problem gambling ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S A4, A5, B1, P1-P4, P6 AND E1.

8.4.3 Gambling frequency and expenditure

Table 8.6 shows the mean annual frequency of participation in specific gambling activities and Table 8.7 shows the mean annual expenditure in the past year. Comparisons have been made between online gamblers and those gamblers who have not bet online in the past year. It is important to note that frequency and expenditure results shown in the tables below include both online and venue based participation in gambling activities, not just those for online gambling.

Frequency

The frequency of past year gambling activity was significantly higher among online gamblers (83.3 times per year) than among those who did not participate in online gambling (32.2 times per year). A similar trend is noted when looking at specific gambling activities.

- those who played EGM's online in the past year gambled significantly more often on EGM's (21.0 times per year) than those who did not play EGM's online (9.8 times per year)
- those who bet on horse or greyhound racing over the internet gambled significantly more often on races (45.9 times per year) than those who did not (19.7 times per year)
- those who purchased lottery tickets online in the past year played lotteries significantly more often (38.6 times per year) than those who did not purchase lottery tickets online (26.5 times per year)

Expenditure

As seen in Table 8.7, a similar trend of results was noted for average gambling expenditure on any activity, with online gamblers reporting a significantly higher average spend ($2,115 per year) than gamblers who did not undertake any online gambling activity ($688 per year).

Activities which saw a higher frequency of participation among online gamblers also had higher average expenditure by online gamblers.

- those who played EGM's online in the past year had a significantly higher annual spend on all EGM gambling ($1,319 per year) than those who did not play EGM's online ($506 per year)
- those who bet on horse or greyhound racing over the internet spent $1,803 per year on all horse or greyhound gambling (significantly higher than the $784 per year by those who did not bet over the internet)
- those who purchased lottery tickets online in the past year had a significantly higher yearly spend on all lottery activity ($807 per year) than those who did not purchase a lottery ticket online ($439 per year)

Further, those playing casino table games over the internet reported a significantly higher annual spend on all casino table gambling ($431 per year) compared to those who did not play casino table games online ($167 per year).

TABLE 8.6 FREQUENCY OF PARTICIPATION IN GAMBLING IN PAST YEAR (2017)

Gambling activity	Online gamblers	Non-online gamblers
Mean annual frequency of participation in past year (sessions/year)		
Base: Played EGMs in past year	*(n=130)*	*(n=664)*
EGMs	21.0↑	9.8
Base: Bet on horses/greyhounds in past year	*(n=186)*	*(n=281)*
Horse or greyhound racing	45.9↑	19.7
Base: Purchased instant scratch tickets in past year	*(n=122)*	*(n=794)*
Instant scratch tickets	11.1	8.3
Base: Purchased lottery tickets in past year	*(n=379)*	*(n=1,727)*
Lotteries	38.6↑	26.5
Base: Played keno in past year	*(n=197)*	*(n=922)*
Keno	13.8	14.4
Base: Played casino table games in past year	*(n=61)*	*(n=105)*
Casino table games	4.3	2.9
Base: Played bingo in past year	*(n=12)*	*(n=73)*
Bingo	20.6 ǂ	14.3
Base: Bet on sports/events in past year	*(n=90)*	*(n=36)*
Sports/Event betting	43.3‡	6.2
Base: Bet on informal private games in past year	*(n=41)*	*(n=70)*
Informal private games	8.7	9.5
Base: Any gambling activity in past year	*(n=463)*	*(n=2,410)*
Any gambling	83.3↑	32.2

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for non-online gamblers (p<0.05).

Note: Unweighted base descriptions are provided above their related frequency of participation results

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S C1, C2, D1 – D8.

TABLE 8.7 EXPENDITURE ON GAMBLING IN PAST YEAR (2017)

Gambling activity	Online gamblers	Non-online gamblers
Mean annual gambling expenditure in past year	$	$
Base: Played EGMs in past year	*(n=130*	*(n=664)*
EGMs	$1,319↑	$506
Base: Bet on horses/greyhounds in past year	*(n=186)*	*(n=281)*
Horse or greyhound racing	$1,803↑	$784
Base: Purchased instant scratch tickets in past year	*(n=122)*	*(n=794)*
Instant scratch tickets	$136‡	$76
Base: Purchased lottery tickets in past year	*(n=379)*	*(n=1,727)*
Lotteries	$807↑	$439
Base: Played keno in past year	*(n=197)*	*(n=922)*
Keno	$290	$300
Base: Played casino table games in past year	*(n=61)*	*(n=105)*
Casino table games	$431↑	$167
Base: Played bingo in past year	*(n=12)*	*(n=73)*
Bingo	$228ŧ	$324
Base: Bet on sports/events in past year	*(n=90)*	*(n=36)*
Sports/Event betting	$779‡	$205
Base: Bet on informal private games in past year	*(n=41)*	*(n=70)*
Informal private games	$153	$78
Base: Any gambling activity in past year	*(n=463)*	*(n=2,410)*
Any gambling	$2,115↑	$688

Note: Arrows show results that are significantly higher (↑) or lower (↓) than those obtained for Non Online gamblers (p<0.05).

ŧ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S C1, C2, D1 – D8.

9 HELP SEEKING

This chapter presents a snapshot of the prevalence of self-exclusion from gambling in venues using the Tasmanian Gambling Exclusion scheme, as well as an analysis of the extent to which these respondents have sought help for either their own or a family member's gambling problems.

9.1 Key findings

- 1.1% of Tasmanian adults had ever imposed self-exclusion from gambling in venues using the Tasmanian Gambling Exclusion Scheme.
- 0.4% had tried to get help from the 24-Hour Hotline, Gamblers Help or Gambling Help Online for problems related to their own gambling and 1.1% had sought help from these sources in the past 12 months for problems related to someone else's gambling.

9.2 Self-exclusion

All respondents were asked to indicate whether they had excluded themselves from gambling in venues using the Tasmanian Gambling Exclusion Scheme. Overall, 1.1% of Tasmanian adults (63 respondents) reported they had imposed self-exclusion from gambling in venues using the scheme. Of these, 19 were classified as non-gamblers, 33 were currently classified as being within the non-problem gambling range on the PGSI, six were classified within the low risk category, two were classified within the moderate risk category and three were classified as problem gamblers.

9.3 Help seeking for gambling problems

All respondents were asked to indicate whether they had tried to obtain any sort of help from the 24-Hour Hotline, Gamblers Help or Gambling Help Online for problems related to their own gambling in the previous 12 months. Overall, 0.4% (or thirteen respondents) reported that they had tried to get help for their own gambling from these sources. Of these, four were classified as non-gamblers, four were currently classified as being within the non-problem gambling range on the PGSI, one was classified within the low risk category, and four were classified as problem gamblers. Due to these very small respondent numbers, subgroup estimates have not been reported. Results were comparable with those seen in 2011 and 2013.

Respondents were also required to indicate whether they had tried to get any sort of help from the 24-Hour Hotline, Gamblers Help or Gambling Help Online for problems related to someone else's gambling in the previous 12 months. Overall, 1.1% (or 44 respondents) reported that they had tried to get help for someone else's gambling from these sources. Of these, 13 were classified as non-gamblers, 24 were currently classified as being within the non-problem gambling range on the PGSI, three were classified within the low risk category, two were classified within the moderate risk category

and two were classified as problem gamblers. No change in results were noted between 2017 and previous years.

TABLE 9.1 HELP-SEEKING FOR GAMBLING PROBLEMS (2011, 2013 AND 2017)

Help-seeking behaviour	2011	2013	2017
Tasmanian adults*	(n=2,043) %	(n=1,887) %	(n=5,000) %
Sought help for problems related to own gambling	0.5‡	0.6	0.4‡
Sought help for problems related to someone else's gambling	2.2‡	1.3	1.1

*In 2011 and 2013 this question was asked as part of the supplementary survey.

Note: ŧ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2011, 2013 AND 20177 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S K1A & K1B.

10 PSYCHOSOCIAL CHARACTERISTICS

This chapter presents data on the relationship between gambling behaviour and individual health and well-being. In particular, this chapter explores measures relating to self-reported quality of life, patterns of substance use (including alcohol, tobacco products, prescription and non-prescription drugs) and mental health status.

Results are presented by PGSI gambling severity categories and comparisons are drawn between non-problem gamblers and the other categories. Again, because of the small size of the problem gambler category (n=23), results are also presented for a combined moderate risk/problem gambler category in the following graphs and tables.

10.1 Key findings

- There were indications that moderate risk and problem gamblers had a somewhat poorer quality of life than did non-problem gamblers. More specifically, they were less likely to:
  - feel 'satisfied' or 'very satisfied' with their health (54.2%), ability to perform daily living activities (71.6%), with themselves (66.5%) or their personal relationships (79.1%)
  - feel they 'completely' or 'mostly' had enough money to meet their needs (61.1%) or had enough energy for everyday life (54.6%)
  - rate their quality of life as either 'good' or 'very good' (66.9%).
- Low risk gamblers (4.1) and moderate risk/problem gamblers (3.7) all had significantly lower scores on the overall EUROHIS-QOL than non-problem gamblers (4.3)
- There were also indications that moderate risk and problem gamblers experienced more substance use issues than did non-problem gamblers. More specifically, they were more likely to report:
  - using tobacco products on a daily basis (32.9%)
  - be classified as binge drinkers (39.0%)
  - ever using cannabis or other non-prescription substances (28.1%).
- Indications of depression and anxiety were significantly higher among low risk (18.2% and 28.2%) and moderate risk/problem gamblers (41.1% and 41.3%) than non-problem gamblers (10.9% and 15.1%).
- After taking the influence of socio-demographic characteristics into account, PGSI category was significantly negatively predicted by quality of life, whereby the odds of being classified in the next highest PGSI category decreased with higher quality of life.

10.2 Quality of life

All respondents were administered the EUROHIS-QOL 8-item index report to provide an assessment of their quality of life over the previous four weeks. The eight health indicators included within this

scale include: quality of life, energy, money, general health, ability to perform daily living activities, self, personal relationships and living place conditions.

For each item and overall scale score, results are presented by PGSI category with significant differences noted, where they exist, between non-problem gamblers and the other PGSI categories. Again, because of the small size of the problem gambler category (n=23), results are also presented for a combined moderate risk/problem gambler category in the following graphs and tables.

10.2.1 Overall quality of life

Table 10.1 shows the proportion of respondents who rated their overall quality of life in the previous four weeks as either 'good' or 'very good' by PGSI category.

Overall, approximately eight out of ten (83.0%) Tasmanian adults in 2017 rated their quality of life as either 'good' or 'very good'. Some significant differences between non-problem gamblers and the other PGSI categories were noted according to self-reported quality of life; in particular, self-reported quality of life tended to decline with gambling severity. For example, 85.8% of non-problem gamblers rated their quality of life as either 'good' or 'very good', as compared to 78.9% of low risk gamblers, 70.7% of moderate risk gamblers, and 58.0% of problem gamblers.

TABLE 10.1 OVERALL QUALITY OF LIFE BY PGSI CATEGORY (2017)

	PGSI gambling categories							
Overall quality of life	Non-gamblers	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers	All gamblers	Total Population
	(n= 2,127) %	(n=2,601) %	(n=188) %	(n=61) %	(n=23) %	(n=84) %	(n=2,873) %	(n=5,000) %
Good/Very good	80.6↓	85.8	78.9	70.7	58.0↓	66.9↓	84.6	83.0

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).

For clarity of presentation, only the combined 'Good' and 'Very Good' responses are shown in this graph.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q. L1A.

10.2.2 Satisfaction with health

Table 10.2 shows the proportion of Tasmanian adults in 2017 who were 'satisfied' or 'very satisfied' with their health by PGSI category.

Overall, approximately eight out of ten (80.6%) Tasmanian adults reported being 'satisfied' or 'very satisfied' with their health. Some differences between non-problem gamblers and the other PGSI categories according to self-reported satisfaction with health were noted. More specifically, as compared to non-problem gamblers (82.5%), the grouping of moderate risk/problem gamblers (54.2%) were significantly less 'satisfied' or 'very satisfied' with their health.

TABLE 10.2 SATISFACTION WITH HEALTH BY PGSI CATEGORY (2017)

	PGSI gambling categories							
Overall satisfaction with health	Non-gamblers	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers	All gamblers	Total Population
	(n= 2,127) %	(n=2,601) %	(n=188) %	(n=61) %	(n=23) %	(n=84) %	(n=2,873) %	(n=5,000) %
Satisfied/Very satisfied	80.0	82.5	76.0	56.0↓	50.1↓	54.2↓	81.0	80.6

Note: For clarity of presentation, only the combined 'Satisfied' and 'Very Satisfied' responses are shown in this graph.

Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q. L4A.

10.2.3 Other health and wellbeing indictors

Table 10.3 shows respondents' assessment of their quality of life relating to energy, money, ability to perform daily living activities, self, personal relationships and living place conditions, as well as their total EUROHIS-QOL score by PGSI category.

The majority of Tasmanian adults reported being 'satisfied' or 'very satisfied' with the conditions of their living place (93.4%), their personal relationships (90.5%), themselves (88.9%), their ability to perform daily living activities (87.7%). Further, four fifths (79.9%) reported having 'completely' or 'mostly' enough money to meet their needs, while three-quarters (74.2%) reported having 'completely' or 'mostly' enough energy for everyday life.

Some differences between non-problem gamblers and the other PGSI categories according to these measures were noted. More specifically, when compared to non-problem gamblers:

- low risk gamblers (64.9% versus 76.8%) and moderate risk/problem gamblers (54.6%) were significantly less likely to feel they 'completely' or 'mostly' had enough energy for everyday life
- moderate risk/problem gamblers were significantly less likely to feel they 'completely' or 'mostly' had enough money to meet their needs (61.1% versus 83.6%)
- moderate risk/problem gamblers were also significantly less likely to feel 'satisfied' or 'very satisfied' with their ability to perform daily living activities (71.6% versus 89.8%), with themselves (66.5% versus 90.8%) or their personal relationships (79.1% versus 91.5%).

In relation to the overall EUROHIS-QOL score, low risk gamblers (4.1) and moderate risk/problem gamblers (3.7) all had significantly lower scores on this measure than non-problem gamblers (4.3).

TABLE 10.3 OTHER QUALITY OF LIFE INDICATAORS BY PGSI CATEGORY (2017)

Quality of life items	PGSI gambling categories						All gamblers	Total population
	Non-gamblers	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers		
	(n= 2,127) %	(n=2,601) %	(n=188) %	(n=61) %	(n=23) %	(n=84) %	(n=2,873) %	(n=5,000) %
Have enough energy for everyday life (mostly/completely)	72.9↓	76.8	64.9↓	54.0↓	55.9	54.6↓	75.1	74.2
Have enough money to meet your needs (mostly/completely)	76.4↓	83.6	78.1	55.5↓	74.0	61.1↓	82.4	79.9
Health (satisfied/very satisfied)	80.0	82.5	76.0	56.0↓	50.1	54.2↓	81.0	80.6
Ability to perform daily living activities (satisfied/very satisfied)	86.2↓	89.8	85.0	68.0↓	80.0	71.6↓	88.8	87.7
Self (satisfied/very satisfied)	88.0↓	90.8	85.0	62.7↓	75.1	66.5↓	89.5	88.9
Personal relationships (satisfied/very satisfied)	90.0	91.5	90.0	74.6↓	89.5	79.1↓	90.9	90.5
Conditions of your living place (satisfied/very satisfied)	93.4	94.1	90.4	83.6	86.9	84.6	93.5	93.4
EUROHIS-QOL score								
Domain score (out of 5)	4.2↓	4.3	4.1↓	3.7↓	3.7↓	3.7↓	4.3	4.2

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers ($p<0.05$).

Note: Items included in the EUROHIS-QOL-8 are provided in Appendix B.2.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S L3A, L3C, L4A, L4C, L4E, L4F, L4H.

10.3 Substance use

All respondents in the 2017 prevalence survey were asked to report on their patterns of substance use; that is on their use of alcohol, tobacco, and both prescription and non-prescription drugs. Specifically, respondents were asked whether they consumed alcohol, the amounts they consumed and their frequency of consumption; their frequency of using tobacco products, and their frequency of using non-prescription drugs and prescription drugs that had not been prescribed for them by a doctor.

10.3.1 Tobacco products

Table 10.4 shows the frequency of using tobacco products (for example, cigarettes, chewing tobacco, cigars) among Tasmanian adults in 2017.

Overall, 15.0% of Tasmanian adults in 2017 reported using tobacco products on a daily basis. Further, when compared to non-problem gamblers (16.8%), low risk gamblers (24.8%) and moderate risk/problem gamblers (32.9%) were significantly more likely to use tobacco daily.

TABLE 10.4 FREQUENCY OF USING TOBACCO PRODUCTS BY PGSI CATEGORY (2017)

Frequency of using tobacco	PGSI gambling categories							
	Non-gamblers	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers	All gamblers	Total population
	(n=2,127) %	(n=2,601) %	(n=188) %	(n=84) %	(n=61) %	(n=23) %	(n=2,873) %	(n=5,000) %
Daily	10.7↓	16.8	24.8↑	31.1	np	32.9↑	18.0	15.0
Less than daily	2.6↓	4.9	np	np	np	np	5.3	4.2
Never/ Not in past 12 months	86.3↑	78.0	67.5↓	44.5↓	54.9	47.6↓	76.2	80.4

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).

Note: Item used to measure tobacco use is provided in Appendix B.3.

np Data not available for publication due to insufficient responses but included in totals where applicable.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q. M1C.

10.3.2 Alcohol

Table 10.5 summarises the alcohol related measures by PGSI gambling severity category.

Overall, approximately seven in ten (72.7%) Tasmanian adults had drunk alcohol in the past year, 16.4% reportedly drink five or more standard drinks on a typical day when they do drink and 15.9% were classified as binge drinkers.[6]

Some differences between non-problem gamblers and the other PGSI categories according to frequency of alcohol use were noted. More specifically, when compared to non-problem gamblers:

- low risk gamblers (13.3% versus 21.3% non-problem gamblers) were significantly less likely to drink four or more time a week
- moderate risk/problem gamblers (19.8% versus 39.7%) were significantly less likely to drink one or two standard drinks on a typical day when they do drink
- moderate risk/problem gamblers (39.0% versus 18.7%) and problem gamblers in particular (58.6%) were significantly more likely to be classified as binge drinkers.

[6] That is, they consumed 5 or more [for females] or 7 or more [for males] standard drinks on more than one occasion two to three times a month or more (Dawe et al., 2007).

TABLE 10.5 FREQUENCY OF USING ALCOHOL BY PGSI CATEGORY (2017)

Alcohol use	PGSI gambling categories						All gamblers	Total population
	Non-gamblers	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers		
	(n=2,127) %	(n=2,601) %	(n=188) %	(n=61) %	(n=23) %	(n=84) %	(n=2,873) %	(n=5,000) %
How often do you have a drink containing alcohol? (AUDIT - 1)								
4 or more times a week	15.6↓	21.3	13.3↓	24.7	np	22.3	20.7	18.6
2 or 3 times a week	13.3↓	18.5	20.1	np	np	22.8	18.7	16.5
2 to 4 times a month	19.9↓	23.1	24.4	28.0	np	29.2	23.4	22.0
Monthly or less	14.8	16.3	18.2	np	np	np	16.2	15.6
Don't drink alcohol	1.0‡	0.5‡	np	np	np	np	0.6‡	0.8
How many standard drinks do you have on a typical day when drinking? (AUDIT - 2)								
1 or 2	41.3	39.7	31.6	24.7↓	np	19.8↓	38.3	39.6
3 or 4	12.0↓	21.0	17.8	24.4‡	np	23.8	20.8	17.2
5 or 6	5.6↓	10.9	13.0	np	np	11.7	11.1	8.8
7 to 9	1.3↓	2.6	np	np	np	np	3.0	2.3
10 or more	4.0	5.5	9.5‡	np	np	18.0‡	6.3	5.3
Don't drink alcohol	1.0‡	0.5‡	np	np	np	np	0.6‡	0.8
Hazardous drinking								
Male	18.0↓	29.8	28.7	42.1	63.8↑	48.6↑	30.4	25.2
Female	19.1↓	24.7	22.4	np	np	18.0	24.3	22.1
Don't drink alcohol	**1.0‡**	**0.5‡**	**np**	**np**	**np**	**np**	**0.6‡**	**0.8**
Binge Drinking	**10.4↓**	**18.7**	**24.3**	**30.6**	**58.6↑**	**39.0↑**	**19.9**	**15.9**

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).

np Data not available for publication due to insufficient responses but included in totals where applicable.

Note: AUDIT-1 refers to the first question on the AUDIT screening questionnaire, AUDIT-2 refers to the second.

Note: Items used to measure alcohol consumption are provided in Appendix B.3.

ǂ RSE between 30% and 50%. ‡ RSE 50% or greater.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S M2, M1A, M1B.

10.3.3 Non-prescription drugs (excluding tobacco and alcohol)

All respondents were asked about their frequency of using cannabis or other non-prescription substances, such as cocaine and amphetamine type stimulants, inhalants (like petrol or glue), hallucinogens and heroin. Table 10.6 shows the proportion of Tasmanian adults in 2017 who indicated they had ever used these substances.

Overall, approximately one in ten (9.9%) Tasmanian adults in 2017 reported ever using any of these substances. Further, survey results indicate that compared to non-problem gamblers (9.8%), low risk (19.3%) and moderate risk/problem gamblers (28.1%) were significantly more likely to have ever used cannabis or other non-prescription substances.

TABLE 10.6 FREQUENCY OF USING NON-PRESCRIPTION DRUGS BY PGSI CATEGORY (2017)

Frequency of using non-prescription drugs (excluding tobacco/ alcohol)	PGSI gambling categories						All gamblers	Total population
	Non-gamblers	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk / problem gamblers		
	(n=2,127)	(n=2,601)	(n=188)	(n=23)	(n=61)	(n=84)	(n=2,873)	(n=5,000)
Frequency of use								
Ever used	8.0	9.8	19.3↑	np	np	28.1↑	11.2	9.9
Never used	92.0	90.2	80.7↓	80.0	53.2↓	71.9↓	88.8	90.1

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).

Note: Item used to measure use of non-prescription medication is provided in Appendix B.3.

np Data not available for publication due to insufficient responses but included in totals where applicable.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q. M1D.

10.3.4 Prescription drugs other than as directed by a doctor

Respondents were also asked about their frequency of using prescription drugs that had not been prescribed by their doctor. Table 10.7 shows the proportion of Tasmanian adults in 2017 who indicated they had ever used prescription drugs that had not been prescribed by their doctor.

Overall, one in twenty (6.7%) Tasmanian adults in 2017 reported ever using prescription drugs that had not been prescribed by their doctor. No significant differences were evident between non-problem gamblers and the other PGSI categories according to use of prescription drugs.

TABLE 10.7 FREQUENCY OF USING PRESCRIPTION DRUGS BY PGSI CATEGORY (2017)

Frequency of using prescription drugs other than as directed by a doctor	PGSI gambling categories						All gamblers	Total population
	Non-gamblers	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk/ problem gamblers		
	(n=2,127) %	(n=2,601) %	(n=188) %	(n=61) %	(n=23) %	(n=84) %	(n=2,873) %	(n=5,000) %
Frequency of use								
Ever used	6.3	6.6	10.8	np	np	np	7.1	6.7
Never used	93.7	93.4	89.2	87.3	98.1↑	90.5	92.9	93.3

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).

Note: Item used to measure use of prescription medication is provided in Appendix B.3.

np Data not available for publication due to insufficient responses but included in totals where applicable.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q.S M1E.

10.4 Mental health

All respondents were also asked a series of questions to measure symptoms of depression, such as lack of interest and low mood, in the previous fortnight (using the Physical Health Questionnaire-2 [PHQ-2]), and symptoms of generalised anxiety, such as feeling nervous and worrying, in the previous fortnight (using the Generalised Anxiety Disorder-2 [GAD-2]).

These measures are brief instruments designed to screen for the presence of these disorders in general practice and healthcare settings. They provide cut-offs that indicate the possible presence of these disorders. A description of each of these measures, as well as information on their sensitivity (the rate of positive test results among those with the disorder) and specificity (the rate of negative test results among those without the disorder) is provided in Appendix B. Because they are designed to

identify potential cases for more detailed assessment, caution must be employed in the interpretation of the estimates derived from these measures.

Table 10.8 summarises the mental health measures by PGSI gambling severity category. Overall, approximately one in ten (13.4%) Tasmanian adults in 2017 show indications of depression, while 16.7% show indications of anxiety.

Further, when compared to non-problem gamblers (10.9%), low risk (18.2%) and moderate risk/problem gamblers (41.1%) were significantly more likely to show indications of depression. Also, when compared to non-problem gamblers (15.1%), low risk (28.2%) and moderate risk/problem gamblers (41.3%) were significantly more likely to show indications of anxiety.

TABLE 10.8 DEPRESSION AND ANXIETY MEASURES BY PGSI CATEGORY (2017)

Summary measures of mental health	PGSI gambling categories: Non-gamblers	Non-problem gamblers	Low risk gamblers	Moderate risk gamblers	Problem gamblers	Moderate risk/ Problem gamblers	All gamblers	Total population
	(n=2,127)	(n=2,601)	(n=188)	(n=61)	(n=23)	(n=84)	(n=2,873)	(n=5,000)
Shows indications of depression	14.7↑	10.9	18.2↑	36.5↑	51.7↑	41.1↑	12.5	13.4
Shows indications of anxiety	16.2	15.1	28.2↑	37.7↑	49.6↑	41.3↑	17.1	16.7

Note: Arrows show results for PGSI categories that are significantly higher (↑) or lower (↓) than those obtained for non-problem gamblers (p<0.05).

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY, Q. N1.

10.5 Health and wellbeing as predictors of gambling severity

An ordinal logistic regression analysis was employed to examine the prediction of PGSI problem gambling severity category (non-gambling/non-problem gambling, low risk gambling, moderate risk/problem gambling) by health and wellbeing factors after controlling for sociodemographic characteristics, $\chi 2$ (16) = 60.68, $p < .001$. The results from this regression are displayed in Specifically, PGSI category was significantly negatively predicted by quality of life (OR = 0.592, p = .005). This means that the odds of being classified in the next highest PGSI category decreased with higher quality of life (i.e., higher quality of life associated with greater odds of being in a less severe PGSI category).

Table 10.9.

Specifically, PGSI category was significantly negatively predicted by quality of life (OR = 0.592, p = .005). This means that the odds of being classified in the next highest PGSI category decreased with higher quality of life (i.e., higher quality of life associated with greater odds of being in a less severe PGSI category).

TABLE 10.9 MULTIVARIATE ANALYSES EXPLORING PREDICTION OF PGSI CATEGORY BY HEALTH AND WELLBEING FACTORS AFTER CONTROLLING FOR SOCIODEMOGRAPHIC CHARACTERISTICS

Variable	Estimate	SE	95% CI		OR
			Lower	Upper	
Binge drinking	0.223	0.260	-0.286	0.732	1.250
Frequency of using tobacco	0.063	0.037	-0.011	0.136	1.065
Frequency of using non-prescription drugs (excl. tobacco/alcohol)	0.112	0.072	-0.029	0.253	1.118
Frequency of using prescription drugs other than as directed by a doctor	-0.156	0.132	-0.415	0.104	0.856

Variable	Estimate	SE	95% CI		OR
PHQ-2 Depression score	0.124	0.083	-0.040	0.287	1.131
GAD-2 Anxiety score	0.005	0.075	-0.142	0.152	1.005
EUROHIS-QOL-8 score	-0.525**	0.187	-0.892	-0.157	0.592

Note: ** p < 0.01, * p < 0.05. Estimate = Coefficient estimate of predictor variables. SE = Standard error of coefficient estimate. CI = confidence interval of the estimate. OR = odds ratio.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

II

ANALYSIS OF GAMBLING HARMS USING THE 2017 PREVALENCE SURVEY

11 INTRODUCTION TO PART II

This chapter provides context to the Part II Chapters analysis of gambling harms.

11.1 Introduction to gambling harms

Gambling provides opportunities for entertainment, relaxation and socialisation; but can also lead to gambling-related harms that can impact an individual's quality of life. In this respect, gambling has many parallels with alcohol; another legal product that is widely enjoyed by Australians, but which is also recognised to lead to harms. In the case of alcohol, it is well recognised that; additional to a small proportion of individuals suffering from clinical addiction and at great risk of harm, a much broader segment of the population may be at low to moderate risk of alcohol-related harms.

Arguably, it is also the case for gambling, that additional to the set of problem gamblers at high risk of harm; a much broader segment of the population experiences mild to moderate harm due to chronic or episodic overconsumption (Browne & Rockloff, 2017; Delfabbro & King, 2017; D. A. Korn & Shaffer, 1999; D. Korn, Gibbins, & Azmier, 2003; Marshall, 2009).

These initial comments raise the question of the degree to which gambling problems and gambling harms are synonymous or overlapping constructs. Traditionally, the negative impact of gambling in the community has been assessed using population screens for problem gambling, such as the Problem Gambling Severity Index (PGSI) (Ferris & Wynne, 2001).

The PGSI consists of nine questions, five of which deal with negative consequences, e.g. 'Has gambling caused you any health problems, including stress or anxiety?', with the remainder probing behavioural addiction, e.g. '...have you needed to gamble with larger amounts of money to get the same feeling of excitement?' or 'problems' in general, e.g. 'Have you felt that you might have a problem with gambling?'.

Thus, the notion of gambling problems, both as a construct and as a measurement tool, tends to conflate the issues of behavioural dependence addiction, and the presence of negative consequences / harms. While gamblers who are meeting clinical criteria for addiction are almost certainly also experiencing gambling-related harm; it does not necessarily follow that those who do *not* meet criteria for problem gambling are free of gambling harms.

The position taken here is that problem gambling severity and harm are closely coupled but conceptually distinct constructs, and harm that occurs below the problem gambling threshold is still relevant to policy (Productivity Commission, 2010). For these reasons, there is increasing consensus by experts in the field that there needs to be an effort to capture the differing degree of harm potentially experienced across the spectrum of gambling problems, including capturing harms among people with few or no symptoms of disordered gambling.

This is particularly relevant in population-representative studies that attempt to monitor the prevalence of gambling problems and harm in specific jurisdictions. These surveys are well-placed to explore the

relationships between exposures to risk factors (e.g., elevated consumption) and gambling-related harm, which will more closely align gambling research with a public health approach.

11.2 Measuring gambling harms

The above considerations provide a conceptual argument for supplementing traditional population screens for problem gambling with a dedicated harms measure. The proportion of individuals in the community who are suffering from dependence and severe problems is of legitimate interest. However, it may not serve as a satisfactory proxy for the amount of gambling-related harm in the community, which is the primary quantity of interest from a public health perspective.

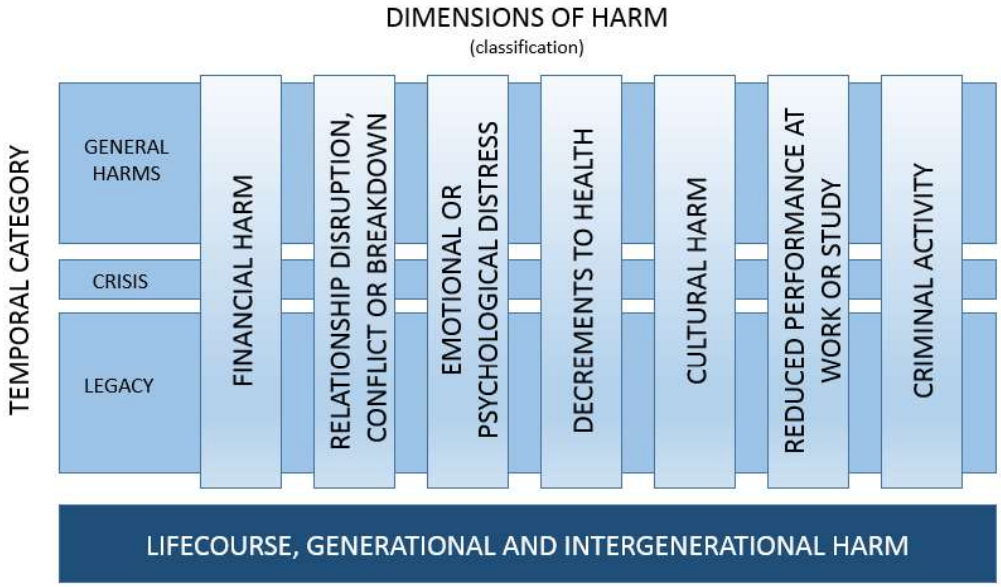
This perspective, which frames gambling within a whole-of-population approach that can inform policy for prevention and intervention practices, attempts to identify the determinants of health behaviours (such as gambling), and subsequent health outcomes (such as harm) (D. A. Korn & Shaffer, 1999).

While there is no single internationally agreed-upon definition of gambling harm, there are consistent patterns of interpretation throughout the literature that suggest some degree of convergence. For example, it is generally agreed that gambling harms:

- can be experienced by individual gamblers, their social network (family and friends), and the broader community
- are diverse and can potentially affect multiple domains of health and well-being
- can be distributed over time
- can be exacerbated, as well as generated, by gambling (Browne et al., 2016).

An enhanced understanding about the harms that arise from gambling can be weighed against the recreational and social benefits of gambling to determine appropriate policy, regulation, prevention initiatives, and treatment.

FIGURE 11.1 CONCEPTUAL FRAMEWORK OF GAMBLING-RELATED HARM

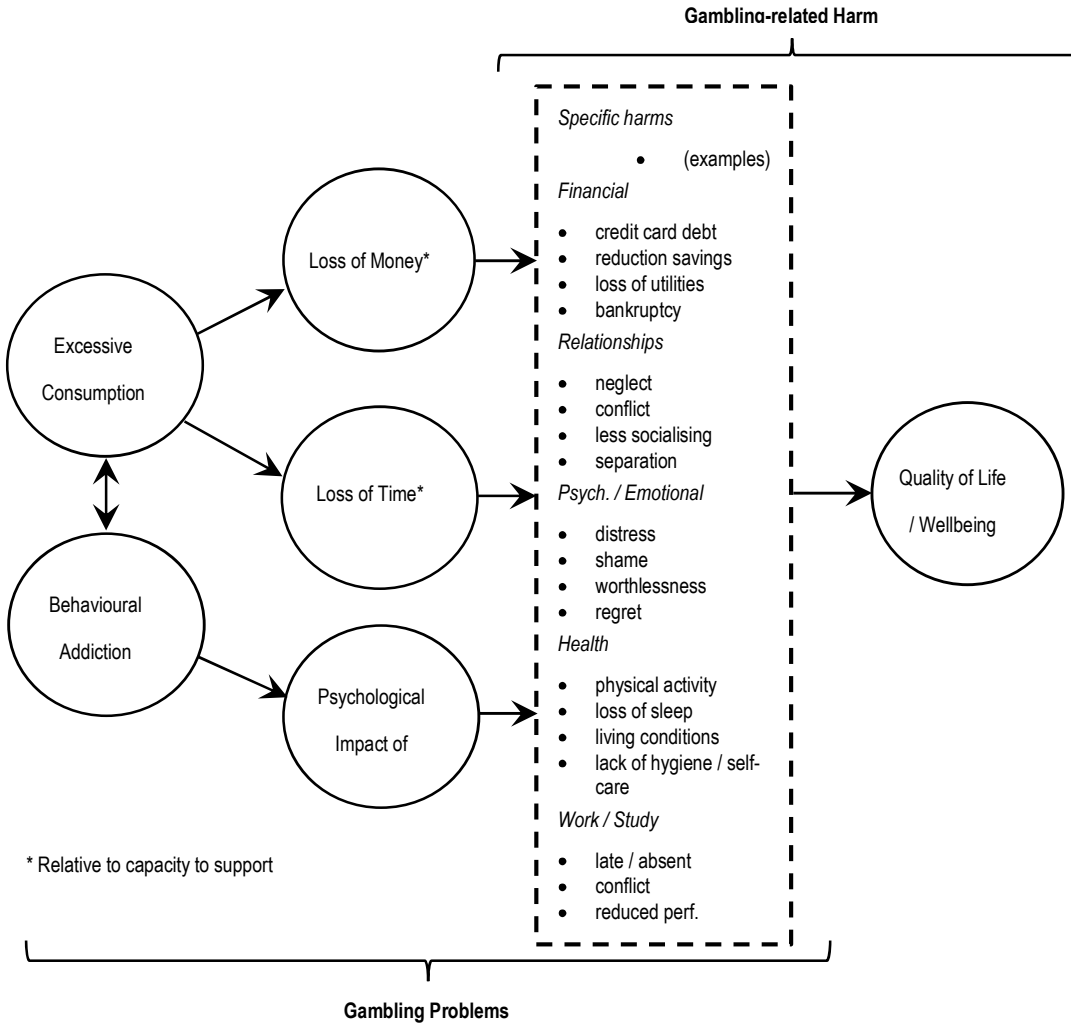


SOURCE: M. BROWNE ET AL., 2016

Recent research in Australia (M. Browne et al., 2016) and New Zealand (M. Browne et al., 2017) has attempted to apply a public health perspective to assessing gambling related harm. In this approach, there is a clear distinction between risk-factors for a condition, and the negative consequences of having the condition. Negative consequences may be multiple and varied, but have the common feature of contributing negatively to an individual's health and wellbeing; or alternatively, quality of life.

This work first enumerated a comprehensive list of 73 specific harms that might arise from excessive gambling, across six domains: financial, emotional / psychological, relationships, health, work/study, and social deviance. The general conceptual framework is illustrated in Figure 11.1 and Figure 11.2.

FIGURE 11.2 CONCEPTUAL MODEL OF THE RELATIONSHIP BETWEEN GAMBLING PROBLEMS AND QUALITY OF LIFE



SOURCE: ACIL ALLEN CONSULTING ET AL.

Specific harms included severe consequences such as bankruptcy, or the termination of a relationship, and also less severe harms such as increased credit card debt, or increased tension in relationships.

Gamblers in the Australian and New Zealand studies across a range of risk-categories were surveyed for these harms, and then these specific profiles were represented in a vignette form. These vignettes were evaluated by professionals and the general public, in order to elicit and then estimate the typical quality of life decrement associated with each gambling risk category. Similar to Burden of Disease morbidity decrements (Murray, 1994), this per-person impact is expressed as a bounded quantity between zero and one, with zero reflecting no impact, and one reflecting the highest possible detriment to well-being.

11.3 Using quality of life measures to measure harms

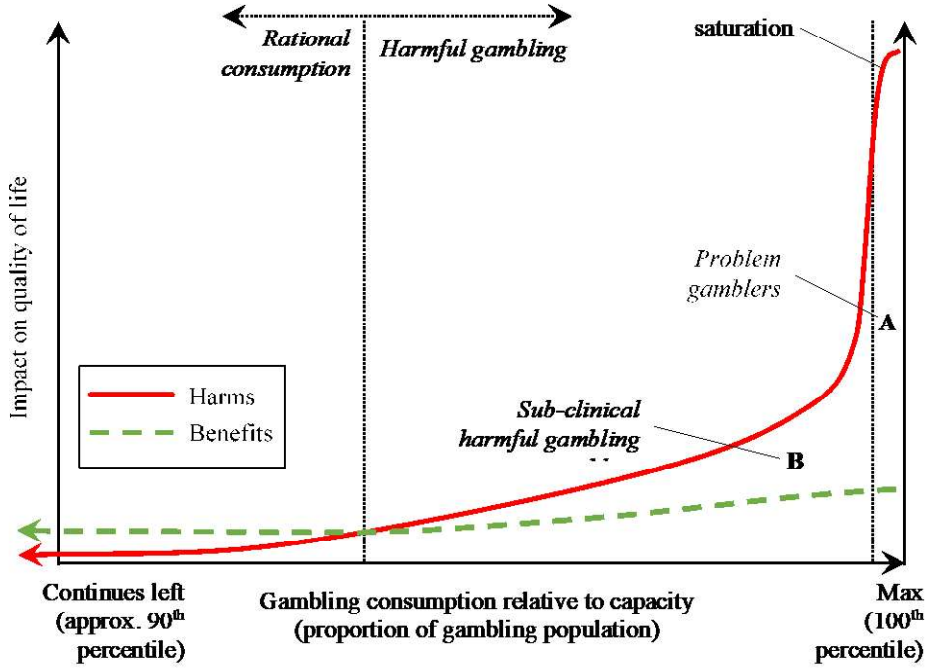
The methodological details for determining quality of life decrements due to a condition, also called disability weights, are somewhat involved, and are described more fully in associated publications (Browne, Rawat, et al., 2017; Browne, Greer, Rawat, & Rockloff, 2017). Using the prevalence data from the most recent Victorian prevalence survey, Browne et al. (2016) found that gambling contributed to 101,675 years of life lost to disability due to decreased quality of life per year. They estimated that 50%, 34%, and 15% of the total harm resulting from gambling in Victoria can be divided among low-risk, moderate risk and problem gamblers, respectively. Although the quality of life of problem gamblers is affected 3 to 4 times more than low-risk gamblers, this is outweighed by the larger prevalence of individuals in the low-risk category. Population subgroups, such as women aged 55+ were less likely to develop clinically significant gambling problems but contributed substantially to the 'burden of harm' experienced by Victorians. This group made the greatest single contribution to the aggregate burden of harm (14.5%), which was almost double the contributions of men aged 18 to 34 years. In short, focusing only on the prevalence of severe gambling problems can substantially misrepresent who in the community is harmed the most.

In Victoria and New Zealand, the 'burden of harm' caused by gambling was found to be of a level similar to major depressive disorder and alcohol misuse and dependence. The aggregate impact of gambling problems exceeded that of cannabis dependence, schizophrenia, epilepsy, and eating disorders combined. The finding that small individual-level harms can aggregate to a significant population level harm suggest a need to develop a broader public health focus to include lower-risk gambling problems rather than the traditionally narrow focus on preventing people from becoming problem gamblers or assisting people who are problem gamblers. The main limitation of prior estimates of population level harm was the use of the PGSI as a proxy; due to the lack of direct measurement of gambling harm in a population representative sample (Matthew Browne, Greer, et al., 2017).

This recent research summarised above has determined that harm from gambling is widely distributed in the population, and is not restricted only the problem gamblers. In fact, up to 85% of harm may be attributable to non-problem gamblers. A key premise of a 'harm-centred' approach is that the key outcome of interest is the potential detriment (or improvement) of quality of life for individuals, as well as the distribution of this impact over the population. This outcome is not treated as a binary classification (problem versus non-problem gambler, or harmed versus not harmed), but rather as a continuous quantity. The approach advises for population measures that (a) treat harm a distinct outcome, separate from dependence or addiction, (b) provide for sensitive measurement of differing degrees of harm.

Figure 11.3 provides a conceptual illustration of how impacts from gambling are thought to be distributed in the population. A relatively small proportion of individuals are thought to experience severe harms, which far exceeds any benefits received from the activity. A larger proportion of the population are thought to experience mild to moderate degrees of harm that may exceed benefits by only a little, while a further larger set are 'rational consumers', in that they receive more benefits from gambling than harms. The goal of determining the exact shape of this distribution is a topic of great practical interest, and an active research area. There are challenges both in terms of assessing the impact on quality of life more precisely, and in estimating the prevalence of people experiencing differing degrees of harms and benefits.

FIGURE 11.3 CONCEPTUAL ILLUSTRATION OF THE DISTRIBUTION OF HARMS AND BENEFITS FROM GAMBLING IN THE POPULATION



SOURCE: ACIL ALLEN CONSULTING ET AL. 2017

One limitation of attempts in prior studies to quantify the population level impact of gambling was the lack of population-representative survey data specifically intended to measure harm. Accordingly, the focus was on estimating the average impact for particular PGSI scores, and then making inference on the population using prior population-representative surveys incorporating the PGSI. However, it was acknowledged that direct measurement of gambling harm in population surveys is the preferred approach. Accordingly, a new instrument was developed, the Short Gambling Harms Screen (SGHS) (Browne, Goodwin, & Rockloff, 2017).

This 10-item measure developed by Browne, Goodwin and Rockloff (2017) was based on the initial comprehensive item pool of specific harms identified in prior work (Langham et al., 2016) and was validated using an internet panel sample of 1524 past-year gamblers. The SGHS was shown to be sensitive to differing degrees of harm, from mild to severe, and is associated with a linear decrease in quality of life, and well as being an excellent predictor of scores of the full checklist. However, questions have been raised as to the validity of inclusion of some of the milder symptomatology (Delfabbro & King, 2017), and further work needs to be done to formally relate scores on the SGHS to public health disability weights.

11.4 Harms to affected others

There is growing concern that the gambling problem of one individual has direct effects on many 'Affected Others' (also known as concerned significant others; CSOs). Although it has been estimated that up to 18% of the population report they have a family member or friend with a gambling problem (Wenzel et al. 2008; Svensson et al. 2013), the impact of gambling problems on family members and friends has received relatively little research attention.

Australian empirical evidence suggests that affected others experience financial difficulties, emotional distress, impaired relationships and family dysfunction, social difficulties, employment or study difficulties, physical health problems, and family violence (Browne et al., 2017; Dowling et al., 2009, 2014a, 2014b, 2016a, 2016b; Suomi et al., 2013). Although most available research is based on

intimate partners and children, there is limited evidence that others, such as parents, grandparents, friends, employers and colleagues, are also affected, although possibly to a lesser extent (Dowling et al., 2009, 2014b).

In their study of gambling harms, Browne et al. (2016) found that there were broad similarities in the type of harms experienced by gamblers and affected others, although harms in all domains were higher in gamblers. The likelihood of being affected by another person's gambling increased as problem gambling severity increases. Using data from the most recent Victorian prevalence survey, Browne et al. (2016) estimated a figure of 16,230 years of life lost to disability due to decreased quality of life per year caused to affected others. This is much lower that the quantity of harm associated with gamblers themselves (101,675 years); and is likely a low estimate, due to the surprisingly low proportion of respondents in the Victorian survey who indicated that they had been harmed by another's gambling in the last 12 months (2.79%).

A further limitation acknowledged by the authors is regarding the accuracy of the weighting applied, which assumed that the gambler causing the harm was a randomly selected individual from the population of Victorians with a PGSI score greater than zero. These limitations can be addressed through a representative population survey of harms caused to affected others, with the expectation that harms to affected others would be of a similar magnitude to harms to gamblers.

A final limitation in the methodology to assess harms to affected others is that there is currently no short-form version of the complete harms checklist for administering to affected others. Work in progress has demonstrated that, although affected others also experience harm across all six domains, the specific symptomatology is quite different from that of gamblers. For example, while gamblers are likely to experience feelings of shame and worthlessness, affected others are more likely to report emotional impacts around anger, betrayal and helplessness. Accordingly, for a complete assessment of population level gambling harm, a dedicated population screen for harms for affected others is likely required.

11.5 Structure of Part II

The 2017 prevalence survey has presented an opportunity to remedy deficiencies in prior research, improve methodologies, and advance understanding of population-level gambling harm. It has been the first *direct* measurement of gambling-related harm in terms of quality-adjusted life years in the population. Further, the inclusion of the full harms checklist for affected others provides scope for a better evaluation of harms to affected others than was previously possible.

Analysis of this data has also allowed for the development of a brief measure of harms to affected others, analogous to the SGHS previously developed for gamblers. Finally, although it has been well-recognised that gambling provides benefits, as well as the potential for harm; prior studies have not attempted to quantify this. The 2017 survey included measures intended to elicit benefits and harms, to provide a novel insight into the *net* impact of gambling to the community.

Part II is structured as follows:

- Chapter 12: Costs and benefits associated with gambling
- Chapter 13: Assessing harm from gambling using the Short Gambling Harms Screen
- Chapter 14: Developing a Short Gambling Harms Screen for Affected Others
- Chapter 15: Identification of responsible gambling limits

12 COSTS AND BENEFITS ASSOCIATED WITH GAMBLING

This chapter describes a *sequential discrete choice protocol* that was used to elicit the costs and benefits associated with gambling. The measured costs and benefits include those affecting the gambler, and separately, those costs accruing to 'affected others' who are impacted by gamblers. The protocol, as described in more detail below, was modelled on the well-established Time-Tradeoff (TTO) task (Arnesen & Trommald, 2005). For each respondent, our TTO implementation yielded a separate measure of costs and benefits. That is, it recognises the fact that for a single person, gambling could result in both positive and negative consequences.

Respondents were asked directly whether their life had been made better or worse by gambling; and subsequently, how much (as a percentage) their life had been made better or worse. These direct probes implicitly gauge the net impact of gambling; i.e., benefits minus costs; while avoiding the detailed questions on the TTO task. This direct probe was intended as an alternative measurement to the TTO, and also served as a face-valid check on the results.

12.1 Method

12.1.1 Analysis

Population-weighted percentages are used throughout this chapter. Population weighting, as described in detail in prior chapters, primarily adjusted for age and gender disparities in the data collections relative to the known adult population of Tasmanians. For consistency, percentages are given as a proportion of the Tasmanian adult population. Where appropriate, confidence intervals were calculated using nonparametric bootstrapping using 10,000 replications.

12.1.2 Discrete choice elicitation of costs and benefits

Both gamblers and affected others were asked to respond to a set of nested binary choices intended to elicit the benefits and costs associated with gambling. This binary format was developed for the present study, and is based on the WHO Burden of Disease Time-Trade-Off (TTO) protocol for assessing the impact of chronic diseases to quality of life (Arnesen & Trommald, 2005; Attema, Edelaar-Peeters, Versteegh, & Stolk, 2013). The premise of the TTO is to gauge the impact of a condition to a person's quality of life, by assessing the amount of time they would be prepared to 'give up', in order to avoid the harmful effects of the condition.

The implementation was novel in two respects. First, a sequential binary question format was used, in order to help overcome acknowledged difficulties in participants providing a numeric response (Dolnicar, Grun, & Leisch, 2011). Second, not only were the costs associated with gambling assessed, but also the benefits. The benefits of gambling were assessed by probing the amount of time one would be prepared to give up in order to continue gambling without problems, as compared to an alternate scenario in which they would not be able to gamble at all.

It is important to acknowledge and caution that assessment of the benefits of an activity or condition, as well as the detriments, has not been done before. That is, there is no precedent in the literature for measuring positive impacts on wellbeing, using, for example, a TTO task. Although both benefits and costs can be conceptualised at a proportional loss or gain to one's wellbeing, there are some unresolved conceptual issues. For example, although detriments are theoretically well-bounded between zero (no impact) and one (maximum possible impact, leading to a life not worth living), positive contributions are theoretically unbounded. That is, the degree to which one's life might in-principle be improved is not well defined. However, in practical terms, it is reasonable to assume that individuals are generally able to assess the relative benefit they derive from an activity.

For gamblers, both the 'upside' and 'downside' effects were elicited separately. For affected others, it was assumed that the benefits were negligible, and to manage survey length, the benefits were not assessed. People related to the gambler may have some benefits of the gambler being entertained and away from the family, for instance, but these types of benefits are likely to be isolated and minor. Each elicitation consisted of six questions, presented in reverse order for half the participants to reduce any methods bias. This reverse ordering is described in more detail below.

For affected others, the preamble was, *'For this next set of questions, I will ask you to consider how your life might be changed by either living with- or without this person's gambling.*' Each question asked participants to 'imagine a situation in which this person continues gambling as they have done in the last 12 months'. For each question, the response options were:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live only a further <X>, but during this time this person has stopped gambling completely.

For gamblers, the format was similar. In the case of assessing the benefits of gambling, the preamble was as follows, *'For this next set of questions, I will ask you to consider how your life might be changed by either living with or without gambling.'* The response options were:

a) You live a further 10 years without being able to gamble at all
b) You live only a further <X> years and are able to gamble normally and without problems

In both formats, <X> varied as follows: 5 years, 8 years, 9 years, 9 years and 6 months, 9 years and 9 months, 1-week-less-than 10 years. If the participant chose option (a), they would proceed to the next question.

For the costs incurred by affected others, and gamblers, if the participant chose option (b) then the ratio of the time they have 'given up' in order to avoid the problems from gambling is treated as the elicited cost of the problems. If they chose option (a) for the final question which specified the minimum time to 'give up', then it is assumed that the cost is approximately zero—since they are not prepared to give up any time to avoid the costs. For the benefits to gamblers, if they chose option (a) for the final question, then they are indicating that they would not sacrifice any time in order to be able to gamble, which implies that the benefit of gambling is approximately zero.

Such an elicitation scheme involves an inherent bias depending on the order in which the questions are presented. Accordingly, and as noted before, half of participants completed the question in alternate orderings. With only 7 possible response options, it also involves a lack of precision on a per-person level—introducing some noise due to quantisation. That is, the maximum per-person precision of measurement was on a 7 point scale. However, this is offset by the increased reliability achieved by breaking the elicitation into a series of binary choices.

Interviewers were provided with instructions to provide further information or clarification as required. We did not assess the degree to which participants understood the instructions or questions posed. The analysis relies on calculation of sample averages that in-principle will average out noise due to participant error. Further, any systematic bias introduced due to systemic misunderstanding of the questions should apply equally to benefits as well as costs – since both TTO elicitations were structured similarly. Therefore, calculation of net cost/benefits should be relatively unaffected by systematic bias due to question misapprehension.

12.2 Results

12.2.1 Number of people positively and negatively affected

Gamblers, who comprised 59.2% of the Tasmanian adult population, were asked whether or not gambling had made their life better or worse. These responses are summarised in Table 12.1(a). The large majority of gamblers (86.7%) indicated that gambling had made their life neither better nor worse (48.9% of adult population). A higher proportion of gamblers indicated that their life has been made better (6.0%) than worse (1.5%).

As shown in Table 12.1(b), of the 4.5% of the population who were affected by another person's gambling, 2.4% said their life had been made worse, compared to 0.2% whose life had been made better. In other words, over a half of affected others said gambling by another person had negatively impacted them. These population-weighted percentages can be supplemented by noting the simple count of affected others in the dataset making each response. Of 204 respondents, 109 stated that gambling had made their life worse, and only 11 stated that it had made their life better.

Combining figures from both gamblers and affected others, suggests that 6.2% of the adult population's lives had been improved by gambling, compared to 3.9% whose lives had been made worse. This combination does not take into account the small proportion (0.5%) of respondents who had had their life affected by both their own gambling, and that of another person. Of these, the majority (0.26%) had their life affected negatively by both their own gambling, and the gambling of another person.

TABLE 12.1 PERCENTAGE OF INDIVIDUALS INDICATING THAT THEIR LIFE HAD BEEN MADE BETTER OR WORSE BY GAMBLING

			CL	
Response	Estimate	%	Low	High
(a) Gamblers				
Don't know	7,368	1.8%	6,822	7,943
Refused	4,172	1.0%	3,736	4,722
Better	24,203	6.0%	23,124	25,298
Worse	6,214	1.5%	5,676	6,787
(Neither)	197,803	48.9%	194,895	200,742
Non-gambler	164,943	40.8%	161,930	168,044
TOTAL	**404,704**	**100.0%**		
(b) Affected others				
Don't know	405	0.1%	276	491
Refused	215	0.1%	158	244
Better	997	0.2%	764	1,267
Worse	9,650	2.4%	8,951	10,408
(Neither)	6,912	1.7%	6,357	7,534
Not-affected	386,525	95.5%	382,148	391,049
TOTAL	**404,704**	**100.0%**		
TOTAL WORSE	*15,864*	*3.9%*		
TOTAL BETTER	*25,200*	*6.2%*		

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

12.2.2 Percentage improvement or reduction reported

Respondents who indicated a positive or negative impact on their life due to gambling were asked to indicate the degree to which their quality of life was influenced as a percentage. Table 12.2 breaks down the responses for both gamblers and affected others. The gamblers who indicated a non-neutral impact on their life were most likely to indicate a small (2%) improvement. Affected others were more likely to indicate a more severe (up to 50%) worsening of their life due to gambling, with very few reporting an improvement due to another's gambling. Since the question was framed with respect to the last 12 months, the proportions (e.g. 0.02, 0.50) can be treated as an approximate weighting factor, as the valence (i.e. positive or negative) of the change in a person's quality of life over one year due to gambling. The population-weighted aggregate change for gamblers was +2,035 person-years (CI: +1,512; +2,636). The population-weighted aggregate change for affected others was -1,844 person-years (CI: -2,466; -1,333). Combining life-changes for gamblers and affected others yielded a net effect of +191 years (CI: -706; +1,013) which is not significantly different from zero.

TABLE 12.2 PERCENTAGE OF INDIVIDUALS INDICATING POSITIVE OR NEGATIVE CHANGE IN LIFE DUE TO GAMBLING

		Gamblers	Affected Others
	Life change	**% Tas. Adult Pop.**	
Negative	-50%	0.13%	0.68%
	-20%	0.18%	0.47%
	-10%	0.16%	0.40%
	-5%	0.26%	0.35%
	-2%	0.79%	0.43%
Neutral	0%	0.43%	0.10%
Positive	2%	2.51%	0.03%
	5%	0.84%	0.05%
	10%	0.79%	0.07%
	20%	0.78%	0.02%
	50%	0.65%	0.05%

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

12.2.3 Elicitation of life-impact via a sequential discrete-choice protocol

Table 12.3 summarises the proportion of Tasmanian adults experiencing different degrees of costs and benefits from their own gambling as elicited by the TTO protocol. More gamblers indicated a zero benefit (35.8%) as compared to a zero cost (28.0%). That is, gamblers were more likely to perceive the benefits of gambling to be negligible, and less likely to perceive there to be non-negligible costs. Of those that indicated a non-zero impact, a relatively large proportion indicated the maximum degree of impact. See the first row and last row of Table 12.3. It is somewhat surprising that 5.8% of gamblers indicated a +50% benefit, and 8.1% indicated a -50% cost. However, it is important to note that each gambler provided a rating of both benefits and costs. A Spearman non-parametric correlation of .66 suggested that these ratings were moderately highly correlated.

It appears that many gamblers rated both the costs and benefits of gambling to be surprisingly high.

While most gamblers indicated no significant cost or benefit, a large proportion of those who indicated maximal benefits also indicated maximal costs—that is, a net benefit of zero. Accordingly, the distribution of net impact (benefits - costs) was approximately uniformly distributed, with a spike at zero. The aggregate population benefit was 13,286 years, which was exceeded by the aggregate population cost of -17,362 years. The aggregate net impact was -4,076 years per annum (CI: -5,265; -2,926); significantly different from zero. Adjusting for the total population of gamblers (239,762), this yielded in a net average quality of life cost of -1.7% per gambler.

Of the Tasmanian adult population, 4.49% (18,178 persons) were estimated to have been affected by another's gambling. The population aggregate net per person cost due to another's gambling was -4,900 years per annum (CI: -5,533; -4,291). Thus, the negative impact to affected others was similar to the net impact to gamblers. The average cost per affected other was -26.9% per affected person, which reflects the distribution of elicited ratings shown in Table 12.3.

TABLE 12.3 PERCENTAGE OF INDIVIDUALS INDICATING EACH DEGREE OF BENEFIT OR COST

Gamblers				Affected Others	
Benefits		Costs		Costs	
Amount	Tas. Adult Pop.	Amount	Tas. Adult Pop.	Amount	Tas. Adult Pop.
+0%	35.8%	-50%	8.1%	-50%	2.2%
+2%	1.4%	-20%	2.3%	-20%	0.4%
+5%	1.3%	-10%	1.7%	-10%	0.3%
+10%	1.5%	-5%	1.3%	-5%	0.1%
+20%	2.5%	-2%	1.5%	-2%	0.1%
+50%	5.8%	0%	28.0%	0%	0.7%

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

12.3 Discussion

Two methods were employed for estimating the costs and benefits accruing from gambling: the TTO method, and a direct percentage estimation of the net increase or decrease to people's quality of life. The same methods were used for people who were affected by someone else's gambling, although the TTO method did not estimate benefits as these were assumed to be negligible. These methods produced some commonalities, but also some divergent results.

Both estimates showed that the vast majority of people indicate that gambling neither significantly helps nor hurts their quality of life. Like most entertainment products, the consumer surplus from expenditure on gambling is small. This is unsurprising given that for typical recreational gamblers, gambling plays an only minor role in their life. When measured as 'quality of life' using these protocols (and implicitly compared against the many other activities, objects and people who give life meaning and enjoyment) gambling does not rate as a highly important activity for most.

12.3.1 Net Benefit/Harm to Gamblers

For the smaller set of people for whom gambling does affect their quality of life, the estimates of 'how much' vary according to method. Using the direct solicitation of quality of life, four times as many gamblers indicated that their lives had been improved rather than harmed by gambling. Moreover, the average and modal benefit nominated by gamblers showed an increase of about 2%. In contrast, using the TTO method, where the harms are rated separately from benefits, the net utility from gambling was estimated as modestly negative (-1.7%).

Given the divergent results, it is not possible to know definitively if gamblers are on average helped or harmed by their gambling. The direct estimates of quality of life (i.e., +2%) potentially suffer from a bias introduced when people try to make holistic judgements of impact, and may ignore inconvenient truths about the damaging aspects of their behaviour. That is, subjective self-appraisal may be misleading, because it is an intrinsically difficult task to determine overall, the precise degree to which one's life has been made better or worse from gambling.

Conversely, the TTO judgements may suffer from methods that require participants to pay close attention to complex binary questions. Nevertheless, the combination of both results suggests that gamblers do not, at least on average, experience either large harms or benefits to their quality of life as a result of gambling. There are, however, an observable small subset of gamblers who are harmed a lot by gambling for the minor enjoyment of the majority.

12.3.2 Net Benefit/Harm to Affected Others

The direct solicitation method for 'affected others' showed that about half indicated that gambling had made their lives worse, whereas less than 6% said their lives were made better, and the rest were unchanged. On average, affected others estimated that their lives were made 18% worse by someone else's gambling by the direct solicitation method. In contrast, the TTO method estimated that affected others' lives were made 26.7% worse. Both of these methods produced estimates that are surprisingly high. Consistent with results for the net calculations for gamblers, the TTO method had more negative estimates than the direct solicitation method.

On average, affected others indicated that they are much worse off due to someone else's gambling. It is hard to know if the respondents are exaggerating their experience of harm. Nevertheless, taken at face value gambling is producing strong negative effects for people surrounding the gambler.

12.3.3 Summary

The estimates show either a slightly positive or negative net effect to gamblers with regard to how gambling affects their quality of life, with most people admitting neither an increase nor decrease. However, net harms nominated by affected others are large. The net weight of gambling harms appears to be borne by people who are largely unable to benefit, but suffer by virtue of a significant relationship with the gambler. The various estimates must be considered preliminary given some of the inconsistencies revealed though the use of multiple measurement procedures. Nevertheless, they indicate that more attention needs to be paid to the burden of harm on people related to the gambler. Regardless of measurement technique, the suffering of these affected others is evident in their strong reactions to the survey.

13 ASSESSING HARM FROM GAMBLING USING THE SHORT GAMBLING HARMS SCREEN

This chapter uses the Short Gambling Harms Screen, with which data was collected as part of the 2017 prevalence survey, to assess harms from gambling.

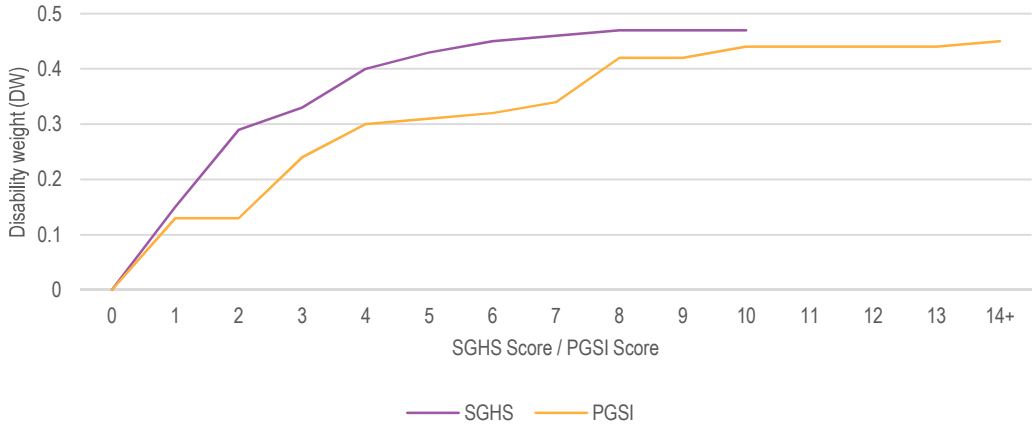
13.1 Introduction and context

The aim of this component of the study was to employ a previously validated population screen for gambling-related harm in order to estimate the total quantity of impact on the Tasmanian community. This approach relies on a population health 'Burden of Disease' (BoD) approach to assessing the societal burden of a condition in terms of the number of healthy-life-years lost due to morbidity (Murray, 1994). It relies heavily on the concept of a 'disability adjusted life year', which is treated on a zero to one scale; with zero and one reflecting the worst and best possible degrees of quality of life achievable. For example, a condition that is causing a 0.20 decrement (or disability weight, DW) to their quality of life is understood to gain, each year, only 80% of the benefits of living, as compared to someone who is free of that condition. The advantage of the BoD approach is that it allows integration of varying degrees of condition severity, using the common metric of Years of Life Lost (YLL) in the population per year due to diminished quality of life from gambling harms.

Prior research in Victoria and New Zealand has used DW in order to estimate the burden of harm associated with gambling (Browne et al., 2016, 2017; Browne, Rawat, et al., 2017; Browne, Greer, Rawat, & Rockloff, 2017). A key aim of this research was to estimate DWs associated with different scores on the PGSI and the Short Gambling Harms Screen (SGHS) (Browne, Goodwin, & Rockloff, 2017). These score-to-DW mappings are plotted in Figure 13.1. The survey included both the SGHS and the PGSI, allowing for the direct assessment of the burden of gambling harm associated with gambling in terms of YLL. Table 13.1 shows the individual SGHS items, and the domain of harm to which item belongs.

Apart from validation done in the original development of the SGHS, little work has been done on risk factors for gambling harm. The present survey collected information on demographics, gambling modes (EGMs, track, etc.), as well as pre-annum spend and frequency of gambling. Accordingly, this chapter shall consider these predictors of gambling-related harm.

FIGURE 13.1 MAPPING OF SGHS AND PGSI SCORES TO DISABILITY WEIGHTS



SOURCE: BROWNE, GOODWIN, & ROCKLOFF, 2017

TABLE 13.1 ITEMS COMPRISING THE SHORT GAMBLING HARMS SCREEN (SGHS)

Category	SGHS item
Financial	Reduction of my available spending money
Financial	Reduction of my savings
Financial	Less spending on recreational expenses such as eating out, going to movies or other entertainment.
Emo/Psy	Had regrets that made me feel sorry about my gambling
Emo/Psy	Felt ashamed of my gambling
Financial	Sold personal items
Financial	Increased credit card debt
Relationships	Spent less time with people I care about
Emo/Psy	Felt distressed about my gambling
Emo/Psy	Felt like a failure

SOURCE:

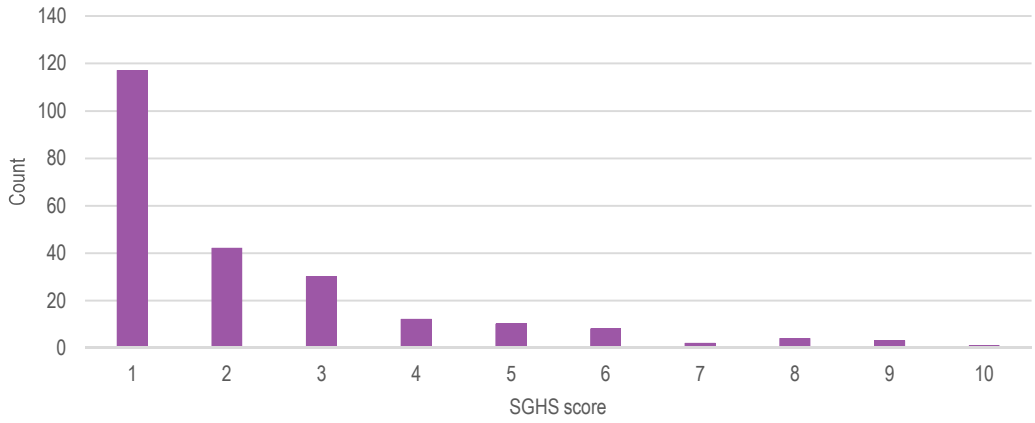
13.2 Method

DWs associated with SGHS and PGSI scores were population weighted using the same weights employed throughout the survey, and aggregated by simple addition over the weighted dataset. For example, a case with a SGHS score of 2 would be assigned a DW of 0.29, then multiplied by the population weight for that case. As the SGHS has a one-year scope, we assume that this represents one year of wellbeing decrement. Accordingly, when population-weighted and summed, the value obtained may be interpreted as years of life lost (YLL) in the population due to gambling-harm. Our primary reference instrument was the SGHS, because it was expressly designed for the population-level assessment of gambling harm. However, prior assessments of gambling harm in Victoria (Browne et al., 2016) and New Zealand (Browne et al., 2017) did not have access to this instrument, and therefore relied on the PGSI. Accordingly, calculation of YLL based on DWs reported for the PGSI (Browne, Rawat, et al., 2017) was done for comparison.

Where appropriate, confidence intervals were calculated using nonparametric bootstrapping using 10,000 replications. Note that DWs associated with SGHS and PGSI scores pertain to diminished quality of life to the gambler themselves. Accordingly, the YLL figures calculated do not incorporate harms to affected others.

Figure 13.2 illustrates the distribution of SGHS in the present sample. Like other measures of gambling-related problems, the distribution is positive skewed, with relatively fewer people experiencing high degrees of harm. The skewed distribution precludes the use of ordinary least squares regression (OLS) to determine risk factors for gambling-related harm, which assumes normally distributed residuals. Accordingly, we implemented a cumulative logistic link ordinal regression. This form of regression is a generalisation of logistic regression, which discriminates between two categories using one threshold. Ordinal regression implements multiple thresholds, allowing for analysis of multiple ordered categories. In the present analysis, there were only 10 cases with a SGHS greater than 6. Accordingly, SGHS scores between 7 and 10 were collapsed into a single category, yielding a factor for analysis with 8 ordered categories (SGHS scores 0-7) and 7 thresholds between categories. The interpretation of the beta coefficients for ordinal regression is similar to logistic regression. For a unit increase in the predictor, the coefficient is the log-odds of a participant having a given score on the SGHS (e.g, 3), versus having a lower score (e.g. 0-2).

FIGURE 13.2 DISTRIBUTION OF SGHS NON-ZERO SCORES IN THE SAMPLE (EXCLUDING 2644 GAMBLERS SCORING ZERO ON THE SGHS)



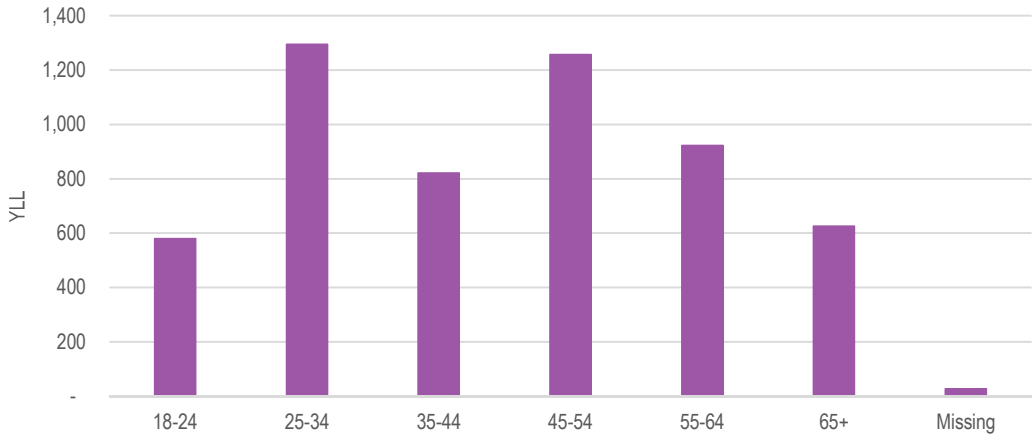
SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

13.3 Results

Using the SGHS DW mapping, we calculated that 5531 years of life were lost (CI: 4714, 6523) per annum in Tasmania due to gambling-related impact to quality of life of gamblers. This was similar to that calculated using the PGSI DW mapping, which would imply that 5083 years of life were lost (CI: 4310, 5987) due to gambling-related impact to quality of life. Subsequent results reported below are based on the SGHS implementation.

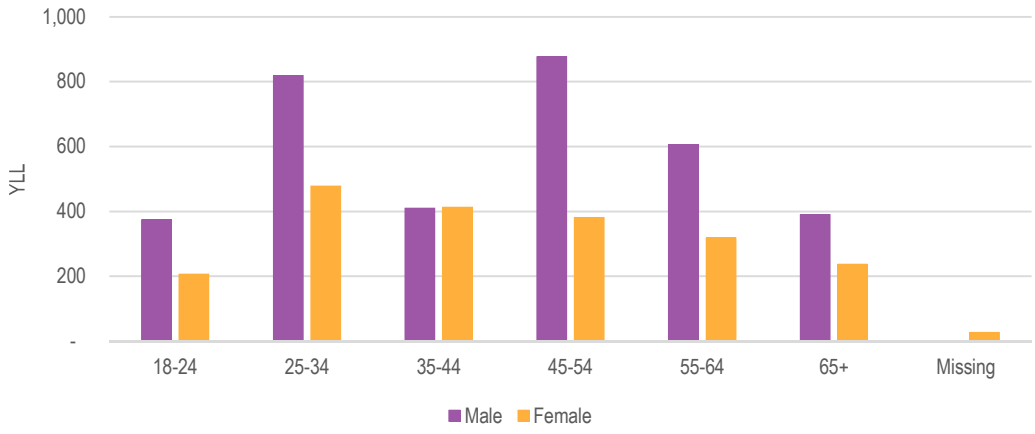
Of the total 5531 YLL to gambling-related harm, about 1.5 times as much harm was incurred by men (YLL = 3473) compared to women (YLL = 2057). Figure 13.3 breaks down YLL by age categories. Total aggregate gambling-related harm was elevated in the groups aged 25-34, and 45-64. Figure F.3 considers YLL across age and gender simultaneously. An increased aggregate harm to men is apparent in all age groups except for those in the 35-44 age group.

FIGURE 13.3 YEARS OF LIFE DUE TO GAMBLING-RELATED HARM, BASED ON THE SGHS



SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

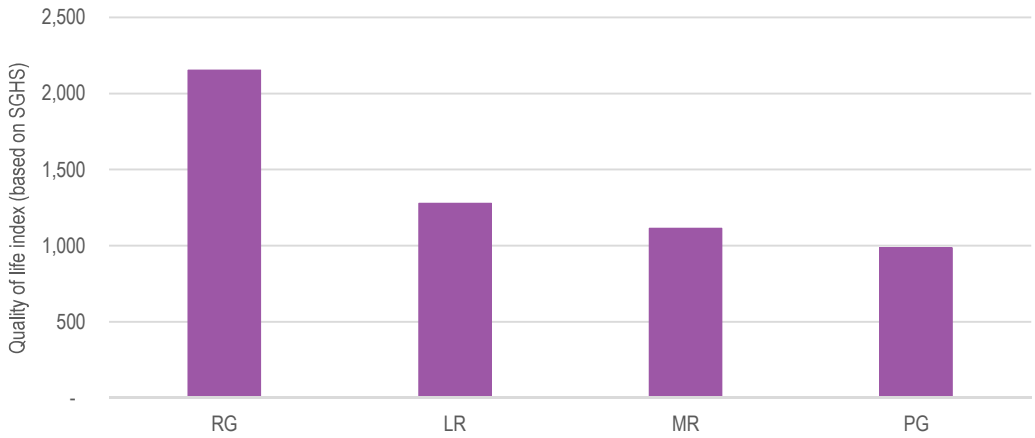
FIGURE 13.4 BREAKDOWN OF YLL FROM GAMBLING-RELATED HARM BY AGE AND GENDER



SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

Figure 13.5 breaks down YLL by PGSI category. It can be seen that aggregate quality of life impact is greatest among the more prevalent, less severe categories. Table 13.2 provides some insight as to why this is case. The mean number of harms is about 100 times lower in the recreational gambler (RG) category (0.05) than the problem-gambler (PG) category (5.56). However, RGs are about 100 times more prevalent than PGs, leading to similar population-weighted SGHS sums for the two groups. The RG category includes a large number of people reporting a few harms. The PG category comprises a small number of people reporting many harms. Because the DW estimate tends to saturate at around SGHS = 5 (see Figure 13.1), the final estimated YLL is significantly higher for the RG category, compared to the PG category: RG, low-risk (LR), moderate-risk (MR) and PGs.

FIGURE 13.5 QUALITY OF LIFE IMPACT (YLL) FROM GAMBLING BASED ON THE SGHS, BROKEN DOWN BY PGSI CATEGORY



SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

TABLE 13.2 DETAILS OF SGHS-BASED AGGREGATE HARM BY PGSI CATEGORY

	Mean SGHS score	Prevalence Weight	SGHS Sum	Pop. Weighted YLL (SGHS)
RG	0.057	209,545	15,359	2,154
LR	0.59	19,224	10,033	1,277
MR	2.164	5,534	11,253	1,114
PG	5.565	2,383	14,846	985
SUM				5,531

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

Table 13.3 presents the ordinal regression model predicting gambling harm from age and gender. Older and female participants tended to have lower gambling harm. Table 13.4 presents the ordinal regression model predicting gambling harm from mode of gambling. Although engagement with all modes of gambling, except for bingo, is associated with greater gambling harm, the effect of EGMs, 'other', and sports betting tended to be higher. Finally, Table 13.5 summarises the model predicting harm from per-annum spend and frequency. Both spend and frequency were independently positively associated with gambling harm.

TABLE 13.3 SUMMARY OF ORDINAL REGRESSION MODEL PREDICTING GAMBLING HARM FROM AGE AND GENDER

Dependent variable:			
SGHS			
Beta coefficients			
age	-0.025** (0.004)	t = -5.856	p < 0.0001
female	-0.630** (0.145)	t = -4.352	p < 0.0001
Threshold coefficients:			
	Estimate	*Std. Error*	*z*
0|1	0.7564	0.2485	3.044

1|2	1.5261	0.2561	5.958
2|3	2.0055	0.2658	7.544
3|4	2.5781	0.285	9.046
4|5	2.94	0.3031	9.699
5|6	3.3864	0.3342	10.133
6|7+	3.9782	0.395	10.07
Observations	*2,837*		
Log Likelihood	*-1,098.14*		

*Note: ** p < 0.01, * p < 0.05*

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

TABLE 13.4 SUMMARY OF ORDINAL REGRESSION MODEL PREDICTING GAMBLING HARM FROM MODE OF GAMBLING

Dependent variable:			
SGHS			
Beta coefficients			
EGM	1.206** (0.155)	t = 7.789	p < 0.001
Track	0.460** (0.178)	t = 2.585	p = 0.010
Scratch tickets	0.115 (0.152)	t = 0.758	p = 0.449
Lottery	0.444* (0.173)	t = 2.571	p = 0.011
Keno	0.319* (0.157)	t = 2.034	p = 0.042
Casino	0.714** (0.230)	t = 3.107	p = 0.002
Bingo	-0.341 (0.421)	t = -0.809	p = 0.419
Sport	0.985** (0.258)	t = 3.812	p < 0.001
Private	0.048 (0.316)	t = 0.153	p = 0.879
Other	1.318 (0.718)	t = 1.836	p = 0.067
Threshold coefficients:			
	Estimate	*Std. Error*	*z*
0|1	3.6876	0.1864	19.78
1|2	4.4864	0.2017	22.24
2|3	4.9979	0.2161	23.12
3|4	5.5869	0.2404	23.24
4|5	5.9548	0.262	22.73
5|6	6.406	0.2978	21.51
6|7+	7.0034	0.3653	19.17
Observations	2,840		
Log Likelihood	-1,037.79		

*Note: ** p < 0.01, * p < 0.05*

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

TABLE 13.5 SUMMARY OF ORDINAL REGRESSION MODEL PREDICTING GAMBLING HARM FROM SPEND AND FREQUENCY

Dependent variable:			
SGHS			
Beta coefficients			
Per-annum spend (per 1000 dollars)	0.105** (0.018)	t = 5.809	p < 0.001
Per-annum frequency (per 100 sessions)	0.315** (0.087)	t = 3.611	p < 0.001
Threshold coefficients:			
	Estimate	*Std. Error*	*z*
0|1	2.80257	0.08732	32.1
1|2	3.65745	0.11819	30.95
2|3	4.19039	0.14543	28.81
3|4	4.87958	0.19303	25.28
4|5	5.18858	0.22075	23.5
5|6	5.56389	0.26104	21.31
6|7+	6.27778	0.36285	17.3
Observations	*2,713*		
Log Likelihood	*-986.998*		

*Note: ** p < 0.01, * p < 0.05*

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

13.4 Discussion

The observed relationships between demographics, mode of play, and consumption and gambling-related harm are in line with expectations and previous findings regarding predictors of risk of gambling problems. Regarding mode of play, the strongest risk factor for gambling harm is EGM play, which is also consistent with prior research (Dowling, Smith & Thomas, 2009).

Estimates of the total quantity of harm to gamblers using DW yielded similar results, regardless of whether the SGHS or the PGSI was employed as the base measure for the DW. The SGHS-based estimate of 4,964 YLL was also not significantly different from the estimates of net harm to gamblers using the discrete choice TTO protocol described in the previous chapter (4,076 YLL). Given these are independent methodologies, it provides confidence that these estimates are accurate.

Measuring harm from gambling in terms of YLL is a novel approach, and therefore comparisons to prior time points in Tasmania is not possible. Measurement of harms through the SGHS in subsequent surveys will allow for tracking total aggregate gambling harm using a unitary YLL metric. The YLL figures calculated in this survey can be compared to other jurisdictions in which the approach has been implemented. In Victoria, the YLL for gamblers was estimated to be 101,675 years. Adjusting both estimates by adult population size (Tasmania: 404,704, Victoria: 3,709,209), the rate of harm from gambling in Tasmania in 2017 is 49.8%—or just under half—of that found in Victoria in 2016. This difference can be partially attributed to the relatively lower prevalence of problem gambling in Tasmania compared to Victoria, as indicated by the prevalence of the three problem gambling risk categories in the present survey.

The observation that gambling-related harm is not confined only to problem gamblers, but is rather distributed more broadly in the population, is consistent with previous findings in Victoria and New Zealand (Browne et al., 2016, 2017). This is related to the notion of the 'prevention paradox' (Browne

& Rockloff, 2017); by which the majority of cases are often associated with lower levels of risk, by simple virtue of the fact that the lower-risk categories are much more prevalent than the high-risk categories. This should not distract from the fact that, on a per-person level, problem gamblers are far more likely to suffer from high degrees of harm. As is shown in Table 13.2, the average per-person score on the SGHS for low-risk gamblers was 0.59, which corresponds to a typical DW between 0 and 0.15, and reflects a relatively minor impact on a person's quality of life. Problem gamblers, on the other hand, had a mean SGHS score of 5.56, corresponding to a DW between .43 and .45.

It should be noted that assessment of population-level gambling harm is an area of active research, and there remain open questions regarding the most reliable and unbiased method to apply. In particular, the aggregate population YLL depends strongly on the DW that is presumed to be associated with different levels of gambling-problem or gambling-harm severity. In general, there probably exists no single ideal method for eliciting the DW associated with a condition; and accordingly, multi-method approaches are advisable (Rehm & Frick, 2010).

The results presented here are based on DWs that were established using elicitation protocols applied in recent prior studies (Browne et al., 2016, 2017; Browne, Rawat, et al., 2017; Browne, Greer, et al., 2017). Whether considered with respect to the PGSI or the SGHS, available elicitation data suggests that DW has a curvilinear relationship to these measures, rising relatively quickly at first (from zero to about SGHS = 4 or PGSI = 7) and then saturating. However, this is somewhat incongruent with the *linear* zero-order association found between SGHS and quality of life reported by Browne, Goodwin, et al. (2017).

On the other hand, the YLL in Tasmania calculated via SGHS-based DWs was remarkably consistent with the YLL estimated using the sequential discrete-choice TTO protocol described in the previous chapter. If the relationship between YLL and SGHS was linear rather than curvilinear, then this would imply that the incidence of gambling harm would be more evenly distributed across PGSI-based gambling-risk categories (see Table 13.2). However, even in this most conservative scenario, the majority of harm would still be occurring in non-problem gambler risk categories. Accordingly, these findings on the distribution of gambling-harm support calls for a focus on reducing harms among those gamblers who do not necessarily meet clinical criteria for dependence or addiction.

14 DEVELOPING A SHORT GAMBLING HARMS SCREEN FOR AFFECTED OTHERS

This chapter describes the development of and analysis of 2017 prevalence survey data using a Short Gambling Harms Screen for Affected Others.

14.1 Introduction and context

The Short Gambling Harms Screen (SGHS) has been developed and validated in prior research for measuring harms accruing to gamblers (Browne, Goodwin, et al., 2017). The SGHS comprises ten binary items drawn from a larger and comprehensive checklist of 72 gambling-related harms. Scores on the SGHS are an excellent reflection of the full set of harms, being correlated with the count of harms on the full checklist at r = .94. The SGHS is comprised primarily of mild to moderate harms, which are most prevalent in the population. It has been criticized for not including more severe negative consequences (for example, bankruptcy; see Browne & Rockloff (2017) and Delfabbro & King (2017) for a discussion). However, it is more statistically efficient as a consequence, because severe harms tend to be very sparse in the population. Further, as indicated by the very high correlation with the full item checklist, the presence of multiple mild-moderate harms is an excellent indicator that more severe harms are also present. The SGHS has strong internal consistency, based on coefficient alpha (.93) and omega (.83); the latter reflecting not only reliability but also unidimensionality (Browne, Goodwin, et al., 2017). The SGHS also displays, as expected, a linear negative relationship with self-reported well-being (r = -.29).

14.1.1 Another Scale Is Needed: Short Gambling Harms Scale, Concerned Significant Others

One limitation of the SGHS is that it is designed for use with gamblers, rather than affected others (or 'concerned significant others'; CSOs)—the spouses, relatives and other members of gamblers' social networks who are also commonly impacted by their gambling. The decision to exclude CSOs from the SGHS was made deliberately by the designers after it was noted that; although CSOs experience harms across the six domains of harm (financial, relationships, emotional/psychological, health, work/study, deviance) to a similar degree as gamblers, the experiences of harm were often different. For example, in terms of psychological distress, gamblers are much more likely to report feelings of shame and regret; whilst CSOs are much more likely to report feelings of anger and helplessness. For this reason, a dedicated index of harms to CSOs is required.

The purpose of this chapter is to report on the development and validation of a short screen for affected others; referred to hereafter as the SGHS-CSO.

14.2 Method

In the sections below we describe three stages in the analysis. We applied an item selection method that had been previously applied in creating the SGHS. The sum (count of positive responses) of the

candidate set of items were compared to other measures to check external validity. Psychometric evaluation of the internal properties of the candidate scale were also applied.

14.2.1 Item selection

In order to maximise comparability with the original SGHS, we followed the same procedure to select items for the SGHS-CSO. In the development of the SGHS, exploration of the item performance of the original 72-item scale showed that it has very high unidimensionality and reliability, with most items being quite strong indicators of the latent factor of 'gambling harm'. In the present CSO dataset, the full harm checklist also had high alpha reliability of .96, although omega was lower at .69, implying that unidimensionality of harm was lower for CSOs than gamblers (See section 14.2.3 for further detail). Inspection of the factor loadings of a hierarchical factor analysis confirmed that, in addition to a general factor (harm), a sub-factor structure was apparent based around (a) financial harms, (b) relationship and emotional harms, and (c) work/study related harms.

Additionally, a minor factor was observed centred around social deviancy. This sub-factor structure is not surprising, given that the degree of harm experienced by a CSO is dependent on the nature of the relationship to the gambler—e.g. whether or not finances are shared, and the degree of psychosocial intimacy with the gambler. Although this caveat should be borne in mind, there was sufficient proportion of variation in the general factor (69%) to justify proceeding to select items for a single unidimensional scale.

As well as maintaining consistency with the SGHS, there was a similar argument for utilising the same customised criteria for item selection. Each harm probe is specific and concrete – by which we mean that each harm probe describes an event or situation with little room for subjective interpretation. This is an attractive property of the checklist. However, an associated disadvantage of assessing specific, concrete symptomatology is that there is a potential to 'miss' the harm experienced by particular people who may not exhibit the specific symptoms included within a shorter scale. Therefore, in item selection, the principal criterion to optimise was to minimise false negatives (or equivalently, to maximise sensitivity). In other words, we desire a shortened scale that captures individuals who are indicating harm on the comprehensive checklist. This amounts to minimising the number of cases that score positive/high on the full harms measure, but zero/low on the short harms measure.

Given these considerations, we implemented the same item selection algorithm as was used to develop the SGHS. The first item was selected based on *maximising simple prevalence.* The second and following items were chosen based on the maximum prevalence amongst cases who have not answered positively on the previously selected items. The effect of this simple algorithm is two-fold. First, it selects items so as to minimise false negatives on the complete scale. Second, it has a tendency to maximise construct coverage; i.e. to select items that are relatively less highly correlated. This is because the criterion is based on the maximum number of positive responses, among cases for which previously selected items are negative. While this criterion is potentially prejudicial to reliability, it promotes the inclusion of probes indicating semi-independent sub-constructs of harm, or probes more likely to be positively answered by different groups. Given the identification of sub-factors in harm to CSOs mentioned above, ensuring adequate coverage across these sub factors is a particularly important criterion.

14.2.2 Comparison measures

After a final candidate set of items were identified, the SGHS-CSO was compared to a number of relevant measures in the survey for validation tests. First, it was compared with the full 68 item checklist sum. Note that the checklist of gamblers contains 72 items—several consequences that were only meaningful when applied to gamblers were not included in the CSO checklist.

Prior psychometric analysis on the harms checklist, using a larger (non-population representative) dataset than the present study, has determined that the simple sum of items is highly correlated (r = .97) with the underlying latent harm score. Accordingly, the simple sum or count of positive responses is a surprisingly good indication of the latent degree of harm experienced by the individual. Given the relatively small number (204) of harmed individuals responding in the present study, from a practical standpoint, no such latent dimensional analysis was possible. Instead, the analysis employed

correlations of the much shorter SGHS-CSO with the full checklist sum to test for the amount of information lost in dropping items.

Second, it was compared with the elicited harm-to-others measures based on Burden of Diseases (BoD) methods described in the previous chapter. There were two BoD measures, the first being a simple single-item Likert response where respondents reported the degree to which gambling had made their life better or worse, as a percentage. The second was a multi-item sequential forced choice series of items, implementing a time trade-off (TTO) protocol. While these measures have an advantage of providing a common metric for measuring harm (as a percentage of life lost), they lack the face-validity of measuring specific instances of actual harm.

The survey also included the 'Problem Gambling - Significant Other Impact Scale' (SOIS)' (PG-SOIS: Dowling et al., 2014), comprising six Likert items assessing general impacts to each domain of harm. Accordingly, it represents an alternative, and very viable, approach to assessing actual harm. The PG-SOIS represents an interesting point of comparison because it differs with respect to both to the response format (Likert versus binary), and the scope of the probes, which are general—rather than concrete and specific consequences listed in the harms checklist.

Finally, the SGHS-CSO was compared to a number of items assessing general quality of life. Quality of life measures are an important check for convergent validity, since people affected by gambling harms should have lower quality of life as a consequence. These are described in the relevant tables referred to in the subsequent results section.

14.2.3 Psychometric evaluation of internal properties

Tetrachoric correlations were calculated between binary variables—i.e. the specific harm items, and were used to calculate the correlation matrix for subsequent evaluation using factor analytic and reliability measures. Coefficient alpha and omega were employed to assess internal consistency of the scale. Coefficient omega is based on a hierarchical factor analysis of the items, positing a single general factor, and multiple potential (undesirable) sub-factors; and yielding a coefficient that is the ratio of the variance explained by the general factor to variance attributable to residuals and sub-factors (Gignac, 2015). Accordingly, it is a more stringent test of scale reliability than coefficient alpha, since it also accounts for potential non-unidimensionality of the scale. Additionally, unlike coefficient alpha, which yields higher reliabilities for scales with more items, it is not biased with respect to scale length.

14.3 Results

In the dataset analysed, 204 respondents indicated that they had been adversely affected by another's gambling. These participants completed the full 72 item checklist of harms, worded for affected others. Application of population weights suggested that this reflected 20,543 individuals, or 5.07% of the Tasmanian adult population. Items selected and their prevalence among CSOs are summarised in Table 14.1. Of the items selected, 'feelings of distress about their gambling' was most commonly endorsed (74.1% of CSOs), whilst petty theft was the least prevalent (8.1% of CSOs). As shown in Table 14.1, the selected items included three relationships harms, three emotional / psychological harms, two financial harms, and one harm from the work/study and deviance domains.

TABLE 14.1 ITEMS SELECTED FOR INCLUSION IN THE SGHS-CSO SCALE AND PREVALENCE AMONG CSOS (20,543 PERSONS)

		Domain	% (CSOs)
1	Reduction of my available spending money	Financial	47.1%
2	Got less enjoyment from time spent with people I care about	Relationships	45.7%
3	Spent less time attending social events (non-gambling related)	Relationships	31.2%
4	Experienced greater tension in my relationships (suspicion, lying, etc.)	Relationships	53.1%
5	Felt distressed about their gambling	Emotional / Psychological	74.1%
6	Felt angry about not controlling their gambling	Emotional / Psychological	60.4%
7	Feelings of hopelessness about their gambling	Emotional / Psychological	49.1%
8	Used my work or study time to attend to issues caused by their gambling	Work/Study	23.6%
9	Petty theft, including taking money or items from friends or family without asking first	Deviance	8.1%
10	Reduction of my savings	Financial	39.6%

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

One purpose of the SGHS-CSO is to detect the presence of one or more gambling-related harms among CSOs without the necessity of administering the full harms checklists. Therefore, we define 'false negatives' as individuals who indicated one or more harms on the full checklist, but none of the harms on the reduced 10-item scale. There were 7 false negatives, or 3.4% of CSOs in the sample. Applying population weights yielded a similar false negative rate of 3.4% in the population.

The rank-order correlation of the SGHS-CSO sum (scored 0-10) with the sum based on the full 68-item checklist was high at r = .89. However, alpha and omega reliability of the shorter scale was somewhat lower at .71 and .62 respectively. However, coefficient omega for the full 68 item checklist was also not particularly high at .75.

As expected, the SGHS-CSO sum was significantly negatively correlated with the outcome of the sequential discrete-choice TTO protocol at r = -.23, p = 0.003. It was also significantly negatively correlated with single-item elicited degree of harm as a percentage, r = -.65, p < 0.001. The correlations were similar to those between the PG-SOIS sum and the single-item harm report (-.67) and the TTO protocol (-.26). The SGHS-CSO sum was highly correlated with the PG-SOIS sum at .79.

The survey included a number of questions dealing with the general quality of a person's life. General quality of life may be presumed to be driven by many factors, but should also be related to any index of gambling-related harm. Table 14.2 compares correlations of the SGHS-CSO sum and the total harm count of with each EUROHIS quality of life item. Surprisingly, the shorter SGHS-CSO significantly out-performed the full count in all comparisons. It performed similarly to the PG-SOIS. For both the SGHS-CSO and PG-SOIS, the strongest relationship was with satisfaction with personal relationships.

TABLE 14.2 CORRELATIONS OF THE SGHS-CSO, TOTAL HARM COUNT, AND THE PG-SOIS WITH INDICATORS OF GENERAL QUALITY OF LIFE.

	SGHS-CSO	Count harms	PG-SOIS
In the last four weeks…		(/68)	
Have you had enough energy for everyday life...?	-0.17	-0.06	-0.18
Have you had enough money to meet your needs...?	-0.18	-0.06	-0.18
How satisfied are you with…			
your health?	-0.20	-0.08	-0.18
your ability to perform your daily living activities?	-0.15	-0.04	-0.14
yourself?	-0.20	-0.08	-0.16
your personal relationships?	-0.33	-0.09	-0.30
the conditions of your living place?	-0.15	-0.06	-0.14
LIFE SATISFACTION SUM	-0.29	-0.09	-0.24

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

14.4 Discussion

The properties and limitations of the current design shall first be acknowledged, with comparison to the previously developed SGHS (Browne, Goodwin, et al., 2017). Ten items were selected for the SGHS-CSO, yielding a 0-10 count. Both the number of items and the method of selecting items was consistent with the previously published SGHS (Browne, Goodwin, et al., 2017). However, the dataset used to select items differed significantly. The SGHS was developed using a cross-sectional internet survey of 1524 regular gamblers, 706 of whom had nominated at least one negative consequence. The present population-representative sample of 5000 persons included 204 persons who asserted they had been personally affected by another person's gambling. These 204 individuals went on the complete the full harms checklist. Thus, the random sampling recruitment yielded less information on harms to form the basis for psychometric procedures, including item selection and assessing scale performance. From a psychometric point of view, ideally there would have been no such screen and all individuals would have completed the full checklist. However, such an approach would have increased the mean survey time length to an unacceptable degree. In addition, respondents may respond differently to a phone interview than an online checklist. On one hand, personal interviewing provides for implicit attention check throughout. On the other hand, respondents may respond differently when reporting potentially embarrassing or compromising life events to a human, rather than using an internet form. Nevertheless, in principle, the CATI survey approach provides better representativeness of the population of affected individuals than internet panel recruitment. We would normally recommend that such a scale development exercise be based on no fewer than 1200 responses, with at least half of respondents reporting non-zero harms. Accordingly, we must caution that the results should be regarded as preliminary only, and the SGHS should be validated or refined using a targeted sample before it can be generally recommended.

With these caveats in mind; particularly regarding the limited information available in the dataset; the evaluation of the candidate SGHS-CSO yielded mixed but mostly positive results. One striking feature of the selected harm items is that, with the exception of petty theft (8.1% of CSOs), they are very prevalent; given that a person is experiencing some harm from another's gambling. The other nine harms were endorsed by between 23.6% and 74.1% of harmed CSOs. The distribution of the sum score among harmed CSOs was normal to uniformly distributed across the range of 0 to 10. This implies that the SGHS-CSO score may have good potential for discriminating differing degrees of harm.

A principal goal of a shortened harms checklist is to serve as a surrogate for the comprehensive full checklist of 68 harms to others. Like the SGHS, the SGHS-CSO was highly correlated with the full checklist sum at r = .89. This is a very desirable property since it implies that to a large degree, the significant theoretical and evidence base for the full checklist (Li, Browne, Rawat, Langham, &

Rockloff, 2017) also applies to the shortened scale. As a consequence of the item-selection algorithm, the SGHS-CSO was highly sensitive to the presence of harm; with 96.6% of respondents reporting at least one harm on the full checklist also yielding a non-zero score on the SGHS. One purpose of such a shortened scale in future surveys is to detect the presence of harm using a brief measure; and therefore, such sensitivity is a desirable property.

In the current evaluation, the principal deficiency of the SGHS-CSO is the low omega reliability coefficient of .62, which reflects an inadequate degree of internal consistency and unidimensionality. This is in contrast to the SGHS, which displayed good omega reliability of .83. Given that omega for the full checklist was also weak, the strong implication is that unlike harms to the gambler, harms to CSOs are not homogeneous and unidimensional, but rather moderated by the nature of the relationship of the CSO to the gambler. For example, CSOs with strong emotional but low financial dependence on the gambler may report only emotional harms; while the converse may also be true. This yields heterogeneity or different 'types' of affected others, which would contribute to a lack of unidimensionality in the underlying construct. Gamblers, on the other hand, display strong unidimensionality across the domains of harm: for example, financial harms are almost always accompanied by emotional harms. Thus, assessing harm to CSOs may be intrinsically more complicated than assessing harms to gamblers themselves.

Mitigating the above concerns, the SGHS-CSO was strongly correlated with the PG-SOIS at .79, and had similar correlations with general quality of life measures used as validation. This suggests that the differing measurement approaches implemented by the SGHS-CSO and the PG-SOIS may both be valid ways to assess harm. Given that the transmission of harm from gambler to CSO is through a relationship between the two, it is not surprising that the strongest correlations were observed with a decrement to satisfaction in personal relationships. The strongest links between the SGHS-CSO sum and individual PG-SOIS items were in the emotional, relationship and social domains.

A final surprising observation was that the SGHS-CSO (and PG-SOIS) was more strongly correlated with general quality of life measures than the full harms checklist—which displayed correlations near zero. This is a difficult finding to interpret, given that the full harms checklist was well-correlated with the PG-SOIS at .80, and quality of life (i.e. how much has gambling made your life better or worse, as a percentage) at -.64. Further research is required to investigate this curious result.

14.5 Conclusion

As noted above, the evaluation of the SGHS-CSO yielded mixed, but mostly positive results. It performed similarly to the PG-SOIS with respect to validation measures. However, the limited number of respondents who completed the full checklist prevent us from making strong conclusions from this dataset. We recommend that the current version of the SGHS-CSO be regarded as preliminary, pending confirmation with another targeted sample of individuals who had been affected in some way by another's gambling.

While the development of the SGHS-CSO must be regarded as a work in progress, the development of such a tool presents great advantages in the goal of measuring gambling related harm not only to gamblers but also to those around them. In the present survey, the full checklist was only given to individuals who positively indicated that they had been affected by another's gambling. This was because it was too time-consuming to administer the full population of relatives and friends of gamblers. Such a screen may have the effect of underestimating the number of symptoms in the population. The preliminary SGHS-CSO developed here is much shorter, and therefore is practical to administer to full population of potentially affected others. The high rank-order correlations between the short form and the full checklist suggest that it is eminently practical to infer the prevalence of the full list of harms, from responses on the shorter SGHS-CSO. This is partially due to the item selection process used for the SGHS and the SGHS-CSO, which is oriented towards maximising construct coverage of the complete range of harms.

At the present time, it is possible to infer disability weights for both the SGHS and the SGHS-CSO from prior elicitation studies. However, this is sub-optimal, because prior work was focused on linking average disability weights to PGSI categories, rather than directly to a dedicated instrument for measuring harm. Therefore, the next step in improving assessment of harms to affected others and

also gamblers is to implement BoD protocols specifically oriented to scores on these instruments. That is, conducting elicitation protocols that aim for an unbiased estimates of the average decrement to quality of life from gambling associated with scores 1, 2,...,10. This exercise, combined with evaluation of the candidate SGHS-CSO with a stratified (rather than population-representative) sample, should confirm the utility of the measure for the future assessment of gambling impact.

15 IDENTIFICATION OF LOW-RISK GAMBLING LIMITS

This chapter presents a set of low-risk gambling limits derived using the newly validated measure of gambling-related harm, the Short Gambling Harms Scale (SGHS; Browne et al., 2017). The aim of this chapter was to identify a set of empirically based low-risk gambling limits derived from the validated measure of gambling-related harms (SGHS). By distinguishing between low-risk and high-risk gambling behaviour, the identification of low-risk gambling limits can serve multiple purposes, including: (i) providing consumers the opportunity to make informed choices about personal risk; (ii) serving as a cost-effective screening method for identifying people at higher-risk for gambling-related harm; (iii) monitoring the prevalence of gambling-related harm in population-level research; (iv) investigating the efficacy of secondary intervention efforts and (v) application in tertiary intervention settings for gamblers selecting a moderation goal.

Specifically, the aim of this chapter involved the use of population-based survey data to:

i) identify low-risk gambling limits by exploring the optimal cut offs in Receiver Operating Curve (ROC) analyses across multiple gambling indices and multiple definitions of gambling-related harm
ii) identify a set of proposed low-risk gambling limits based on a selected definition of gambling-related harm.

15.1 Key findings

- Endorsement of two or more of items on the SGHS was selected as the superior definition of harm in this study as it produced consistently acceptable AUC values for all five gambling behaviour indices (gambling frequency, gambling expenditure, gambling expenditure as a proportion of income, number of gambling activities and gambling duration).
- 2.6% of respondents and 4.5% of gamblers met this definition of gambling-related harm.
- Using this selected definition of harm, the low-risk gambling limits derived for the Tasmanian population are:
  - 30 times per year for gambling frequency
  - $510 per year for gambling expenditure
  - 10.24% for gambling expenditure as a proportion of gross personal income
  - 400 minutes (6.67 hours) per year for gambling duration
  - 2 gambling activities for number of activities.
- Using the selected definition of harm, not all of the identified low-risk gambling limit cut-offs for the gambling activity-specific analyses were acceptable (AUC > 0.70).
- The acceptable low-risk gambling limits for EGM gamblers are estimated to be:
  - an EGM gambling expenditure of $240 per year
  - an EGM gambling duration of 330 minutes per year

  - an EGM gambling session expenditure of $30.
- The acceptable low-risk gambling limits for keno gamblers are estimated to be:
  - a keno gambling frequency of 11 times per year
  - a keno gambling expenditure of $130 per year
  - a keno gambling duration of 135 minutes per year.
- The acceptable low-risk gambling limits for bingo gamblers are estimated to be:
  - a bingo gambling frequency of 6 times per year
  - a bingo gambling expenditure of $120 per year
  - a keno gambling duration of 360 minutes per year
  - a bingo session expenditure of $20
  - a bingo session duration of 90 minutes.
- There were no acceptable low-risk gambling limits identified for horse or dog racing, instant scratch tickets, lottery, casino table gambling, and sports/other event betting.

15.2 Background

In the alcohol field, low-risk drinking limits have been developed which distinguish between low and high-risk drinking behaviour. These low-risk drinking limits serve as the basis for the low-risk drinking guidelines that are promoted in the general public, such as drinking no more than 2 standard drinks on any day for healthy men and women and 4 standard drinks on any single occasion for healthy men and women (National Health and Medical Research Council, 2009). These guidelines, which were developed by identifying the level of alcohol use associated with a 1 in 100 lifetime mortality alcohol-attributable risk, can help individuals make informed choices about their drinking habits, and the risks associated with these habits (National Health and Medical Research Council, 2009; Room & Rehm, 2012).

In contrast, there has been very little empirical research attempting to define levels of low-risk gambling. The literature related to the development of low-risk gambling limits has been dominated by three research groups in North America. In Canada, Currie and colleagues conducted a program of research exploring the identification of low-risk gambling limits in population-representative samples (Currie et al., 2006, 2008, 2009, 2017). Independently, Weinstock and colleagues identified low-risk gambling limits in samples of problem gamblers (Weinstock et al., 2007) and university students (Weinstock et al., 2008) from the United States. Most recently, Quilty and colleagues (2014) identified low-risk gambling limits in a combined community and psychiatric outpatient sample in Canada. A replication of these Canadian thresholds has been conducted in a representative dual-frame German dataset (Brosowski et al., 2015).

In contrast to the NHMRC low-risk drinking guidelines, which were developed based on a measure of absolute risk in the population (Room & Rehm, 2012), the prior research in the gambling field has employed receiver operating characteristic (ROC) analyses to identify optimal low-risk gambling limits, and only in North American samples. ROC analyses can be used to derive discriminative low-risk thresholds that would be indicative that a person is engaged in gambling behaviour that is associated with a higher risk for harm. In this sense, low-risk limits derived from ROC analyses are suitable for professionals and also consumers who can use the limits to identify their likely gambling harm based on their gambling behaviour patterns. Additionally, unlike low-risk drinking guidelines, determining measures of harm can be difficult for gambling related behaviour and in these previous studies, gambling-related harm has been defined using subsets of items from the Problem Gambling Severity Index (PGSI), the South Oaks Gambling Screen (SOGS), or diagnostic criteria. Because there is no standard unit of gambling, it also remains necessary to examine the dose-response relationship across multiple dimensions of gambling behaviour. When examining these previous population-representative studies, similar, although not identical, ROC-derived low-risk gambling limits have been identified:

- gambling no more than 0.6 to 8 times per month
- spending no more than $132CAD to $1020CAD per year on gambling;
- spending no more than 1% to 3% of gross household income on gambling activities;

- gambling for no longer than 60 minutes per session; and
- gambling on no more than 2 to 4 types of gambling activities per year.

These population-based low-risk gambling limits, however, may not be generalisable to other jurisdictions given differences in gambling availability, regulation, and treatment provision.

Dowling et al. (2017) recently identified low-risk gambling limits using ROC analyses for the Australian population through the secondary data analysis of population data from the combined datasets from the second and third Social and Economic Impact Study of Gambling in Tasmania (ACIL Allen Consulting, Social Research Centre, & Problem Gambling Research and Treatment Centre, 2014a; Allen Consulting Group, Problem Gambling Research and Treatment Centre, & the Social Research Centre, 2011) and the dataset from the 2014 Survey on Gambling, Health and Wellbeing in the ACT (Davidson et al., 2015). These computer assisted telephone interviewing (CATI) surveys were selected for analysis as they are among the few available population-representative studies in Australia to collect continuous expenditure data across multiple gambling activities. Dowling et al. (2017) estimated the overall low-risk limits for the Tasmanian population to be:

- a gambling frequency of 30 times per year (2.5 times per month)
- a gambling expenditure of $615 per year ($51 per month)
- a gambling expenditure comprising 1.68% of an individual's personal income, and
- 2 gambling activities.

This study also derived low-risk gambling limits for gamblers participating in specific gambling activities across the Tasmanian and ACT datasets (see Table 15.1).

TABLE 15.1 DOWLING ET AL. (2017) GAMBLING ACTIVITY-SPECIFIC LOW-RISK GAMBLING LIMITS

LOW-RISK GAMBLING LIMITS FOR EGM GAMBLING	LOW-RISK GAMBLING LIMITS FOR HORSE/DOG RACE GAMBLING
– an EGM gambling frequency of 10 times per year – an EGM gambling expenditure of $300 per year – an EGM gambling expenditure comprising 0.63% to 1.04% of gross personal income – an EGM session gambling expenditure of $35 – an EGM session duration of 40 minutes	– a horse/dog race gambling expenditure comprising 0.55% of gross personal income
LOW-RISK GAMBLING LIMITS FOR INSTANT SCRATCH TICKET GAMBLING	**LOW-RISK GAMBLING LIMITS FOR LOTTERY GAMBLING**
– an instant scratch ticket gambling expenditure of $45 per year	– a lottery gambling expenditure comprising 0.45% of an individual's gross personal income
LOW-RISK GAMBLING LIMITS FOR KENO GAMBLING	**LOW-RISK GAMBLING LIMITS FOR CASINO TABLE GAMBLING**
– a keno gambling frequency of 4 to 13 times per year – a keno gambling expenditure of $45 to $160 per year	– a casino table game gambling expenditure of $345 per year – a casino table game gambling expenditure comprising 0.36% to 0.76% of an individual's gross personal income
LOW-RISK GAMBLING LIMITS FOR BINGO GAMBLING	**LOW-RISK GAMBLING LIMITS FOR SPORT/OTHER EVENT GAMBLING**
– a bingo gambling expenditure of $150 per year – a bingo gambling expenditure comprising 0.49% of an individual's gross personal income – a bingo session duration of 90 minutes – bingo session expenditure of $17	– a sports/other event betting gambling frequency of 14 times per year – a sports/other event betting gambling expenditure of $400 per year – a sports/other event gambling expenditure comprising 0.55% to 0.86% of gross personal income

SOURCE: DOWLING ET AL., 2017

Previous efforts to develop low-risk gambling limits has relied exclusively on measures of problem gambling severity, such as the PGSI and the SOGS. Given the growing consensus that problem gambling severity and gambling-related harm are not synonymous (Browne et al., 2016), there is a need to identify low-risk gambling limits using alternative measures of gambling-related harm.

To date, this has been limited by the lack of a validated and interpretable measure of harms attributable to gambling. In their study, Dowling et al. (2017) attempted to extend the definition of harm from subsets of PGSI items to alternative measures of harms, including quality of life measures, mental health measures, substance use problem measures, and alternative gambling-related harm items. No robust low-risk gambling limits could be identified using quality of life, mental health, and substance use measures. These findings suggest that instruments assessing harms that are not directly attributed to gambling behaviour fail to produce acceptable low-risk gambling limits. It is likely that these measures of harm are not sufficiently sensitive or associated with gambling harms to produce any useable results.

In contrast, the two sets of gambling-related harm items from Tasmanian and ACT datasets (e.g., gambling resulting in difficulty paying bills, repaying debt, or meeting other expenses) were used to derive a set of relatively consistent low-risk gambling limits that were somewhat higher than those identified using the selected definition of harm based on the PGSI. The higher limits identified in these analyses, combined with the smaller proportion of the population that endorse them, suggest that these items measure more severe or extreme harms than the PGSI items.

Despite the derivation of these limits, Dowling et al. (2017) advise extreme caution in their interpretation. The set of gambling-related harm items did not produce consistently acceptable low-risk gambling limits and captured few participants in the population experiencing harm. Moreover, the items were different across the Tasmanian and ACT datasets and do not comprise validated instruments with interpretable scoring procedures. It is therefore likely very premature to base low-risk gambling guidelines on these limits.

Dowling et al. (2017) therefore argue that one important advance is to derive low-risk gambling limits from a validated and interpretable measure of harms attributable to gambling other than the PGSI or the SOGS. With the development of the SGHS and its inclusion in the fourth Tasmanian SEIS prevalence survey, this study is able to identify low-risk gambling limits based on a validated measure of gambling-related harms. The availability of this new measure of gambling harms has implications for the development of low-risk gambling guidelines for use in prevention and intervention efforts.

Offering these types of low-risk guidelines fits modern ideals of the consumer society, whereby well-informed consumers adapt their behaviour to consumer advice from professional organisations (Room & Rehm, 2012). Specifically, low-risk gambling limits may provide the opportunity for consumers to make informed choices about personal risk and act as a cost-effective screening method to identify people at higher-risk for gambling-related harm.

15.3 Method

This study employed a subset of the data from the fourth Tasmanian SEIS prevalence survey, including gambling behaviour indices and the Short Gambling Harms Scale (SGHS).

15.3.1 Measures

Measurement of gambling behaviour indices

Indices of gambling behaviour on which the low-risk gambling limits were derived include gambling frequency, gambling expenditure, gambling expenditure as a proportion of income, number of gambling activities, gambling duration, session expenditure, and session duration. These were derived for overall measures, and for specific gambling activities.

Gambling frequency

Gambling frequency was measured for numerous gambling activities, including EGMs, horse or greyhound racing, instant scratch tickets, lotteries, keno, casino table games, bingo, sports or other

event betting, and informal private games. Responses relating to gambling frequency were recorded per week, per month, or per year. For the purpose of this analysis, annual gambling frequency was calculated by standardising each response to an estimated yearly frequency and summing these yearly frequencies across all gambling activities.

Gambling expenditure

Gambling expenditure was measured for multiple gambling activities, including EGMs, horse or greyhound racing, instant scratch tickets, lotteries, keno, casino table games, bingo, sports or other event betting, and informal private games. The expenditure item utilised in this survey allowed for the calculation of session expenditure for each specific gambling activity. Annual gambling expenditure for each activity was calculated by multiplying the number of sessions (i.e., gambling frequency) with the expenditure per session estimates. Total annual gambling expenditure was then calculated by summing these yearly gambling expenditures across all gambling activities. Gambling expenditure was assessed only in terms of amount of money lost (i.e., respondents who had won money were allocated a zero gambling expenditure to indicate zero loss).

Gambling expenditure as a proportion of personal income

This survey employed an item of gross annual personal income. In contrast to previous Tasmanian SEIS surveys, categories of gross personal income were refined to $10,000 increments for the purposes of these analyses. Response options for this item were: Less than $10,000; $10,000 to $19,999; $20,000 to $29,999; $30,000 to $39,999; $40,000 to $49,999; = $50,000 to $59,999; $60,000 to $69,999; $70,000 to $79,999; $80,000 to $89,999; $90,000 to $99,999; $100,000 to $109,999; $110,000 to $119,999; $120,000 to $129,999; $130,000 to $139,999; $140,000 to $149,999; $150,000 or more. In order to derive expenditure as a proportion of income, we used the mid-point of each category's range to represent the respective income category (e.g. $10,000 to $19,999 became $15,000). For the final income category (e.g. $150,000 or more) in which no mid-point exists, the same interval that was applied to the preceding category was applied (i.e., $5,000). Therefore, for final income category of "$150,000 or more", the mid-point was denoted as $155,000. Total annual gambling expenditure was then divided by the mid-point income value to derive gambling expenditure as a proportion of income. A small number (n=4) of estimates of derived gambling expenditure as a proportion of income exceeding 100% were then removed from the dataset.

Number of activities

The number of gambling activities were based on participation across eight gambling activities: EGMs, horse or greyhound racing, instant scratch tickets, lotteries, keno, casino table games, bingo, and sports or other event betting. Informal private games and "other" gambling activities were excluded due to low frequencies of participation. The total number of gambling activities in which each respondent participated, in the previous 12 months, were calculated from these responses.

Gambling duration

Gambling duration was measured for multiple gambling activities, including EGMs, horse or greyhound racing, instant scratch tickets, lotteries, keno, casino table games, bingo, sports or other event betting, and informal private games. The duration items employed in this survey were recorded in minutes, and allowed for the calculation of session duration for each specific gambling activity. Annual gambling duration on each gambling activity was calculated by multiplying the number of sessions (i.e., gambling frequency) with the duration per session estimates for each gambling activity. Total annual gambling duration was then calculated by summing these yearly gambling durations across all gambling activities.

Measurement of gambling-related harm

Gambling-related harm was measured using the ten item Short Gambling Harms Scale (SGHS). Response options for the SGHS include a binary yes/no scale. Total scores are calculated by summing the number of endorsed items, with scores ranging from zero to ten. A detailed description of the SGHS can be found in Appendix B. For the purpose of this analysis, two definitions of gambling related harm were employed:

1. endorsement of one or more gambling-related harms on any of the ten SGHS items
2. endorsement of two or more gambling-related harms on any of the ten SGHS items.

15.3.2 Data Analysis

This analysis focussed on deriving low-risk gambling limits based on the two definitions of gambling-related harm outlined above. This was followed by deriving gambling activity-specific low-risk gambling limits based on the preferred definition of harm identified. In addition, the proportion of the population and gamblers exceeding each definition of harm was calculated. All analyses were conducted using Stata 14 (StataCorp, 2015) and weighted data (see Chapter 2 for weighting methodology).

Low-risk gambling limits

ROC analyses were conducted to identify optimal low-risk gambling limits across the multiple gambling behaviour indices and the two definitions of harm. Only gamblers (i.e., respondents who reported past-year gambling participation) were included in these analyses. ROC analysis was employed as it is an established statistical approach for examining the ability of a test (i.e. the low-risk gambling limit) to correctly identify individuals in the population who actually have gambling-related harm (i.e., the presence or absence of harm according to each definition). Specifically, these analyses plot the relationship between the sensitivity (i.e., the true positive rate—the ability to accurately identify individuals experiencing gambling-related harm) and the false positive rate (i.e., 1-specificity, where specificity is the ability to accurately identify individuals who are not experiencing gambling-related harm) of the limit. After plotting the sensitivity and 1-specificity for each gambling behaviour index in this sample, the area under the curve (AUCs) of each resulting ROC graph was calculated. The AUC provides a valuable general index of the ability of a test, in this case the low-risk gambling limit, to have a useful threshold for acceptable classification performance. AUC values range from 0, indicative of 100% misclassification, to 1, indicative of 100% correct classification. An AUC value of 0.50 is representative of chance levels of correct classification, in that there is only a 50% probability the test (i.e., limit) will correctly identify individuals with harm and not identify those without harm. For the purpose of these analyses, the classification accuracy of the AUCs were interpreted based on established guidelines, whereby an AUC between 0.50 and 0.70 is considered to be small, an AUC between 0.70 and 0.90 is considered to be moderate, and an AUC over 0.90 is considered to be high (Swets et al., 2000).

For the purpose of this analysis, an AUC value ≥ 0.70 was considered as an acceptable classification accuracy. Although the choice of cut-off can be guided by several factors, there is currently no prevailing conceptual rationale for prioritising either sensitivity or specificity in the identification of low-risk gambling limits. With the exception of the most recent research (Currie et al., 2017; Dowling et al., 2017), all of the previous research in this area has selected cut-offs that give equal weighting to the optimisation of sensitivity and specificity given the preliminary state of the evidence. This approach equally minimises false positives and false negatives. Therefore, the level of gambling behaviour that had the maximum Youden Index value (Youden, 1950), relative to all other levels of gambling behaviour, was deemed the optimal cut-off (with equal weighting given to sensitivity and specificity) (see Ruopp et al., 2008, for relevant formulas). The limited amount of missing values were excluded from the analyses for each limit.

Gambling activity-specific low-risk gambling limits

Optimal low-risk gambling limits for each gambling activity (EGMs, horse/dog racing, instant scratch tickets, lottery, keno, casino table gambling, bingo, and sports/other event betting) were also identified. Each analysis utilised the same method as above in relation to deriving low-risk gambling

limits using ROC analyses. For each of these different analyses, however, we employed gambling behaviour measures specific to each activity (e.g. for EGM gamblers, we look at EGM expenditure, not overall expenditure) and the sample for analysis was limited to only those who met the category under examination (e.g., EGM-specific limits were derived only using EGM gamblers).

15.4 Results

Low risk gambling limits

Table 15.2 presents the results of the ROC analyses for the two definitions of gambling-related harm. The optimal low-risk gambling limits were generally acceptable across the two definitions of harm, with most displaying moderate classification accuracy (AUCs = 0.71 - 0.79). The two definitions of harm produced fairly consistent low-risk gambling limits across the five gambling behaviour indices, with the endorsement of 2 or more SGHS items producing consistently higher limits. Despite capturing fewer gamblers (4.51% vs 9.47%) and people in the population (vs 2.62% vs 5.50%) experiencing harm, the definition of harm based on the endorsement of 2 or more SGHS items was superior as it produced acceptable limits (AUC > 0.70) on all five of the gambling behaviour indices.

Using this selected definition of harm, the proposed low-risk gambling limits using a Tasmanian population sample are:

- 30 times per year (2.5 times per month)
- $510 per year ($43 per month)
- 10.24% for gambling expenditure as a proportion of gross personal income
- 400 minutes (6.67 hours) per year (33 minutes per month)
- 2 gambling activities for number of activities.

Further characterisation of the identified low-risk limits is presented in terms of absolute risk (i.e., the proportion of people who were above the low-risk limit who experienced harm) and relative risk (i.e., the ratio of absolute risk in the individuals who were above the low-risk limit, relative to the absolute risk in those individuals who were below the low-risk limit). Using these metrics, it was found that (using the selected definition of harm of endorsement of 2 or more SGHS items):

- 4.51% of gamblers who exceeded the frequency limit of 30 times per year (2.5 times per month) were found to have gambling harm (i.e. absolute risk). No relative risk could be calculated since the absolute risk for individuals who did not exceed the frequency threshold was zero.
- 8.90% of gamblers who exceeded the spend limit of $510 per year ($43 per month) were found to have gambling harm (i.e. absolute risk). Additionally, those who exceeded the low-risk spend limit were found to have 4.70 times the risk of experiencing gambling harm, relative to those who did not exceed the spend limit (i.e., relative risk).
- 8.83% of gamblers who exceeded the gambling expenditure as a proportion of gross personal income limit of 10.24% were found to have gambling harm (i.e. absolute risk). Additionally, those who exceeded the low-risk proportion of gross personal income limit were found to have 2.68 times the risk of experiencing gambling harm, relative to those who did not exceed the proportion of gross personal income limit (i.e., relative risk).
- 10.72% of gamblers who exceeded the duration limit of 400 minutes (6.67 hours) per year (33 minutes per month) were found to have gambling harm (i.e. absolute risk). Additionally, those who exceeded the low-risk duration limit were found to have 5.47 times the risk of experiencing gambling harm, relative to those who did not exceed the duration limit (i.e., relative risk).
- 6.46% of gamblers who exceeded the number of gambling activities limit of 2 activities were found to have gambling harm (i.e. absolute risk). Additionally, those who exceeded the low-risk number of activities limit were found to have 4.13 times the risk of experiencing gambling harm, relative to those who did not exceed the number of gambling activities limit (i.e., relative risk).

Taken together, these findings indicate that the proportion of gamblers who exceeded the low-risk gambling limits and who were found to have gambling harms range (i.e., absolute risk) from 4.51% (frequency limit) to 10.72% (duration limit), suggesting that exceeding even the frequency limit was associated with an almost 1 in 20 risk for harm. Additionally, exceeding the gambling limits was

associated with a 2.68 (proportion of income limit) to 5.47 (duration limit) fold increase in the risk of experiencing gambling harm, relative to gamblers who did not exceed the limit.

TABLE 15.2 ROC ANALYSES FOR EACH DEFINITION OF HARM

Low-risk gambling limit		Endorsement of > 1 SGHS items	Endorsement of > 2 SGHS items
Proportion of population exceeding each definition of harm		5.50% (95% CI 4.72, 6.40)	2.62% (95% CI 2.10, 3.27)
Proportion of gamblers exceeding each definition of harm		9.47% (95% CI 8.15, 10.96)	4.51% (95% CI 3.62, 5.61)
Gambling frequency per year	Cut-off	25	**30**
	AUC (95% CIs)	0.67 (0.62, 0.72)	**0.75 (0.68, 0.81)**
	Sensitivity, specificity	0.62, 0.63	**0.69, 0.68**
	N	2781	**2781**
Gambling expenditure per year	Cut-off	**405**	**510**
	AUC (95% CIs)	**0.72 (0.67, 0.77)**	**0.79 (0.73, 0.85)**
	Sensitivity, specificity	**0.65, 0.67**	**0.73, 0.7**
	N	**2697**	**2697**
Gambling expenditure a proportion of gross personal income	Cut-off	9.06	**10.24**
	AUC (95% CIs)	0.65 (0.61, 0.68)	**0.71 (0.65, 0.76)**
	Sensitivity, specificity	0.44, 0.9	**0.53, 0.93**
	N	2303	**2303**
Gambling duration per year (minutes)	Cut-off	**350**	**400**
	AUC (95% CIs)	**0.71 (0.65, 0.76)**	**0.76 (0.69, 0.83)**
	Sensitivity, specificity	**0.58, 0.73**	**0.65, 0.73**
	N	**2777**	**2777**
Number of gambling activities	Cut-off	**2**	**2**
	AUC (95% CIs)	**0.71 (0.67, 0.76)**	**0.75 (0.69, 0.81)**
	Sensitivity, specificity	**0.71, 0.6**	**0.77, 0.58**
	N	**2822**	**2822**

Gambling activity-specific low-risk gambling limits

Table 15.3 displays the results of the ROC analyses for the gambling activity-specific low-risk gambling limits using the selected definition of harm (endorsement of > 2 SGHS items). Few of the optimal low-risk gambling limit cut-offs identified for the different gambling activities were acceptable (AUC ≥ 0.70), with most AUC values ranging from 0.40 to 0.69. The limits relating to gambling expenditure and gambling duration per year were the most likely to be acceptable for the selected definition of harm, with AUCs ≥ 0.70 for 3 of the 8 gambling activities.

The acceptable low-risk gambling limits for EGM gamblers are estimated to be:

- an EGM gambling expenditure of $240 per year
- an EGM gambling duration of 330 minutes per year

— an EGM gambling session expenditure of $30.

The acceptable low-risk gambling limits for keno gamblers are estimated to be:

— a keno gambling frequency of 11 times per year
— a keno gambling expenditure of $130 per year
— a keno gambling duration of 135 minutes per year.

The acceptable low-risk gambling limits for bingo gamblers are estimated to be:

— a bingo gambling frequency of 6 times per year
— a bingo gambling expenditure of $120 per year
— a keno gambling duration of 360 minutes per year
— a bingo session expenditure of $20
— a bingo session duration of 90 minutes.

Because they did not produce AUC values ≥ 0.70, no acceptable low-risk gambling limits were identified for horse or dog racing, instant scratch tickets, lottery, casino table gambling, and sports/other event betting.

TABLE 15.3 ROC ANALYSES FOR EACH GAMBLING ACTIVITY ACCORDING TO THE SELECTED DEFINITION OF HARM [A B]

		EGMs	Horse/dog racing	Instant scratch tickets	Lottery	Keno	Casino table games	Bingo	Sports/ other event betting
Proportion of gamblers on the specific gambling activity exceeding selected definition of harm		9.84% (95% CI 7.52, 12.79)	8.85% (95% CI 6.13, 12.61)	6.54% (95% CI 4.64, 9.14)	5.06% (95% CI 3.94, 6.48)	6.91% (95% CI 5.24, 9.05)	13.59% (95% CI 8.65, 20.71)	8.33% (95% CI 2.89, 21.70)	16.97% (95% CI 10.35, 26.58)
Gambling frequency per year	Cut-off	11	24	6	13	**11**	2	**6**	36
	AUC (95% CIs)	0.69 (0.61, 0.77)	0.60 (0.49, 0.72)	0.57 (0.47, 0.67)	0.53 (0.46, 0.61)	**0.71 (0.65, 0.78)**	0.57 (0.45, 0.69)	**0.73 (0.49, 0.96)**	0.53 (0.34, 0.72)
	Sensitivity, specificity	0.53, 0.77	0.42, 0.75	0.5, 0.60	0.57, 0.48	**0.61, 0.70**	0.61, 0.48	**0.75, 0.59**	0.26, 0.85
	N	781	456	899	2068	**1098**	164	**84**	126
Gambling expenditure per year	Cut-off	**240**	800	65	208	**130**	40	**120**	600
	AUC (95% CIs)	**0.74 (0.66, 0.81)**	0.60 (0.48, 0.73)	0.57 (0.46, 0.67)	0.56 (0.49, 0.64)	**0.73 (0.67, 0.8)**	0.58 (0.46, 0.71)	**0.85 (0.74, 0.95)**	0.56 (0.38, 0.75)
	Sensitivity, specificity	**0.64, 0.70**	0.38, 0.80	0.38, 0.72	0.56, 0.53	**0.64, 0.70**	0.76, 0.39	**0.95, 0.68**	0.31, 0.84
	N	**759**	440	894	2026	**1088**	155	**82**	124
Gambling expenditure a proportion of gross personal income	Cut-off	7.33	9.60	0.00	6.71	4.00	0.00	0.00	5.67
	AUC (95% CIs)	0.65 (0.59, 0.71)	0.64 (0.53, 0.75)	0.48 (0.39, 0.57)	0.57 (0.51, 0.63)	0.60 (0.55, 0.64)	0.44 (0.38, 0.5)	0.40 (0.31, 0.49)	0.65 (0.52, 0.79)
	Sensitivity, specificity	0.44, 0.89	0.41, 0.89	0.70, 0.33	0.38, 0.94	0.38, 0.91	0.79, 0.37	0.93, 0.32	0.52, 0.98

		EGMs	Horse/dog racing	Instant scratch tickets	Lottery	Keno	Casino table games	Bingo	Sports/ other event betting
	N	652	383	757	1715	953	141	63	114
Gambling duration per year	Cut-off	**330**	360	25	35	**135**	80	**360**	1140
	AUC (95% CIs)	**0.70 (0.61, 0.78)**	0.63 (0.51, 0.74)	0.55 (0.45, 0.65)	0.56 (0.49, 0.63)	**0.70 (0.64, 0.77)**	0.56 (0.43, 0.68)	**0.79 (0.61, 0.96)**	0.48 (0.29, 0.67)
	Sensitivity, specificity	**0.57, 0.72**	0.51, 0.67	0.37, 0.71	0.61, 0.48	**0.68, 0.62**	0.72, 0.37	**0.85, 0.61**	0.15, 0.89
	N	**770**	441	872	1971	**1037**	153	**79**	115
Session expenditure	Cut-off	**30**	34	5	13	16	25	**20**	20
	AUC (95% CIs)	**0.71 (0.64, 0.77)**	0.61 (0.50, 0.73)	0.53 (0.44, 0.63)	0.60 (0.54, 0.66)	0.68 (0.60, 0.76)	0.56 (0.43, 0.70)	**0.79 (0.65, 0.93)**	0.64 (0.48, 0.80)
	Sensitivity, specificity	**0.68, 0.62**	0.48, 0.69	0.73, 0.33	0.74, 0.43	0.55, 0.71	0.77, 0.34	**0.94, 0.57**	0.57, 0.62
	N	**767**	443	899	2033	1088	149	**79**	116
Session duration	Cut-off	40	30	5	3	15	120	**90**	180
	AUC (95% CIs)	0.61 (0.52, 0.69)	0.54 (0.42, 0.67)	0.53 (0.42, 0.64)	0.54 (0.48, 0.62)	0.62 (0.54, 0.69)	0.52 (0.35, 0.68)	**0.73 (0.62, 0.83)**	0.40 (0.22, 0.58)
	Sensitivity, specificity	0.50, 0.65	0.41, 0.66	0.28, 0.79	0.54, 0.53	0.63, 0.54	0.29, 0.74	**0.86, 0.62**	0.02, 0.98
	N	779	449	883	1988	1047	154	**79**	115

Note: Bold typeface indicates AUC ≥ 0.70; b based on endorsement of 2 or more harm items on the SGHS

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

15.5 Conclusion

The definition of harm based on two or more of the 10 SGHS items was selected as the definition of harm to be employed in this study as it produced superior ROC parameters (sensitivity, specificity, and AUCs). This definition of gambling-related harm has also displayed superiority over other harm definitions in previous research (Currie et al., 2006, 2009), suggesting that individuals endorsing gambling-related problems in two different areas can be reasonably viewed as experiencing gambling-related harm (Currie et al., 2006). In the current study, this definition also captured a relatively high proportion of individuals (2.6%) and gamblers (4.5%) in the general population. These prevalence estimates are generally consistent with those identified using the definition of harm based on two or more PGSI negative consequence items (2.3% individuals; 3.7% gamblers) (Dowling et al., 2017) but lower than those identified in North American general-population samples (4.2% to 6% of general population: Currie et al., 2006, 2008).

The low-risk gambling limits, derived using ROC analyses and using this definition of harm on the SGHS are consistent with the previous limits based on two or more harms on the PGSI (Dowling et al., 2017). The exception is the gambling expenditure as a proportion of gross personal income limit, which is considerably higher using the SGHS (10.2%) than the PGSI (1.7%). Given that the gambling expenditure limit is very similar using these two measures, the most likely explanation is the use of very refined personal gross income categories in the current SEIS. The similar limits found across both the PGSI and the SGHS provide some indication of the robustness of the PGSI-based low-risk

gambling limits proposed by Dowling et al. (2017). These low-risk gambling limits are generally at the lower end of the range identified in the previous population-representative studies conducted in Canada (Currie et al., 2006, 2008, 2009, 2017) and elsewhere (Brosowski et al., 2015). Although only a selection of the low-risk gambling limits were acceptable across gambling activities, the limits identified for EGM, keno, and bingo gamblers were also very consistent with those previously identified in Tasmania by Dowling et al. (2017).

The utility of the low-risk gambling limits that were identified was further supported by the assessment of absolute risk and relative risk. With respect to absolute risk, the proportion of gamblers who exceeded the low-risk gambling limits and who were found to have gambling harms range from 4.51% (frequency limit) to 10.72% (duration limit), suggesting that exceeding even the frequency limit was associated with an almost 1 in 20 risk for harm. Additionally, exceeding the gambling limits was associated with a 2.68 (proportion of income limit) to 5.47 (duration limit) fold increase in the risk of experiencing gambling harm, relative to gamblers who did not exceed the limit. Interestingly, the absolute risks associated with the ROC-derived low-risk gambling thresholds were found to be larger than the 1 in 100 level of absolute risk deemed appropriate when developing the NHMRC low-risk drinking guidelines (Room & Rehm, 2012). Moreover, there is current evidence that the gambling consumption is associated with a linear or r-shaped increase in risk (as opposed to j-shaped) and consequent recommendation that an absolute risk approach, similar to that used in the development of low-risk drinking guidelines be used to derive gambling limits (see Markham, Young, and Doran, 2016). Nevertheless, the low-risk limits identified here provide robust data-derived thresholds that provide important information about an individual's risk for experiencing harm based on their gambling consumption behaviour.

Overall, this research has considerable potential utility in the prevention of gambling-related harm, although it was limited by the use of self-reported measures of gambling involvement. Although there has been concern that self-reported expenditures collected from population surveys are underestimates of actual expenditures when compared to revenues reported by the industry, there is empirical evidence that collecting precise estimates of gambling expenditure for individual gambling activities has the best validity (Wood & Williams, 2007) and that the most accurate low-risk gambling limits are derived from studies collecting dollar estimates for each type of gambling activity (Currie et al., 2008). The most serious consequence of under-reporting is that the low-risk gambling limits derived from this research could be somewhat conservative (Currie et al., 2006, 2008). It is also important to note that the analyses to derive the gambling activity-specific limits are limited by the absence of game-specific SHGS questions and the reduced sample sizes for analysing each game separately.

It is also important to note, as briefly noted above, that there are competing views on the derivation of such limits (see Dowling et al., 2017 for a thorough description of these). Indeed, we have previously replicated the r- and linear-shaped curves produced by Markham et al. (2016) across multiple indices of gambling consumption (Dowling et al., 2017). These findings provide some support for the argument that even low levels of gambling consumption is associated with harm; and that this harm increases rapidly with even small increases in gambling consumption (Currie et al., 2006; Markham et al., 2016). While the evidence-based limits identified in this study using ROC analyses and the Youden Index remain valid indicators of levels of gambling consumption that reliably differentiate gamblers who are at lower and higher risk of gambling-related harm, it is likely that low-risk gambling limits may be made on the basis of the amount of absolute risk that can be tolerated (Markham et al., 2016).

The current study also employed an approach that attempts to balance sensitivity and specificity. This approach, however, produced a very high proportion of false positives, which may diminish the credibility of low-risk gambling limits in the eyes of the public. Dowling et al. (2017) found that limits with specificity maximised resulted in a higher proportion of gamblers exceeding the limits who actually experienced gambling-related harm and resulted in limits that were generally two to four times higher than the proposed low-risk gambling limits. An argument can therefore be made to set higher consumption thresholds by giving more weight to specificity than sensitivity. Moreover, concerns have been raised about the promotion of such limits, in the alcohol and gambling fields, whereby consumers may perceive the low-risk limit as a 'safe' level to drink or gamble up to (Dowling et al., 2017; Room & Rehm, 2012).

Overall, the low-risk gambling limits identified in this study have considerable policy, practice and research implications, and could serve as working guidelines for the consideration of researchers, clinicians and policy makers. These limits require rigorous empirical investigation prior to their application to the prevention and treatment of gambling-related harm. Low-risk gambling limits may provide the opportunity for consumers to make informed choices about personal risk and serve as a cost-effective screening method for people at high risk for gambling-related harm. They can also be employed in population-level surveillance research to monitor the prevalence of gambling-related harm, be used to investigate the efficacy of secondary intervention efforts, and be applied in tertiary intervention settings for gamblers selecting a moderation goal. At the very least, offering these limits should generate public and academic discussion about gambling norms.

III

ECOLOGICAL MOMENTARY ASSESSMENT AND INTERVIEWS WITH GAMBLERS AND AFFECTED OTHERS

16 INTRODUCTION TO PART III

This chapter provides a background to Part III.

16.1 Introduction

Consultations with gamblers and affected others included three data collection methods:

- A naturalistic and prospective evaluation of the distribution of gambling episodes and gambling harms as they occur via an ecological momentary assessment (EMA) of gambling consumption and harm interactions.
- Targeted qualitative interview with a subset of EMA participants (gamblers) exploring the harms experienced by each participant and how the harms manifested.
- Targeted qualitative interviews with 'affected others' exploring the harms experienced by each participant and how the harms manifested.

These methods allowed for the investigation of gambling-related harms, which could assist the development of appropriate prevention and intervention programs.

16.2 Ecological Momentary Assessment overview

Chapter 17 presents the findings from an innovative ecological momentary assessment (EMA) that is administered via a smartphone app to explore the antecedents and consequences of gambling episodes as they occur in real life.

EMA involves repeated sampling of symptoms, affect, behaviour, and cognitions close to the time at which they are experienced and in natural environments. This reduces recall bias, maximises ecological validity, and allows for the study of micro-processes that influence behaviour in real-world contexts. Despite being successfully employed in alcohol and tobacco use research, there is limited literature exploring in-the-moment antecedent-consumption-harms links in gambling research.

The overall aim of this research was to examine the associations between proximal antecedents, gambling episodes and gambling consequences (acute consequences, participant appraisal of the effects of gambling episodes, and gambling-related harms) over a four-week EMA period with 100 regular (monthly) gamblers (excluding lotteries).

16.3 Interviews with gamblers

Chapter 18 reports on the follow-up interviews with a sub-sample of participants who were administered EMA. Participants were eligible for the EMA study if they were monthly gamblers on any activity, excluding lottery, and owned a smartphone. Participants recruited for this study were also required to have positively endorsed at least one item on the Short Gambling Harms Scale.

The interview involved the administration of the full Harms Checklist for Gamblers with open-ended follow-up questions for each item that is positively endorsed by the gambler on the checklist. The interview schedule was therefore individually tailored to each participant.

The interviews were conducted individually over the telephone and recorded to allow for the accurate recording of participant responses. All interviews were conducted by researchers who have accredited fourth-year training in psychology.

16.4 Interviews with affected others

Chapter 19 reports on qualitative interviews conducted with 20 affected others, who endorsed at least one gambling harm on the Gambling Harms Checklist for Affected Others. In recruiting participants for this study, preference was given to participants who reported the greatest number of gambling harms.

These interviews provide a more detailed description of the harms ('the what') and explanation for the harms ('the why') experienced by each participant. This approach allowed for an in-depth evaluation of the 'lived experience' of gambling harms that are particularly relevant for each affected other.

The interviews were conducted individually over the telephone and recorded to allow for the accurate recording of participant responses. All interviews were conducted by researchers who have postgraduate training in psychology.

16.5 Structure of Part III

Part III is structured as follows:

- Chapter 17: Ecological Momentary Assessment
- Chapter 18: Qualitative interviews on harms with gamblers
- Chapter 19: Qualitative interviews on harms with affected others

17 ECOLOGICAL MOMENTARY ASSESSMENT

This chapter presents the findings from an ecological momentary assessment (EMA) that is administered via a smartphone app to explore the antecedents and consequences of gambling episodes as they occur in real life.

It examines the associations between proximal antecedents, gambling episodes and gambling consequences (acute consequences, participant appraisal of the effects of gambling episodes, and gambling-related harms) over a four-week EMA period with 98 regular (monthly) gamblers (excluding lotteries).

17.1 Key findings

- There was evidence of high compliance with the EMA protocol, high validity of the EMA data, and a small reactivity effect, whereby participants engaged in more frequent gambling during the EMA assessment period.
- Of the variables conceptualised as proximal antecedents, the following positively predicted the subsequent occurrence of gambling episodes: excitement, stress, the occurrence of a gambling urge, gambling urge magnitude, and situational self-efficacy; while anger negatively predicted the subsequent occurrence of gambling episodes.
- The occurrence of gambling episodes positively predicted the occurrence of: a gambling urge, gambling urge magnitude, importance of change, and subjective alcohol intoxication; and negatively predicted: subsequent boredom and situational self-efficacy.
- Expenditure during a gambling event positively predicted: subsequent boredom, the occurrence of a gambling urge, gambling urge magnitude, punishment appraisals (that gambling made mood worse), financial gambling-related harms, and emotional gambling-related harms; and negatively predicted: subsequent excitement, positive reinforcement appraisals (that gambling was pleasurable), and negative reinforcement appraisals (that gambling relieved unpleasant feelings).
- The duration of a gambling event positively predicted: the occurrence of a gambling urge, gambling urge magnitude, subjective alcohol intoxication, positive reinforcement appraisals (that gambling was pleasurable), negative reinforcement appraisals (that gambling relieved unpleasant feelings), punishment appraisals (that gambling made mood worse), financial gambling-related harms, and emotional gambling-related harms.
- The degree to which EGM gambling, telephone/online gambling, and subjective alcohol intoxication while gambling exacerbated the relationship between gambling indices (expenditure, duration) and gambling consequences (acute consequences, appraisal of gambling effects, and gambling-related harms) was explored. The only interaction occurred for subjective alcohol intoxication, which moderated the relationship between gambling expenditure and subsequent subjective alcohol intoxication. Participants who reported a high level of subjective alcohol intoxication at the time of

gambling had the greatest probability of having high levels of subjective alcohol intoxication, but only when they had lost more than $25.

17.2 Introduction

EMA involves repeated sampling of symptoms, affect, behaviour, and cognitions close to the time at which they are experienced and in natural environments. This reduces recall bias, maximising ecological validity, and allowing study of micro-processes that influence behaviour in real-world contexts. EMA approaches are particularly suitable for tracking antecedent-consumption-harm patterns because gambling is episodic and thought to be related to mood and other contextual factors.

EMA studies assess events in a subject's life or at periodic intervals using technologies ranging from written diaries, touch-tone telephone systems, electronic diaries in PDAs or mobile telephones (SMS text messaging and/or smartphone apps). A situational and momentary focus allows for an evaluation of the role of antecedent factors that occur during prior to gambling (such as mood, cravings, and other cues) and the acute effects of gambling episodes.

The use of EMA in this project is one of the first to capture the patterns and contexts of gambling behaviour and harms that are measured in real-time rather than via retrospective questionnaires, which raise issues of retrospective and state-specific recall bias.

EMA approaches have been successfully employed in other addictive behaviours, such as alcohol use, tobacco use, and other drug use. To date, however, there are only two published EMA studies (across three articles) investigating gambling at the event level using real-time assessment (Gee et al., 2005; Goldstein et al., 2014; Quinlan et al., 2014).

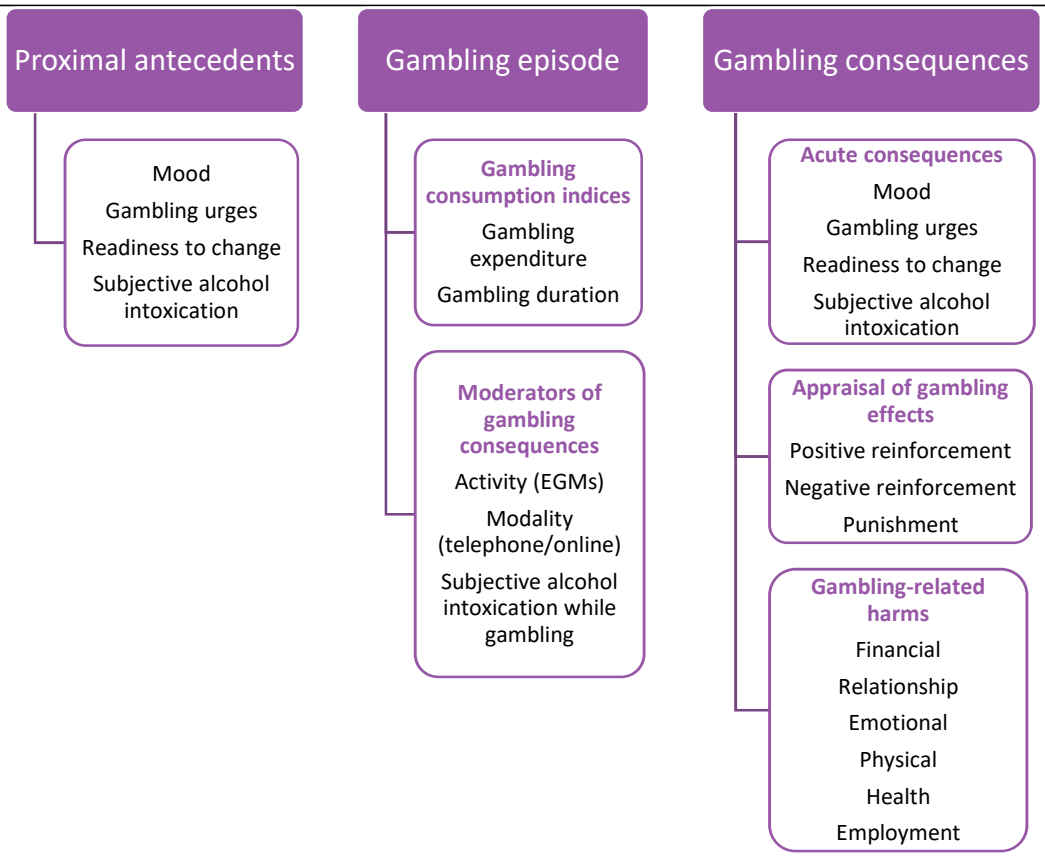
In an early study, Gee et al. (2005) explored the relationship between gambling and mood state from 17 male regular (weekly) gamblers, who called an interactive voice response system running on a computer before, during and after a gambling episode. The findings revealed that anxiety/arousal levels were significantly higher during and after gambling episodes than prior to gambling; that gambling losses were associated with subsequent increased anxiety/arousal; and that gambling wins were associated with subsequent decreased anxiety/arousal. The authors concluded that these findings suggest that "gambling is a cause of increased anxiety/arousal, rather than functioning to relieve it".

The only other available EMA study (Goldstein et al., 2014; Quinlan et al., 2014) investigated the link between gambling motives, mood states, the social context of gambling, and gambling behaviour in approximately 100 young adults. The two articles published from this study employed different aspects of the data collected to answer different aims. Goldstein et al. (2014) found that problem gambling and gambling motives moderated some of the relationships between mood and gambling behaviour / number of drinks consumed while gambling. Quinlan et al. (2014) found that across Gambling Timeline Follow-Back and EMA methods, coping gambling motives positively predicted gambling alone, whereas social gambling motives negatively predicted gambling alone and positively predicted gambling with friends.

Despite having policy implications for allocation of resources for gambling prevention and treatment, the gambling literature is lagging behind other fields in EMA studies. This research therefore aims to fill the antecedent-consumption-harms knowledge gap for gambling behaviour by collecting real-time data in naturalistic settings. Given the previous literature has examined the social context of gambling, the focus of the current study was on psychological and gambling-related antecedents and harms.

The overall aim of this research was to examine the associations between proximal antecedents, gambling episodes and gambling consequences (acute consequences, participant appraisal of the effects of gambling episodes, and gambling-related harms) (see Figure 17.1).

FIGURE 17.1 PROXIMAL ANTECEDENTS, GAMBLING EPISODES AND GAMBLING CONSEQUENCES



SOURCE: ACIL ALLEN CONSULTING ET AL. 2017

Specifically, this EMA research aimed to explore the degree to which:

- proximal antecedents predict the subsequent occurrence of gambling episodes
- gambling episodes predict acute consequences
- gambling expenditure predicts gambling consequences (acute consequences, appraisal of gambling effects, and gambling-related harms)
- gambling duration predicts gambling consequences (acute consequences, appraisal of gambling effects, and gambling-related harms)
- gambling activity (EGMs), gambling modality (telephone/online gambling), and subjective alcohol intoxication while gambling moderate (exacerbate) the relationship between gambling indices (expenditure, duration) and gambling consequences (acute consequences, appraisal of gambling effects, and gambling-related harms).

17.3 Method

17.3.1 Participants

A total of 1141 respondents from the prevalence survey who owned a smartphone, were monthly gamblers, and either scored one or more on the Short Gambling Harms Scale (SGHS; Browne et al., 2017), or scored one or more on the PGSI, and were asked during the prevalence survey if they agreed to be contacted for participation in the EMA research. Of these, 595 respondents indicated that they were willing to be contacted. Of these respondents, 301 met the eligibility criteria for this EMA study (monthly gambling participation on any gambling activity, excluding lottery). Of the eligible respondents from the prevalence survey contacted, 100 were recruited into the study, 97 declined to participate, and 80 were not contactable. The remainder were not contacted as the desired sample

size of 98 regular gamblers was achieved. Of the 100 recruited participants, one participant withdrew prior to completing any time-based assessments and one participant was recruited from the pilot study and therefore was not included in the same dataset as the remainder of the sample. These participants were excluded from the study, resulting in a final sample of 98 participants.

Descriptive statistics of this sample are displayed in Table 17.1. The sample was predominantly male (58.16%) and had an average age of 45.97 years (SD = 14.19 years, range 18-74). Over three-quarters (76.53%) of the sample were non-problem gamblers (score of 0 on the PGSI). Based on their responses to the prevalence survey, the majority of participants had gambled on keno in the previous 12 months (71.43%), followed by lotteries (67.35%) and EGMs (52.04%). Average annual gambling frequency and expenditure for this sample was 79.79 (SD = 93.38, ranging from 12-458, median= 56.50) and $2,534 (SD = $5911, ranging from $34-$35,726, median=$940), respectively. Three-quarters (74.49%) of the sample did not experience any gambling-related harms (score of 0 on the SGHS).

TABLE 17.1 DESCRIPTIVE STATISTICS FOR OVERALL SAMPLE FROM PREVALENCE SURVEY

Variable	n	%
Gender (male)	57	58.16
PGSI category		
– Non-problem	75	76.53
– Low-risk	16	16.33
– Moderate-risk	2	2.04
– Problem	5	5.10
Gambling activity participation		
– Keno	70	71.43
– Lotteries	66	67.35
– EGMs	51	52.04
– Instant scratch tickets	45	45.92
– Horse or greyhound racing	39	39.80
– Sports or other events	23	23.47
– Casino table games	20	20.41
– Informal private games	20	20.41
– Bingo	5	5.10
SGHS items endorsed		
– 0	73	74.49
– 1	11	11.22
– 2-3	10	10.20
– 4 or more	4	4.08

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

17.3.2 Measures and procedure

Participants completed a brief pre-EMA training interview and a four-week EMA. A sub-sample of participants also completed a follow-up telephone interview.

Pre-EMA training interview

Each participant received a brief pre-EMA training interview, which included confirmation of eligibility, provision of informed consent and EMA instructions and training. A sub-sample of 19 participants were also administered a 30-day Time-Line Follow-Back measure to evaluate gambling consumption

over the study period to assess the degree to which reactivity (i.e., the possibility that the EMA itself affects the behaviours under study) occurred (Shiffman, 2009). This sub-sample was selected based on the greatest number of gambling-related harms endorsed on the SGHS in the prevalence survey. A maximum of 6 call attempts were made to contact each potential participant. All interviews were conducted by a researcher with fourth year accredited psychology training. The pre-training training interviews were conducted via telephone and took 10 to 30 minutes to complete.

EMA protocol

The case-crossover EMA protocol utilised a smartphone application to collect data from time-based assessments (prompted assessments of non-gambling moments), which could trigger a gambling event record (assessment following a gambling episode) (Goldstein et al., 2014). These assessments comprised a series of single items that took less than 5 minutes to complete.

Each time-based assessment included items measuring mood, gambling urges, readiness to change, and subjective alcohol intoxication. Participants were randomly prompted to complete a non-gambling time-based assessment at random times during two time periods per day: morning (9:00 to midday) and evening (5:30 to 8:30pm). Participants were asked to complete each assessment within the subsequent 30 minutes; although they were informed that they had up to two hours to complete it during the pre-training interview. Reminder telephone calls were made to participants who had not responded by the second day of the EMA period; and to participants who failed to respond to a time-based assessment for over seven days.

The time-based assessment also included two items relating to gambling events: (1) "Are you gambling right now?"; and (2) "Have you gambled since the last notification?" No further information was collected in relation to current gambling episodes and they were excluded from any analyses relating to gambling episodes. Participants responding positively to the latter question, however, were administered a gambling event assessment that included items measuring gambling activity, gambling modality, gambling expenditure, gambling duration, subjective alcohol intoxication while gambling, appraisal of gambling effects, and gambling-related harms. Prior to the completion of these items, participants were instructed (through the smartphone application) that the items in the gambling event record related to any gambling they had been involved in since the last notification (i.e., time-based assessment), which did not include any current gambling.

Time-based assessment

Mood

Eight items relating to current mood (positive: happy, excited; and negative: depressed, bored, anxious, angry, stressed and lonely) were included in the time-based assessment. These items were predominantly selected from Larsen and Diener's (1992) eight-factor circumplex model, although some labels were slightly changed to reflect the mood states that have been linked to gambling behaviour (e.g., Griffiths, 1995; Matthews et al., 2009). Each item used the stem "Please indicate the extent to which right now you feel…" These items were rated on a scale from 0 (not at all) to 100 (extremely), with a mid-point of 50 (moderately). The mood-related items were rescaled into three categories according to their distributions. Specifically, the positive mood states (happy and excited) were categorised into: (1) not at all to moderately (a score of 0-49); (2) moderately to extremely (a score of 50-99); and (3) extremely (a score of 100). Depressed, bored, anxious, angry, stressed and lonely were categorised in to (1) not at all (a score of 0); (2) not at all to moderately (a score of 1-49); and (3) moderately to extremely (a score of 50 or more).

Gambling urges

Participants were asked to indicate whether they had experienced an urge to gamble since the last time-based assessment. Participants who responded positively were then prompted to answer an additional two items that were based on the first two items of the Gambling Symptom Assessment Scale that measure urge frequency and strength (Kim et al., 2009). The first item assessed the frequency of these urges, rated on a scale from 0 (not often) to 100 (near constant), with a mid-point of 50 (occasionally). The second item assessed the strength of these urges, rated on a scale from 0 (mild) to 100 (severe), with a mid-point of 50 (moderate). The frequency and strength of urge items

were rescaled into the following categories: (1) not often (a score of 0); (2) not often to occasionally (score of 1-49) and (3) occasionally to near constant (a score of 50 or more). For the purpose of analysis, a single composite variable was created from the frequency and strength of urge variables that represented the magnitude of gambling urges. Participants' magnitude of gambling urge was classified as follows: (1) low (i.e., a score of 0 on both the frequency and strength items); (2) moderate (i.e., any combination of score that was not classified as category 1 or 3); and (3) high (a score of 50 or more on both the frequency and strength items).

Readiness to change

Readiness to change was assessed using the three-item Ready, Willing and Able rulers, assessed participants' importance of change (how important it is for the participant to limit/stop their gambling), readiness to change (where limiting/stopping gambling fits of the participant's list of priorities), and confidence to change (confidence that participants have that they could limit/stop their gambling if they decided to do it) (Rodda et al., 2015). Situational self-efficacy relating to participants' current confidence in their ability to resist the urge to gamble was also evaluated using a single item based on the Brief Situational Confidence Questionnaire (Breslin et al., 2000). To maintain consistency with the other EMA items, these items were presented to participants on a scale from 0 (not at all) to 100 (extremely), with a mid-point of 50 (moderately). Once again, variables were re-categorised according to their distributions to ensure they were suitable for analysis. Specifically, each of the readiness to change items were categorised into three categories. The items relating to readiness and importance were categorised into: (1) not at all (a score of 0); (2) not at all to moderately (a score of 1-49); and (3) moderately to extremely (a score of 50 or more). The items relating to confidence and situational self-efficacy were categorised into: not at all to moderately (a score of 0-49); (2) moderately to extremely (a score of 50-99); and (3) extremely (a score of 100).

Subjective alcohol intoxication

Subjective alcohol intoxication was assessed using the following item "How drunk do you feel right now?" This item was based on the Subjective Effects of Alcohol Scale (Morean et al., 2013). While this item was rated on a scale from 0 (not at all) to 100 (extremely), with a mid-point of 50 (moderately), for the purpose of analysis it was categorised into: (1) not at all (a score of 0); (2) not at all to moderately (a score of 1-49); and (3) moderately to extremely (a score of 50 or more).

Gambling event record

Gambling expenditure

Gambling expenditure was assessed using a single item, to which participants' response across different levels of expenditure was recorded: (0) $0; (1) $1-25; (2) $26-50; (3) $51-75; (4) $76-100; (5) $101-150; (6)6 $151-200; (7) $201-300; (8) $301-400; (9) $401-500; (10) $501-750; (11) $751-1000; (12) $1001-2000; (13) $2001-3000; (14) $3001-4000; (15) $4001-5000; (16) $5001-7500; (17) $7501-10,000. According to its distribution, this variable was then categorised into the following three categories: (1) $0; (2) $1-$25; and (3) $26 or more.

Gambling duration

Gambling duration was assessed using a single item. Response options for this item included: (1) less than 30 minutes; (2) 30 minutes to an hour; (3) 1-2 hours; (4) 3-4 hours; (5) 4-5 hours; and (6) 5 or more hours. Due to low cell count and according to its distribution, this variable was further categorised into three categories representing: (1) less than 30 minutes; (2) 30 minutes to 2 hours; and (3) more than 2 hours

Gambling activity

Participation in gambling activities was assessed using six items. Participants were asked to indicate if they had gambled on any of the following gambling activities: (1) lotteries, instant scratch tickets, keno or bingo; (2) pokies; (3) table games like blackjack, roulette, and poker; (4) horse, harness or greyhound racing; (5) sports or event results; and (6) informal private betting with friends and family. Participants were able to positively endorse multiple gambling activities.

Gambling modality

Gambling modality was assessed using two items. Participants were asked to indicate if they had gambled: (1) at a venue; and (2) telephone/online. Participants were able to positively endorse multiple gambling modalities.

Subjective alcohol intoxication while gambling

Subjective alcohol intoxication while gambling, was assessed using the following item 'How drunk were you while gambling?'. This item was based on the Subjective Effects of Alcohol Scale (Morean et al., 2013). This item was rated on a scale from 0 (not at all) to 100 (extremely), with a mid-point of 50 (moderately). Consistent with subjective alcohol intoxication in the time-based assessment, this item was rescaled into three categories: (1) not at all (a score of 0); (2) not at all to moderately (a score of 1-49); and (3) moderately to extremely (a score of 50 or more).

Appraisal of gambling effects

Three items were utilised to examine the appraisal of gambling effects, specifically, positive reinforcement, negative reinforcement and punishment. Participants were asked to rate, on a scale from 0 (not at all) to 100 (extremely), with a mid-point of 50 (moderately), the extent to which the gambling was pleasurable (i.e., positive reinforcement), relieved unpleasant feelings (i.e., negative reinforcement) and made them feel worse (i.e., punishment). These items have been used previously in alcohol research (Piasecki et al., 2011). Each of these items was rescaled into three categories: (1) not at all (a score of 0); (2) not at all to moderately (a score of 1-49); and (3) moderately to extremely (a score of 50 or more).

Gambling-related harms

Five items were utilised to assess financial, relationship, mood, physical health and work/study gambling-related harms. These items began with the stem: 'Please indicate the extent to which this had a negative effect on your…' These items were rated on a scale from 0 (not at all) to 100 (extremely), with a mid-point of 50 (moderately). These items were dichotomised into: (1) no harm (a score of 0); and (2) any harm (1-99). Two of these items (physical health and work/study harms) failed to have a sufficient number of responses to be included in the analysis of the data.

Follow-up interviews

A follow-up interview was completed by the sub-sample of participants (n=19) who were administered the Time-Line Follow-Back measure in the pre-EMA training interview. This interview involved a 30-day Time-Line Follow-Back measure over the study period as a method to validate the number of gambling events that were reported during the EMA data collection period (Shiffman, 2009). It also included the administration of the full Harms Checklist for Gamblers with open-ended follow-up questions for each item that was positively endorsed by the gambler on the checklist. All interviews were conducted by a researcher with fourth year accredited psychology training. The follow-up interviews were conducted via telephone and took between 6 and 28 minutes to complete (M=11.70, SD=6.42).

Compensation

All EMA participants were compensated for their time and efforts with a $50 gift voucher upon completion of the training interview, a $25 gift voucher after the first 2 weeks for remaining in the study, a $25 gift voucher after the second 2 weeks for remaining in the study, and a $50 gift voucher at the end of the EMA protocol based on the completion of 75% of the time-based assessments. Participants who completed the follow-up interview were provided with an additional $50 gift voucher for their time and efforts.

17.3.3 Data analysis

Inspection of the distribution of variables after data collection revealed the variables to be non-normal and in particular, were found to have multiple modes often at the extreme ends of the scale range. As such, many variables were rescaled into categorical variables. Items measuring positive constructs on

a 1-100 sliding scale were rescaled into three categories: (1) a score of 0-49; (2) a score of 50-99; and (3) a score of 100. In contrast, items measuring negative constructs on a 1-100 scale were categorised into: (1) a score of 0; (2) a score of 1-49; and (3) a score of 50-100.

To account for the clustered nature of the data (i.e., assessments nested within participants), mixed effects binary or ordinal logistic regression models, with random intercepts, were estimated for all of the primary EMA analyses. All analyses were adjusted for age, gender, and time point of assessment. Further details of the specific analyses are outlined below.

Proximal antecedents associated with gambling episodes. The relationship between proximal antecedents and gambling episodes was examined by regressing the gambling event variable (i.e., yes vs no) on to the proximal antecedents. Four regressions were conducted, one for each set of proximal antecedent variables: mood, gambling urge, readiness to change, and subjective alcohol intoxication variables. Of note, given that a reported gambling event referred to the period of time since the previous EMA assessment, all predictors were time-lagged such that these variables represented the participants' reported mood, gambling urge, readiness to change, and subjective alcohol intoxication at the EMA assessment point immediately preceding the gambling event.

Acute consequences associated with gambling episodes. To examine the consequences of a gambling event, each of the same proximal antecedent variables (mood, gambling urge, readiness to change, and subjective alcohol intoxication) were regressed, separately, on to the binary gambling event item. These analyses utilised the mood, gambling urge, readiness to change, and subjective alcohol intoxication assessments that were collected at the commensurate time point as the report of gambling event since these represented the participants' state after the gambling event had occurred.

Consequences (acute consequences, appraisal of gambling effects, and gambling-related harms) associated with gambling expenditure and duration. The analysis of gambling consequences was then extended to examine whether features of the gambling event may be predictive of differential outcomes. Specifically, the proximal antecedent variables, as well as the variables measuring appraisal of gambling effects and gambling-related harms were each regressed, separately, on to the gambling expenditure and gambling duration variables, respectively. This analysis thus was focused on understanding whether the magnitude of expenditure or duration of gambling was associated with different consequences. Non-gambling events were not used for these analyses.

Moderation analyses. The final set of analyses was focused on understanding whether the relationship between gambling expenditure/duration and consequences was moderated by: (1) whether the individual was EGM gambling at the time, (2) whether the person was using telephone/online gambling at the time, or (3) was drunk while gambling. These models were estimated by including the relevant interaction terms in the same series of models that were examining the consequences associated with gambling expenditure and duration.

17.4 Results

17.4.1 Descriptive statistics from EMA study

Across the 98 participants, a total of 5,165 time-based assessments were completed. The rate of compliance for the time-based assessments was 87.8%. The mean number of assessments completed by each participant was 52.70 (SD=12.28; range 6 to 74). Over the 4-week period, a total of 474 gambling events were recorded, with a mean of 4.84 (SD=5.52, range 0 to 28). The descriptive variables for these gambling events is provided in Table 17.2.

TABLE 17.2 DESCRIPTIVE STATISTICS FOR GAMBLING VARIABLES ASSESSED DURING EMA

Variable	n	%
Gambling events [a]	474	9.18
Gambling expenditure [a]		
– $0 [b]	133	28.06
– $1-25	192	40.51
– $26+	147	31.01
Gambling duration		
– <30 minutes	272	57.38
– 30 minutes - 2 hours	157	33.12
– >2 hours	45	9.49
Gambling event by activity		
– EGM	110	23.21
– Casino table games	30	6.33
– Horse, harness or greyhound racing	85	17.93
– Sports or event results	48	10.13
– Informal private games	51	10.76
– Lotteries, instant scratch tickets, keno or bingo	272	57.38
Gambling modality		
– Venue	208	43.88
– Telephone/online	201	42.41

Note: [a] percentage based on total number of time-based assessments, [b] 2 missing cases representing 0.42% of data; [c] participants could record $0 if they broke even or won.

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

17.4.2 Relationship between EMA assessments and timeline-follow back

To assess changes in the frequency of gambling events assessed using the EMA assessments and during the pre- and post-EMA timeline-follow back, Paired t-tests were conducted. In the 19 participants who completed the time-line follow back, analysis found weak evidence for a small increase in the frequency of gambling events during the EMA assessment period (M=3.15, SD=2.43) relative to the 30 day period prior to the EMA assessment (as measured using the pre-EMA time-line follow back; M=5.47, SD=5.17; t(18)=-2.11, p=.049). Notably however, there was convergence between the frequency of gambling events reported during the EMA assessment (M=5.47, SD=5.17) and the number of gambling events reported by participants using the timeline follow-back for the period of time covering the EMA assessment period (i.e., post-EMA timeline-follow back; M=4.05, SD=4.31, t(18)=-1.43, p=.169). As such, these data suggest that the EMA assessment demonstrated concurrent validity with the timeline-follow-back, but there was evidence for a small reactivity effect, whereby participants engaged in more frequent gambling during the EMA assessment period.

17.4.3 The association between proximal antecedents and the occurrence of gambling episodes

Mood as an antecedent to gambling episodes

As shown in Table 17.3, there were a number of antecedent mood variables related to a gambling episode. Specifically, the middle category of the variables 'excited', 'angry', and 'stressed' were associated with increased odds of a subsequent gambling episode, relative to the low category of these variables. Interestingly, these effects were small to moderate in strength and for 'anger' this presented a negative relationship. Notably, there was little evidence to suggest that the highest

category of these variables was associated with the occurrence of a gambling episode. Moreover, no other mood variable was associated with the occurrence of a gambling event.

TABLE 17.3 MULTIVARIABLE LOGISTIC REGRESSION OF GAMBLING EPISODE ON ALL ANTECEDENT MOOD VARIABLES [a]

Variable	OR	95% CI		p-value
		Lower	Upper	
Happy				
Not at all to moderately (0-49)	(ref cat)			
Moderately to extremely (50-99)	0.94	0.68	1.3	0.694
Extremely (100)	1.27	0.63	2.6	0.505
Excited				
Not at all to moderately (0-49)	(ref cat)			
Moderately to extremely (50-99)	1.35*	1.02	1.8	0.039
Extremely (100)	0.74	0.30	1.79	0.501
Depressed				
Not at all (0)	(ref cat)			
Not at all to moderately (1-49)	0.96	0.68	1.36	0.821
Moderately to extremely (50-100)	0.94	0.51	1.71	0.830
Bored				
Not at all (0)	(ref cat)			
Not at all to moderately (1-49)	0.76	0.54	1.07	0.116
Moderately to extremely (50-100)	0.85	0.51	1.42	0.543
Anxious				
Not at all (0)	(ref cat)			
Not at all to moderately (1-49)	1.03	0.71	1.49	0.873
Moderately to extremely (50-100)	1.05	0.61	1.78	0.870
Angry				
Not at all (0)	(ref cat)			
Not at all to moderately (1-49)	0.65*	0.46	0.93	0.017
Moderately to extremely (50-100)	0.74	0.39	1.41	0.357
Stressed				
Not at all (0)	(ref cat)			
Not at all to moderately (1-49)	1.69**	1.15	2.48	0.007
Moderately to extremely (50-100)	1.61	0.94	2.77	0.086
Lonely				
Not at all (0)	(ref cat)			
Not at all to moderately (1-49)	1.01	0.71	1.44	0.955
Moderately to extremely (50-100)	1.14	0.68	1.92	0.618

[a] *adjusted for age, gender, time, and all mood variables in analysis*
*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*
SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

Gambling urge as an antecedent to gambling episodes

Two separate regression analyses examined the relationship between antecedent gambling urge and the subsequent occurrence of a gambling episode. As shown in Table 17.4, having a gambling urge (i.e., yes/no) was an antecedent associated with increased odds of the subsequent occurrence of a gambling episode. This pattern was also observed for the analyses using the magnitude of gambling urge composite variable which demonstrated increasing odds of a subsequent gambling episode as the magnitude of gambling urge increased (Table 17.5). Indeed, those with the highest magnitude of gambling urge (i.e., high strength and frequency) were found to have more than twice the odds of reporting a gambling episode in the subsequent assessment period.

TABLE 17.4 LOGISTIC REGRESSION OF GAMBLING EPISODE ON ANTECEDENT GAMBLING URGE[a]

Variable	OR	95% CI		p value
		Lower	Upper	
Experienced gambling urge				
No	(ref)			
Yes	1.87**	1.41	2.49	<0.001

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

TABLE 17.5 LOGISTIC REGRESSION OF GAMBLING EPISODE ON ANTECEDENT GAMBLING URGE MAGNITUDE[a]

Variable	OR	95% CI		p value
		Lower	Upper	
Urge magnitude				
Low	(ref cat)			
Moderate	1.83**	1.31	2.55	<0.001
High	2.2**	1.37	3.54	0.001

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

Readiness to change as antecedents to gambling episodes

A single multivariable regression analysis was used to examine whether the readiness to change variables were antecedents for gambling episodes (Table 17.6). After adjusting for all variables in the model, there was weak evidence to suggest that those who reported none to moderate levels of situational self-efficacy had 1.8 times the odds of a subsequent gambling episode, when compared to those who reported extreme situational self-efficacy. No other antecedent relationships were identified.

TABLE 17.6 MULTIVARIABLE LOGISTIC REGRESSION OF GAMBLING EPISODE ON ANTECEDENT READINESS TO CHANGE VARIABLES[a]

Variable	OR	95% CI		p value
		Lower	Upper	
Importance of change				
Not at all (0)	(ref cat)			
Not at all to moderately (1-49)	1.10	0.64	1.89	0.730
Moderately to extremely (50-99)	1.15	0.58	2.27	0.685
Readiness to change				
Not at all (0)	(ref cat)			
Not at all to moderately (1-49)	0.87	0.51	1.48	0.598
Moderately to extremely (50-99)	0.92	0.46	1.82	0.802
Confidence to change				
Extremely (100)	(ref cat)			
Moderately to extremely (50-99)	0.68	0.33	1.41	0.300
Not at all to moderately (0-49)	1.08	0.68	1.69	0.752
Situational self-efficacy				
Extremely (100)	(ref cat)			
Moderately to extremely (50-99)	1.34	0.90	2.02	0.154
Not at all to moderately (0-49)	1.79*	1.02	3.13	0.043

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] Adjusted for age, gender, time, and all readiness to change variables in analysis

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

Subjective alcohol intoxication as an antecedent to gambling episodes

There was no evidence for a relationship between antecedent subjective alcohol intoxication and a subsequent gambling episode after adjustment for age, gender, and assessment time.

17.4.4 The association between gambling episodes and acute consequences

Mood as consequences to gambling episodes

To examine the relationship between gambling episodes and mood consequences, each of the mood variables were regressed on to the gambling event variable in separate regression analyses. As presented in Table 17.7, having a gambling event was associated with a 24% reduction in the odds of reporting a higher level of boredom at the subsequent assessment. However, no other regression analyses found evidence to support gambling events being associated with subsequent happiness, excitement, depression, anxiety, anger, stress, or loneliness.

TABLE 17.7 ORDINAL LOGISTIC REGRESSION OF BOREDOM ON GAMBLING EPISODE[a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling episode				
No	(Ref)			
Yes	0.76*	0.59	0.99	0.038

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

Gambling urge as a consequence to gambling episodes

Two separate regression analyses examined whether a gambling episode predicted subsequent urge to gamble. As shown in Table 17.8 and Table 17.9, reporting a gambling episode was associated with very strong odds of experiencing an urge to gamble at the subsequent assessment period (OR=33.78) and stronger magnitude of gambling urge at the subsequent assessment period (OR=22.42).

TABLE 17.8 LOGISTIC REGRESSION OF GAMBLING URGE ON GAMBLING EPISODE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling episode				
No	(Ref)			
Yes	33.78**	24.02	47.51	<0.001

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

TABLE 17.9 ORDINAL LOGISTIC REGRESSION OF GAMBLING URGE-MAGNITUDE ON GAMBLING EPISODE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling episode				
No	(Ref)			
Yes	22.42**	16.88	29.77	<0.001

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

Readiness to change as consequences to gambling episodes

Separate regression models examined whether a gambling episode predicted subsequent readiness to change. These was no evidence to support an association between the occurrence of a gambling episode and consequent readiness to change or confidence to change. However, as shown in Table 17.10, there was evidence for a small relationship between a gambling event and increased odds of having a higher importance score at the subsequent assessment, suggesting that gamblers were more likely to think it was important to limit or stop gambling after a gambling episode. As shown in Table 17.11, there was strong evidence that endorsement of a gambling episode was associated with an almost 50% decrease in the odds of reporting a higher level of consequent situational self-efficacy, suggesting that gamblers felt less confident that they would be able to resist the urge to gamble following a gambling episode.

TABLE 17.10 ORDINAL LOGISTIC REGRESSION OF IMPORTANCE OF CHANGE VARIABLES ON GAMBLING EPISODE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling episode				
No	(Ref)			
Yes	1.38*	1.00	1.89	0.047

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

TABLE 17.11 ORDINAL LOGISTIC REGRESSION OF SITUATIONAL SELF-EFFICACY ON GAMBLING EPISODE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling episode				
No	(Ref)			
Yes	0.56**	0.42	0.74	<0.001

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

Subjective alcohol intoxication as a consequence to gambling episodes

Table 17.12 presents the results of the ordinal logistic regression of subjective alcohol intoxication on gambling episodes. Endorsing a gambling episode was associated with almost two times the odds of endorsing a higher level of subjective alcohol intoxication at the assessment point subsequent to the gambling episode.

TABLE 17.12 ORDINAL LOGISTIC REGRESSION OF SUBJECTIVE ALCOHOL INTOXICATION ON GAMBLING EPISODE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling episode				
No	(Ref)			
Yes	1.91**	1.48	2.46	<0.001

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

17.4.5 The association between gambling expenditure and gambling consequences

The association between gambling expenditure and gambling consequences

Mood as consequences to gambling expenditure

A series of ordinal logistic regressions examined whether expenditure during gambling was associated with different mood consequences. There was no evidence to support an association between gambling expenditure and consequent happiness, depression, anxiety, anger, stress, or loneliness. There was, however, evidence that an increasing amount of money lost during gambling was associated with a lower level of excitement at the subsequent assessment point (Table 17.13). These effects were strong, with a 65% reduction in the odds of a higher consequent excitement for individuals who reported spending more than $25 during the gambling session, relative to zero dollars. Higher gambling expenditure was also associated with approximately two to three times greater odds of endorsing higher levels of boredom at the subsequent assessment point (Table 17.14), although it is noted that the effect for those who spent more than $25 did not reach the nominal level of statistical significance (alpha = .05).

TABLE 17.13 ORDINAL LOGISTIC REGRESSION OF EXCITEMENT ON GAMBLING EXPENDITURE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling expenditure				
$0	(ref cat)			
$1-$25	0.49*	0.25	0.97	0.040
>$26	0.35**	0.16	0.75	0.007

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

TABLE 17.14 ORDINAL LOGISTIC REGRESSION OF BOREDOM ON GAMBLING EXPENDITURE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling expenditure				
$0	(ref cat)			
$1-$25	2.96**	1.39	6.33	0.005
>$26	2.12	0.93	4.84	0.073

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

Gambling urge as a consequence to gambling expenditure

As shown in Table 17.15 and Table 17.16, there was evidence for a strong relationship between gambling more than $25 during a session and increased urge to gamble and magnitude of gambling urge at the subsequent assessment. These effects were strong, representing a greater than five-fold increase in the odds of having subsequent gambling urge or higher magnitude of gambling urge when an individual reported spending greater than $25.

TABLE 17.15 LOGISTIC REGRESSION OF GAMBLING URGE ON GAMBLING EXPENDITURE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling expenditure				
$0	(ref cat)			
$1-$25	2.60	1.00	6.75	0.050
>$26	5.20**	1.71	15.81	0.004

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

TABLE 17.16 ORDINAL LOGISTIC REGRESSION OF GAMBLING URGE MAGNITUDE ON GAMBLING EXPENDITURE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling expenditure				
$0	(ref cat)			
$1-$25	1.84	0.88	3.82	0.103
>$26	5.42**	2.37	12.39	<0.001

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

Readiness to change as consequences to gambling expenditure

There was no evidence to support an association between gambling expenditure and subsequent readiness to change, importance of change, confidence to change or situational self-efficacy.

Subjective alcohol intoxication as a consequence to gambling expenditure

There was very weak evidence that spending more than $25 during the gambling session was associated with two times the odds of reporting a higher level of subjective alcohol intoxication at the subsequent assessment point; but this effect only just failed to reach the nominal level of statistical significance (p = .051).

The association between gambling expenditure and appraisal of gambling effects

As shown in Table 17.17, Table 17.18 and Table 17.19, there was variable evidence linking gambling expenditure to subsequent appraisal of gambling episodes. For example, there was decreased odds of reporting a higher level of positive reinforcement (i.e., pleasure from the gambling episode) when individuals spent any amount of money (i.e., $1-25 or >$26). Those who reported spending between $1-25 were also found to have lower odds of endorsing a higher level of negative reinforcement from gambling (i.e., gambling relieved unpleasant feelings). By contrast, participants who reported spending greater than $25 during a session were found have a greater than four-fold increase in the odds of reporting a higher level of punishment from gambling (i.e., made them feel worse).

TABLE 17.17 ORDINAL LOGISTIC REGRESSION OF POSITIVE REINFORCEMENT ON GAMBLING EXPENDITURE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling expenditure				
$0	(ref cat)			
$1-$25	0.29**	0.14	0.62	0.001
>$26	0.41*	0.19	0.91	0.027

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

TABLE 17.18 ORDINAL LOGISTIC REGRESSION OF NEGATIVE REINFORCEMENT ON GAMBLING EXPENDITURE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling expenditure				
$0	(ref cat)			
$1-$25	0.35**	0.18	0.70	0.003
>$26	0.96	0.47	1.96	0.917

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

TABLE 17.19 ORDINAL LOGISTIC REGRESSION OF PUNISHMENT ON GAMBLING EXPENDITURE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling expenditure				
$0	(ref cat)			
$1-$25	1.77	0.81	3.90	0.155
>$26	4.44**	1.97	10.02	<0.001

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

The association between gambling expenditure and gambling-related harms

To examine the relationship between gambling expenditure and consequent gambling-related harm, three separate logistic regression models were estimated in which a binary outcome variable representing whether the person reported any: (1) financial harms, (2) relationship harms, or (3) emotional harms due to their gambling episodes was regressed on to the expenditure variable (Table 17.20 and Table 17.21). Gambling more than $25 in the session was associated with a greater than 16 fold increase odds of reporting consequent financial harms at the subsequent assessment. There was weak evidence to suggest that spending more than $25 during a gambling session was also associated with an almost 2.5 times increase in the odds of reporting consequent emotional harms. No association was found between gambling duration and consequent relationship harms.

TABLE 17.20 BINARY LOGISTIC REGRESSION OF FINANCIAL HARMS ON GAMBLING EXPENDITURE[a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling expenditure				
$0	(ref cat)			
$1-$25	2.02	0.83	4.89	0.122
>$26	16.36**	5.40	49.55	<0.001

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

TABLE 17.21 BINARY LOGISTIC REGRESSION OF EMOTIONAL HARMS ON GAMBLING EXPENDITURE [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling expenditure				
$0	(ref cat)			
$1-$25	0.62	0.27	1.44	0.265
>$26	2.44*	1.03	5.79	0.044

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

17.4.6 The association between gambling duration and gambling consequences

The association between gambling duration and acute consequences

Mood as consequences to gambling duration

A series of ordinal regression analyses examined whether gambling duration was associated with consequent mood. No relationships were found between the duration of gambling and consequent happiness, excitement, depression, boredom, anxiety, anger, stress, or loneliness.

Gambling urge as a consequence to gambling duration

As presented in Table 17.22 and Table 17.23, a higher level of gambling duration (relative to less than 30 minutes) was associated with increased odds of reporting higher urge to gamble and higher level of gambling urge magnitude at the subsequent time point. The magnitude of this effect was strong, with evidence that a longest duration category was associated with approximately four-times the odds of reporting higher consequent gambling urge or urge magnitude.

TABLE 17.22 LOGISTIC REGRESSION OF GAMBLING URGE ON GAMBLING DURATION [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling duration				
<30 minutes	(ref cat)			
30 minutes – 2 hours	5.93**	2.38	14.77	<0.001
>2 hours	3.97*	1.03	15.32	0.045

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

TABLE 17.23 ORDINAL LOGISTIC REGRESSION OF GAMBLING URGE MAGNITUDE ON GAMBLING DURATION [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling duration				
<30 minutes	(ref cat)			
30 minutes – 2 hours	3.53**	1.88	6.65	<0.001
>2 hours	4.25**	1.59	11.39	0.004

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

Readiness to change as consequences to gambling duration

No relationships were found between duration of gambling episodes and subsequent readiness to change, importance of change, confidence to change, or situational self-efficacy.

Subjective alcohol intoxication as a consequence to gambling duration

As shown in Table 17.24, a higher amount of time gambling was associated with increased odds of reporting higher subjective alcohol intoxication. The magnitude of this effect was strong, with those spending more than two hours gambling found to have greater than four times the odds of reporting a higher level of subjective alcohol intoxication relative to those who spent less time gambling.

TABLE 17.24 ORDINAL LOGISTIC REGRESSION OF SUBJECTIVE ALCOHOL INTOXICATION ON GAMBLING DURATION [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling duration				
<30 minutes	(ref cat)			
30 minutes – 2 hours	2.45**	1.36	4.41	0.003
>2 hours	4.14**	1.52	11.27	0.005

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

The association between gambling duration and appraisal of gambling effects

As shown in Table 17.25, Table 17.26 and Table 17.27, there was evidence to suggest that the duration of gambling was associated with subsequent appraisal of the gambling event. For example, higher duration gambling was associated with strong odds of subsequent appraisal of gambling as positive reinforcement (i.e., gambling was pleasant) (ranging from OR=5.43 to OR=15.52) and also as negative reinforcement (i.e., gambling relieved unpleasant feelings) (approximately three times the odds). However, increasing time spent gambling was also associated with increase odds of appraising the gambling episode as punishment (i.e., gambling made them feel worse), although this was only statistically significant (at the nominal alpha=.05) for the moderate level of gambling behaviour (OR=3.37).

TABLE 17.25 ORDINAL LOGISTIC REGRESSION OF POSITIVE REINFORCEMENT ON GAMBLING DURATION [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling duration				
<30 minutes	(ref cat)			
30 minutes – 2 hours	5.43**	2.66	11.07	<0.001
>2 hours	15.52**	4.37	55.05	<0.001

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

TABLE 17.26 ORDINAL LOGISTIC REGRESSION OF NEGATIVE REINFORCEMENT ON GAMBLING DURATION [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling duration				
<30 minutes	(ref cat)			
30 minutes – 2 hours	3.27**	1.8	5.95	<0.001
>2 hours	3.29*	1.26	8.54	0.015

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

TABLE 17.27 ORDINAL LOGISTIC REGRESSION OF PUNISHMENT ON GAMBLING DURATION [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling duration				
<30 minutes	(ref cat)			
30 minutes – 2 hours	2.73**	1.38	5.38	0.004
>2 hours	3.10	1.00	9.67	0.051

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

The association between gambling duration and gambling-related harms

There was variable evidence to support an association between gambling duration and subsequent harms. For consequent financial harm (Table 17.28), there was evidence for the moderate level of gambling duration being associated with increased level of financial harm at the subsequent assessment. By contrast, each increasing level of gambling duration was associated with increased odds of endorsing a higher level of emotional harm at the subsequent assessment (Table 17.29). These effects were strong with those spending more than two hours gambling found to have greater than eight times the odds of reporting a higher category of consequent emotional harm. No association was found between gambling duration and consequent relationship harms.

TABLE 17.28 ORDINAL LOGISTIC REGRESSION OF FINANCIAL HARMS ON GAMBLING DURATION [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling duration				
<30 minutes	(ref cat)			
30 minutes – 2 hours	3.14**	1.38	7.13	0.006
>2 hours	3.06	0.78	11.98	0.109

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

TABLE 17.29 ORDINAL LOGISTIC REGRESSION OF EMOTIONAL HARMS ON GAMBLING DURATION [a]

Variable	OR	95% CI		p value
		Lower	Upper	
Gambling duration				
<30 minutes	(ref cat)			
30 minutes – 2 hours	2.36*	1.13	4.92	0.022
>2 hours	8.58**	1.97	37.33	0.004

*Note: ** p < 0.01, * p < 0.05. OR = odds ratio. CI = confidence interval of the estimate.*

[a] adjusted for age, gender and time

SOURCE: 2017 TASMANIAN GAMBLING SEIS EMA DATA

17.4.7 Moderators of gambling consequences

A series of moderated regression analyses were used to examine whether any of the relationships between gambling expenditure or duration and consequences (acute consequences, appraisal of gambling effects, and gambling-related harms) were moderated by: (1) whether the individual was EGM gambling at the time, (2) whether the person was participating in telephone/internet gambling at the time, or (3) was drunk while gambling.

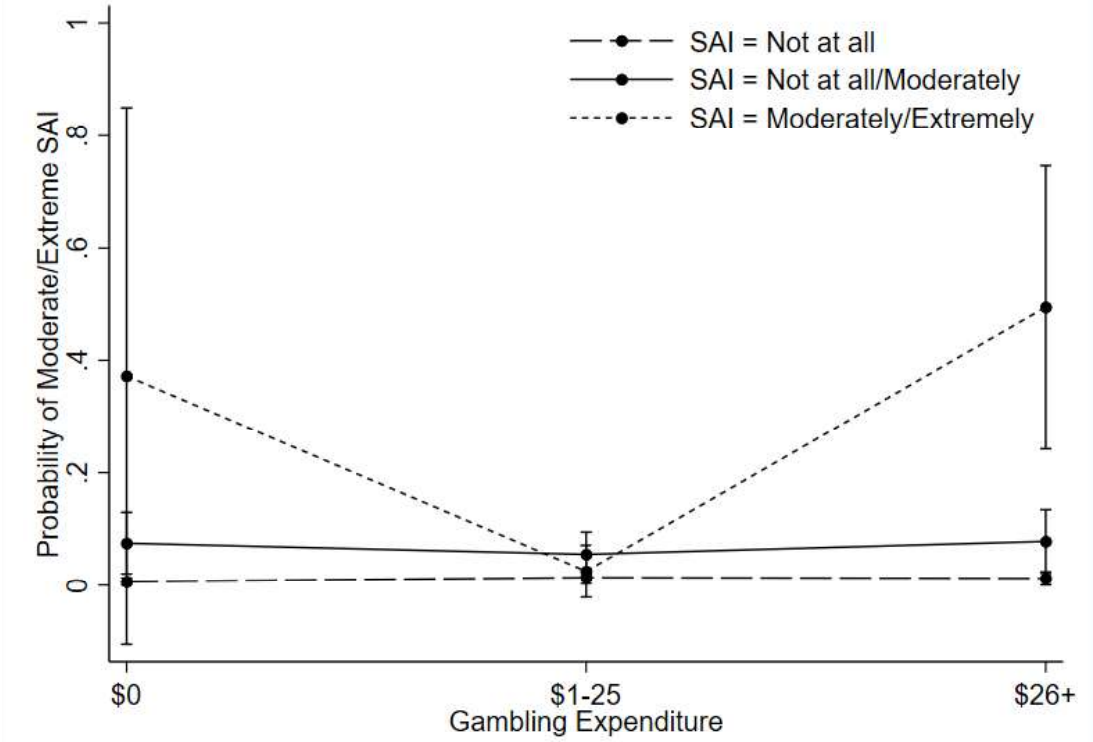
Moderators of the relationship between gambling expenditure and gambling consequences

Moderators of the relationship between gambling expenditure and acute consequences

EGM gambling at the time of assessment, participation in telephone/internet gambling, or being drunk while gambling were not found to moderate any of the relationships between gambling expenditure and consequent mood variables, gambling urge, or readiness to change variables. Similarly, EGM gambling and participation in telephone/internet betting were not found to moderate the relationships between gambling expenditure and consequent subjective alcohol intoxication. There was, however, evidence that the relationship between gambling expenditure and consequent subjective alcohol intoxication was moderated by the level of subjective alcohol intoxication while gambling (Wald $\chi^2(4) = 14.91$, $p = .005$).

To illustrate the direction of the interaction effect, Figure 17.2 presents the predicted probability of endorsing the highest level of subjective alcohol intoxication at the subsequent assessment point (i.e., moderate/extreme) for each level of expenditure and subjective alcohol intoxication while gambling. From this it can be seen that the probability of endorsing moderate/extreme subjective alcohol intoxication as a consequence of gambling was similar for those people who reported low levels of alcohol intoxication while gambling, regardless of how much money they lost while gambling. However, on inspection of the confidence intervals, those who reported a high level of subjective alcohol intoxication at the time of gambling had the greatest probability of having high levels of subjective alcohol intoxication, but only when they had lost more than $25.

FIGURE 17.2 PREDICTED PROBABILITY OF ENDORSING THE HIGHEST LEVEL OF SUBJECTIVE ALCOHOL INTOXICATION (SAI) AT THE SUBSEQUENT ASSESSMENT POINT FOR EACH LEVEL OF EXPENDITURE AND SUBJECTIVE ALCOHOL INTOXICATION WHILE GAMBLING



SOURCE: ACIL ALLEN ET AL 2017

Moderators of the relationship between gambling expenditure and appraisal of gambling effects

EGM gambling, participation in telephone/internet gambling, or being drunk while gambling was not found to moderate any of the relationships between gambling expenditure and consequent appraisal of gambling effects.

Moderators of the relationship between gambling expenditure and gambling-related harms

EGM gambling, participation in telephone/internet gambling, or being drunk while gambling were not found to moderate any of the relationships between gambling expenditure and consequent gambling-related harms (i.e., financial, relationship, emotional).

Moderators of the relationship between gambling expenditure and gambling consequences

Moderators of the relationship between gambling duration and acute consequences

EGM gambling, participation in telephone/internet gambling, or being drunk while gambling were not found to moderate any of the relationships between gambling duration and acute gambling consequence variables.

Moderators of the relationship between gambling duration and appraisal of gambling effects

EGM gambling, participation in telephone/internet gambling, or being drunk while gambling was not found to moderate any of the relationships between gambling duration and consequent appraisal of gambling effects.

Moderators of the relationship between gambling duration and gambling-related harms

EGM gambling, participation in telephone/internet gambling, or being drunk while gambling were not found to moderate any of the relationships between gambling duration and consequent gambling-related harm (i.e., financial, relationship, emotional).

17.5 Discussion

This chapter presents the findings from a methodologically and technologically innovative naturalistic and prospective evaluation of the proximal antecedents and gambling harms of gambling episodes reported by regular gamblers as they occur in real life via an ecological momentary assessment (EMA) administered via a smartphone app.

The findings of this study suggest that the use of EMA approaches is a valid methodology for assessing individual differences in the circumstances of gambling, to infer motives for gambling, and gambling-related harm. The EMA gambling data were consistent with the data from the retrospective self-reports collected using the Time Line Follow Back method, indicating good concurrent validity of the EMA. Moreover, the study found no evidence of reactivity in the expected direction – whereby the research methods themselves reduce the behaviour under study. In fact, the study found a weak reactivity effect in the opposite direction. Although reactivity should continue to be explored in future EMA studies of gambling behaviour, these early findings are consistent with the alcohol and drug EMA literature, which has not indicated strong reactivity effects (Hufford et al., 2002).

The use of electronic data collection in this study provided the opportunity to estimate the compliance of participants with instructions to respond to prompts. The findings suggest that the frequent gamblers in this study were very compliant, with a response rate of nearly 90%, which is at the high end of previous alcohol and drug use studies (Shiffman, 2009). This high degree of compliance may be a function of a range of the methodologies employed in this study, including incentives for completing assessments, training, and feedback (Beckham et al., 2008). High compliance is important as it reduces the amount of missing data and reduces bias into the data that are collected.

This compliance has implications for the design of future EMA gambling studies. Both this study and the previous gambling study (Goldstein et al., 2014; Quinlan et al., 2014) employed a design which relied solely on time-based assessments, at which time subjects were asked retrospectively about gambling episodes. Both, however, employed an interval approach, in which there is less reliance on retrospection because it narrows the interval for the reporting of gambling episodes by assessing subjects multiple times per day (Shiffman, 2009). Moreover, retrospection is less of an issue for gambling than other behaviours such as tobacco and alcohol use, due to its much lower frequency of occurrence. Regardless, the high compliance for the time-based assessments in this study suggest that future EMA gambling research may successfully employ user-initiated event-based recording to capture gambling episodes in combination with randomly scheduled time-based prompted assessments to capture subjects' experience around those events. In previous studies, compliance with recording of events has been variable, but compliance can be achieved with good subject management procedures (Shiffman, 2009).

There were few mood states that were proximal antecedents to gambling events, with the exception of excitement, anger and stress. These findings suggest that negative mood states are not as relevant as motivating factors for frequent gamblers as for problem gamblers. There may, in fact, be alternative motivational processes for these gamblers that were not measured in the current study, such as social context (Quinlan et al., 2014). Although a strength of this study is that the data were collected from frequent gamblers who were recruited from the community, future EMA studies may benefit from sampling gamblers with more frequent gamblers on high intensity gambling activities with higher problem gambling severity and/or harms.

With the exception of boredom, mood states were also generally not acute consequences of gambling episodes. This is in contrast to the findings of Gee et al. (2005), who found gambling was associated with increased anxiety/arousal. Despite the finding that mood states did not generally serve as proximal antecedents to, or consequences of, gambling episodes in this study, responses to questions designed to serve as proxies for discrete motivational processes clearly highlighted the importance of both punishment and reinforcement. Specifically, participants experienced both gambling losses and

duration as punishing (i.e., making mood worse). However, they also experienced gambling duration as both positively and negatively reinforcing, suggesting that they found longer gambling episodes were both pleasurable and served to relieve unpleasant feelings. In contrast, gambling episodes with higher expenditures were reported to be less positively and negatively reinforcing. It is therefore possible that the mood states evaluated in this study are not sufficiently sensitive or associated with gambling behaviour; or that alternative mood states not measured in this study yield more useable results. These findings suggest that gambling has, at least subjectively, emotion regulation properties that were not picked up in the more objective evaluation of non-gambling attributable mood states.

Moreover, there were other factors that were important proximal antecedents and acute consequences, namely gambling urges and confidence in the ability to resist the urge to gamble. Moreover, how important it is for gamblers to limit or stop their gambling was also an acute consequence of gambling episodes. These findings imply that, despite the limited mood state triggers, this sample of frequent gamblers reported gambling urges that they lacked confidence in resisting, which in turn, resulted in gambling behaviour; and that it is after gambling that they have thoughts about changing their gambling behaviour. As the first study to use an 'in the moment' assessment approach to study gambling urges and the magnitude of gambling urges as antecedents to gambling episodes, these findings have implications for prevention, in terms of strategies to resist gambling urges and capitalising on increased readiness to change following gambling episodes. They also suggest that gambling urges themselves may be interesting target events to be recorded in future EMA protocols.

Finally, the most common harms related to gambling expenditure and duration seem to be financial and emotional, not relationship; and physical health and work/study harms did not occur often enough to warrant inclusion in the analysis of EMA data. These findings are consistent with the harms literature using retrospective questionnaire designs (Browne et al., 2016). Future EMA methodologies should therefore concentrate of the exploration of gambling-related harms within these two domains.

Alcohol use also seems to play an important role in the event level analysis of gambling behaviours. Although it was not a significant proximal antecedent to gambling episodes, subjective alcohol intoxication was an acute consequence of gambling episodes and the duration of gambling episodes. Subjective alcohol intoxication during gambling also moderated the relationship between gambling expenditure and subsequent subjective alcohol intoxication; participants who reported a high level of subjective alcohol intoxication at the time of gambling had the greatest probability of having high levels of subjective alcohol intoxication, but only when they had lost larger amounts of money. These findings again have prevention implications, and also suggest that EMA studies with user-initiated events relating to both gambling and alcohol use would highlight some interesting interactions between these two often co-occurring behaviours.

Although the findings of this study have highlighted how gambling plays out across time and across contexts, as well as the resulting harms, there is great potential to extend the EMA study of gambling behaviour. EMA methods are also well-suited to study the processes of relapse and can also be used to assess outcome in randomised clinical trials (Shiffman, 2009). Future EMA research could also examine slower-moving "background" processes, such as the build-up of stress, the use of coping resources, the commitment to behaviour change, access to social support, or changes in psychiatric status (Shiffman, 1989), in addition to the fast-moving, local processes and momentary states that is the forte of EMA methods. The contribution of EMA data is also likely to be enhanced by technological developments, such as integrated measures of physical and physiological parameters, automated measures of environmental exposures, social network measures, and GPS-based geographical information (Shiffman, 2009). Lastly, future EMA research could also investigate further the role of social, spatial, economic and venue-based variables as antecedents to gambling.

17.6 Conclusion

Presented in Table 17.30 below is a summary of the significant findings from this chapter. Taken together, experiencing gambling urges and greater magnitude of a gambling urge were the strongest predictors of a subsequent gambling episode, and the consequences of a gambling episode, greater gambling expenditure and greater gambling duration.

One's confidence in their ability to resist the urge to gamble (i.e., situational self-efficacy) was consistently associated with gambling episodes. Specifically, lower situational self-efficacy was an antecedent to subsequent gambling episodes, and a consequence of gambling episodes. In contrast, higher level of importance of change (i.e., more likely to think it is important to limit or stop gambling) was a consequence of a gambling episode, only. While not a significant antecedent of gambling episodes, subjective alcohol intoxication was a significant consequence of gambling episodes and gambling duration

Consistent consequences of gambling expenditure and gambling duration were the appraisal of gambling effects variables. Interestingly, increased gambling expenditure was associated with lower levels of positive reinforcement (i.e., less pleasure from gambling) and negative reinforcement (i.e., gambling less likely to relieve unpleasant feelings), and higher levels of punishment from gambling (i.e., made them feel worse). In contrast, increased gambling duration was associated with higher levels of positive reinforcement (i.e., greater pleasure from gambling), negative reinforcement (i.e., gambling more likely to relieve unpleasant feelings) and punishment from gambling (i.e., made them feel worse). Financial and emotional harms were also consistent consequences of increased gambling expenditure and gambling duration.

In contrast, few mood states were significant antecedents of a subsequent gambling episode (excited, angry and stressed). Fewer mood states were identified as consequences of a gambling episode (bored) and gambling expenditure (excited and bored), with none identified for gambling duration.

Overall, these findings have important implications for prevention, whereby strategies could target resisting gambling urges, decreased alcohol consumption and capitalising on increased readiness to change following gambling episodes.

TABLE 17.30 SUMMARY OF FINDINGS OF ANTECEDENTS OF GAMBLING EPISODES AND CONSEQUENCES TO GAMBLING EPISODES, EXPENDITURE AND DURATION

Variables	Antecedents to gambling episodes	Consequences to gambling episodes	Consequences to gambling expenditure	Consequences to gambling duration
Mood state variables				
Happy				
Excited	√		√	
Depressed				
Bored		√	√	
Anxious				
Angry	√			
Stressed	√			
Lonely				
Gambling urge variables				
Experienced gambling urge	√	√	√	√
Urge magnitude	√	√	√	√
Readiness to change variables				
Importance of change		√		
Readiness to change				
Confidence to change				

Situational self-efficacy	√	√		
Alcohol-related variables				
Subjective alcohol intoxication		√		√
Appraisal of gambling effects variables				
Positive reinforcement	NA	NA	√	√
Negative reinforcement	NA	NA	√	√
Punishment from gambling	NA	NA	√	√
Gambling-related harm variables				
Financial harms	NA	NA	√	√
Relationship harms	NA	NA		
Emotional harms	NA	NA	√	√

Note: √ indicates findings that reached the nominal level of statistical significance ($p < 0.05$); A blank cell indicates findings that did not reach the nominal level of significance ($p \geq 0.05$); NA: Not Applicable.

18 QUALITATIVE INTERVIEWS ON HARMS WITH GAMBLERS

This chapter presents the findings from the qualitative interviews conducted with 20 monthly gamblers in which their experiences of past year gambling-related harms using the Gambling Harms Checklist were explored. The Gambling Harms Checklist assesses only the harms associated with gambling, not the benefits. Specifically, the Gambling Harms Checklist evaluates a range of harms experienced by gamblers over the previous 12 months that they attribute to their gambling behaviour. These monthly gamblers were recruited from the prevalence survey, based on endorsing at least one gambling harm on the Short Gambling Harms Scale. Preference was given to participants who had endorsed the greatest number of harms, so as to gain a greater understanding of the possible range of harms. As part of this study, the gamblers were administered the complete Gambling Harms Checklist. Where gambling-related harms were positively endorsed, follow-up questions aimed at eliciting an in-depth exploration of the description and explanation each harm were asked.

Overall, this study aimed to gain an in-depth understanding of the 'lived experience' of gambling harms that are particularly relevant for gamblers. It is important to note, however, that each gambler varies in their lived experiences of gambling harms and, as such, this sample is not representative of the Tasmanian gambling population. Rather, it represents the lived experience of a small sample of monthly gamblers who reported harms, which included gamblers across the problem gambling severity continuum: problem gamblers (25%), moderate-risk gamblers (15%), low-risk gamblers (35%), and non-problem gamblers (25%).

18.1 Key findings

- This sample comprised 20 monthly gamblers (excluding lotteries), ranging from non-problem (25%), low-risk gamblers (35%), moderate-risk gamblers (15%) and problem gamblers (25%).
- Financial impacts were seemingly the most common, with three-quarters of the gamblers reporting impacts relating to reduction in available spending money, just over half reporting a reduction in savings and just under half reporting less spending on recreational activities. Some of these financial impacts were severe, with three participants indicating increased credit card debt, two indicating late payment on bills and one participant selling personal items and requiring assistance from a welfare organisation.

  'I don't have a lot of money and I'm only on the unemployment but I used it all and then I had to sell some things to pay my rent and then I had to go to Anglicare and get them to pay a fortnight's rent for me.'

  (Participant 20, female aged 56, problem gambler).

- Emotional impacts were also common, with just under half of the gamblers reporting feelings of distress about their gambling. In addition, approximately one-quarter of the sample reported feelings of shame, anger, hopelessness and failure in relation to their gambling. Across these impacts

common themes arose, including feelings of distress, shame, anger and hopelessness, due to perceived lack of willpower and self-control.

'Lack of willpower or being able to do what I told myself I would do.'

(Participant 18, male aged 32, problem gambler).

- Health impacts were less common, with less than a quarter of the gamblers reporting a loss of sleep due to stress or worry about gambling or gambling-related problems, not eating as much or as often, and increased alcohol consumption.

  'Yes because I've cut my grocery bill down so I can put keno tickets on. A lot of times I would buy non-food products and not enough food.'

  (Participant 15, male aged 53, moderate-risk gambler).

- Relationship impacts were also less common, with less than quarter of the gamblers reporting less time with loved ones and experiencing greater tension in relationships.

  *'If I do go, I go for four hours so *** always asks where I have been… You've got to lie about where you've been of course. You can't say you've been gambling. You've got to say "I've been to see my brother" or I've been somewhere else, been to the gym, been for a bike ride or something.'*

  (Participant 12, male aged 68, low-risk gambler).

- Lastly, work/study and other impacts were the least commonly reported impacts. However, these impacts could be quite severe, with one participant indicating that she had committed petty theft to fund her gambling.

  'Well, yeah, I will because I only just… I didn't really realise it was stealing until a little while ago. Like, I buy something at the supermarket and the other supermarket might have it for more expensive or I bought it one week on special and then I've… I think, oh I need money to go to the casino, this was one of… and so I went and I cashed it in at another shop and got more money for it.'

  (Participant 20, female aged 56, problem gambler).

18.2 Method

In-depth qualitative interviews were conducted with a sub-sample of the prevalence survey respondents who were also recruited as part of the ecological momentary assessment (EMA) study (see Chapter 17). Participants were eligible for the EMA study if they were monthly gamblers on any activity, excluding lottery, and owned a smartphone. Participants recruited for this study were also required to have positively endorsed at least one item on the Short Gambling Harms Scale. A total of 62 respondents were eligible for participation in this study and indicated that they were willing to be contacted. Of the eligible respondents, 16 declined to participate, 9 were not contactable and 21 were recruited to the study. The remaining participants were not contacted as the required sample size (n=20) had been reached. However, one participant withdrew prior to the conduct of the qualitative interview, therefore the final sample consisted of 20 gamblers. See Table 18.1 for the participant information of the final sample of 20 gamblers.

The majority of this sample were male (60%), with the majority of participants aged between 50 to 54 years (25%) or 55-59 years (25%). In the past 12 months, the majority of this sample reported that they had participated in lotteries, instant scratch tickets, keno or bingo (95%), followed closely by EGMs (80%). The average gambling frequency was 110.95 (SD=124.93, Mdn=61.5) times a year, and average expenditure was $6,645 (SD=$10,683, Mdn=$1,742). Based on the PGSI administered during the prevalence survey, 25% of this sample met criteria for non-problem gambling, 35% for low-risk gambling, 15% moderate-risk gambling and 25% problem gambling. Scores on the Short Gambling Harms Scale during the prevalence survey ranged from 1 to 9 (M=3.10, SD=2.27, Mdn=3.00).

The qualitative interviews involved the administration of the full Gambling Harms Checklist. The Gambling Harms Checklist consists of 68 items, assessing past-year harms resulting from an individual's gambling behaviour. The Gambling Harms Checklist consists of five domains: financial (14

items), relationship (10 items), emotional or psychological (9 items), health (18 items), work or study (11 items) and other impacts (6 items). For each item that was positively endorsed by the gambler, open-ended follow-up questions were asked. The qualitative interview schedule was therefore individually tailored to each gambler. The purpose of these interviews was to provide a more detailed description of the harms ('the what') and explanation for the harms ("the why") experienced by each participant. This approach allowed for an in-depth evaluation of the "lived experience" of gambling harms that are particularly relevant for each gambler. The open-ended follow-up questions included probing questions, such as, "Can you tell me a bit more about this?" and "Can you tell me why you feel this way?"

These interviews were conducted between July 2017 and September 2017. They were conducted individually over the telephone and were audio-recorded to allow for the accurate recording of participant responses. A maximum of six call attempts were made to contact each potential participant. All interviews were conducted by researchers who have accredited fourth-year training in psychology. The average length of the interviews was 11.70 minutes (SD=6.42). Participants were provided with a $50 gift voucher for this interview as compensation for their time.

Participant responses from each item of the Checklist were analysed using thematic content analysis (Braun & Clarke, 2006). This included reading and then rereading transcripts, generating a list of initial codes and collating data relevant to each code and then collating initial codes into potential themes. Themes were reviewed and discussed with another researcher for their representativeness of participant experiences. Data from the sample are reported according to the items of the Checklist and indicative quotes provided. Quotes have been maintained in the original form except where to do so would possibly identify the participant.

TABLE 18.1 QUALITATIVE INTERVIEW RESPONDENT INFORMATION (GAMBLERS)

Participant ID	Age category	Gender	PGSI category	SGHS score	Past-year total gambling frequency	Past-year total gambling expenditure	EGM participation	Lotteries, instant scratch tickets, Keno or bingo	Casino table games participation	Horse, harness or greyhound racing participation	Sports or event results participation	Informal private games participation
1	65 to 69 years	Female	Moderate-risk	3	163	$6,290	Yes	Yes	No	Yes	No	No
2	45 to 49 years	Male	Low-risk	2	13	$325	Yes	Yes	Yes	No	No	No
3	65 to 69 years	Male	Low-risk	1	58	$1,344	Yes	Yes	No	No	No	No
4	35 to 39 years	Female	Low-risk	2	19	$270	Yes	Yes	Yes	Yes	No	No
5	50 to 54 years	Male	Problem	6	419	$18,390	Yes	Yes	No	Yes	Yes	No
6	60 to 64 years	Male	Non-problem	1	24	$240	No	No	No	Yes	No	No
7	30 to 34 years	Male	Low-risk	3	63	$2,200	Yes	Yes	No	No	Yes	Yes
8	55 to 59 years	Female	Moderate-risk	3	26	$1,380	Yes	Yes	No	No	No	No
9	35 to 39 years	Male	Non-problem	3	81	$2,105	Yes	Yes	Yes	Yes	Yes	No
10	55 to 59 years	Male	Non-problem	1	68	$1,180	No	Yes	No	Yes	Yes	No
11	50 to 54 years	Female	Problem	5	172	$13,292	Yes	Yes	No	No	No	No
12	65 to 69 years	Male	Low-risk	3	18	$3,840	Yes	Yes	No	Yes	No	No
13	50 to 54 years	Male	Problem	2	349	$35,726	Yes	Yes	No	Yes	No	No
14	55 to 59 years	Female	Low-risk	3	132	$132	Yes	Yes	No	Yes	No	No
15	50 to 54 years	Male	Moderate-risk	2	60	$1,200	No	Yes	No	No	No	No
16	55 to 59 years	Female	Non-problem	1	18	$339	No	Yes	No	No	No	No
17	18 to 24 years	Male	Non-problem	1	16	$400	Yes	Yes	No	No	No	No
18	30 to 34 years	Male	Problem	8	360	$34,850	Yes	Yes	Yes	Yes	Yes	Yes

Participant ID	Age category	Gender	PGSI category	SGHS score	Past-year total gambling frequency	Past-year total gambling expenditure	EGM participation	Lotteries, instant scratch tickets, Keno or bingo	Casino table games participation	Horse, harness or greyhound racing participation	Sports or event results participation	Informal private games participation
19	50 to 54 years	Female	Low-risk	3	128	$3,112	Yes	Yes	No	No	No	No
20	55 to 59 years	Female	Problem	9	32	$6,290	Yes	Yes	No	No	No	No

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY AND 2017 TASMANIAN GAMBLING INTERVIEWS

18.3 Results

The results of the qualitative interview are presented according to each domain of harms in the Gambling Harms Checklist: financial, relationships, emotional or psychological, health, work or study, and other impacts. The proportion of participants endorsing the items within each domain are presented in Table 18.2.

TABLE 18.2 PROPORTION OF PARTICIPANTS ENDORSING ITEMS WITHIN EACH DOMAIN OF THE GAMBLING HARMS CHECKLIST

	No. of items in domain	Zero	1 or more	1	2	3	4 or more
Financial	14	15%	85%	24%	24%	41%	12%
Relationships	10	80%	20%	50%	25%	25%	0%
Emotional or psychological	9	45%	55%	27%	27%	0%	45%
Health	18	50%	50%	50%	30%	10%	10%
Work or study	11	95%	5%	0%	100%	0%	0%
Other impacts	6	95%	5%	100%	0%	0%	0%

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY AND 2017 TASMANIAN GAMBLING INTERVIEWS

18.3.1 Financial impact domain

Items within the financial impact domain included: reduction of savings; reduction of available spending money; increased credit card debt; selling personal items; taking on additional employment; late payments on bills; less spending on recreational activities; less spending on beneficial expenses; less spending on essential expenses; needing assistance from welfare organisation; loss of supply of utilities; loss of significant assets; bankruptcy; and needing emergency or temporary accommodation.

None of the participants endorsed the following items: taking on additional employment; less spending on essential expenses; loss of supply of utilities; loss of significant assets; bankruptcy and needing emergency or temporary accommodation.

Reduction of savings

Twelve participants indicated that they had experienced a reduction in savings. Of these participants, four participants expressed that this reduction in savings was associated with current unemployment and the attempt to maintain a similar lifestyle, including gambling.

'I'm actually not getting any money in. I'm not getting any money from anywhere at all so my money that sits in the bank once it's spent I'm not getting any more to repay it. There is a reduction every time I gamble.'

(Participant 11, female aged 50, problem gambler).

'When you haven't had any work for a while so you keep going into your savings and you're still trying to live the same as you were when you were earning a wage so of course it's going to affect it.'

(Participant 5, male aged 52, problem gambler).

In addition, three participants reported that their reduction in savings was associated with spending more than they had intended during gambling sessions.

'It would be about going to a casino and spending more than you had allotted going to an ATM, getting more money out, losing that etc. so your savings reduce as a result.'

(Participant 6, male aged 63, non-problem gambler).

'I went overboard. I went to spend $20 and I spent $50. I have done that before and I would have done that in the last 12 months.'

(Participant 16, female aged 56, non-problem gambler).

Lastly, two participants also expressed that gambling was not necessarily associated with a 'reduction' in savings, rather it impacted on their ability to save.

'I haven't gambled life savings because gambling has prevented me having life savings if that makes sense.'

(Participant 18, male aged 32, problem gambler).

'I don't save anything. I go out on paydays and the next day I have nothing left. It does affect my savings because I don't save.'

(Participant 13, male aged 53, problem gambler).

Reduction of available spending money

Fifteen participants indicated that they had experienced a reduction in available spending money, in the last 12 months. When asked to expand on this experience, four participants expressed that they viewed any gambling, and money spent on gambling, automatically reduced their available spending money.

'I guess any time that you spend time on gambling you are taking that away from spending money.'

(Participant 10, male aged 55, non-problem gambler).

When you put money in either the pokies or buy a lotto ticket or something and you don't win then you don't have any money to spend.'

(Participant 4, female aged 37, low-risk gambler).

For a further three participants, this reduction in available spending money was associated with other consequences. Specifically, participants expressed that the reduction in available spending money led to the inability to do other enjoyable activities and buy things they wanted.

'Yes, that happens too. I don't go out as often or to the movies or things like that because you don't have the money there.'

(Participant 5, male aged 52, problem gambler).

'Yes, it reduces your play money or the money you have to spend on other things or to buy other things with.'

(Participant 15, male aged 53, moderate-risk gambler).

Increased credit card debt

Three participants indicated that they had experienced an increase in credit card debt. Two participants reported that this debt was not a common occurrence and was not of major consequence, whereas one participant expressed that the increase in credit card debt was quite large.

'Yes, I have a little bit… Cross with myself but it's not a major thing for me…'

(Participant 1, female aged 67, moderate-risk gambler).

'Yes, massively…'

(Participant 18, male aged 32, problem gambler).

Selling personal items

One participant indicated that she had sold personal items. This participant sold a personal item for the purpose of dealing with their gambling debt.

'I had a sewing machine that I bought. It was really expensive. It was $3,500 when I bought it... And so I sold that for $1,000 to get money back and, yeah, so instead of having that money for that what I would have had for whatever else I had to… I had to use that to fix up the debt, you know, recover the money.'

(Participant 20, female aged 56, problem gambler).

Late payments on bills

Two participants indicated that they made late payments on bills (e.g., utilities, rates) due to their gambling. One participant expressed that this late payment was associated with the increased credit card he had accrued due to his gambling. The other participant expressed that the late payment was in relation to their rent, where welfare assistance was required for that payment to be made.

'Just on credit card payments I guess. Late credit card repayments.'

(Participant 18, male aged 32, problem gambler).

'…on my rent that I went to Anglicare to get so one would be…'

(Participant 20, female aged 56, problem gambler).

Less spending on recreational activities

Eight participants indicated that they had experienced less spending on recreational expenses, such as eating out, going to the movies, or other entertainment due to their gambling. Similar to the responses identified for the 'less available spending money' item, five participants expressed that spending money on gambling led to no or limited available spending money, which consequently meant less money for recreational activities.

'I haven't got money to do things. If someone asks me out to tea, I don't have money to do it.'

(Participant 3, male aged 65, low-risk gambler).

'Again, it's the same thing. If you're wasting money on keno tickets and lotto then you forgo the opportunity to take your kids out to see stuff. It's the same as the spending money.'

(Participant 4, female aged 37, low-risk gambler).

One participant expressed that spending less money on recreational expenses was by choice. This participant viewed gambling, specifically, playing keno as the recreational expense to spend her money on.

'Yes, that would be by choice… Well I decide whether or not I was going out for tea or going to happy hour at the pub to play keno type thing.'

(Participant 19, female aged 50, low-risk gambler).

Less spending on beneficial expenses

One participant indicated that she spent less on beneficial expenses, such as insurances, education, car and home maintenance. This participant stated that, generally, she had a limited budget for these kinds of expenses.

'Yeah. Once again it's a very small budget for that so… and because I've stopped - I haven't gambled at all, you know, in the last… since July… end of July but that's… before that, no, that really didn't come into it.'

(Participant 20, female aged 56, problem gambler).

Needing assistance from welfare organisations

One participant indicated that she had needed assistance from welfare organisations, such as food banks or welfare organisations. Specifically, this participant received assistance for rent payment.

'I don't have a lot of money and I'm only on the unemployment but I used it all and then I had to sell some things to pay my rent and then I had to go to Anglicare and get them to pay a fortnight's rent for me.'

(Participant 20, female aged 56, problem gambler).

18.3.2 Relationships impact domain

Items within the relationships impact domain included: spending less time with loved ones; lowered enjoyment from time spent with loved ones; neglecting relationship responsibilities; spending less time attending social events; experiencing greater tension in relationships; experiencing greater conflict in relationships; feeling belittled in relationships; threat of separation or ending a relationship; actual separation or ending a relationship; and social isolation.

None of the participants positively endorsed the following items: lowered enjoyment from time spent with loved ones; spending less time attending social events; experiencing greater conflict in relationships; feeling belittled in relationships; threat of separation or ending a relationship; actual separation or ending a relationship; and social isolation.

Spending less time with loved ones

Three participants indicated that they spent less time with loved ones due to their gambling. Two of these participants expressed that instead of being with loved ones they were out gambling, with one participant lying to his loved one about his whereabouts.

*'If I do go, I go for four hours so *** always asks where I have been… You've got to lie about where you've been of course. You can't say you've been gambling. You've got to say "I've been to see my brother" or I've been somewhere else, been to the gym, been for a bike ride or something.'*

(Participant 12, male aged 68, low-risk gambler).

In contrast, one participant went with loved ones to the casino. When at the casino, however, she spent no quality time with her loved ones, as they were all pre-occupied with, and focused on, their gambling.

'We'll all go out for such and such's birthday. We'll all go for my birthday. We'll all go for New Years. And all we did was go and gamble on machines. We didn't spend any time with any of the people. It was madness.'

(Participant 20, female aged 56, problem gambler).

Neglecting relationship responsibilities

One participant indicated that she had neglected relationship responsibilities. This participant described times when she had been distracted by her gambling and had forgotten about certain tasks or responsibilities.

'You know, there's been times where I've thought, oh my God, I've got to school and pick them up from school or I've got… and supposed to do this and I'm here doing that. But that's only been a few times. It didn't take hold thankfully.'

(Participant 20, female aged 56, problem gambler).

Experiencing greater tension in relationships

Three participants indicated that they experienced greater tension in their relationships. Two participants reported that this was because they were hiding or lying about their gambling behaviour to their loved ones. Whereas the other participant reported that the tension arose from spending more money than he had intended, leading to withdrawal and tension on his behalf.

'Because I do tend to sneak out sometimes…'

(Participant 11, female aged 50, problem gambler).

'If you go somewhere and you spend more money than you intended to then you're a bit more withdrawn and a bit more terse maybe because you're upset because you've wasted the money and you don't have the money that you had before.'

(Participant 6, male aged 63, non-problem gambler).

18.3.3 Emotional or psychological impact domain

Items within the Emotional or Psychological Impact domain included: feeling distressed about gambling; feeling ashamed of gambling; feeling like a failure; feeling insecure or vulnerable; feeling angry about the lack of control over gambling; feeling worthless; feelings of hopelessness about gambling; feelings of extreme distress; and thoughts of running away or escape. None of the participants indicated that they had experienced thoughts of running away or escape.

Feeling distressed about gambling

Nine participants indicated that they had feelings of distress about their gambling. When asked to expand, most of the participants (n=6) reported that their feelings of distress arose from financial issues. Specifically, participants expressed their distress due to lack of money, as well as thoughts on how that money could have been better spent on other non-gambling activities and expenses.

'If you have lost a large amount of money, say $100 or $200 then it's upsetting because it's money you don't have and can't get back again. It makes you upset and uptight for some periods of time, for some hours afterwards.'

(Participant 6, male aged 63, non-problem gambler).

'Guilty, really and angry but then it goes away. I think I could have done something better instead of using it. A bit of anger and getting down in the dumps.'

(Participant 16, female aged 56, non-problem gambler).

In addition, four participants felt that their feelings of distress about gambling arose from feelings of guilt and regret. A common theme among these participants was questioning the reasons for their gambling, despite feeling like they know better.

'I wish I didn't sometimes. I would come home and think why I did that. I know why I did it but it's funny to explain. I suppose it's like anything… you do you feel guilty about later.'

(Participant 1, female aged 67, moderate-risk gambler).

'It just seems like it's a stupid waste of time but you still do it anyway and you wonder why.'

(Participant 5, male aged 52, problem gambler).

Feeling ashamed of gambling

Six participants indicated that they felt ashamed of their gambling. These participants varied in the reasons why they felt ashamed of their gambling. Four participants felt like they knew they should not be gambling, and that they were wasting their time and money, which led to feelings of shame.

'Because it's such a bad habit and knowing I shouldn't be doing it, I do feel wrong about it.'

(Participant 11, female aged 50, problem gambler).

'Sometimes you just feel stupid for throwing coin away like that.'

(Participant 5, male aged 52, problem gambler).

The two remaining participants reported that they felt ashamed of their gambling because it showed a lack of willpower and control.

'Because you're not controlling yourself.'

(Participant 1, female aged 67, moderate-risk gambler).

'Lack of willpower or being able to do what I told myself I would do.'

(Participant 18, male aged 32, problem gambler).

Feeling like a failure

Four participants indicated that they experienced feeling like a failure due to their gambling. Similar to the previous two items (feeling distressed and ashamed), the participants (n=4) reported that these feelings arose as they demonstrated a lack of control and willpower, and that even though they do not want to gamble, they still do.

'Logically, my brain tells me one thing. It's when you know you're doing something that's silly but you still do it.'

(Participant 1, female aged 67, moderate-risk gambler).

Feeling insecure or vulnerable

While two participants indicated that they experienced feeling insecure or vulnerable, only one participant expanded on this. This participant reported that he felt insecure and vulnerable as he had previous experience with a gambling problem and knew how easy it was for him to lose control.

'Because you've lost control. If you have a bad session of gambling, I know very well if you don't keep a lid on it, you can very easily lose control of your ability to stop gambling. You've got to be very careful. Like I said, years ago I used to bet on again so. I know what that's all about so you have to be careful that you don't go back that way.'

(Participant 12, male aged 68, low-risk gambler).

Felt angry about lack of control over gambling

Six participants indicated that they felt angry about not being able to control their gambling. Five of the participants did not elaborate in much detail on this item, simply confirming that they were upset or angry with themselves for not being able to control their gambling. Three of these participants, however, did specify that this anger arose from spending money on gambling or thinking about how that money could have been better spent.

'Same reasoning but when I sit there spending money and I wonder why did I do that. I get angry with myself over it.'

(Participant 11, female aged 50, problem gambler).

One participant did elaborate further, expressing that his anger arose from not being able to stick to his own spending limits.

'Just that before you go in there you think oh well I'm only going to spend $60 and then for some reason you spend more and you're angry at yourself because you couldn't limit yourself to only spending what you intended to spend.'

(Participant 6, male aged 63, non-problem gambler).

Feeling worthless

Four participants indicated that they experienced feelings of worthlessness due to their gambling. Two of these participants did not expand on this item. The two remaining participants, however, expressed feelings of letting themselves down, and feelings of worthlessness due to their lack of self-control.

'Just because you let yourself down.'

(Participant 1, female aged 67, moderate-risk gambler).

'An inability to do what I want to do. Have that self-control that I know in the long run would make me feel better.'

(Participant 18, male aged 32, problem gambler).

Feelings of hopelessness about gambling

Five participants indicated that they experienced feelings of hopelessness about their gambling. None of these participants elaborated on this item or provided any further information, simply repeating that they had experienced feelings of hopelessness in relation to their gambling.

'Yes, occasionally, for the same reasons.'

(Participant 5, male aged 52, problem gambler).

'Yeah, at the time it was happening definitely.'

(Participant 20, female aged 56, problem gambler).

Feelings of extreme distress

One participant indicated that he had experienced feelings of extreme distress. This participant stated that this feeling of extreme distress related to his finances, and in particular missed opportunities due to money spent on gambling.

'Yes, from a financial point of view… Yeah, it represents missed opportunities.'

(Participant 18, male aged 32, problem gambler).

18.3.4 Health impact domain

Items within the Health Impact domain included: reduced physical activity due to gambling; stress-related health problems; loss of sleep due to spending time gambling; loss of sleep due to stress or worry about gambling or gambling-related problems; neglecting hygiene and self-care; neglecting medical needs; not eating as much or as often; eating too much; increasing use of tobacco; increasing consumption of alcohol; increasing experience of depression; experiencing family violence due to involvement in gambling; increasing use of health services due to health issues caused or exacerbated by gambling; committing acts of self-harm; unhygienic living conditions; violence due to their gambling involvement; requiring emergency medical treatment for health issues caused or exacerbated by gambling; and attempting suicide.

None of the participants indicated that they experienced stress-related health problems, neglected hygiene and self-care, neglected medical needs, experienced family violence due to involvement in gambling, increased use of health services due to health issues caused or exacerbated by gambling, committed acts of self-harm, experienced unhygienic living conditions, experienced violence due to their gambling involvement, required emergency medical treatment for health issues caused or exacerbated by gambling, or attempted suicide.

Reduced physical activity due to gambling

One participant indicated that he had reduced physical activity due to his gambling. This participant suggested that while he generally does not do much physical activity, this may increase if he was not playing keno.

'Not that I do a great deal of physical activity, I just take the dogs for a walk and do some stretches during the day but I suppose I could be doing more if I wasn't playing keno.'

(Participant 5, male aged 52, problem gambler).

Loss of sleep due to spending time gambling

One participant indicated that she had experienced loss of sleep due to time spent gambling. This participant voiced that she would be at the casino until she had no money left. This involved staying until close and going back the next day.

'Well, if I go up to the casino I don't sleep today. I just stay there until they close and then I'm back again… like, if I think I'm going to win this, if I've got some more money or something, until I've got no more money left… Yeah. So I'd be the last person to leave there.'

(Participant 20, female aged 56, problem gambler).

Loss of sleep due to stress or worry about gambling or gambling-related problems

Four participants indicated that they experienced loss of sleep due to stress or worry about gambling or gambling-related problems. When expanding on this, however, three of these participants reported that their loss of sleep was actually related to pre-occupation with gambling. For these participants, the lack of sleep was associated with thoughts of gambling rather than worrying about gambling or gambling-related problems.

'No, I've been thinking about it the night before, it's payday, I'll go do this, I'll go to keno. If I win something on keno I can go and do this. If I don't I may have to wait until next week before I get some money back, before I can put keno back on again. It's impacted a little bit on my sleep to start with.'

(Participant 15, male aged 53, moderate-risk gambler).

In contrast, one participant expressed that his loss of sleep occurred after he had lost money when gambling.

'If you lose money, yeah, you're stressed. You feel insecure, you worry about it, it's on your mind so naturally it affects your sleep.'

(Participant 12, male aged 68, low-risk gambler).

Not eating as much or as often

Four participants indicated that they did not eat as much or as often as they should. Two participants expressed that this was because they become so preoccupied with gambling that they forgot to eat. For one of these participants, drinking while gambling also played a role in not eating as much or as often. While for the other participant, even receiving a free meal did not interrupt her gambling sessions.

'I'd like to say it's a routine but um yeah I think it's a routine that has formed because I forgot. I just get too preoccupied and then umm well I'll be playing poker on my phone and uh I've been sitting here for two hours and instead of having tea, I could have had tea two hours earlier but I've just been wrapped up in the game.'

(Participant 13, male aged 53, problem gambler).

'You know, don't even stop for that [the free meal patrons receive].'

(Participant 20, female aged 56, problem gambler).

In contrast, two participants chose to forego eating on occasions in preference for gambling. For one participant this was because he did not have the financial ability at the time to do both. While for the other participant, it was due to the timing of her gambling session that she chose to continue gambling instead of eating then or at a later time.

'Yes because I've cut my grocery bill down so I can put keno tickets on. A lot of times I would buy non-food products and not enough food.'

(Participant 15, male aged 53, moderate-risk gambler).

'If you go up there at 4pm and then you don't have your tea so you go home and it is too late to eat so yes.'

(Participant 11, female aged 50, problem gambler).

Eating too much

Two participants indicated that they ate too much due to their gambling. For one participant, overeating was a consequence of her gambling and dealing with feelings of sadness or distress.

'Yes, you come home and feel lousy so you eat a biscuit… Yes, I think so. I just feel down and it seems to be a reaction.'

(Participant 1, female aged 67, moderate-risk gambler).

In contrast, the other participant stated that she tended to overeat unhealthy foods while gambling at venues. For this participant eating unhealthy foods also coincided with drinking alcohol.

'Probably, too much unhealthy, snacky food whilst on… at venues. It's just there, it's a habit. Something you do when you drink.'

(Participant 19, female aged 50, low-risk gambler).

Increasing use of tobacco

One participant indicated that he had experienced an increase in his use of tobacco. This increase in tobacco use was due to greater stress from spending too much money on gambling activities.

'Yes, because you get stressed out a bit about if I put too much on keno. Sometimes I used to put $20 on keno and it's had more of a negative impact on money I could have spent on other stuff, like groceries and so forth. I do tend to sit outside and stew about it a bit more and smoke more.'

(Participant 15, male aged 53, moderate-risk gambler).

Increasing consumption of alcohol

Three participants indicated that they had experienced an increase in their alcohol consumption. Two participants reported that their increased alcohol consumption due to feeling stressed and worried about their gambling.

'Yeah, I think I might have a few more glasses on a bad day. As I said, you go through the insecurity, worry, lack of sleep, I'd have a couple more glasses of wine than normal. All goes together.'

(Participant 12, male aged 68, low-risk gambler).

In contrast, one participant reported that he only drinks when he gambles and vice versa.

'Because I only drink when I gamble and I only gamble when I drink.'

(Participant 13, male aged 53, problem gambler).

Increasing experience of depression

Two participants endorsed that they had experienced an increase in depression. One of these participants did not elaborate in much detail, simply stating that while his experience of depression is not severe, it is a factor associated with his gambling.

'Yes, marginally. It's not severe but certainly a factor.'

(Participant 18, male aged 32, problem gambler).

The other participant who endorsed experiencing an increase in depression questioned whether his experiences could be classified as depression. He did express that his gambling, however, has led to an increase in worrying, insecurity and a decrease in happiness, which he has found can be resolved quickly with positive action.

'Yeah, because you're worried, insecure. I don't know about depression but you don't feel real happy. Once you take positive action so it doesn't happen again, within 24 hours it all goes anyway.'

(Participant 12, male aged 68, low-risk gambler).

18.3.5 Work or study impact domain

Items within the Work or Study Impact domain included: reduced performance at work or study; being late for work or study; being absent from work or study; hindering job-seeking efforts; using work or study time to attend to issues caused by gambling; using work or study resources to assist with matters arising from gambling; lack of availability for additional commitments; lack of progression in job or study; conflict with colleagues; loss of job; and exclusion from study.

None of the participants indicated that they experienced being late for work or study, being absent from work or study, hindered job-seeking efforts, using work or study resources to assist with matters arising from gambling lack of availability for additional commitments, lack of progression in job or study, conflict with colleagues, loss of job, or exclusion from study.

Reduced performance at work or study

One participant indicated that he had reduced performance at work or study due to his gambling (i.e., due to tiredness or distraction). Upon elaboration, however, this participant specified that he uses gambling as a distraction when he is stressed, which reduces his ability to concentrate on the things he is meant to be doing.

'It's a stress, my gambling is a distraction, takes up a small amount of time. It does mean I'm not concentrating on things I should be.'

(Participant 18, male aged 32, problem gambler).

Using work or study time to attend to issues caused by gambling

One participant indicated that he used work or study to attend to issues caused by his gambling. Due to stressing about his finances, this participant used his time at work or study to find solution to his debt.

'Just stressing about finances. Trying to find solutions to debt and that sort of thing.'

(Participant 18, male aged 32, problem gambler).

18.3.6 Other impact domain

Items within the Other Impact domain included: leaving children unsupervised; not fully attending to needs of children; petty theft; committing a criminal act to fund gambling or pay debts; being arrested for unsafe driving; and violence.

None of the participants indicated that they left children unsupervised, did not fully attend to needs of children, committed a criminal act to fund gambling or pay debts, were arrested for unsafe driving, or were violent, in the past 12 months.

Petty theft

One participant indicated that she had committed petty theft to fund her gambling, including taking money or items from friends or family without asking first. This involved returning goods, which were purchased at a discounted, but receiving the full-priced funds in return.

'Well, yeah, I will because I only just… I didn't really realise it was stealing until a little while ago. Like, I buy something at the supermarket and the other supermarket might have it for more expensive or I bought it one week on special and then I've… I think, oh I need money to go to the casino, this was one of… and so I went and I cashed it in at another shop and got more money for it.'

(Participant 20, female aged 56, problem gambler).

18.4 Conclusion

This chapter presents the findings from qualitative interviews conducted with 20 monthly gamblers (excluding lotteries) who had experienced gambling-related harm.

The findings of this study indicate that financial impacts were the most common type of gambling-related harm experienced, in this sample. The level of these financial impacts varied, with the majority

of participants reporting reductions in available spending money, reductions in savings and reductions in spending on recreational activities, however, one gambler did indicate that gambling had led to the selling of personal items and requiring assistance from a welfare organisation. The exploration of the lived experience of these financial impacts suggested that gamblers vary in their understanding for how and why gambling affects their finances. Several gamblers viewed any gambling as impacting their finances, as it automatically reduced savings and available spending money, whereas others viewed their gambling as preventing them from having any savings. These differences may be attributed to the variability in the severity of gambling problems within this sample, ranging from non-problem gamblers to problem gamblers.

Emotional impacts were also common in this sample, with several gamblers positively endorsing feelings of distress, shame, anger, hopelessness and failure about their gambling. Across these endorsed harms, a common theme that arose was that gambler's feelings of distress, shame, anger and hopelessness, were being attributed to their perceived lack of willpower and self-control.

Lastly, gamblers in this sample reported that gambling had fewer impacts on their health, relationships, work/study and other impacts. The severity of some of these less common gambling-related harms varied with harms including under-consumption of food due to pre-occupation with gambling or the foregoing of eating in preference to gambling, increased alcohol consumption due to stress and worry about their gambling, spending less time with loved ones, greater tension in relationships due to hiding gambling behaviour, and even committing petty theft to fund gambling.

Taken together, the findings presented in this chapter help to gain a greater understanding of the gambler's lived experience of gambling-related harm, expanding on the quantitative nature of the findings presented earlier in this report. Valuable insight is provided into the nature of the harms experienced by gamblers across the gambling severity continuum, which has implications for prevention and treatment interventions. For example, education and awareness campaigns can be tailored to address some of the more common impacts, making sure that gamblers and the community are aware of potential financial and emotional harms and the discourse surrounding these harms, such lack of willpower and self-control. Moreover, given that financial impacts seemed to be more common across the severity continuum, resources may be allocated to increasing awareness and the services available for gamblers experiencing financial harms.

19 QUALITATIVE INTERVIEWS ON HARMS WITH AFFECTED OTHERS

This chapter presents the findings from qualitative interviews conducted with 20 affected others in which their experiences of past year gambling-related harms using the Gambling Harms Checklist for Affected Others were explored. These affected others were recruited from the prevalence survey, based on endorsing at least one gambling harm on the Gambling Harms Checklist for Affected Others. The Gambling Harms Checklist for Affected Others, assesses only the harms associated with another person's gambling, not the benefits. Where a participant positively endorsed a harm, follow-up questions aimed at eliciting an in-depth exploration of the description and explanation of the gambling-related harm were asked. Preference was given to participants who had endorsed the greatest number of harms, so as to gain a greater understanding of the possible range of harms.

Overall, this study aimed to gain an in-depth understanding of the 'lived experience' of gambling harms that are particularly relevant for affected others. It is important to note, however, that each affected other varies in their lived experiences of gambling harms and, as such, this sample is not representative of the Tasmanian population. Rather, it represents the lived experience of a small sample of individuals who reported experiencing harms related to another person's gambling.

19.1 Key findings

- Participants were mostly older women who were reporting on the harms resulting from the gambling of their current or ex-partner (35%), mother (15%), sibling (15%), or friend (15%). The harms reported by this sample were considerably higher than those reported by the regular gamblers in Chapter 12 (ranging from 9 to 59; M=22).
- Relationship impacts were seemingly the most common, with at least half of the affected others reporting impacts relating to spending less time with loved ones, lowered enjoyment from time spent with loved ones, spending less time attending social events, experiencing greater tension in relationships, experiencing greater conflict in relationships, and feeling belittled in relationships. Some of the relationship impacts were quite severe, with eight of the affected others indicating that they had separated or ended a relationship:

  'I just got to the age where I said…we can't do this anymore… we're going to end up dead if we stay.'

- Emotional impacts were also very common, with at least half of the affected others reporting that they felt distressed about the gambling, felt ashamed of the gambling, felt angry about the lack of their control over the gambling, feeling hopeless about the gambling, and feeling extreme distress.

  '…it was pointless… if your addiction is affecting other people surely you can somehow try and restrain it… at the expense of kids not having food.'

- Financial impacts were also relatively common, with at least half of the affected others reporting on impacts related to a reduction in their savings, a reduction of available spending money, and spending

less on recreational activities. Some of the financial impacts were quite severe, with several affected others indicating that they had lost significant assets or had declared bankruptcy.

'I lost a home. I lost my house… it got taken from me… it's still a pretty tricky touchy subject.'

- Work and study impacts were less common, but could be quite severe, with two affected others indicating that they had lost their job due to the gambling behaviour of their ex-husbands.

'I had a landscaping business… I slowly sold things… I gave up a really good business.'

19.2 Method

In-depth qualitative interviews were conducted with a sub-sample of prevalence survey respondents, who endorsed at least one gambling harm on the full Gambling Harms Checklist for Affected Others. In recruiting participants for this study, preference was given to participants who reported the greatest number of gambling harms. Affected others who also experienced harms in relation to their own gambling were excluded from this study.

A total of 99 survey respondents met the eligibility criteria and were therefore asked during the survey if they agreed to be recontacted for participation in an in-depth qualitative interview. Of these, 73 respondents indicated that they were willing to be recontacted. Of these respondents, 11 declined to participate upon further contact, 17 were not contactable and 20 completed the interview. The remaining participants were not contacted as the required sample size (n=20) had been reached. See Table 19.1 for the participant information of the final sample of 20 affected others. The majority of the sample were female (75%), with the majority of participants aged between 60 to 64 years (30%) and 45 to 49 years (20%). Scores on the Gambling Harms Checklist for Affected Others ranged from 9 to 59 (M=22.25, SD=15.23). The highest proportion of participants indicated that the person whose gambling had affected them was a current or ex-partner (35%), followed by mother (15%), sibling (15%) and friend (15%).

TABLE 19.1 QUALITATIVE INTERVIEW RESPONDENT INFORMATION (AFFECTED OTHERS)

Participant ID	Age category	Gender	Harms score	Relationship
1	60 to 64 years	Female	59	Ex-husband
2	50 to 54 years	Female	52	Ex-partner
3	30 to 34 years	Female	44	Mother
4	18 to 24 years	Female	36	Ex-partner
5	65 to 69 years	Female	31	Ex-husband
6	18 to 24 years	Female	31	Ex-partner
7	65 to 69 years	Female	26	Sister
8	60 to 64 years	Female	16	Family member[a]
9	60 to 64 years	Female	13	Mother
10	35 to 39 years	Female	12	Mother
11	70 years or over	Female	10	Great aunt
12	60 to 64 years	Female	13	Sister
13	45 to 49 years[b]	Female	14	Husband
14	45 to 49 years	Male	23	Partner
15	55 to 59 years	Female	9	Friend/colleagues
16	60 to 64 years	Male	9	Family member[a]
17	35 to 39 years	Male	9	Friend
18	45 to 49 years	Female	10	Son

Participant ID	Age category	Gender	Harms score	Relationship
19	60 to 64 years	Male	14	Brother
20	45 to 49 years	Male	14	Friend

[a] Participant declined to provide more specificity regarding family member; [b] Participant declined to provide specific age but provided age category during prevalence survey.

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY AND 2017 TASMANIAN GAMBLING INTERVIEWS

The in-depth qualitative interview involved the administration of open-ended follow-up questions for each item on the Checklist that was positively endorsed by the affected other during the survey. The qualitative interview schedule was therefore individually tailored to each affected other. The purpose of the interviews was to provide a more detailed description of the harms ('the what') and explanation for the harms ('the why') experienced by each participant. This approach allowed for an in-depth evaluation of the 'lived experience' of gambling harms that are particularly relevant for affected others. The open-ended follow-up questions included probing questions, such as, 'Can you tell me a bit more about this?'; and 'Can you tell me why you feel this way?'

Qualitative interviews were conducted between August 2017 and September 2017. The interviews were conducted individually over the telephone and were audio-recorded and transcribed verbatim to allow for the accurate recording of responses. A maximum of six call attempts were made to contact each potential participant. All interviews were conducted by researchers who have postgraduate training in psychology. The average length of the interviews was 38.33 minutes (SD=25.79). Participants were provided with a $50 gift voucher for each interview as compensation for their time.

Participant responses from each item of the Checklist were analysed using thematic content analysis (Braun & Clarke, 2006). This included reading and then rereading transcripts, generating a list of initial codes and collating data relevant to each code and then collating initial codes into potential themes. Themes were reviewed and discussed with another researcher for their representativeness of participant experiences. Data from the sample are reported according to the items of the Checklist and indicative quotes provided. Quotes have been maintained in the original form except where to do so would possibly identify the participant.

19.3 Results

The results of the qualitative interview are presented according to each domain of harms in the Gambling Harms Checklist for Affected Others: financial, relationships, emotional or psychological, health, work or study, and other impacts. The proportion of participants endorsing the items within each domain are presented in Table 19.2.

TABLE 19.2 PROPORTION OF PARTICIPANTS ENDORSING ITEMS WITHIN EACH DOMAIN OF THE GAMBLING HARMS CHECKLIST FOR AFFECTED OTHERS

	No. of items in domain	Zero	1 or more	1	2	3	4 or more
Financial	14	20%	80%	19%	13%	13%	56%
Relationships	10	10%	90%	0%	11%	11%	78%
Emotional or psychological	9	0%	100%	5%	20%	10%	65%
Health	18	0%	100%	20%	20%	10%	50%
Work or study	11	0%	100%	42%	8%	8%	42%
Other impacts	6	65%	35%	71%	14%	14%	0%

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY AND 2017 TASMANIAN GAMBLING INTERVIEWS

19.3.1 Financial impact domain

Items within the financial impact domain included: reduction of savings; reduction of available spending money; increased credit card debt; selling personal items; taking on additional employment; late payments on bills; less spending on recreational activities; less spending on beneficial expenses; less spending on essential expenses; needing assistance from welfare organisation; loss of supply of utilities; loss of significant assets; bankruptcy; and needing emergency or temporary accommodation.

Reduction of savings

Ten participants indicated that they had been impacted by another person's gambling by a reduction in their savings. Of these participants, three reported this was because they had been lied to or because the money was stolen from them. These participants were unaware at the time that their savings were being spent on the gambling problem of the other person and that they were being taken advantage of financially.

'You can't understand where the money is going.'

(Participant 1, female aged 63, in relation to her ex-husband).

'I didn't have it in the bank and he had gained access to where I had it in the house and stole it.'

(Participant 18, female aged 48, in relation to her son).

In contrast, seven participants knew that their savings were being spent on the other person's gambling problem, however, they felt responsible for them and that they had to help them out.

'I was in a position I could help so I decided to.'

(Participant 17, male aged 36, in relation to his friend).

'Right. Yeah. I had to – yeah, how do I explain it? I had to put her up.'

(Participant 7, female aged 68, in relation to her sister).

Three participants also expressed their feeling of hurt and betrayal that another person could do this to them.

'…someone you love, that betrayal… I don't know,… and when that's someone close to you... It's crushing.'

(Participant 12, female aged 61, in relation to her sister).

'…you didn't have to be a rocket scientist to know… he never really admitted it… I was hurt and angry he would steal from me…'

(Participant 18, female aged 48, in relation to her son).

Reduction of available spending money

Thirteen participants indicated that they had been impacted by another person's gambling by a reduction of available spending money. Of these participants, four reported this was because their available spending money was being controlled by the other person. The amount of disposable income to which they had access was limited.

'…if he doesn't spend it all I might be lucky and have $60.'

(Participant 2, female aged 54, in relation to her ex-partner).

'…when you did get your hand on money… I was only allowed to have $40 a fortnight.'

(Participant 5, female aged 67, in relation to her ex-husband).

Ten participants sacrificed their own available spending money because they were covering the other person's expenses. They felt they had to help the person stay afloat.

'I had to cover his personal expenses… that reduced what I was able to have for myself.'

(Participant 4, female aged 24, in relation to her ex-partner).

'…we had to look at our own spending… and tried to help her with the house… we had to pull back our needs on that side.'

(Participant 11, female aged 70, in relation to her great aunt).

Two participants also expressed a negative impact on their physical health. At times they couldn't afford to eat out, or eat at all.

'Yeah… like not having a meal out or take away.'

(Participant 12, female aged 61, in relation to her sister).

'Sometimes I wouldn't eat for a couple of days or I wouldn't eat as much.'

(Participant 3, female aged 34, in relation to her mother).

Increased credit card debt

Five participants indicated they had been impacted by another person's gambling by an increased credit card debt. Of these participants, four said this was because they didn't have a choice. They used a credit card to support the other person (and themselves) and were not expecting the debt to become a problem.

'…when we needed items… it means I had to put that on my credit card.'

(Participant 4, female 24, in relation to her ex-partner).

'Challenging on a lot of different levels, a strain on the relationship aside from the financial one. It's not something I was expecting…'

(Participant 19, male aged 60, in relation to his brother).

One participant did not personally have an increased credit card debt, however, they had taken on the financial burden of paying off the other person's 'maxed-out' credit card on multiple occasions.

'…it got maxed out all the time... The bank would ring, he'd give me permission to talk to them, and I'd make payment plans.'

(Participant 2, female aged 54, in relation to her ex-partner).

Selling personal items

Two participants indicated they had been impacted by another person's gambling by selling personal items. Both of these participants indicated they had no choice and they were more concerned about providing for their families.

'I was more concerned about the girls than him.'

(Participant 18, male aged 48, in relation to his son).

'Upsetting, yeah. And when I left with the three kids I was actually 8 and a half months pregnant with the third one.'

(Participant 1, female aged 63, in relation to her ex-husband).

Taking on additional employment

Five participants indicated they had been impacted by another person's gambling by taking on additional employment. Of these participants, three expressed a desperation for additional work, just to be able to support themselves and/or their families.

'…and make, you know, ends meet… how are we going to eat?

(Participant 2, female aged 54, in relation to her ex-partner).

'If I could get a couple of hours I'd take it, my word I would.'

(Participant 3, female aged 34, in relation to her mother).

Two participants discussed how they had become resourceful, finding work in areas they would not usually work in just to survive.

'If I could get a cleaning job or something now and again.'

(Participant 1, female aged 63, in relation to her ex-husband).

'I used to do ironing for people. I'm still doing it.'

(Participant 5, female aged 63, in relation to her ex-husband).

Late payments on bills

Seven participants indicated they had been impacted by another person's gambling by having late payments on bills (e.g., utilities, rates). Of these participants, six indicated that it was difficult to keep up with their own financial responsibilities while supporting the other person.

'I struggled to pay for my phone bill because I always pay for the critical bills.'

(Participant 4, female aged 24, in relation to her ex-partner).

'…I haven't helped her out for a while… Many times my mobile was waiting to be paid or sometimes my rent was waiting to be paid.'

(Participant 3, female aged 34, in relation to her mother).

The remaining participant's response did not indicate late payments on bills, however, she did live with a lack of utilities available due to the other person's gambling.

'….we didn't have a washing machine… couldn't afford to go to the laundromat.'

(Participant 1, female aged 63, in relation to her ex-husband).

Less spending on recreational activities

Twelve participants indicated they had been impacted by another person's gambling by spending less on recreational activities such as eating out, going to the movies or other entertainment. Of these participants, seven indicated concern that their children and grandchildren were missing out. They were not able to afford outings at times like school holidays, which caused friction in their relationships.

'The kids weren't happy with me that they missed out on going to the show.'

(Participant 3, female aged 34, in relation to her mother).

'I used to feel guilty… they'd come home and say all these kids were doing it… I couldn't afford to let them do any of that stuff.'

(Participant 5, female aged 67, in relation to her ex-husband).

Eight participants discussed how less available money on recreational activities meant less time enjoying life with their loved ones.

'Obviously you want to go out and enjoy life… but not having money to be able to afford those things… made life a bit miserable.'

(Participant 4, female aged 24, in relation to her ex-partner').

'We had plans, we were going away… I had to tell my husband we don't have the money... caused us to argue.'

(Participant 18, female aged 48, in relation to her son).

One participant did not seem as impacted in this regard as the other participants. She indicated she did not have enough time to think about making plans do to things she enjoyed as she worked most of the time.

'It didn't break me… I couldn't have the time off work to spend the time with other people.'

(Participant 8, female aged 63, in relation to a family member).

Less spending on beneficial expenses

Four participants indicated they had been impacted by another person's gambling by spending less on beneficial expenses such as insurances, education, car and home maintenance. Of these participants, two indicated they did not have any control over this as they relied on the other person to provide for them. They were therefore quite restricted in what they could spend.

'I had no car. He had one old car. You know, pretty weird for someone on a good salary.'

(Participant 1, female 63, in relation to her ex-husband).

'It does make you angry. But, you know, at the same stage he's – he's the main breadwinner here.'

(Participant 13, female age 44-49 years, in relation to her husband).

Two participants indicated they had to adjust their lifestyle to function without things they could not afford.

'From just changing a tyre… I had to, you know, do it yourself stuff.'

(Participant 2, female aged 54, in relation to her ex-partner).

'I used to miss out on glasses, buy myself glasses and stuff like that… it was more important to clear her debt.'

(Participant 3, female aged 34, in relation to her mother).

Less spending on essential expenses

Six participants indicated they had been impacted by another person's gambling by spending less on essential expenses such as medications, healthcare and food. Of these participants, five indicated that their physical health suffered because they put the needs of the other person before theirs. This included going without food and medications.

'I've got this thing about feeding your husband... I made sure he had breakfast and a good dinner…but the kids and I were living on next to nothing… I was just a skeleton.'

(Participant 1, female aged 63, in relation to her ex-husband).

'I couldn't afford my antidepressants or contraceptive pill… it was more important to make sure… I wanted to look after him.'

(Participant 4, female aged 24, in relation to her ex-partner).

Two participants also expressed concerns that going without food and medications had caused ongoing health problems, or whether their current health problems were exacerbated by this.

'I don't know whether I would have been any better… getting medication early might have meant that it wouldn't have gone as far as it did.'

(Participant 5, female aged 67, in relation to her ex-husband).

'I still suffer some problems… it's probably not associated… but you never know, you know what I mean?'

(Participant 3, female aged 34, in relation to her mother).

Needing assistance from welfare organisations

Three participants indicated they had been impacted by another person's gambling by contributing or causing them to experience needing assistance from welfare organisations (foodbanks or emergency bill payments). All three participants expressed that asking for help from these organisations was difficult as they felt too embarrassed or proud to speak up. These participants received food stamps and vouchers from organisations such as the Salvation Army, as well as emotional support from organisations such as Beyond Blue.

I'm thinking, no, I'm not going to ask for government handouts, I'm going to do this on my own… I didn't realise that, you know how great some of the organisations that are out there... you don't know how grateful I am.'

(Participant 2, female aged 54, in relation to her ex-partner).

'Not much fun for an Australian male brought up to tough it out… yeah, don't ask for help.'

(Participant 14, male aged 36, in relation to his partner).

Loss of supply of utilities

Two participants indicated they had been impacted by another person's gambling by contributing or causing them to experience loss of supply of utilities (electricity, gas, etc.). Both participants indicated that while they were dealing with living without these utilities, the other person's gambling severity was kept from them to an extent.

'Usually in the summer we'd go three or four months without the power… he said to me a bizarre excuse which at the time I believed.'

(Participant 1, female aged 63, in relation to her ex-husband).

'I was able to learn to do trades and I was able to fix everything all by myself... when a person has a problem and we have to hide that away from yourself...'

(Participant 2, female aged 54, in relation to her ex-partner).

Loss of significant assets

Two participants indicated that they had been impacted by another person's gambling by contributing or causing them to experience loss of significant assets (e.g. car, home, business, superannuation). One participant lost many of her loved possessions including rare books and ownership of her pet horse. The other participant lost her house. Both participants indicated these losses were some of the last remaining possessions that they had. Discussion around these losses was something that remained a difficult memory for both participants.

'I had three horses… it still breaks my heart… in the end I thought, I've got to sell them.'

(Participant 1, female aged 63, in relation to her ex-husband).

'I lost a home. I lost my house… it got taken from me… it's still a pretty tricky touchy subject.'

(Participant 2, female aged 54, in relation to her ex-partner).

Bankruptcy

One participant indicated that they had been impacted by another person's gambling by contributing or causing them to experience bankruptcy. This participant said she became bankrupt because of the situation her ex-husband had put her in. She was left to live with the financial hardship he had left behind. This was an extremely difficult time where she even questioned whether she wanted to go on with life.

'He didn't go bankrupt… I went bankrupt... it was days before the gun laws… I remember sitting there, it was in my mouth… if they hadn't knocked on the door I don't think I'd be here to be honest.'

(Participant 1, female aged 63, in relation to her ex-husband).

Needing emergency or temporary accommodation

None of the participants indicated they were impacted by another person's gambling by contributing to or causing them to needing emergency or temporary accommodation.

19.3.2 Relationships impact domain

Items within the relationships impact domain included: spending less time with loved ones; lowered enjoyment from time spent with loved ones; neglecting relationship responsibilities; spending less time attending social events; experiencing greater tension in relationships; experiencing greater conflict in

relationships; feeling belittled in relationships; threat of separation or ending a relationship; actual separation or ending a relationship; and social isolation.

Spending less time with loved ones

Fifteen participants indicated their relationships had been impacted by another person's gambling by spending less time with people they care about. Twelve participants indicated they had become socially isolated because most of their time was spent caring for the other person. They were more concerned about helping and supporting the other person than maintaining their own personal relationships.

'…so I gave up my time with my friends and family to be present for him.'

(Participant 4, female aged 24, in regards to her ex-partner).

'I'm spending less time now because I was a bit worried about the other person… trying to encourage him to stop.'

(Participant 16, male aged 63, in relation to a family member).

Two participants mentioned they spent less time with people they cared about because they had turned their backs on the situation. They reported their loved ones could not understand why they stayed with the other person and this caused a rift between them.

'No they couldn't watch the emotional abuse; the physical abuse; the psychological abuse; they couldn't watch that anymore.'

(Participant 2, female aged 54, in relation to her ex-partner).

In contrast, four participants discussed how they kept the other person's gambling a secret from their loved ones. They chose to distance themselves because they did not want anyone to know what they were going through.

'I've lost a lot of family members because they thought it was me with the issues.'

(Participant 3, female aged 34, in relation to her mother).

'…so I shut myself away a lot because I just didn't want to discuss it with anybody.'

(Participant 5, female aged 67, in relation to her ex-partner).

Two participants discussed how they became lonely because the other person was always leaving to go and gamble. This meant that there was less quality time spent as a family.

'…if we go on holidays somewhere… he'll be looking for the TAB… so we'll go to the beach while he's at the TAB… I thought why would someone come all the way here to sit in a TAB?'

(Participant 13, female age 44-49 years, in relation to her husband).

Lowered enjoyment from time spent with loved ones

Fourteen participants indicated their relationships had been impacted by another person's gambling by getting less enjoyment from time spent with people they care about. Five participants indicated that time spent with those they cared about became a real struggle because they were so exhausted by their situation. It was a big effort to maintain these relationships on top of dealing with what they were going through.

'You're just no use to anyone and you're not worth bothering with.'

(Participant 1, female aged 63, in relation to her ex-husband).

'It just wasn't worth the effort of going to spend time… I'd always be upset.'

(Participant 5, female aged 67, in relation to her ex-husband).

Three participants indicated how time spent with those they cared about was impacted by an increase in conflict. They argued about the other person's gambling behaviour.

'The children were so furious to see their mum go through all this hell.'

(Participant 2, female aged 54, in relation to her ex-partner).

'Instead of having full-blown arguments about crap like that I just used to help her out.'

(Participant 3, female aged 34, in relation to her mother).

Eight participants expressed their relationships became strained by the other person's gambling. Time spent with loved ones was less frequent and quite disconnected.

'They're still my friends but we didn't talk very often and became quite distant… we didn't know what was going on with each other.'

(Participant 4, female aged 24, in relation to her ex-partner).

'I would see them and it would be fine but I didn't communicate well with them.'

(Participant 6, female aged 19, in relation to her ex-partner).

Neglecting relationship responsibilities

Eight participants indicated their relationships had been impacted by this person's gambling by neglecting their relationship responsibilities. Of these, three participants indicated that they were restricted in the time they could spend with loved ones because they were in a bad financial situation. They felt this trapped them and restricted their abilities to go out and maintain these relationships.

'There's nothing you can do… it was just really poor.'

(Participant 1, aged 63, in relation to her ex-husband).

'Like that closeness that a mum and daughter should have… we didn't have a lot of money left over to do fun things and stuff like that.'

(Participant 3, female aged 34, in relation to her mother).

Five participants discussed how they neglected time with loved ones and being there for important events because they were busy helping the other person who gambled—they put this person before others.

'I was trying to help but I couldn't help him… I was always trying to focus on him.'

(Participant 6, female aged 19, in relation to her ex-partner).

'Because I had her at my house… it stopped the rest of my family from coming to my house.'

(Participant 7, female aged 68, in relation to her sister).

Two female participants mentioned that they had neglected their relationship responsibilities with their intimate partner (who was also the person who gambled). They were less motivated to do the housework or be intimate with their partner because their relationship had deteriorated due to their partner's gambling behaviour.

'I didn't want to do the cooking... I slept in a chair in the lounge room for the last three years.'

(Participant 5, female aged 67, in relation to her ex-husband).

'…and then there comes the time that he does come home and wants your attention and you turn back, you think, well, no…'

(Participant 13, female age 44-49 years, in relation to her husband).

Spending less time attending social events

Eleven participants indicated their relationships had been impacted by another person's gambling by spending less time attending social events (non-gambling related). Of these, five indicated that they had missed out on important milestones or events because they did not want to be around other people. They disliked having to miss these events, however, the situation they were in prevented it.

'…birthday parties, weddings or whatever... it was horrible. I hated it.'

(Participant 3, female aged 34, in relation to her mother).

'It was depressing… I would see them all out having fun and it would be really upsetting for me because I'd be like, why can't I go?'

(Participant 4, female aged 24, in relation to her ex-partner).

Three participants mentioned they missed out on social events because the other person in their life controlled them. They either would not allow them to go or made it difficult to a point where they gave up.

'I missed out on my best friend's wedding, I was supposed to be the bridesmaid… he used to get so angry that it just wasn't worth the hassle… it was soul destroying.'

(Participant 5, female aged 67, in relation to her ex-husband).

'…like milestones. And it was coming down to the control part of things. Like he couldn't control himself then he would control part of things.'

(Participant 6, female aged 19, in relation to her ex-partner).

Two participants discussed how a lack of money prevented them from attending social events. Their concerns about money restricted their social lives.

'…haven't been able to because of lack of money… it doesn't make you feel very good.'

(Participant 14, male aged 46, in relation to his partner).

'…because of my increased debt level and concerns… I just wasn't in a mood to be around a lot of people.'

(Participant 19, male aged 60, in relation to his brother).

One participant discussed how all non-gambling related events she attended with her husband somehow ended up circling around gambling. She was not able to escape it because gambling was so easily accessible. She was not able to enjoy social events as much as this often got in the way.

'…might have a barbeque but then on comes the TV box with races. And there's always that involved… you can do it on the computer as well… the whole lot is in your face.'

(Participant 13, female age 44-49 years, in relation to her husband).

Experiencing greater tension in relationships

Fifteen participants indicated their relationships had been impacted by another person's gambling by experiencing greater tension in their relationships (suspicion, lying, resentment, etc.). Of these participants, three indicated they became suspicious of the other person. Their gambling behaviour had caused them to become uncertain about whether they were trustworthy.

'I just didn't trust her for quite some time. Until I realised she had no income or anything.'

(Participant 7, female aged 68, in relation to her sister).

'Doesn't admit she's got a problem and if she goes gambling again she won't admit there's a problem… she keeps it a secret… it's put a bit of distance between the two of us.'

(Participant 20, male aged 49, in relation to his friend).

Nine participants discussed how they had themselves lied to the other person or other family/friends. They were pretending that everything was okay, when it was not.

'Yes. I was walking on eggshells most of the time. I had to turn around and keep my feelings to myself... I'd even crawl into bed early and just cry to sleep.'

(Participant 2, female aged 54, in relation to her ex-partner).

'…I was very withdrawn and depressed… he was very suspicious of my actions.'

(Participant 4, female aged 24, in relation to her ex-partner).

Seven participants mentioned they had become resentful of the other person. The other person's gambling activity had taken over some aspects of their lives and they could not control it.

'He had a problem but I didn't really realise what tension it was causing with them until after.'

(Participant 6, female aged 19, in relation to her ex-partner).

'…just coming – going – getting late because he has to do that one thing… we're in the car park sitting in the car because he has to go into the TAB. How ridiculous…'

(Participant 13, female aged 44-49 years, in relation to her husband).

'I'm getting to the point where I've kind of lost patience with Mum and I'm quite short with her.'

(Participant 10, female aged 38, in relation to her mother).

Experiencing greater conflict in relationships

Sixteen participants indicated they had been impacted by another person's gambling by experiencing greater conflict in their relationships (arguing, fighting, ultimatums). Of these participants, six experienced intense arguments where one participant even feared for her life. These arguments did not have a common theme; they argued about a range of issues. The commonality was the level of violence that came through in the narrative.

'I said, pull the bloody trigger and shoot me now or take the gun outside.'

(Participant 1, female aged 63, in relation to her ex-husband).

'…strong argument where he was quite scary and aggressive.'

(Participant 4, female aged 24, in relation to her ex-partner).

In contrast, seven participants mentioned how their conflict came in a silent form. Rather than being vocal, they dealt with their troubles by ignoring them or pretending they were not there.

'I just think it's better off me being quiet and not saying anything.'

(Participant 3, female aged 34, in relation to her mother).

'...it's best to bury your head in the sand and pretend it's not happening.'

(Participant 9, female aged 60, in relation to her mother).

Six participants discussed how their arguments usually centred on the other person's gambling. They were often frustrated that the other person could not just stop gambling.

'…people are responsible for their own actions… I don't know… my brother refused to help.'

(Participant 19, male aged 60, in relation to his brother).

'…but you can't do anything'

(Participant 12, female aged 61, in relation to her sister).

Feeling belittled in relationships

Ten participants indicated that they had been impacted by another person's gambling by feeling belittled in their relationships. Of these participants, seven indicated they had experienced verbal abuse from the other person. They mentioned things like being put down, as well as the other person blaming the situation on them—this affected their emotional state and self-esteem.

'Well, it's your fault, you... And I'd go, ok it was my fault, all right… he would humiliate me in front of his friends in the end.'

(Participant 2, female aged 54, in relation to her ex-partner).

'…he was abusing me verbally and they didn't hear much and it was so demoralising and it just strips your self-esteem.'

(Participant 5, female aged 67, in relation to her ex-husband).

Six participants expressed that the other person had been emotionally abusive toward them. They played mind games and left them feeling insecure and vulnerable.

'…mum used to make me feel bad... she just made me feel sorry for her in lots of different ways.'

(Participant 3, female aged 34, in relation to her mother).

'…he would make me feel like a very stupid person like I don't know anything and that I'm an idiot… even though he was the one losing all the money.'

(Participant 4, female aged 24, in relation to her ex-partner).

One participant mentioned he felt belittled because he came second to gambling—he did not feel like a priority to his partner.

'…flashing lights is more important'

(Participant 14, male aged 46, in relation to his partner).

Threat of separation or ending a relationship

Eight participants indicated they were impacted by another person's gambling by contributing to or causing them to experience the threat of separation or ending of a relationship. Three participants indicated they were the one making the threats to leave because things had gotten so bad. They felt they had no other option but to try and get out of the relationship they were trapped in.

'I said… if you don't stop I have will have no choice but to leave.'

(Participant 1, female aged 63, in relation to her ex-husband).

'He would never end it because I belonged to him. No one else was allowed to have me.'

(Participant 5, female aged 67, in relation to her ex-husband).

Three participants discussed how it was the other person making the threats. They threatened to leave if they stopped helping them and urged them to stick by them and their gambling habits. This made them feel undervalued.

'…he threatened to leave me or separate from me… when I insinuated that I would stop helping him or stop supporting him… I felt very undervalued and unappreciated for all the support and helping that I was trying to offer him.'

(Participant 4, female aged 24, in relation to her ex-partner).

Two participants mentioned the threats of separation came from both parties. They were frustrated with their situation but thought things may get better.

'He'd threaten me every time, every month, you know, when at the end of the financial…'

(Participant 2, female aged 54, in relation to her ex-partner).

'…he would say he would but he never did… I would think it was getting better.'

(Participant 6, female aged 19, in relation to her ex-partner).

Actual separation or ending a relationship

Eight participants indicated they were impacted by another person's gambling by contributing to or causing them to experience actual separation or ending a relationship. Of these, four participants indicated they were the one initiating the end of the relationship with the other person. This was because they reached a point where the relationship became so destructive that they had no choice but to walk away.

'I chose to end because I wasn't able to take any more stress and emotional abuse, and then it became physical.'

(Participant 2, female aged 54, in relation to her ex-partner).

'I just got to the age where I said… we can't do this anymore… we're going to end up dead if we stay.'

(Participant 5, female aged 67, in relation to her ex-husband).

Two participants mentioned the other person was the one who had ended the relationship. This separation was not their choice and they were upset by the loss.

'…we've never spoken since... Horrible. It still is today. I hate it.'

(Participant 3, female aged 34, in relation to her mother).

In contrast, two participants were relieved by the end of the relationship—they were happy to be away from the other person's problems.

'Everyone has turned their back on her….Relief, yes…'

(Participant 7, female aged 68, in relation to her sister).

Social isolation

Eight participants indicated they had been impacted by another person's gambling by contributing to or causing them to experience social isolation (felt excluded or shut-off from others). Of these, three participants mentioned how they were the ones who shut themselves off from the world due to their situation. As a result, they felt disconnected from others.

'…I wasn't able to relate to anything. I suppose, and I'd shut right down.'

(Participant 1, female aged 63, in relation to her ex-husband).

Four participants discussed how they could not go anywhere without the other person, so they stayed home. This caused them to lose that connection with others.

'…I wouldn't be able to go unless I took him but at the same time my friends didn't want him there… I couldn't relax… I felt like they didn't want me there as well.'

(Participant 6, female aged 19, in relation to her ex-partner).

'…yeah, I just felt like I had to stay home with her more than going out and socialising.'

(Participant 7, female aged 68, in relation to her sister).

19.3.3 Emotional or psychological impact domain

Items within the Emotional or Psychological Impact domain included: feeling distressed about gambling; feeling ashamed of gambling; feeling like a failure; feeling insecure or vulnerable; feeling angry about the lack of control over gambling; feeling worthless; feelings of hopelessness about gambling; feelings of extreme distress; and thoughts of running away or escape.

Feeling distressed about gambling

Eighteen participants indicated their emotional or psychological wellbeing had been impacted by another person's gambling by feeling distressed about their gambling. Of these, twelve participants mentioned they found it distressing to see the other person go through such a difficult time and that they were not able to help them to stop gambling.

'…I knew he was a better person, but he chose not to be… I'd say... look can you please control this?'

(Participant 2, female aged 54, in relation to her ex-partner).

'…I had the responsibility of all that on my shoulders.'

(Participant 6, female aged 19, in relation to her ex-partner).

'…you feel useless…You can't help.'

(Participant 20, make aged 49, in relation to his friend).

Three participants indicated they experience ongoing effects from the events they have been through with the other person. They are reminded of the distress gambling has caused in their lives.

*'…when you just sit there on your own…you think to yourself… *** I must have pretty big shoulders… some days I cry all day.'*

(Participant 3, female aged 34, in relation to her mother).

'…if I go out with someone and they get up to put keno on I just get up and go home… I absolutely can't stand people.'

(Participant 5, female aged 67, in relation to her ex-husband).

Two participants discussed how constant worry may have contributed to feelings of depression and anxiety.

'…it came on during the relationship.'

(Participant 4, female aged 24, in relation to her ex-partner).

'…I suffered some depression for a period of time… I don't want to blame my brother but it was a contributor.'

(Participant 19, male aged 60, in relation to his brother).

Feeling ashamed of gambling

Twelve participants indicated their emotional or psychological wellbeing had been impacted by another person's gambling by feeling ashamed of their gambling. Of these participants, nine indicated they felt ashamed of the other person's actions. They did not approve of their gambling behaviour and thought they were wasting their time and money on a habit they should not have.

'I think I realised he did have a problem… that was when I started to feel ashamed.'

(Participant 6, female aged 19, in relation to her ex-partner).

'Yeah, I suppose that when I feel when... $50 is thrown down a hole.'

(Participant 14, male aged 46, in relation to his partner).

'…and so shame for her that she's been caught up in this problem.'

(Participant 15, female aged 57, in relation to her friend).

Five participants were ashamed and embarrassed that they too, were in this situation. By being close to the other person, they somehow took on some of the effects of gambling in their lives.

'I was just embarrassed and I was ashamed that I didn't have any money because I was trying to support someone with a gambling habit.'

(Participant 4, female aged 24, in relation to her ex-partner).

'…and some degree of shame that I'm supporting her in what some of them see as a weakness.'

(Participant 15, female aged 57, in relation to her friend).

'…I didn't want to tell anybody what was going on, no…'

(Participant 2, female aged 54, in relation to her ex-partner).

Feeling like a failure

Eight participants indicated their emotional or psychological wellbeing had been impacted by another person's gambling by feeling like a failure. Of these participants, six indicated they blamed themselves

for the other person's situation. They felt like a failure because they could not make the other person stop gambling and wished they could do more to help them.

'…you blame yourself.'

(Participant 1, female aged 63, in relation to her ex-husband).

'I think because I couldn't fix her. I think because I couldn't fix it.'

(Participant 3, female aged 34, in relation to her mother).

'…nothing that I've been able to say or do has helped her whereas she's helped me so many times and this is the one thing that I can't help her with.'

(Participant 10, female aged 38, in relation to her mother).

Two participants discussed how they didn't initially know the severity of the other persons gambling addiction—they felt like a failure because they didn't pick up on it sooner.

'…I just felt like I failed her because I didn't notice.'

(Participant 7, female aged 68, in relation to her sister).

Feeling insecure or vulnerable

Seven participants indicated their emotional or psychological wellbeing had been impacted by another person's gambling by feeling insecure or vulnerable. Of these participants, three indicated they felt this way because they had been beaten down by the other person. They were emotionally affected by the whole experience and felt down on themselves.

'…my self-esteem that I've lost.'

(Participant 5, female aged 67, in relation to her ex-husband).

'…just the emotional abuse… I couldn't get away from it… it makes me feel stupid that I put up with it.'

(Participant 6, female aged 19, in relation to her ex-partner).

Three participants felt insecure or vulnerable because they had to rely on others. They had lost their sense of financial security and reluctantly turned to others for support.

'…Borrow off family… well it's a bit humiliating.'

(Participant 14, male aged 46, in relation to his partner).

'…you'd have to borrow money the next week... that feeling of uncertainty that I'm not going to be able to make it through the next week….it was just really uneasy.'

(Participant 3, female aged 34, in relation to her mother).

Feeling angry about lack of control over gambling

Seventeen participants indicated their emotional or psychological wellbeing had been impacted by another person's gambling by feeling angry about not controlling their gambling. Of these, six participants indicated how providing for their families had become a struggle. It made them angry the other person's gambling had caused this to happen and they could not understand how the other person could continue to see this happen.

'…it was pointless… if your addiction is affecting other people surely you can somehow try and restrain it… at the expense of kids not having food.'

(Participant 1, female aged 63, in relation to her ex-husband).

'…a lot of the time it made me feel angry because I wasn't able to provide a meal on the table.'

(Participant 2, female aged 54, in relation to her ex-partner).

'…I would get angry at him like, 'We need the money, this is a waste'.'

(Participant 4, female aged 24, in relation to her ex-partner).

Ten participants were angry that the other person could not stop gambling. They struggled to understand the complexity of their addiction and why they could not gain control over it.

'…There's no excuse… why do you do that, why don't you just stop?'

(Participant 9, female aged 60, in relation to her mother).

'…angry that she can't see what she's doing, it makes me angry she can't see what she's doing to my dad.'

(Participant 10, female aged 38, in relation to her mother).

'…sometimes I could have shaken her… I used to get really mad.'

(Participant 11, female aged 70, in relation to her great aunt).

In contrast, three participants mentioned they kept the anger they felt to themselves, rather than voicing it to the other person.

'…I couldn't say anything or stick up for myself or try to help him because you just get shut down straight away.'

(Participant 6, female aged 19, in relation to her ex-partner).

'…No, no, I kept them all to myself.'

(Participant 8, female aged 63, in relation to her family member).

Feeling worthless

Seven participants indicated their emotional or psychological wellbeing had been impacted by another person's gambling by feeling worthless. Of these, five participants blamed themselves for the situation they had found themselves in. They wondered whether it was something they had done or whether they could have done more to avoid the adverse financial effects of the other person's gambling.

'…and you keep blaming yourself. There's something you've done wrong. You don't know what it is.'

(Participant 1, female aged 53, in relation to her ex-husband).

'It was probably because I just felt like I'd let her down…'

(Participant 7, female aged 68, in relation to her sister).

One participant mentioned how he had questioned the closeness of his relationship with the other person. The idea that they perhaps were not as close as he had thought made him feel upset and worthless.

'…when you think you're close to someone and they're having this issue you then start wondering how close you really are…you start questioning a lot of things…'

(Participant 20, male aged 49, in relation to his friend).

Feelings of hopelessness about gambling

Fourteen participants indicated they had been impacted by another person's gambling by contributing to or causing them to experience feelings of hopelessness about their gambling. Of these participants, ten indicated it was hard to see the other person's gambling ever getting any better. They lacked hope that the situation would improve because of seeing the ongoing troubles the other person had with the addiction to gambling.

'I don't know… it was like seeing someone on drugs really.'

(Participant 3, female aged 34, in relation to her mother).

'I realised that it was never ending.'

(Participant 6, female aged 19, in relation to her ex-partner).

'If you try and help then you realise you are wasting your time…'

(Participant 9, female aged 60, in relation to her mother).

'…there was just no way out that we could see, it was just really, really, bad.'

(Participant 11, female aged 70, in relation to her great aunt).

Three participants felt hopeless because they could not do anything to stop the other person from gambling. They indicated it was hard to see a loved one go through such a difficult time.

'I felt hopeless to help him because he wouldn't stop.'

(Participant 4, female aged 24, in relation to her ex-partner).

'…I feel hopeless in that I can't help her, I can't make her see what she's doing.'

(Participant 10, female aged 38, in relation to her mother).

One participant changed their initial response, indicating they did feel hopeless in the past but since have changed their view.

'No, not anymore. …since I'm on my own and I can see…it wasn't my fault…I don't hold any blame for that anymore.'

(Participant 5, female aged 67, in relation to her ex-husband).

Feelings of extreme distress

Eleven participants indicated they had been impacted by another person's gambling by contributing to or causing them to experience feelings of extreme distress. Of these participants, seven indicated they had experienced anxiety and frequent worry. They worried about what would happen to themselves and/or the other person if the situation did not improve.

'Yes. Depression. Anxiety. I was put on medication.'

(Participant 3, female aged 34, in relation to her mother).

'I felt constantly stressed and anxious because I would worry about how we were going to afford things.'

(Participant 4, female aged 24, in relation to her ex-partner).

One participant discussed how it was extremely difficult to see someone she cared for lose everything. She changed into a person the participant did not know and her behaviour was out of character.

'It left me distressed because she's always worked… she had it all taken away from her and she changed into a totally different person.'

(Participant 7, female aged 68, in relation to her sister).

Thoughts of running away or escape

Seven participants indicated they had been impacted by another person's gambling by contributing to or causing them to have thoughts of running away or escaping. Of these participants, four indicated they thought about getting away from the responsibilities they had become overwhelmed by due to the other person's gambling.

'Wouldn't it be nice to take off and not have any responsibilities… I always thought it would solve my issues with her.'

(Participant 3, female aged 34, in relation to her mother).

'I just wanted to get away and not deal with it or be responsible for it anymore.'

(Participant 4, female aged 24, in relation to her ex-partner).

One participant had acted on these thoughts at one time—she felt they had no other choice but to leave before the situation at home worsened.

'He got really nasty one day. We had a massive argument… I was like this is getting out of hand. I need to go before this escalates further.'

(Participant 6, female aged 19, in relation to her ex-partner).

19.3.4 Health impact domain

Items within the Health Impact domain included: reduced physical activity due to gambling; stress-related health problems; loss of sleep due to spending time with the person gambling; loss of sleep due to stress or worry about gambling or gambling-related problems; neglecting hygiene and self-care; neglecting medical needs; not eating as much or as often; eating too much; increasing use of tobacco; increasing consumption of alcohol; increasing experience of depression; family violence due to involvement in gambling; increasing use of health services due to health issues caused or exacerbated by gambling; committing acts of self-harm; unhygienic living conditions; violence due to gambling involvement; requiring emergency medical treatment for health issues caused or exacerbated by gambling; and attempting suicide.

Reduced physical activity due to gambling

Five participants indicated they had been impacted by another person's gambling by reduced physical activity due to their gambling. Of these participants, five mentioned they were not motivated to exercise. They were mentally exhausted and struggled to push themselves to be physically active.

'Yes, because the stress makes it worse and then when I get upset about things…'

(Participant 5, female aged 67, in relation to her ex-husband).

'Exercising mainly because you're uptight sometimes and you wouldn't go out and whatever else.'

(Participant 16, male aged 63, in relation to his family member).

Two participants mentioned becoming isolated contributed to their lack of motivation to get out and be active, which was something they previously loved doing.

'I was a very, very active little vegemite, but I've sort of become so secluded…'

(Participant 2, female aged 54, in relation to her ex-partner).

Stress-related health problems

Eight participants indicated their health had been impacted by another person's gambling by stress related health problems (e.g. high blood pressure, headaches). Of these participants, five indicated that although some physical health problems existed previously, the stress caused by the other person exacerbated their symptoms.

*'I've had two heart attacks… I won't blame ***** for that but it probably didn't help.'*

(Participant 1, female aged 63, in relation to her ex-husband).

'I already suffer with quite a few health conditions and I have a heart condition. So obviously stress on my heart isn't necessarily great at any time…it would push me downhill.'

(Participant 6, female aged 19, in relation to her ex-partner).

Three participants experienced mental health concerns. They mentioned these may have been caused by the ongoing stress and anxiety they experienced from the other person.

'I was diagnosed with PTSD… I said to my doctor 'But I've never been to Iraq' and he laughed at me and he's like, 'No, darling, your mum was your war'.'

(Participant 3, female aged 34, in relation to her mother).

'Probably more general anxiety and not sleeping well and mulling over things, I guess just slightly more emotional rather than physical.'

(Participant 15, female aged 57, in relation to her friend).

Loss of sleep due to spending time with the person gambling

Nine participants indicated their health had been impacted by another person's gambling by loss of sleep due to spending time with the person gambling. Of these participants, five indicated there were times when they would wait up till early hours of the morning for the other person to come home from time spent gambling. They were left feeling uneasy about how the other person would be when they came home depending on whether they had won or lost.

'I used to have to sit up and wait for him to come home… I didn't know when he'd be home… I just didn't get sleep.'

(Participant 1, female aged 63, in relation to her ex-husband).

'I'd have to put up with him, you know, explaining to me how he lost, or how he had won. And yeah, even to this day now I'm still having a lot of sleeping issues.'

(Participant 2, female aged 54, in relation to her ex-partner).

Four participants indicated the lack of sleep impaired their work performance the next day. They found it hard to concentrate and performed poorly.

'Always, I was always very groggy and clumsy, like I had to deal with customers every day so that made it harder.'

(Participant 4, female aged 24, in relation to her ex-partner).

Loss of sleep due to stress or worry about gambling or gambling-related problems

Sixteen participants indicated their health had been impacted by another person's gambling by loss of sleep due to stress or worry about their gambling or gambling-related problems. Of these participants, ten discussed how their lack of sleep was due to staying up worrying about the other person and the uncertainty of whether they would continue to gamble and if they did, how it would impact them. They were concerned about their welfare.

'…I don't know if she's gambling again, I'm not quite sure. I'm a bit over thinking it sometimes, is she getting back into it?'

(Participant 3, female aged 34, in relation to her mother).

'…like I'd be worried about what he'd be doing …what mood I was going to pick him up in.'

(Participant 6, female aged 19, in relation to her ex-partner).

Five participants indicated their lack of sleep negatively impacted their performance at work the next day. They struggled to stay focused and their mood was low.

'Always, I was always very groggy and clumsy… It didn't make me the happiest person on earth.'

(Participant 4, female aged 24, in relation to her ex-partner).

'At work and stuff, yeah… I'd be fine for those couple of hours and then in the middle of the day I'd crash because I hadn't slept well.'

(Participant 6, female aged 19, in relation to her ex-partner).

Two participants were sleep deprived because in addition to worrying about the other person, they had to look after their family—they never had any time to rest.

'I just used to think I'd give anything for sleep… I never had a minute to rest.'

(Participant 1, female aged 63, in relation to her ex-husband).

One participant mentioned although she had difficulty sleeping in the past, this had now improved as the other person was not in her life anymore.

'I was still going through that cycle; that pattern where I was when I was in that relationship, only it's getting better now though.'

(Participant 2, female aged 54, in relation to her ex-partner).

Neglected hygiene and self-care

Two participants indicated their health had been impacted by another person's gambling by neglecting their hygiene and self-care. One participant discussed how the things she needed were out of reach because of a lack of money. She was unable to maintain her self-care because all of the money was taken by her partner.

'…you just couldn't afford to go to the dentist… your whole health just goes down.'

(Participant 1, female 63, in relation to her ex-husband).

Both participants mentioned how they had lost motivation to care for themselves as a result of their situation with the other person. Simple daily tasks became a struggle and they did not care as much about their unhealthy choices.

'I just wouldn't shower; I wouldn't brush my hair; I wouldn't get out of my jammies. It just became to the point where I couldn't care less what I looked like.'

(Participant 2, female aged 54, in relation to her ex-partner).

'…like depression too… and after… smoking like a chimney and that's really bad for your health.'

(Participant 1, female aged 63, in relation to her ex-husband).

Neglecting medical needs

Four participants indicated their health had been impacted by another person's gambling by neglecting their medical needs (including taking prescribed medications). Of these participants, three indicated their medical needs were not a priority at the time. Due to the other person's gambling, they could not afford medications they needed.

'Well, you just can't afford to go to the doctor.'

(Participant 1, female aged 63, in relation to her ex-husband).

One participant discussed how she preferred not to take her medication because it made her drowsy. She wanted to stay alert to be able to deal with the other person and any difficulties that could arise.

'Nah, I wouldn't take them… would make me tired… it would knock me down for a six, and then I became a jellyfish. And yeah, no way…'

(Participant 2, female aged 54, in relation to her ex-partner).

Not eating as much or as often

Six participants indicated their health had been impacted by another person's gambling by not eating as much or as often as they should. Of these participants, two indicated this was because they could not always afford enough food to go around. They put others needs before their own and were more worried about feeding the other person or their children—as a result, they went hungry at times.

'…you've got to have enough every night for your husband… The kids have got to eat and you eat whatever is left over.'

(Participant 1, female aged 63, in relation to her ex-husband).

'I couldn't eat, plus I, you know, only ended up with food for one person; make sure he was fed. I'd go without.'

(Participant 2, female aged 54, in relation to her ex-partner).

Two participants discussed how they could not eat because they had no appetite. The stress they were experiencing put them off food.

'It was mostly stress related.'

(Participant 4, female aged 24, in relation to her ex-partner).

One participant discussed how they felt tired and lethargic a lot of the time because they had little energy intake.

'I was slow and lethargic and as I said I got home I would immediately crash for like an hour.'

(Participant 6, female aged 19, in relation to her ex-partner).

Eating too much

Six participants indicated their health had been impacted by another person's gambling by eating too much. Four participants indicated they tended to eat unhealthy food in particular which caused weight gain. This was because it was cheaper and at times comforting.

'…and I only ate porridge because that was cheaper.'

(Participant 1, female aged 63, in relation to her ex-husband).

'…oh my God I can afford it this time, so I'm going to pay the price today. I'd almost eat until I was sick.'

(Participant 4, female aged 24, in relation to her ex-partner).

'Binging… Instead of having a salad sandwich you'd go and get a great big steak sandwich or whatever it would be or have a dirty old hamburger or whatever.'

(Participant 3, female aged 34, in relation to her mother).

One participant discussed how they tended to turn to food when they were stressed about the situation they were in with the other person.

'I guess it is for me a big of a personal response when I am stressed.'

(Participant 15, female aged 57, in relation to her friend).

Increasing use of tobacco

Five participants indicated their health had been impacted by this person's gambling by increasing their use of tobacco. Of these, four participants indicated smoking became a coping mechanism to what was happening in their lives. It seemed to decrease the amount of stress or anxiety they experienced and made them happier at times.

'…I used to think it's making me happy.'

(Participant 1, female aged 63, in relation to her ex-husband).

'Yes, it was depression, suicide, stress, general day to day, you know… my smoking increased. But now I'm away from him and now I've decreased.'

(Participant 2, female aged 54, in relation to her ex-partner).

'…when the gambling got really bad and I was really stressed I started smoking again to try and control the anxiety and stress.'

(Participant 4, female aged 24, in relation to her ex-partner).

In contrast, one participant increased their use of tobacco as a distraction technique; it took their mind off food.

'You put a cigarette in your mouth and you've sort of satisfied your hunger type thing. That's a distraction at the moment as well.'

(Participant 20, male aged 49, in relation to his friend).

Increasing consumption of alcohol

Three participants indicated their health had been impacted by another person's gambling by increasing their consumption of alcohol. These three participants indicated this was something that happened over time—it was often a way of escaping and trying to find happiness away from the difficult times they were experiencing.

'I had three years of drinking heavily… One day I thought, my God, I drank all those. It's making me happy.'

(Participant 1, female aged 63, in relation to her ex-husband).

'Yeah, I might have one. So it became part of your life… whether it's been a good or bad day you can have a drink... it helps you unwind and relax.'

(Participant 13, female, age 44-49 years, in relation to her husband).

'Well it dulls the pain doesn't it?'

(Participant 9, female aged 60, in relation to her mother).

Increasing experience of depression

Nine participants indicated their health had been impacted by another person's gambling by increasing their experience of depression. Of these participants, six discussed how they felt completely overwhelmed—everything had piled up on top of them to the extent that they found it difficult to cope.

'…I was in this big black fog with a big black bear next to me. I just got in the car and drove straight to the doctor… She was really nice and she said, you've got depression.'

(Participant 1, female aged 63, in relation to her ex-husband).

'The medication didn't increase while I was with him or anything like that but the feeling of it as such did.'

(Participant 6, female aged 19, in relation to her ex-partner).

Three participants experienced emotional abuse from the other person which contributed to their experience of depression.

'…he was quite aggressive and he drank alcohol. He was obviously quite stressed and anxious himself so when we would get into an argument, he never actually hit me… he would grab me… stop me from talking because he didn't want to hear it.'

(Participant 4, female aged 24, in relation to her ex-partner).

'People don't realise how difficult verbal abuse is… physical abuse will fix but the verbal abuse will never fix, it will never, ever fix, it doesn't matter what you do, it's always there.'

(Participant 5, female aged 67, in relation to her ex-husband).

Family violence due to involvement in gambling

Three participants indicated their health had been impacted by this person's gambling by experiencing family violence due to their involvement in gambling. Of these participants, two experienced physical abuse from the other person. The injuries they sustained were quite serious, including broken bones. Despite this, they maintained the relationship at the time—this seemed to be out of their sense of responsibility to look after the other person and have them in their lives.

'There are photos on my phone where I'm black and blue… Even doctors reckoned I was crazy for going back home… Because he needs me… If I wasn't there…'

(Participant 2, female aged 54, in relation to her ex-partner).

'I had a broken collarbone, a broken tailbone… He kicked me once and broke my tailbone, he broke my arm… We get along really well now… he can't cook so he will often ring up and say 'Can you come around and make such-and-such…''

(Participant 5, female aged 67, in relation to her ex-husband).

One participant experienced abuse in a verbal form. It appeared she was unsure whether this abuse could escalate at any time, which left her quite frightened.

'He was actually previously trained in martial arts so he knew not to leave bruises or do anything that would leave a mark, he was kind of smart about it… I was terrified…'

(Participant 4, female aged 24, in relation to her ex-partner).

Increasing use of health services due to health issues caused or exacerbated by gambling

Seven participants indicated their health had been impacted by another person's gambling by increased use of health services due to health issues caused or exacerbated by their gambling. Of these participants, seven indicated they had attended their GP's office or had to phone an ambulance in the event of an emergency due to physical injuries related to or exacerbated by involvement with the other person.

'I've got a good GP and he understood. It was really, really good and he's a really good listener.'

(Participant 7, female aged 68, in relation to her sister).

For example, one participant reported that her father became violent when she tried to hide her mother's gambling from him.

'…he hurt me pretty bad… broken jaw a couple of times… my nose… dislocation of my shoulders and my hips… I used to think it was normal to live with an abusive partner.'

(Participant 3, female aged 34, in relation to her mother).

Four participants accessed services to seek help for mental health related difficulties exacerbated by their involvement with the other person. These challenges had ongoing effects in their lives such as depression they still cope with.

'My depression is still there and it was caused through that but he basically exacerbated that…'

(Participant 5, female aged 67, in relation to her ex-husband).

'I have a team and a psychologist… in a way sometimes they would help… they couldn't really understand what it was like.'

(Participant 6, female aged 19, in relation to her ex-partner).

Committing acts of self-harm

One participant indicated her health had been impacted by another person's gambling by committing acts of self-harm. This participant had begun to cut herself for a short period of time. She was quite critical of her actions and it seemed as if she saw this as a sign of weakness and attention. She believed she should have been stronger at the time than to resort to this.

'…Something that I'm not proud of but I did… I thought I was more stronger than that… I just didn't want to become an attention seeker…. cutting myself was seeking attention.'

(Participant 2, female aged 54, in relation to her ex-partner).

Unhygienic living conditions

One participant indicated they were impacted by another person's gambling by contributing to or causing her to experience unhygienic living conditions (living rough, neglected or unclean housing etc.). This participant indicated her ex-partner had left her and her family in a bad financial situation. As a result, she was living in very basic conditions and without essential services like running water.

'I'm living on bottled water… Can't do the basics… can't afford healthcare… he had quite a good life, quite a good income.'

(Participant 1, female aged 63, in relation to her ex-husband).

Violence due to gambling involvement

Two participants indicated they were impacted by another person's gambling by contributing to cause them to experience violence due to their gambling involvement. These participants indicated they were living in a hostile environment where violence was a regular occurrence—there was a comorbidity of alcoholism and gambling for some.

'My partner he was quite aggressive and he drank alcohol… I was terrified'

(Participant 4, female aged 24, in relation to her ex-partner).

'My mum was verbally abused by my dad… he was an alcoholic and that's just what he used to do I think.'

(Participant 3, female aged 34, in relation to her mother).

Requiring emergency medical treatment for health issues caused or exacerbated by gambling

Five participants indicated they had been affected by another person's gambling by contributing to or causing them to experience required medical treatment for health issues caused or exacerbated by their gambling. Of these participants, four had experienced serious medical conditions such as heart attacks and panic attacks—they suspected the extreme stress they experienced had contributed to their conditions.

'I had what they called a panic attack which I'd never had in my life… it used to really upset us that we couldn't do anything and I think my sister and I still have those dreadful what if.'

(Participant 11, female aged 70, in relation to her great aunt).

*'I've had two major heart attacks… I've got chronic asthma now as of the last six months… I won't blame ***** for that but it probably didn't help.'*

(Participant 1, female aged 53, in relation to her ex-husband).

Attempting suicide

Two participants indicated they had been impacted by another person's gambling by contributing to or causing them to attempt suicide. One participant discussed how in the time she had been with her ex-partner she had attempted to end her life three times. The other person's gambling and the unhealthy relationship contributed to this. At the time, she felt isolated and alone, with no way out.

'Lost it three times… you know within yourself you've had enough and you have to turn to people you don't want to… I wouldn't have been here today… these support workers give me a call… if it wasn't for those phone calls once a week I wouldn't have been able to survive.'

(Participant 2, female aged 54, in relation to her ex-partner).

The other participant mentioned she had experienced thoughts of suicide, but never acted on them. This was at a time where she did not know how to improve her situation.

'No, they were thoughts… what if and where do I go from here?'

(Participant 11, female aged 70, in relation to her great aunt).

19.3.5 Work or study impact domain

Items within the Work or Study Impact domain included: reduced performance at work or study; being late for work or study; being absent from work or study; hindering job-seeking efforts; using work or study time to attend to issues caused by gambling; using work or study resources to assist with matters arising from gambling; lack of availability for additional commitments; lack of progression in job or study; conflict with colleagues; loss of job; and exclusion from study.

Reduced performance at work or study

Seven participants indicated their work or study had been impacted by another person's gambling by contributing to or causing a reduced performance at work or study (i.e. due to tiredness or distraction). Of these participants, two expressed a loss of opportunity to continue with their work or study—they had to give up their aspirations to support the other person and/or their family.

'All that was lost… all that working to afford all the art school… if he hadn't been addicted to things there would have been more money… it seemed you're the one compromising and they do absolutely none.'

(Participant 1, female aged 63, in relation to her ex-husband).

'I was going to do my community course… all of a sudden mum got this job and wasn't prepared to help watch the kids so I could go and do it.'

(Participant 3, female aged 34, in relation to her mother).

Five participants expressed difficulty being able to stay focused while at work or study. They had many thoughts or worries that overtook the task at hand. In some instances, others noticed this and questioned their behaviour.

'Yeah, it's my concentration levels. Trying to keep orders in your head… all of a sudden you have a mind blank.'

(Participant 2, female aged 54, in relation to her ex-partner).

'Yeah, my boss would be like 'What's wrong with you'. On a couple of occasions they actually sent me home because they didn't think I was capable.'

(Participant 4, female aged 24, in relation to her ex-partner).

Being late for work or study

Five participants indicated their work or study had been impacted by another person's gambling by being late for work or study. Of these participants, two indicated they were late because they were helping the other person at the time—they were prioritising the other person's needs over their own responsibilities.

'…trying to organise money to get to the… Sometimes I'll be talking to him until 2 o'clock or 3 o'clock in the morning and I was going straight to work.'

(Participant 17, male aged 36, in relation to his friend).

One participant was late to work often because she was hiding the secret of living with someone who had a gambling problem and abused her. She did not want anyone to know what she was experiencing at the time.

'I was hiding the bruises before you go to work.'

(Participant 2, female aged 54, in relation to her ex-partner).

Being absent from work or study

Four participants indicated their work or study had been impacted by another person's gambling by being absent from work or study. Of these participants, two had to give up study because of a lack of support from the other person—there was an indication that the participants were disheartened by this and the loss of their dream course.

'…that was heartbreaking because it would have just been a means to make a living… it was a four year course and you only had to do an extra year to become a teacher… you're the one compromising and they do absolutely none.'

(Participant 1, female aged 63, in relation to her ex-husband).

'I physically missed out… I want to finish it all so I can do something decent for my kids and have a decent job, so they can see me doing good things.'

(Participant 3, female aged 34, in relation to her mother).

Hindering job-seeking efforts

Two participants indicated their work or study had been impacted by another person's gambling by hindering their job-seeking efforts. Of these participants, one discussed how they would have liked to improve their career but they were not in a financial position to do so. They were interested in enrolling in new courses and gaining new skills, and were frustrated that they had to give up these goals because they were supporting the other person.

'I would have to like to… do the courses… Frustrating is the politest way of describing it… I made a choice to go down the path of helping my brother.'

(Participant 19, male aged 60, in relation to his brother).

Using work or study time to attend to issues caused by gambling

Six participants indicated their work or study had been impacted by another person's gambling by using work or study time to attend to issues caused by their gambling. Of these, two participants indicated they would be disturbed at work by the other person who relied on them at all hours of the day.

'I'd just go to work, he rang and said I had to go back home… I go home… like a child because he couldn't find a pair of socks or couldn't find something he wanted to wear… occasionally he'd know when my payday was… he came and he'd take it from me.'

(Participant 2, female aged 54, in relation to her ex-partner).

Four participant responses were not directly relevant. Rather than attending to issues caused by gambling, they mentioned how they were physically exhausted during work hours due to the impact the other person's gambling had on their lives.

'I used to go to sleep on the floor I was so tired… from doing two jobs and studying… I just couldn't understand it.'

(Participant 1, female aged 63, in relation to her ex-husband).

'I won't get to sleep until 3 o'clock in the morning… I first starting admitting a bit more to myself that this affecting me more than I realised.'

(Participant 20, male aged 49, in relation to a friend).

Using work or study resources to assist with matters arising from gambling

Four participants had indicated their work or study had been impacted by another person's gambling by using work or study resources to assist with matters arising from their gambling. Three participants' careers were interrupted by the other person needing money. One participant gave up her business and sold everything. Another participant would be interrupted at work by the other person asking for money on occasion.

'I had a landscaping business… I slowly sold things… I gave up a really good business.'

(Participant 1, female aged 63, in relation to her ex-husband).

'I had to borrow a lot of money… that really upset me… emotional blackmail.'

(Participant 12, female aged 61, in relation to her sister).

Lack of availability for additional commitments

Four participants indicated their work or study had been impacted by another person's gambling by lack of availability for additional commitments. Of these participants, two indicated a lack of support from the other person, which impaired their ability to attend additional commitments at times.

'Sometimes I would miss out on going to family counsellors… I'd miss out on making a deadline for cakes… I don't drive… I give my mum petrol money once a week to take me out.'

(Participant 3, female aged 34, in relation to her mother).

'…the fact he wouldn't talk about it just didn't care like women should stay home, you know men work… if he… would have been more understanding… How about you do that next year?'

(Participant 1, female aged 63, in relation to her ex-husband).

Lack of progression in job or study

Two participants indicated their work or study had been impacted by another person's gambling by a lack of progression in their job or study. These participants discussed how their goals were delayed or left behind. This was because they were putting their time and energy into the other person and looking after them.

'I just gave the business up not realising them could sell it… he wouldn't talk about it… women should stay home…. men work… you're the one compromising and they do absolutely none.'

(Participant 1, female aged 63, in relation to her ex-husband).

'One course ended up being two and half years because he took up my time… his problems were impacting on everything I was trying to do and better myself.'

(Participant 2, female aged 54, in relation to her ex-partner).

Conflict with colleagues

One participant indicated her work or study had been impacted by another person's gambling by conflict with her colleagues. Of these participants, one discussed how she found it hard to tolerate others because she was so exhausted and stressed. She found herself being short in her communication with them.

'…you're tired… you just like get impatient with someone who's not doing their job properly… you are just tired and impatient of people not doing things properly.'

(Participant 1, female aged 63, in relation to her ex-husband).

Loss of job

Two participants indicated they were impacted by another person's gambling by contributing to or causing them to experience a situation where they lost their job. Of these, both participants lost their job indirectly through gambling. One lost their business because of having to sell everything, while the other was due to a relationship breakdown with the person who gambled (who also happened to be her boss).

'I had a landscaping business… I slowly sold things… I gave up a really good business.'

(Participant 1, female aged 63, in relation to her ex-husband).

'…it was a very confusing situation… I lost my position because of the separation of the relationship.'

(Participant 4, female aged 24, in relation to her ex-partner).

Exclusion from study

Four participants indicated they had been impacted by another person's gambling by contributing to or causing them to experience a situation where they were excluded from study. Of these participants, three were either excluded from study or had delayed their study due to what was happening in their lives. They did not have the time, money or support to focus on and complete their studies.

'…it was a four year degree and you only had to do an extra year to become a teacher… so that was just lost… all was lost… it cost so much… you're the one compromising and they do absolutely none.'

(Participant 1, female aged 63, in relation to her ex-husband).

'Well, you know, one course took me two and a half years, which only should have taken 12 months… we find ways to cope so people don't know what's going on until you end up in an emergency department.'

(Participant 2, female aged 54, in relation to her ex-partner).

'Well I was excluded because I missed out… I should have been one of the first people accepted for it… because of that incident they were just like 'We have to show nine other people…they were there on time'.'

(Participant 3, female aged 34, in relation to her mother).

19.3.6 Other impact domain

Items within the Other Impact domain included: leaving children unsupervised; not fully attending to needs of children; petty theft; committing a criminal act to fund gambling or pay debts; being arrested for unsafe driving; and violence, including family/domestic violence.

Leaving children unsupervised

One participant indicated she had been impacted by another person's gambling leaving children unsupervised.

Not fully attending to needs of children

Four participants indicated they had been impacted by another person's gambling by not fully attending to the needs of children. Of these participants, three indicated although their children would not go without, they would sometimes be either absent or away from them. There were times when friends or family would look after them or times they retreated away to be alone in times of distress.

'They always come first… the only time is if I'm upset… I'll go to my bedroom and shut myself away because I'm in tears or something.'

(Participant 13, female age 44-49 years, in relation to her husband).

Petty theft

Two participants indicated they had been impacted by another person's gambling by petty theft, including taking money from friends or family without asking first. One participant found herself homeless and poor at one time, and stole food out of desperation.

'I actually stole and ate in the shop… like the cheese and bacon roll thing.'

(Participant 3, female aged 34, in relation to her mother).

The other participant had money stolen from him on occasion from the other person—he would notice money missing from his wallet. He confronted the other person and it has not happened since.

'…occasional $20 taken out of a wallet or a purse …being more aware of that and not leaving cash around …not having money in wallets, to remove that…'

(Participant 19, male aged 60, in relation to his brother).

Committing a criminal act to fund gambling or pay debts

None of the participants indicated they had been impacted by another person's gambling by committing a criminal act to fund their gambling or pay debts (e.g. stealing, trafficking, selling drugs, dishonesty, claiming government payments, prostitution, dealing in stolen goods, etc.).

Being arrested for unsafe driving

One participant indicated they had been impacted by another person's gambling by being arrested for unsafe driving. This participant had gone to a hotel for a drink and was caught over the blood alcohol limit, causing her to lose her licence. Although she admits it was not a great choice, she mentioned how it was one of the rare times she was able to go out and escape her responsibilities at home.

'I shouldn't have had a drink and got in the car, you know… but it was just that incredible lack of – you know, the one time you ever go out, ever.'

(Participant 1, female aged 63, in relation to her ex-husband).

Violence, including family/domestic violence

Two participants indicated they had been impacted by another person's gambling by violence (including family/domestic violence). Both participants were in a relationship with the other person at the time and experienced ongoing violence that was either physical or emotional. They were frightened and exhausted by the constant abuse.

'Constant, every day. It became emotional and physical all the time… that was the time for me to say… packed my stuff and gone.'

(Participant 2, female aged 54, in relation to her ex-partner).

'Yeah, I was terrified.'

(Participant 4, female aged female aged 24, in relation to her ex-partner).

19.4 Conclusion

This chapter presents the findings from qualitative interviews conducted with 20 affected others in which their experiences of gambling-related harms using the Gambling Harms Checklist for Affected Others were explored.

The findings indicate that relationship impacts were the most commonly reported gambling-related harm experienced in this sample of affected others. This was followed by emotional and financial impacts which were also relatively common. In contrast, work/study and other impacts were less common. Across the gambling-related harms reported by the affected others, various common themes arose. Specifically, lying seemed to be a common theme with affected others being lied to in relation to finances, and affected others lying to other family members and friends, hiding their loved one's gambling behaviour.

The findings presented in this chapter help to gain a greater understanding of the lived experience of affected others, expanding on the quantitative nature of the findings presented earlier in this report. These findings have implications for service provision, whereby prevention and treatment interventions for affected others can be tailored to ensure that the common impacts and the discourse surrounding these harms (e.g., feeling responsible for their loved one, social isolation, feelings of guilt and embarrassment) are addressed. Moreover, the extent and levels of harm experienced by affected others, in this sample, indicates the importance of the availability of help services and resources for affected others, and the awareness of these services promoted.

REFERENCES

The references are separated by Part.

PART I

Allen Consulting Group, Social Research Centre, and the Problem Gambling Research and Treatment Centre. (2011). *Social and Economic Study of Gambling in Tasmania, Volume 2: Gambling survey*. Melbourne. Retrieved from http://www.treasury.tas.gov.au/domino/dtf/dtf.nsf/LookupFiles/Volume2secondgamblingSEIS.PDF/$file/Volume2secondgamblingSEIS.PDF

American Association of Public Opinion Research. (2011). *Standard Definitions: Final Disposition of Case Codes and Outcome Rates for Surveys*. (7th). Retrieved from http://www.aapor.org/AM/Template.cfm?Section=Standard_Definitions2&Template=/CM/ContentDispl

Australian Bureau of Statistics. (2011). *Census 2011*. TableBuilder.

Australian Bureau of Statistics. (2016). *Microdata: National Health Survey, 2014-15*. Catalog number 4324.0.55.0001.

Australian Bureau of Statistics. (2016b). *8146.0 - Household Use of Information Technology, Australia, 2014-15*. Available from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/ACC2D18CC958BC7BCA2568A9001393AE?opendocument>. Accessed 12 December 20217.

Australian Bureau of Statistics. (2017). *Australian Demographic Statistics, Dec 2016*. Retrieved from http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3101.0Dec%202016?OpenDocument

Australian Institute for Gambling Research. (2001). *Survey of the nature and extent of gambling and problem gambling in the ACT*. Sydney: Australian Institute for Gambling Research, University of Western Sydney.

Babor, T. F., De La Fuente, J. R., Saunders, J. B., & Grant, M. (1992). *AUDIT: The Alcohol Use Disorder Identification Test*. Guidelines for use in primary health care. Geneva, Switzerland: World Health Organization.

Blaszczynski, A., Ladouceur, R., Goulet, A., & Savard, C. (2006). *How much do you spend gambling? Ambiguities and inaccuracies of data derived from this question*. International Gambling Studies, 6(2), 123-128.

Bush, K., Kivlahan, D. R., McDonell, M. B., Fihn, S. D., & Bradley, K. A. (1998). *The AUDIT Alcohol Consumption Questions (AUDIT-C): An effective brief screening test for problem drinking*. Arch Intern Med, 158(16), 1789-1795. doi:10.1001/archinte.158.16.

Davidson, T., Rodgers, B., Taylor-Rodgers, E., Suomi, A., & Lucas, N. (2015). *2014 Survey on gambling, health and wellbeing in the ACT: Final report*. Canberra: Australian National University.

Dawe, S., Atkinson, J., Frye, S., Evans, C. B., & Lynch, M. (2007). *Drug use in the family: Impacts and implications for children*. Canberra: Australian National Council on Drugs.

Edwards, B., & Baxter, J. (2013). *The tyrannies of distance and disadvantage: Children's development in regional and disadvantaged areas of Australia (Research Report No. 25)*. Melbourne: Australian Institute of Family Studies.

Ferris, J., & Wynne, H. J. (2001). *The Canadian Problem Gambling Index*. Ottawa: Canadian Centre on Substance Abuse.

Gaming Control Act 1993. (1993). Tasmania.

Hare, S. (2015). *Study of Gambling and Health in Victoria.* Victoria, Australia: Victorian Responsible Gambling Foundation and Victorian Department of Justice and Regulation.

Heeringa, S. G., West, T., & Berglund, P. A. (2010). *Applied Survey Data Analysis*. Chapman and Hall/CRC.

Holtgraves, T. (2009). *Evaluating the Problem Gambling Severity Index*. Journal of Gambling Studies, 25, 105-120.

Jackson, A. C., Wynne, H., Dowling, N. A., Tomnay, J. E., & Thomas, S. A. (2010). *Using the CPGI to determine problem gambling prevalence in Australia: Measurement issues*. International Journal of Mental Health and Addiction, 8(4), 570-582.

Kowarik, A., & Templ, M. (2016). *Imputation with the R Package VIM*. Journal of Statistical Software, 74(7), 1-16.

Kroenke, K., Spitzer, R. L., Williams, J., Monahan, O., & Löwe, B. (2007). *Anxiety Disorders in Primary Care: Prevalence, Impairment, Comorbidity, and Detection*. Annals of Internal Medicine, 46, 317-325.

Kroenke, K., Spitzer, R., & Williams, J. (2003). *The Patient Health Questionnaire-2: Validity of a two-item depression screener.* Medical Care, 41(11), 1284-1292.

Markham, F., Young, M., Doran, B., & Sugden, M. (2017). A meta-regression analysis of 41 Australian problem gambling prevalence estimates and their relationship to total spending on electronic gaming machines. BMC public health, 17(1), 495.

McMillen, J., Marshall, D., Wenzel, M., & Ahmed, A. (2004). *Validation of the Victorian gambling screen*. Melbourne: Gambling Research Panel.

National Health and Medical Research Council. (2003*). Australian alcohol guidelines: Health risks and benefits*. Canberra: National Health and Medical Research Council.

Neal, P., Delfabbro, P., & O'Neil, M. (2005). *Problem gambling and harm: A national definition*. Adelaide: South Australian Centre for Economic Studies.

Privacy Act 1988. (1988). Commonwealth.

Productivity Commission. (2010). *Gambling, Report no. 50.* Canberra: Productivity Commission.

Queensland Government. (2012). *Queensland Household Gambling Survey 2011-12*. Queensland: Department of Justice and Attorney-General.

R Core Team. (2016). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. Vienna, Austria. Retrieved from https://www.R-project.org/

Rao, J. N., & Scott, A. J. (1984). *On Chi-squared Tests For Multiway Contingency Tables with Proportions Estimated From Survey Data*. Annals of Statistics, 12, 46-60.

Rao, J. N., Yung, W., & Hidiroglou, M. A. (2002). *Estimating equations for the analysis of survey data using poststratification information*. Sankhya, 64 (Series A, Part 2), 364-378.

Roy Morgan Research. (2006). *The Fourth Study into the Extent and Impact of Gambling in Tasmania with Particular Reference to Problem Gambling*. Roy Morgan Research. Retrieved from http://www.dhhs.tas.gov.au/__data/assets/pdf_file/0009/31887/final_report200606.pdf

Schmidt, S., Mühlan, H., & Power, M. (2005). *The EUROHIS-QOL 8-item index: psychometric results of a cross-cultural field study*. The European Journal of Public Health, 16(4), 420-428.

Smith, P. C., Schmidt, S. M., Allensworth-Davies, D., & Saitz, R. (2010). *A Single-Question Screening Test for Drug Use in Primary Care*. Arch Intern Med, 170(13), 1155–1160.

Social Research Centre. (2013). *Gambling Prevalence in South Australia 2012.* South Australia: Office for Problem Gambling, Department for Communities and Social Inclusion, State Government of South Australia.

South Australian Centre for Economic Studies. (2008). *Social and Economic Impact Study into Gambling in Tasmania, Volume 2: The Prevalence Study*. South Australian Centre for Economic Studies. Retrieved from http://www.treasury.tas.gov.au/domino/dtf/dtf.nsf/LookupFiles/Soc-Economic-Impact-Study-Vol2.pdf/$file/Soc-Economic-Impact-Study-Vol2.pdf

Sproston, K., Hing, N., & Palankat, C. . (2012). *Prevalence of Gambling and Problem Gambling in New South Wales*. New South Wales: NSW Office of Liquor, Gambling and Racing.

Stevens, M. . (2017). *Northern Territory Gambling Prevalence and Wellbeing Survey 2015*. Northern Territory: Menzies School of Health Research, Charles Darwin University.

PART II

ACIL Allen Consulting, Social Research Centre, & Problem Gambling Research and Treatment Centre. (2014a). *Third Social And Economic Impact Study Of Gambling In Tasmania: Volume 2, 2013 Tasmanian Gambling Prevalence Survey.* Melbourne.

Allen Consulting Group, Problem Gambling Research and Treatment Centre, & the Social Research Centre. (2011). *Social and economic impact study of gambling in Tasmania, Volume 2: Gambling survey.* Prepared for the Tasmanian Government Department of Treasury and Finance.

Arnesen, T., & Trommald, M. (2005). *Are QALYs based on time trade-off comparable?--A systematic review of TTO methodologies*. Health Economics, 14(1), 39–53.

Attema, A. E., Edelaar-Peeters, Y., Versteegh, M. M., & Stolk, E. A. (2013). *Time trade-off: one methodology, different methods*. The European Journal of Health Economics: HEPAC: Health Economics in Prevention and Care, 14 Suppl 1, S53–64.

Brosowski, T., Hayer, T., Meyer, G., Rumpf, H. J., John, U., Bischof, A., & Meyer, C. (2015). *Thresholds of probable problematic gambling involvement for the German population: Results of the Pathological Gambling and Epidemiology (PAGE) Study*. Psychology of Addictive Behaviors, 29(3), 794-804. doi:10.1037/adb0000088

Browne, M., Bellringer, M., Greer, N., Kolandai-Matchett, K., Rawat, V., Langham, E., … Abbott, M. (2017). *Measuring the Burden of Gambling Harm in New Zealand*. New Zealand Ministry of Health.

Browne, M., Goodwin, B. C., & Rockloff, M. J. (2017). *Validation of the Short Gambling Harm Screen (SGHS): A Tool for Assessment of Harms from Gambling*. Journal of Gambling Studies / Co-Sponsored by the National Council on Problem Gambling and Institute for the Study of Gambling and Commercial Gaming. https://doi.org/10.1007/s10899-017-9698-y

Browne, M., Greer, N., Rawat, V., & Rockloff, M. (2017). *A population-level metric for gambling-related harm*. International Gambling Studies, 1–14.

Browne, M., Langham, E., Rawat, V., Greer, N., Li, E., Rose, J., Best, T. (2016). *Assessing gambling-related harm in Victoria: a public health perspective*. Victorian Responsible Gambling Foundation.

Browne, M., Rawat, V., Greer, N., Langham, E., Rockloff, M., & Hanley, C. (2017a). *What is the harm? Applying a public health methodology to measure the impact of gambling problems and harm on quality of life*. Journal of Gambling Issues, xx–xx.

Browne, M., & Rockloff, M. J. (2017). *The dangers of conflating gambling-related harm with disordered gambling*. Journal of Behavioral Addictions, 1–4.

Currie, S. R., Hodgins, D. C., Casey, D. M., el-Guebaly, N., Smith, G. J., Williams, R. J., & Schopflocher, D. P. (2017). *Deriving low-risk gambling limits from longitudinal data collected in two independent Canadian Studies*. Addiction, Epub ahead of print.

Currie, S. R., Hodgins, D. C., Wang, J., El-Guebaly, N., Wynne, H., & Chen, S. (2006). *Risk of harm among gamblers in the general population as a function of level of participation in gambling activities*. Addiction, 101(4), 570-580. doi:10.1111/j.1360-0443.2006.01392.x

Currie, S. R., Hodgins, D. C., Wang, J., El-Guebaly, N., Wynne, H., & Miller, N. V. (2008). *Replication of low-risk gambling limits using canadian provincial gambling prevalence data*. Journal of Gambling Studies, 24(3), 321-335. doi:10.1007/s10899-008-9091-y

Currie, S. R., Miller, N., Hodgins, D. C., & Wang, J. L. (2009). *Defining a threshold of harm from gambling for population health surveillance research*. International Gambling Studies, 9(1), 19-38.

Davidson, T., Rodgers, B., Taylor-Rodgers, E., Suomi, A., & Lucas, N. (2015). *2014 Survey on gambling, health and wellbeing in the ACT*. Retrieved from Canberra, ACT:

Delfabbro, P., & King, D. (2017). *Prevention paradox logic and problem gambling: Does low-risk gambling impose a greater burden of harm than high-risk gambling?.* Journal of Behavioral Addictions, 6(2), 163–167.

Dowling, N., Rodda, S. N., Lubman, D. I., & Jackson, A. C. (2014). *The impacts of problem gambling on concerned significant others accessing web-based counselling*. Addictive Behaviors, 39(8), 1253-1257.

Dowling, N., Smith, D., & Thomas, T. (2009). The family functioning of female pathological gamblers. International Journal of Mental Health and Addiction, 7(1), 29-44.

Dowling, N. A., Jackson, A. C., Suomi, A., Lavis, T., Koziol-McLain, J., Thomas, S. A., Patford, J., Harvey, P., Abbott, M., Bellringer, M. E., & Battersby, M. (2014a). Problem gambling and family violence: Prevalence and patterns in help-seeking populations. Addictive Behaviors, 39, 1713-1717.

Dowling, N. A., Rodda, S. N., Lubman, D. I., & Jackson, A. C. (2014b). The impacts of problem gambling on concerned significant others accessing web-based counselling. Addictive Behaviors, 39(8), 1253-1257.

Dowling, N., Smith, D., & Thomas, T. (2005). *Electronic gaming machines: are they the 'crack-cocaine'of gambling?.* Addiction, 100(1), 33-45.

Dowling, N. A., Suomi, A., Jackson, A. C., & Lavis, T. (2016a). Problem gambling family impacts: Development of the Problem Gambling Family Impact Scale. Journal of Gambling Studies, 32(3), 935-955.

Dowling, N. A., Suomi, A., Jackson, A. C., Lavis, T., Patford, J., Cockman, S., Thomas, S. A., Bellringer, M. E., Koziol-McLain, J., Battersby, M., Harvey, P., & Abbott, M. (2016b). Problem gambling and intimate partner violence: A systematic review and meta-analysis. Trauma, Violence, and Abuse, 17(1), 43-61.

Dowling, N., Youssef, G., Greenwood, C., Merkouris, S., Suomi, A., & Room, R. (2017). *The development of empirically derived Australian responsible gambling limits*. Prepared for the Victorian Responsible Gambling Foundation, Melbourne.

Dolnicar, S., Grun, B., & Leisch, F. (2011). *Quick, simple and reliable: forced binary survey questions*. International Journal of Market Research, 53(2), 253–254.

Ferris, J., & Wynne, H. (2001). *The Canadian problem gambling index. Ottawa, ON: Canadian Centre on Substance Abuse*. Retrieved from http://ccgr.ca/sites/default/files/CPGI-Final-Report-English.pdf

Gignac, G. E. (2015*). Estimating the Strength of a General Factor: Coefficient Omega Hierarchical*. Industrial and Organizational Psychology, 8(3), 434–438.

Korn, D. A., & Shaffer, H. J. (1999). *Gambling and the Health of the Public: Adopting a Public Health Perspective*. Journal of Gambling Studies / Co-Sponsored by the National Council on Problem Gambling and Institute for the Study of Gambling and Commercial Gaming, 15(4), 289–365.

Korn, D., Gibbins, R., & Azmier, J. (2003). *Framing public policy towards a public health paradigm for gambling*. Journal of Gambling Studies / Co-Sponsored by the National Council on Problem Gambling and Institute for the Study of Gambling and Commercial Gaming, 19(2), 235–256.

Langham, E., Thorne, H., Browne, M., Donaldson, P., Rose, J., & Rockloff, M. (2016). *Understanding gambling related harm: a proposed definition, conceptual framework, and taxonomy of harms*. BMC Public Health, 16(1), 80.

Li, E., Browne, M., Rawat, V., Langham, E., & Rockloff, M. (2017). *Breaking Bad: Comparing Gambling Harms Among Gamblers and Affected Others*. Journal of Gambling Studies / Co-Sponsored by the National Council on Problem Gambling and Institute for the Study of Gambling and Commercial Gaming, 33(1), 223–248.

Marshall, D. (2009). *Gambling as a public health issue: The critical role of the local environment*. Journal of Gambling Issues, 0(23), 66–80.

Markham, F., Young, M., & Doran, B. (2016). *The relationship between player losses and gambling-related harm: evidence from nationally representative cross-sectional surveys in four countries.* Addiction, 111, 320-330.

Murray, C. J. (1994). *Quantifying the burden of disease: the technical basis for disability-adjusted life years*. Bulletin of the World Health Organization, 72(3), 429–445.

National Health and Medical Research Council. (2009). *Australian guidelines to reduce health risks from drinking alcohol*. Canberra: Commonwealth of Australia.

Productivity Commission. (2010). *Gambling (No. Report no. 50).* Canberra.

Quilty, L. C., Avila Murati, D., & Bagby, R. M. (2014*). Identifying indicators of harmful and problem gambling in a Canadian sample through receiver operating characteristic analysis*. Psychology of Addictive Behaviors, 28(1), 229-237. doi:10.1037/a0032801

Rehm, J., & Frick, U. (2010). *Valuation of health states in the US study to establish disability weights: lessons from the literature*. International Journal of Methods in Psychiatric Research, 19(1), 18–33.

Room, R., & Rehm, J. (2012). *Clear criteria based on absolute risk: Reforming the basis of guidelines on low-risk drinking*. Drug and Alcohol Review, 31(2), 135-140. doi:10.1111/j.1465-3362.2011.00398.x

Ruopp, M. D., Perkins, N. J., Whitcomb, B. W., & Schisterman, E. F. (2008). *Youden Index and optimal cut-point estimated from observations affected by a lower limit of detection*. Biometrical Journal, 50(3), 419-430. doi:10.1002/bimj.200710415

StataCorp. (2015). *Stata: Release 14.1.* Statistical Software. College Station, TX: StataCorp LP.

Swets, J. A., Dawes, R. M., & Monahan, J. (2000). *Psychological Science Can Improve Diagnostic Decisions.* Psychological Science in the Public Interest, 1(1), 1-26. doi:10.1111/1529-1006.001

Weinstock, J., Ledgerwood, D. M., & Petry, N. M. (2007). *Association Between Posttreatment Gambling Behavior and Harm in Pathological Gamblers*. Psychology of Addictive Behaviors, 21(2), 185-193. doi:10.1037/0893-164X.21.2.185

Weinstock, J., Whelan, J. P., & Meyers, A. (2008). *College students' gambling behavior: When does it become harmful?.* Journal of American College Health, 56(5), 513-522.

Wood, R. T., & Williams, R. J. (2007). '*How much money do you spend on gambling?': The comparative validity of question wordings used to assess gambling expenditure*. International Journal of Social Research Methodology, 10(1), 63-77.

Youden, W. J. (1950). *Index for rating diagnostic tests.* Cancer, 3, 32-35. doi:10.1002/1097-0142

PART III

Braun, V., & Clarke, V. (2006). *Using thematic analysis in psychology*. Qualitative Research in Psychology, 3(2), 77-101.

Breslin, F. C., Sobell, L. C., Sobell, M. B., et al. (2000). *A comparison of a brief and long version of the Situational Confidence Questionnaire.* Behaviour Research and Therapy, 38, 1211-1220.

Gee, P., Coventry, K. R., & Birkenhead, D. (2005). *Mood state and gambling: Using mobile telephones to track emotions.* British Journal of Psychology, 96, 53-66.

Goldstein, A. L., Steward, S. H., Hoaken, P. N. S., & Flett, G. L. (2014). *Mood, motives, and gambling in young adults: An examination of within- and between-person variations using experience sampling*. Psychology of Addictive Behaviours, 28(1), 217-228.

Griffiths, M. (1995). *The role of subjective mood states in the maintenance of fruit machine gambling behaviour*. Journal of Gambling Studies, 11, 123–135.

Hufford, M. R., Shields, A. L., Shiffman, S., Paty, J., & Balabanis, M. (2002). *Reactivity to ecological momentary assessment: An example using undergraduate problem drinkers*. Psychology of Addictive Behaviors, 16(3), 205–211.

Kim, S. W., Grant, J. E., Potenza, M. N., Blanco, C., & Hollander, E. (2009). *The Gambling Symptom Assessment Scale (G-SAS): A reliability and validity study*. Psychiatry Research, 166, 76-84.

Larsen, R. J., & Diener, E. (1992). *Problems and promises with the circumplex model of emotion*. Review of Personality and Social Psychology, 13, 25–29.

Matthews, N., Farnsworth, B., & Griffiths, M. D. (2009). *A pilot study of problem gambling among student online gamblers: Mood states as predictors of problematic behavior*. CyberPsychology & Behavior, 12, 741–745.

Morean, M. E., Corbin, W. R., & Treat, T. A. (2013). *The Subjective Effects of Alcohol Scale: Development and psychometric evaluation of a novel assessment tool for measuring subjective response to alcohol*. Psychological Assessment, 25(3), 780-795.

Piasecki, T., M., Jahng, S., Wood, P. K., Robertson, B. M., Cronk, N. J. et al. (2011). *The subjective effects of alcohol-tobacco use: An ecological momentary assessment investigation*. Journal of Abnormal Psychology, 120(3), 557-571.

Quinlan, C. K., Goldstein, A. L., & Stewart, S. H. (2014). *An investigation of the link between gambling motives and social context of gambling in young adults*. International Gambling Studies, 14(1), 115-131.

Rodda, S. N., Lubman, D. I., Iyer, R., Gao, C. X., & Dowling, N. A. (2015). *Subtyping based on readiness and confidence: The identification of help-seeking profiles for gamblers accessing web-based counselling*. Addiction, 110, 494-501.

Shiffman, S. (1989). *Conceptual issues in the study of relapse*. In M. Gossop, (Ed.), Relapse and addictive behaviour (pp. 149-179). Kent, England: Routledge.

Shiffman, S. (2009). *Ecological momentary assessment (EMA) in studies of substance use*. Psychological Assessment, 21(4), 486-497.

A PREVALENCE SURVEY TECHNICAL AND METHOD NOTES

A.1 Sample design and stratification

The sample design for the 2017 survey was different to that employed for the 2013 survey. To improve statistical efficiency and ensure representativeness, the sample was stratified according to broad geographic regions and allocated in proportion to the population within each region. Further, the size of the mobile phone component of the sample was increased to 50%, up from 30% in 2013. This was done to improve the precision of estimates and to yield more gamblers, including those with problem gambling behaviours.

Table A.1 provides an overview of completed interviews by strata and telephone frame.

TABLE A.1 COMPLETES BY REGION AND FRAME

	Total sample		Landline sample		RDD mobile sample		Listed mobile sample	
	N	%	N	%	N	%	N	%
Total completes	**5,000**	**100**	**2,493**	**100**	**851**	**100**	**1,656**	**100**
Region								
North	1396	27.9	691	27.7	235	27.6	470	28.4
North West	1096	21.9	548	22.0	165	19.4	383	23.1
South	2508	50.2	1254	50.3	451	53.0	803	48.5

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

A.2 Sampling frames

A multi-frame approach was used in 2017 to improve the representativeness of the achieved sample and ensure estimates from the survey data were as unbiased and robust as possible. As in 2013, a dual frame sample approach was employed; however, in 2017 there was a change in the composition of the mobile frame. For the 2017 survey the mobile frame included a combination of listed mobile numbers (as per 2013) and pre-screened randomly generated mobile numbers..

The option of using a combination of listed mobile numbers and pre-screened randomly generated mobile numbers was recommended as the characteristics of respondents contactable via listed mobile numbers are often similar to those of respondents contacted on landline numbers. Further, the benefits of using listed numbers is that the billing address of the owner is known and selections at the local level can be undertaken (e.g. state/region).

It should be noted that any differences between the two types of mobile sample is accounted for in the weighting, with the design weight accounting for any overlap in the chance of selection.

There was a change in sample vendor for the 2017 survey, with sample being provided by SamplePages instead of SampleWorx. While the building blocks used by both companies are the same, the ACMA Register of Numbers, the actual sample generation approaches are subtly different. In the case of SampleWorx, RDD numbers are generated and allocated to a pool of numbers to be drawn down as required. For SamplePages, the Social Research Centre has agreed to a customised approach whereby RDD numbers are generated and tested at the time of each request rather than being drawn from a pre-existing pool. On this basis, SamplePages were the vendor who provided the randomly generated landline telephone numbers for the 2017 survey.

Table A.2 shows the demographic profile by survey year. When compared to 2013, a small number of differences were noted, with respondents in 2017 less likely to be aged 35 to 44 years, live as a couple with children at home, be in paid full-time employment, or a university graduate. Conversely, respondents in 2017 were more likely to be aged 65 years or more, live as a single person or in some other arrangement, those who completed Year 12 or had a vocational or trade qualification and those born overseas in a non-English speaking country.

TABLE A.2 TOTAL SAMPLE DEMOGRAPHIC PROFILE BY YEAR – 2011, 2013 AND 2017

	2011		2013		2017	
Demographic characteristic	**ABS**	**Survey**	**ABS**	**Survey**	**ABS**	**Survey**
Total sample		100		100		100
		%		%		%
Gender						
Male	48.2	48.3	49.3	48.6	48.8	48.8
Female	51.7	51.7	50.7	51.4	51.2	51.2
Other		np		np		np
Age						
18 to 24 years	11.0	11.0	11.4	10.6	11.0	11.0
25 to 34 years	14.5	14.5	14.8	13.6	15.1	15.1
35 to 44 years	17.0	17.0↑	16.2	17.2↑	15.0	15.0
45 to 54 years	17.5	18.8↑	18.0	19.1	17.3	17.3
55 to 64 years	21.2	17.5	17.4	17.9	17.7	17.7
65 years or more	18.8	21.2↓	22.3	21.6↓	24.0	24.0
Household structure						
Couple no children	35.0	24.5	35.0	33.1	34.8	31.7
Couple children at home	33.0	29.2↓	33.0	37.3↑	30.9	34.2
Single children at home	10.9	13.5↑	10.9	6.5	7.0	7.4
Other	38.0	31.1	38.0	19.8	27.3	21.6
Occupational status						
Paid full-time employed	38.3	38.4↑	34.4	35.6↑	35.1	32.4
Paid part-time employed	19.0	18.9	20.2	21.2	22.2	21.7
Looking for work	2.8	2.6	4.8	3.5	3.4	3.7
Not in the labour force	39.9	40.1	40.1	39.7	39.2	42.2
Educational attainment						
Less than year 12	13.2	25.16↑	13.2	23.5	13.4	22.1

	2011		2013		2017	
Demographic characteristic	ABS	Survey	ABS	Survey	ABS	Survey
Year 12	41.5	18.7	41.5	17.5↓	33.8	20.7
Vocational or trade qualification	29.6	14.3↓	29.6	30.6↓	33.8	40.3
University graduate	15.7	38.9↑	15.7	27.2↑	19.1	15.9
Place of birth						
Australia	84.9	87.4↑	84.9	86.8	85.1	85.6
Overseas (ESB)	8.8	7.8	8.8	8.4	8.6	8.1
Overseas (NSB)	6.3	4.7↓	6.3	4.4↓	6.2	6.0

Note: Income has not been included due to change in question response frame between years. Arrows show results that are significantly higher (↑) or lower (↓) than those obtained in 2017 ($p<0.05$). np Data not available for publication due to insufficient responses but included in totals where applicable

SOURCE: 2011, 2013 AND 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

A.3 Respondent selection

Consistent with previous surveys, respondents for the landline component of the survey were selected using the youngest male aged 18 years and over method. If no males were present in the household, the youngest female aged 18 years and over was selected. This method of respondent selection was undertaken to overcome known historical bias whereby females are over-represented via the landline sample frame.

Further, consistent with the 2013 survey, respondents for the mobile phone component were taken to be any person who answered the phone, were a resident of Tasmania and 18 years of age or older.

The overlapping chance of being selected into the survey via the landline and mobile is accounted for in the design weight and has no implication on analyses provided throughout this report.

As noted previously, no respondent sub-sampling was undertaken for the 2017 survey.

A.4 Call procedures

A minimum of six call attempts were made to contact a household, followed by unlimited call attempts to secure an interview with the selected person in the household or achieve a final outcome for each record. This was the same call cycle that was adopted for the 2011 and 2013 surveys. Analysis of the 2017 survey paradata for the landline frame shows that 2.2% of all interviews were obtained from call attempt seven or beyond. These interviews would not otherwise have been obtained – thereby introducing a bias into the survey results – had this rigorous call regime not been implemented.

A truncated call regime was employed when calling mobile phones as repeated missed calls from an unknown number, sometimes in fairly quick succession, can be disconcerting for some members of the public and thereby has a negative effect on response rates.

To yield maximum response, it was also necessary to control the "spread of call attempts" such that, subject to other outcomes being achieved, contact attempts were spread over weekdays (9am to 8.30pm) and weekends (11am to 5pm).

No interviewing was undertaken in languages other than English.

A.5 Procedures to maximise response

A number of procedures were employed during fieldwork to further try and maximise response. These included:

— operation of a 1800 number throughout the survey period by The Social Research Centre, to help establish survey bona fides, address sample member queries and encourage response to the survey

- batched release of sample to ensure calls to each batch could be exhausted, as far as was possible within the project schedule, prior to initiating calls to a fresh batch of sample
- sending of a pre-field notification text message to all mobile sample members advising that their number would be called for 'an important survey for the Tasmanian Government' in the coming days. The text was sent 24 hours before the sample was scheduled to be initiated in CATI
- leaving messages on answering machines, including when honouring an appointment previously arranged with the selected respondent
- provision on request of the contact details for the Deakin University Human Research Ethics Committee.

A.6 Fieldwork statistics

A total of 90,315 calls were placed to 26,476 sample records to achieve 5,000 telephone interviews. This equates to an interview every 18.1 calls and an average of 3.4 calls per sample record. Table A.3 provides a detailed view of final call disposition for the total sample and a breakdown by sample source.

TABLE A.3 2017 TASMANIAN GAMBLING PREVALENCE SURVEY: FINAL CALL DISPOSITION

	Call Disposition Code	Total		Landline sample		RDD Mobile sample		Listed Mobile sample	
		N	%	N	%	N	%	N	%
Total records		**26,476**	**100**	**15,097**	**100**	**2,888**	**100**	**8,491**	**100**
Interview (Category 1)									
Complete	1.0/1.10	5000	18.9	2493	16.5	851	29.5	1656	19.5
Eligible, non-interview (Category 2)	**2**								
Refusal and breakoff	2.1	149	0.6	78	0.5	24	0.8	47	0.6
Refusal	2.11	539	2.0	174	1.2	75	2.6	290	3.4
Household-level refusal	2.111	1596	6.0	1594	10.6	0	0.0	2	0.0
Known-respondent refusal	2.112	1676	6.3	608	4.0	241	8.3	827	9.7
Respondent never available	2.21	71	0.3	32	0.2	9	0.3	30	0.4
Physically or mentally unable/incompetent	2.32	541	2.0	459	3.0	25	0.9	57	0.7
Language problem	2.33	102	0.4	60	0.4	12	0.4	30	0.4
Other, non-refusals	2.3	473	1.8	195	1.3	65	2.3	213	2.5
Unknown eligibility, non-interview (Category 3)	**3**								
Always busy	3.12	272	1.0	194	1.3	19	0.7	59	0.7
No answer	3.13	5641	21.3	3371	22.3	517	17.9	1753	20.6
Answering machine (unknown if household)	3.14	7317	27.6	3913	25.9	746	25.8	2658	31.3
Not eligible (Category 4)	**4**								
Fax/data line	4.2	417	1.6	412	2.7	0	0.0	5	0.1
Non-working/disconnect	4.3	638	2.4	459	3.0	125	4.3	54	0.6
Non-residence	4.5	1185	4.5	994	6.6	45	1.6	146	1.7
No eligible respondent	4.7	853	3.2	61	0.4	132	4.6	660	7.8

	Call Disposition Code	Total		Landline sample		RDD Mobile sample		Listed Mobile sample	
Quota filled	4.8	5	0.0	0	0.0	2	0.1	3	0.0
Other	4.9	1	0.0	0	0.0	0	0.0	1	0.0
Records used per interview		**5.3**		**6.1**		**3.4**		**5.1**	

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

A.7 Response rates

An internationally accepted standard for calculating response rates, as recommended by the American Association for Public Opinion Research was used for this study (American Association of Public Opinion Research, 2011).

Using the AAPOR Response Rate 3, which proportionally allocates records with an unknown outcome as either in-scope or out of scope based on the distribution of records with a known call outcome, the final combined response rate for the survey was 41.5%. A breakdown of response rate by sample source is provided in Table A.4 below. As can be seen response rates were similar across the landline and listed mobile sample frames (22.1% and 24.9% respectively), and higher for the RDD mobile sample frame (35.8%).

TABLE A.4 CALCULATION OF AAPOR RESPONSE RATES

	Landline sample	RDD Mobile sample	Listed Mobile sample
Total phone numbers used	**15,097**	**2,918**	**8,491**
I = Complete Interviews (1.1)	2,493	851	1,656
R = Refusal and break off with eligible case (2.1)	2,454	340	1,166
NC = Non-Contact with eligible case (2.2)	32	39	30
O = Other non-interview with eligible case (2.0, 2.3)	714	102	300
UH = Unknown if residential (3.0, 3.1)	7478	1282	4470
INNR = Ineligible: Not residential (4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.8, 4.9)	1865	172	209
INR = Ineligible: Residential but ineligible for survey (4.7)	61	132	660
e1	98.9%	91.0%	82.7%
e2	75.5%	89.5%	94.8%
Response Rate 3			
I / (I+P+R+NC+O+[e1*e2*UH]+[e1*UO])	22.1%	35.8%	24.9%
Cooperation Rate 3			
(I+INR)/(I+INR+R+(e2*UO))	51.0%	74.3%	66.5%
Refusal Rate 3			
R/((I+P)+(R+NC+O))	43.1%	25.5%	37.0%
Contact Rate 3			
(I+P+R+O) / (I+P+R+O+NC)	99.4%	97.1%	99.0%

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

A.8 Achieved sample profile

Demographic profile of 2017 survey respondents by sample frame is shown in Table A.5. As can be seen, the demographic profile of the RDD mobile and listed mobile sample frames are very similar, with most differences evident when comparing the mobile frames back to the landline sample frame.

TABLE A.5 DEMOGRAPHIC PROFILE BY SAMPLE FRAME (UNWEIGHTED)

Demographic characteristic	Total sample		Landline sample		RDD Mobile sample		Listed Mobile sample	
Total sample	**5,000**	**100**	**2,493**	**100**	**851**	**100**	**1,656**	**100**
	N	%	N	%	N	%	N	%
Gender								
Male	2,464	49.3	1,281	51.4	429	50.4	754	45.5
Female	2,534	50.7	1,211	48.6	422	49.6	901	54.4
Other	2	<0.1	1	<0.1	0	<0.1	1	0.1
Age								
18 to 24 years	156	3.1	66	2.6	49	5.8	41	2.5
25 to 34 years	323	6.5	74	3.0	92	10.8	157	9.5
35 to 44 years	533	10.7	163	6.5	128	15.0	242	14.6
45 to 54 years	811	16.2	306	12.3	160	18.8	345	20.8
55 to 64 years	1,205	24.1	530	21.3	215	25.3	460	27.8
65 years or more	1,972	39.4	1,354	54.3	207	24.3	411	24.8
Household structure								
Couple no children	492	9.8	225	9.0	93	10.9	174	10.5
Couple children at home	1,248	25.0	486	19.5	275	32.3	487	29.4
Couple children left home	1,484	29.7	820	32.9	216	25.4	448	27.1
Single person	660	13.2	383	15.4	105	12.3	172	10.4
Single children at home	261	5.2	98	3.9	47	5.5	116	7.0
Single children left home	518	10.4	334	13.4	48	5.6	136	8.2
Group or shared household	136	2.7	47	1.9	32	3.8	57	3.4
Other arrangement	164	3.3	74	3.0	33	3.9	57	3.4
Occupational status								
Paid full-time employed	1,391	27.8	505	20.3	291	34.2	595	35.9
Paid part-time employed	914	18.3	333	13.4	196	23.0	385	23.2
Household Duties	131	2.6	60	2.4	27	3.2	44	2.7
Student	82	1.6	40	1.6	24	2.8	18	1.1
Retired	1,851	37.0	1,233	49.5	196	23.0	422	25.5
Looking for work	111	2.2	45	1.8	24	2.8	42	2.5
Unable to work / pensioner	361	7.2	202	8.1	58	6.8	101	6.1
Unpaid voluntary work	50	1.0	23	0.9	13	1.5	14	0.8
Other	90	1.8	38	1.5	22	2.6	30	1.8
Annual personal income								
Less than $20,000	814	16.3	468	18.8	121	14.2	225	13.6

Demographic characteristic	Total sample		Landline sample		RDD Mobile sample		Listed Mobile sample	
$20,000-$39,999	1,451	29.0	796	31.9	223	26.2	432	26.1
$40,000-$59,999	761	15.2	320	12.8	154	18.1	287	17.3
$60,000-$79,999	480	9.6	185	7.4	105	12.3	190	11.5
$80,000-$129,999	543	10.9	189	7.6	113	13.3	241	14.6
$130,000-or more	133	2.7	47	1.9	21	2.5	65	3.9
Educational attainment								
Less than year 12	1,132	22.6	652	26.2	160	18.8	320	19.3
Year 12	754	15.1	403	16.2	135	15.9	216	13.0
Vocational or trade qualification	1,643	32.9	751	30.1	291	34.2	601	36.3
University graduate	1,395	27.9	634	25.4	258	30.3	503	30.4
Other	24	0.5	15	0.6	2	0.2	7	0.4
Place of birth								
Australia	4,182	83.6	2,048	82.2	700	82.3	1,434	86.6
Overseas (ESB)	572	11.4	319	12.8	102	12.0	151	9.1
Overseas (NSB)	239	4.8	123	4.9	49	5.8	67	4.0

SOURCE: 2017 TASMANIAN GAMBLING PREVALENCE SURVEY

A.9 Benchmarks used in weighting

Further to the discussion regarding weighting in Section 2.2.6, the post-stratification weighting benchmarks used for weighting the 2017 data are provided below (Table A.6).

TABLE A.6 DEMOGRAPHIC BENCHMARKS USED IN WEIGHTING

Demographic characteristic	Population
	N
Telephone Status	
Mobile Only	132,338
Dual user	242,418
Landline only	29,948
Gender and Age	
Male 18-24	22,947
Female 18-24	21,423
Male 25-34	30,160
Female 25-34	30,757
Male 35-44	29,354
Female 35-44	31,228
Male 45-54	34,125
Female 45-54	36,038
Male 55-64	35,253
Female 55-64	36,449

Demographic characteristic	Population
Male 65+	45,762
Female 65+	51,208
Region	
North	113,481
North West	89,371
South	201,852
Educational attainment	
Not university	339,779
University	64,925
Country of birth	
English speaking country	379,239
Non-English speaking country	25,465

SOURCE: AUSTRALIAN BUREAU OF STATISTICS, 2011, 2016, 2017

B

SCALES AND DERIVED ITEMS

B.1 Problem gambling severity

The nine-item Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI) (Ferris & Wynne, 2001) was employed to evaluate problem gambling severity. Respondents indicated how often each item applied to them in the last 12 months on a four-point scale: (0) never, (1) sometimes, (2) most of the time, and (3) almost always. Specific items used were:

- Bet more than you could really afford to lose
- Needed to gamble with larger amounts of money to get the same feeling of excitement
- Gone back another day to try to win back the money you lost
- Borrowed money or sold anything to get money to gamble
- Felt that you might have a problem with gambling
- People criticized your betting or told you that you had a gambling problem, whether or not you thought it was true
- Felt guilty about the way you gamble or what happens when you gamble
- Gambling caused you any health problems, including stress or anxiety
- Gambling caused financial problems for you or your household

Scores range from 0 to 27, and higher scores indicate higher problem severity. Scores on the PGSI can be used to classify individuals as non-problem gamblers (score of 0), low risk gamblers (scores of 1 or 2), moderate risk gamblers (scores between 3 and 7), or problem gamblers (scores of 8 or higher).

The PGSI has been adopted as the preferred measurement tool for population-level research in Australia (Neal, Delfabbro, & O'Neil, 2005). The PGSI has displayed good internal consistency, test-retest reliability, criterion validity with measures of gambling involvement, unitary dimensional structure, item variability, and concurrent validity with measures of problem gambling (Ferris & Wynne, 2001; McMillen et al., 2004; Neal, Delfabbro, & O'Neil, 2005). It has been validated in many jurisdictions, including Canada, Europe, and Australia.

Several studies suggest that the PGSI outperforms other measures of problem gambling severity in population-level research in terms of overall rationale, internal consistency, item difficulty, construct validity, classification validity, and factor structure (Ferris & Wynne, 2001; Holtgraves, 2009; McMillen et al., 2004). The PGSI has displayed very good sensitivity (the rate of positive test results among those with the disorder) and specificity (the rate of negative test results among those without the disorder) (Ferris & Wynne, 2001).

The PGSI tends to be slightly more conservative in estimating prevalence of problem gambling than the South Oaks Gambling Screen, but higher than the DSM IV (Ferris & Wynne, 2001; Neal,

Delfabbro, & O'Neil, 2005). In this study, the original scoring protocol was followed, as recommended by Jackson et al., (2010). The PGSI displayed good internal consistency in this study (α = .84).

B.2 Quality of life

Quality of life was assessed using the EUROHIS Quality of Life Scale-8 (EUROHIS-QOL-8) (Schmidt, Mühlan, & Power, 2005). The EUROHIS-QOL-8 consists of eight items, across four domains: Psychological (2 items), Physical (2 items), Social (2 items) and Emotional (2 items). Respondents indicated how often each item applied to them in the last four weeks. Each item is rated on a 5-point scale with varying response options. Scores are derived by calculating the sum of the eight items and dividing by four, with higher scores indicative of greater quality of life. This scale has demonstrated good internal consistency with Cronbach's alpha values ranging from 0.74 -0.85 (Schmidt, Mühlan & Power, 2005). The eight items used in the EUROHIS-QOL-8 were:

- Quality of life (Very poor/Poor/Neither good nor poor/Good/Very good)
- Had enough energy for everyday life (Completely/Mostly/Moderately/A little/Not at all)
- Had enough money to meet your needs (Completely/Mostly/Moderately/A little/Not at all)
- Health (Very dissatisfied/Dissatisfied/Neither satisfied nor dissatisfied/Satisfied/Very satisfied)
- Ability to perform your daily living activities (Very dissatisfied/Dissatisfied/Neither satisfied nor dissatisfied/Satisfied/Very satisfied)
- Yourself (Very dissatisfied/Dissatisfied/Neither satisfied nor dissatisfied/Satisfied/Very satisfied)
- Personal relationships (Very dissatisfied/Dissatisfied/Neither satisfied nor dissatisfied/Satisfied/Very satisfied)
- Conditions of your living place (Very dissatisfied/Dissatisfied/Neither satisfied nor dissatisfied/Satisfied/Very satisfied)

B.3 Substance use

The Alcohol Use Disorders Identification Test (AUDIT) (Babor et al., 1992) is a 10-item instrument designed to screen for problematic alcohol use in adults. The AUDIT-Consumption (AUDIT-C) is a commonly employed brief version of the AUDIT (Bush et al., 1998). A modified version of the AUDIT-C that tailors the consumption items to Australian alcohol use, as recommended in the AUDIT manual (Babor et al., 1992) was employed in the current study. This version has been employed in the Longitudinal Study of Australian Children (LSAC) conducted by the Australian Institute of Family Studies (Edwards & Baxter, 2013). The 2001 National Health and Medical Research Council guidelines for risky binge drinking was used to guide the development of the measure of binge drinking in LSAC (National Health and Medical Research Council, 2003). Binge drinking is defined as seven or more (for men) and five or more (for women) standard drinks on one occasion two to three times a month or more (Dawe et al., 2007). Respondents were asked three specific questions in relation to their alcohol consumption:

- Number of standard drinks on a typical day when drinking
- Frequency of having a drink containing alcohol (Every day/ 4-6 times a week/2-3 times a week/weekly/2-3 times a month/monthly or less/not in the last 12 months)
- Frequency of having 6 or more drinks on one occasion (Every day/ 4-6 times a week/2-3 times a week/weekly/2-3 times a month/monthly or less/not in the last 12 months)

A single item was employed to measure the use of tobacco products in the previous twelve months. Response categories were (1) everyday; (2) 4-6 times a week; (3) 2-3 times a week; (4) weekly; (5) 2-3 times a month; (6) monthly or less and; (7) not in the last 12 months.

Single items were also employed to measure the use of illegal drugs (cannabis or other non-prescription substances such as cocaine, amphetamine type stimulants, inhalants, hallucinogens, heroin) and misuse of prescription medication (sleeping pills, pain medications, or diet pills) in the previous 12 months. These items were based on a single-item screening test for drug use in primary care (Smith et al., 2010). This single item has demonstrated excellent sensitivity (.86-.96) and specificity (.89-.96) in detecting past year drug use, when compared to the Composite International

Diagnostic Interview Substance Abuse Model (Smith et al., 2010). In this study, response categories were (1) everyday; (2) 4-6 times a week; (3) 2-3 times a week; (4) weekly; (5) 2-3 times a month; (6) monthly or less and; (7) not in the last 12 months.

B.4 Depression

Depression was screened for using the Physical Health Questionnaire-2 (PHQ-2) (Kroenke, Spitzer & Williams, 2003). This brief screener comprises the first two items of the Physical Health Questionnaire, and represents the core DSM-IV items for major depressive disorder. Scores range from 0 to 6 and a score of 3 or greater indicates a positive screen for major depressive disorder (Kroenke, Spitzer, & Williams, 2003). The predictive accuracy of the PHQ-2 was compared to the structured clinical interview for DSM-III-R (SCID) and was found to have good sensitivity (.83) and specificity (.90) for classifying major depression. The internal consistency for the PHQ-2 in the current study was .65. Respondents were asked to indicate how often each item applied to them in the last 2 weeks. Specific items used were:

- Little interest or pleasure in doing things (Not at all/For several days/More than half the days/Nearly every day)
- Feeling down, depressed or hopeless (Not at all/For several days/More than half the days/Nearly every day)

B.5 Anxiety

The Generalised Anxiety Disorder-2 (GAD-2) (Kroenke et al., 2007) was employed to measure generalised anxiety. This brief screen comprises the first two items of the Generalised Anxiety Disorder (GAD) questionnaire, and represents the core DSM-IV items for generalised anxiety disorder. Scores range from 0 to 6 and a score of 3 or greater indicates a positive screen for generalised anxiety disorder (Kroenke et al., 2007). The predictive accuracy of the GAD-2 was compared to the GAD sections of the Structured Clinical Interview for DSM-IV (SCID). Validity results indicated that with a cut-off score of 3 the GAD-2 has good sensitivity (.76-.93) and specificity (.80 to.85). The internal consistency for the GAD-2 in the current study was .75. Respondents were asked to indicate how often each symptom applied to them in the last 2 weeks. Specific items used were:

Feeling nervous, anxious or on edge (Not at all/For several days/More than half the days/Nearly every day)Not being able to stop or control worrying (Not at all/For several days/More than half the days/Nearly every day)

C

2017 PREVALENCE SURVEY QUESTIONNAIRE

The following pages comprise the full questionnaire used for the 2017 Tasmanian gambling prevalence survey.

1. SOCIAL AND ECONOMIC IMPACT STUDY OF GAMBLING IN TASMANIA
CATI SURVEY SCRIPT
2017

1. **CALL OUTCOMES AND RR1

**USE STANDARD CALL OUTCOME LIST AND RR1

*(ALL)
SAMPTYPE

Landline
Mobile

ANSM1.Good morning/afternoon/evening. My name is <SAY NAME> calling on behalf of the Tasmanian Government from the Social Research Centre. We are conducting some important research with Tasmanians about their health and lifestyle choices. If you would like to take part in this study, please call our hotline number: 1800 023 040 and we will call you back at a time that is convenient to you. Thank you and we look forward to hearing from you."

ANSM2.Good morning/afternoon/evening. My name is <SAY NAME> calling on behalf of the Tasmanian Government from the Social Research Centre. We left a message recently on your answering machine/voice mail regarding some important research with Tasmanians about their health and lifestyle choices. If you would like to take part in this study, please call our hotline number: 1800 023 040 and we will call you back at a time that is convenient to you. Thank you and we look forward to hearing from you."

2. *SCREENING AND INTRODUCTION

WELCOME SCREEN

Hi, my name is <name> calling on behalf of the Tasmanian Government from the Social Research Centre. We are conducting some important research with Tasmanians about their health and lifestyle choices. The information from this survey will be used by the Tasmanian Government to prioritise resources and assist in planning for various social issues.

*(ALL)
AM_FLAG: Are you leaving an answering machine message?

1. No continue to introduction
2. No message left
3. Yes (Left answering machine 1 message) (GO TO ANSM1)
4. Yes (Left answering machine 2 message) (GO TO ANSM2)

*(ALL)
TS0 TIMESTAMP 0

*(SAMPTYPE=1) (LANDLINE SAMPLE)
S1 To see if someone qualifies in the house, I would like to speak to the youngest male in the household aged 18 and over? (IF NO MALES) Could I please speak to the youngest female in the household aged 18 or over? Would that be you?

(IF NECESSARY: The specific topics will be revealed throughout the survey.)

1. Continue with same respondent
2. Continue with new respondent
3. Household refusal (ATTEMPT CONVERSION / RECORD REASON) (GO TO RR1)
4. Not a resident of Tasmania (GO TO TERM 1)
5. No-one in household aged 18 years and over (GO TO TERM 2)
6. Household LOTE – (no language follow up) (GO TO ALOTE)
7. Queried about how telephone number was obtained (DISPLAY PTEL)

*(SAMPTYPE=1) (NEW RESPONDENT) (IF S1=2)

S2 Hi, my name is <name> calling on behalf of the Tasmanian Government from the Social Research Centre. We are conducting some important research with Tasmanians about their health and lifestyle choices. The information from this survey will be used by the Tasmanian Government to prioritise resources and assist in planning for various social issues which we will cover in the questionnaire.

(IF NECESSARY: The specific topics will be revealed throughout the survey.)

1. Continue
2. Respondent refusal (ATTEMPT CONVERSION / RECORD REASON) (GO TO RR1)
3. Respondent LOTE – (no language follow up) (GO TO ALOTE)
4. Queried about how telephone number was obtained (DISPLAY PTEL)

*(S1=7 OR S2=4) (QUERIED HOW TELEPHONE NUMBER WAS OBTAINED)

PTEL Your telephone number has been chosen at random from all possible telephone numbers in your area. We find that this is the best way to obtain a representative sample of all Tasmanians for our research.

1. Snap back to previous question

*(SAMPTYPE=2) (MOBILE SAMPLE)

S4 At the moment we are looking to speak with people aged 18 and over, would you be 18 or over?

(IF NECESSARY: The specific topics will be revealed throughout the survey.)

1. Continue with same respondent
2. Not a resident of Tasmania (GO TO TERM 1)
3. Not 18 years and over (GO TO TERM 2)
4. Respondent refusal (ATTEMPT CONVERSION / RECORD REASON) (GO TO RR1)
5. Respondent LOTE – (no language follow up) (GO TO ALOTE)
6. Queried about how telephone number was obtained (DISPLAY MTEL)

*(S4=6) (QUERIED HOW TELEPHONE NUMBER WAS OBTAINED)

MTEL Your mobile number was provided by a commercial list provider. We're calling mobile phone numbers as well as landlines so we can get a representative a sample of people across Tasmania.

1. Snap back to previous question

*(SAMPTYPE=2)

S5 May I just check whether or not it is safe for you to take this call at the moment. If not, I am happy to call you back when it is more convenient for you.

1. Safe to take call (GO TO S7)
2. Not safe to take call (CONTINUE)
3. Selected respondent refusal (GO TO RR1)

*(SAMPTYPE=2) (NOT SAFE TO TAKE CALL)

S6 Do you want me to call you back on this number or would you prefer I call back on another phone?

1. This number (TYPE STOP, MAKE APPOINTMENT)
2. Another phone (TYPE STOP, MAKE APPOINTMENT, RECORD PHONE NUMBER)
3. Respondent Refusal (GO TO RR1)

*(SELECTED RESPONDENT)

S7 We would really like to ask you your opinion and find out about your experiences on these issues. This study has been given ethics approval by Deakin University.

This survey is confidential, and the information and opinions you provide will be used to produce a report for the Tasmanian government and may also be used for other research purposes. The information will be reported in a form that does not permit the identification of respondents.

You are able to withdraw at any time and while we would prefer that you answer all questions, if there are any you'd rather not answer that's fine, just let me know.

This survey only takes between 10 and 20 minutes, depending on your answers. Would it be ok if we made a start now?

1. Yes, continue
2. Respondent refusal (ATTEMPT CONVERSION / RECORD REASON) (GO TO RR1)

*(SELECTED RESPONDENT)

S8 This call may be monitored or recorded for quality assurance purposes. Please tell me if you do not want this to happen.

1. Monitoring and recording allowed
2. Monitoring and recording not permitted

*(ALL)
TS1 TIMESTAMP 1

5. *SECTION A: SCREENER DEMOGRAPHICS

*(ALL)
A1 Thank you. I am going to start by asking you a couple of questions about yourself, to help us group your responses with other people. First, what is the postcode where you live?

IF PCODE PROVIDED ON SAMPLE: Postcode is <insert sample PCODE>

1. Postcode correct as displayed
2. Postcode incorrect / not displayed (SPECIFY) (RANGE 7000 TO 7923)
3. (Don't know) (GO TO LOCALITYTEXT) (PROGRAMMER NOTE – USE SAMPLE POSTCODE IF AVAILABLE)
4. (Refused) (PROGRAMMER NOTE – USE SAMPLE POSTCODE IF AVAILABLE)

*A1=1-2 (POSTCODE PROVIDED)
LOCALITIES1 Can I please check the suburb or location where you live?

1. LIST ALL LOCALITIES ASSIGNED TO POSTCODE AND SELEC
2. None of the above. Please type at least 3 letters of suburb/locality
3. Don't know (GO TO TERM3)
4. Refused to confirm (GO TO TERM3)

*A1=3 OR 4 (POSTCODE NOT PROVIDED)
LOCALITYTEXT Can I please check the suburb or location where you live?

1. Open text box (Please type at least 3 letters of suburb/locality)
2. Don't know (GO TO TERM3)
3. Refused to confirm (GO TO TERM3)

*LOCALITIES1=2 OR LOCALITYTEXT=1 (ENTERED LOCALITY TEXT)
LOCALITIES2 PLEASE SELECT LOCALITY FROM LIST BELOW

1. LIST ALL LOCALITIES FROM LOOKUP LIST AND SELECT
2. Don't know / Not sure / Refused to confirm GO TO TERM3)

*(HIDDEN) (QUOTA VARIABLE REGION)
DVQ *(PROGRAMMER NOTE – LOOKUP LIST TO BE PROVIDED, OR DRAW FROM SAMPLE MARKET IF NO MATCH) (IF QUOTA FULL GO TO TERM4)

1. North
2. North West
3. South

*(ALL)
A3 What is your age in years?

*(PROGRAMMER NOTE: IF MORE THAN 90, DISPLAY "UNLIKELY RESPONSE – CONFIRM")

1. Under 18 (GO TO TERM 2)
2. Age given (Specify) (RANGE 18 TO 120)
3. (Refused)

*(REFUSED AGE) (A3 = 3)
A4 Which age group are you in?

1. 18 to 24 years

2. 25 to 29 years
3. 30 to 34 years
4. 35 to 39 years
5. 40 to 44 years
6. 45 to 49 years
7. 50 to 54 years
8. 55 to 59 years
9. 60 to 64 years
10. 65 to 69 years
11. 70 years or over
12. (Refused) (GO TO TERM6)

*(ALL)
A5 Can I please confirm your gender?

1. Male
2. Female
3. Other

*(ALL)
TS2 TIMESTAMP 2

6. *SECTION B: GAMBLING PARTICIPATION

*(ALL)
B1 For the first section of this survey we will be asking some questions about gambling. I am going to start by reading a list of popular gambling activities and ask if you have played them FOR MONEY in the previous 12 months. In the last 12 months, have you… (READ OUT)?
*(STRING TEXT In the last 12 months, have you… (READ OUT)?

(INTERVIEWER NOTE: Gambling by respondents is not restricted to that which occurred in the state of Tasmania. That is, gambling occurring in any other state or country can be included in this section.)

(STATEMENTS) (RANDOMISE A-J EXCLUDING K WHICH IS TO STAY LAST)

a. Played poker machines or electronic gaming machines
b. Bet on horse or greyhound races (INTERVIEWER NOTE: excluding sweeps such as for Melbourne Cup)
c. Purchased instant scratch tickets
d. Played a lottery (INTERVIEWER NOTE: such as Tattslotto, Powerball, Super 66, The Pools, Pick 3, Pick 5 Heads or Tails, and Lottoland)
e. Played TasKeno or other forms of keno
f. Played casino table games (INTERVIEWER NOTE: Such as blackjack, roulette or poker)
g. Played bingo
h. Bet on sporting or other events such as TV show results, election results
i. Bet on informal private games, such as betting on games or sports with friends or family (INTERVIEWER NOTE: betting with others such as family, friends and colleagues (NOT a formal gambling venue) on any activity, such as cards, mah-jong, snooker, online or offline computer games, board games, sports)
j. Participated in any other gambling activity that I haven't mentioned (excluding raffles or sweeps)? (SPECIFY)

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(HIDDEN) (ALL)
DV0 Gambling Status

1. (IF ANY STATEMENT B1 = 1) Gambler
2. (ALL STATEMENTS B1 = 2 OR 3 OR 4) Non Gambler

*(HIDDEN) (GAMBLERS) (DV0 = 1)
DV2 Gambling Activities (MULTIPLE RESPONSE ALLOWED)

1. (IF B1a = 1) Poker machines or electronic gaming machines
2. (IF B1b = 1) Horse or greyhound races (excluding sweeps)
3. (IF B1c = 1) Instant scratch tickets
4. (IF B1d = 1) Lotteries
5. (IF B1e = 1) Keno
6. (IF B1f = 1) Casino table games
7. (IF B1g = 1) Bingo
8. (IF B1h = 1) Sporting events or other events
9. (IF B1i = 1) Informal private games
10. (IF B1j = 1) Day trading
11. (IF B1k = 1) [INSERT SPECIFY FROM B1k]

*(ALL)
TS3 TIMESTAMP 3

*(EGM GAMBLER) (DV2_1 = 1)
C1 I am now going to ask you some questions specifically about your poker machine gambling. In the last 12 months, how many times per week, per month or per year have you played POKER MACHINES... (READ OUT)?

(INTERVIEWER NOTE: This refers to number of sessions of playing poker machines, NOT number of individual machines played)

(INTERVIEWER NOTE: Record number of times in appropriate code – only need to enter in one number depending on how they answer)

(STATEMENTS)
a. In a club or hotel
b. In a casino
c. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
d. Over the Internet using a desktop computer

(RESPONSE FRAME)

1. Enter times per week (RANGE 1 TO 14 times)
2. Enter times per month (RANGE 1 TO 62 times)
3. Enter times per year (RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

PROGRAMMER: TOTAL ANNUAL TIMES GAMBLED CALCULATION USING RESPONSE FRAME AT C1

- NUMBER TIMES PER WEEK x 52 OR
- NUMBER TIMES PER MONTH x 12 OR
- NUMBER TIMES PER YEAR

USE CALCULATION FOR EACH STATEMENT AT C1 (A-D) AND SUM INTO ONE TOTAL QUOTA VARIABLE REGION ANNUAL FIGURE FOR C1.

*(EGM GAMBLER) (DV2_1 = 1)

C1c In the past 12 months, how much time ON AVERAGE did you spend playing poker machines during EACH VISIT to a poker machine venue?

(IF NECESSARY: You can specify hours and/or minutes, whichever is easiest)

(INTERVIEWER NOTE:
- Each visit equals one session (i.e., betting during a discrete period of time EXCLUDING BREAKS at one location)
- If under an hour record in minutes option. If more than an hour record in hours option with decimal. 0.5 = half an hour

1. Enter hours (RANGE 1.00 TO 24.00 HOURS – ALLOW DECIMALS) *(DISPLAY "UNLIKELY RESPONSE" IF >15)
2. Enter minutes (ALLOWABLE RANGE 1 TO 60 MINUTES)
3. (Don't know)
4. (Refused)

*(EGM GAMBLER) (DV2_1 = 1)
C2 In the past 12 months, how much money, ON AVERAGE, did you SPEND on poker machines during EACH VISIT to a poker machine venue?

By SPEND we mean the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and what you had left when you finished playing.

(INTERVIEWER NOTE: Each visit = one session (i.e., betting during a discrete period of time at one location) | Spend – does not include counter meals, drinks etc.)

(INTERVIEWER NOTE: If respondent spontaneously says their AVERAGE per visit results in winnings, then enter $0 spent. This will be very rare. Do not prompt)

1. Enter money spent (RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >5000)
2. (Don't know)
3. (Refused)

*(EGM GAMBLER) (DV2_1 = 1)
C6 Thinking about your use of poker machines in the last 12 months, how often do you think you spend more than $1 per spin or button press?

1. Always (100% of the time)
2. Most of the time (more than 50% of the time)
3. Sometimes (25% to 50% of the time)
4. Rarely (1% to 25% of the time)
5. None of the time (0%)
6. (Don't know)
7. (Refused)

*(ALL)
TS4 TIMESTAMP 4

*(BET ON GREYHOUND RACES) (DV2_2=1)
D1a In the last 12 months, how many times per week, or per month or per year have you bet on HORSE OR GREYHOUND RACES (excluding sweeps) ... (READ OUT)?

(INTERVIEWER NOTE: This refers to number of sessions of betting on horse or greyhound races, NOT number of individual bets placed)

(STATEMENTS)

a. At a racetrack
b. At an off-course venue (such as UBET/TOTE/TAB, club, hotel or casino)
c. By telephone or SMS (mobile phone or landline)
d. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
e. Over the Internet using a desktop computer

(RESPONSE FRAME)

1. Enter times per week (RANGE 1 TO 14 times)
2. Enter times per month (RANGE 1 TO 62 times)
3. Enter times per year (RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

PROGRAMMER: TOTAL ANNUAL TIMES GAMBLED CALCULATION USING RESPONSE FRAME AT D1a

- NUMBER TIMES PER WEEK x 52 OR
- NUMBER TIMES PER MONTH x 12 OR
- NUMBER TIMES PER YEAR

USE CALCULATION FOR EACH STATEMENT AT D1a (A-E) AND SUM INTO ONE TOTAL ANNUAL FIGURE FOR D1a

*(BET ON GREYHOUND RACES) (DV2_2=1)

D1c In the past 12 months, how much time ON AVERAGE did you spend betting on horse or greyhound races during EACH SESSION of betting on horse or greyhound races?

(IF NECESSARY: You can specify hours and/or minutes, whichever is easiest)

(INTERVIEWER NOTE:

- Each time equals one session (i.e., betting during a discrete period of time EXCLUDING BREAKS at one location)
- If under an hour record in minutes option. If more than an hour record in hours option with decimal. 0.5 = half an hour.)

1. Enter hours (RANGE 1.00 TO 24.00 HOURS – ALLOW DECIMALS) *(DISPLAY "UNLIKELY RESPONSE" IF >15)
2. Enter minutes (RANGE 1 TO 60 MINUTES)
3. (Don't know)
4. (Refused)

*(BET ON HORSE OR GREYHOUND RACES) (DV2_2=1)

D1b In the past 12 months, approximately how much money, ON AVERAGE, did you spend during EACH SESSION of betting on horse or greyhound races?

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

(INTERVIEWER NOTE: If respondent spontaneously says their AVERAGE per session results in winnings, then enter $0 spent. This will be very rare. Do not prompt)

1. Enter money spent (RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >5000)
2. (Don't know)
3. (Refused)

*(ALL)
TS5 TIMESTAMP 5

*(BUY INSTANT SCRATCH TICKETS) (DV2_3=1)
D2a In the last 12 months, how many times per week or per month or per year have you purchased INSTANT SCRATCH TICKETS?

(STATEMENTS)
a. In a newsagent or Tattersall's outlet
b. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
c. Over the Internet using a desktop computer

(RESPONSE FRAME)
1. Enter times per week (RANGE 1 TO 14 times)
2. Enter times per month (RANGE 1 TO 62 times)
3. Enter times per year (RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

PROGRAMMER: TOTAL ANNUAL TIMES GAMBLED CALCULATION USING RESPONSE FRAME AT D2a

- NUMBER TIMES PER WEEK x 52 OR
- NUMBER TIMES PER MONTH x 12 OR
- NUMBER TIMES PER YEAR

USE CALCULATION FOR EACH STATEMENT AT D2a (A-C) AND SUM INTO ONE TOTAL ANNUAL FIGURE FOR D2a

*(BUY INSTANT SCRATCH TICKETS) (DV2_3=1)
D2c In the past 12 months, how much time ON AVERAGE did you SPEND during EACH TRANSACTION of purchasing instant scratch tickets?

(IF NECESSARY: You can specify hours and/or minutes, whichever is easiest)

(INTERVIEWER NOTE:
- Each time equals one transaction
- If under an hour record in minutes option. If more than an hour record in hours option with decimal. 0.5 = half an hour.)

1. Enter hours (RANGE 1.00 TO 24.00 HOURS – ALLOW DECIMALS) *(DISPLAY "UNLIKELY RESPONSE" IF >15)
2. Enter minutes (RANGE 1 TO 60 MINUTES)
3. (Don't know)
4. (Refused)

*(BUY INSTANT SCRATCH TICKETS) (DV2_3=1)
D2b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH TRANSACTION of purchasing instant scratch tickets?

(INTERVIEWER NOTE: If respondent spontaneously says their AVERAGE per transaction results in winnings, then enter $0 spent. This will be very rare. Do not prompt)

1. Enter money spent (RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >50)
2. (Don't know)
3. (Refused)

*(ALL)
TS6 TIMESTAMP 6

*(PLAY LOTTERIES) (DV2_4=1)
D3a In the last 12 months, how many times per week, or per month, or per year have you played a LOTTERY?

(STATEMENTS)
a. In a newsagent or Tattersalls outlet
b. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
c. Over the Internet using a desktop computer

(RESPONSE FRAME)
1. Enter times per week (RANGE 1 TO 14 times)
2. Enter times per month (RANGE 1 TO 62 times)
3. Enter times per year (RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

PROGRAMMER: TOTAL ANNUAL TIMES GAMBLED CALCULATION USING RESPONSE FRAME AT D3a
1. NUMBER TIMES PER WEEK x 52 OR
2. NUMBER TIMES PER MONTH x 12 OR
3. NUMBER TIMES PER YEAR
USE CALCULATION FOR EACH STATEMENT AT D3a (A-C) AND SUM INTO ONE TOTAL ANNUAL FIGURE FOR D3a

*(PLAY LOTTERIES) (DV2_4=1)
D3c In the past 12 months, how much time ON AVERAGE did you SPEND during EACH TRANSACTION of playing a lottery?

(IF NECESSARY: You can specify hours and/or minutes, whichever is easiest)

(INTERVIEWER NOTE:
- Each time equals one transaction
- If under an hour record in minutes option. If more than an hour record in hours option with decimal. 0.5 = half an hour.)

1. Enter hours (RANGE 1.00 TO 24.00 HOURS – ALLOW DECIMALS) *(DISPLAY "UNLIKELY RESPONSE" IF >15)
2. Enter minutes (RANGE 1 TO 60 MINUTES)
3. (Don't know)
4. (Refused)

*(PLAY LOTTERIES) (DV2_4=1)
D3b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH TRANSACTION of playing a lottery?

(INTERVIEWER NOTE: If respondent spontaneously says their AVERAGE per transaction results in winnings, then enter $0 spent. This will be very rare. Do not prompt)

1. Enter money spent (RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >100)
2. (Don't know)
3. (Refused)

*(ALL)
TS7 TIMESTAMP 7

*(PLAY KENO) (DV2_5=1)

D4a In the last 12 months, how many times per week, or per month, or per year have you played TASKENO or other forms of KENO... (READ OUT)?

(STATEMENTS)
a. In a club or hotel
b. In a casino
c. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
d. Over the Internet using a desktop computer

(RESPONSE FRAME)
1. Enter times per week (RANGE 1 TO 14 times)
2. Enter times per month (RANGE 1 TO 62 times)
3. Enter times per year (RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

PROGRAMMER: TOTAL ANNUAL TIMES GAMBLED CALCULATION USING RESPONSE FRAME AT D4a

- NUMBER TIMES PER WEEK x 52 OR
- NUMBER TIMES PER MONTH x 12 OR
- NUMBER TIMES PER YEAR

USE CALCULATION FOR EACH STATEMENT AT D4a (A-E) AND SUM INTO ONE TOTAL ANNUAL FIGURE FOR D4a

*(PLAY KENO) (DV2_5=1)
D4c In the past 12 months, how much time ON AVERAGE did you SPEND during EACH SESSION of playing TasKeno or other forms of keno?

(IF NECESSARY: You can specify hours and/or minutes, whichever is easiest)

(INTERVIEWER NOTE:
- Each time equals one session (i.e., betting during a discrete period of time EXCLUDING BREAKS at one location)
- If under an hour record in minutes option. If more than an hour record in hours option with decimal. 0.5 = half an hour.)

1. Enter hours (RANGE 1.00 TO 24.00 HOURS – ALLOW DECIMALS) *(DISPLAY "UNLIKELY RESPONSE" IF >15)
2. Enter minutes (RANGE 1 TO 60 MINUTES)
3. (Don't know)
4. (Refused)

*(PLAY KENO) (DV2_5=1)
D4b In the past 12 months, how much money, on AVERAGE, did you SPEND during EACH SESSION of playing TasKeno or other forms of keno?

(INTERVIEWER NOTE: If respondent spontaneously says their AVERAGE per session results in winnings, then enter $0 spent. This will be very rare. Do not prompt)

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

1. Enter money spent (RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >500)
2. (Don't know)
3. (Refused)

*(ALL)
TS8 TIMESTAMP 8

*(PLAY TABLE GAMES) (DV2_6=1)
D5a In the last 12 months, how many times per week, or per month, or per year have you played CASINO TABLE GAMES… (READ OUT)?

(INTERVIEWER NOTE: Such as blackjack, roulette, poker)

(STATEMENTS)
a. At a casino
b. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
c. Over the Internet using a desktop computer

(RESPONSE FRAME)
1. Enter times per week (RANGE 1 TO 14 times)
2. Enter times per month (RANGE 1 TO 62 times)
3. Enter times per year (RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

PROGRAMMER: TOTAL ANNUAL TIMES GAMBLED CALCULATION USING RESPONSE FRAME AT D5a
- NUMBER TIMES PER WEEK x 52 OR
- NUMBER TIMES PER MONTH x 12 OR
- NUMBER TIMES PER YEAR

USE CALCULATION FOR EACH STATEMENT AT D5a (A-C) AND SUM INTO ONE TOTAL ANNUAL FIGURE FOR D5a

*(PLAY TABLE GAMES) (DV2_6=1)
D5c In the past 12 months, how much time ON AVERAGE did you SPEND during EACH SESSION you played casino table games?

(IF NECESSARY: You can specify hours and/or minutes, whichever is easiest)

(INTERVIEWER NOTE:
- Each time equals one session (i.e., betting during a discrete period of time EXCLUDING BREAKS at one location)
- If under an hour record in minutes option. If more than an hour record in hours option with decimal. 0.5 = half an hour.)

1. Enter hours (RANGE 1.00 TO 24.00 HOURS – ALLOW DECIMALS) *(DISPLAY "UNLIKELY RESPONSE" IF >15)
2. Enter minutes (RANGE 1 TO 60 MINUTES)
3. (Don't know)
4. (Refused)

*(PLAY TABLE GAMES) (DV2_6=1)
D5b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH SESSION you played casino table games?

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

(INTERVIEWER NOTE: If respondent spontaneously says their AVERAGE per session results in winnings, then enter $0 spent. This will be very rare. Do not prompt)

1. Enter money spent (RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >5000)
2. (Don't know)
3. (Refused)

*(ALL)
TS9 TIMESTAMP 9

*(PLAY BINGO) (DV2_7=1)
D6a In the last 12 months, how many times per week, or per month, or per year have you played BINGO?

(STATEMENTS)
a. In a club or hall
b. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
c. Over the Internet using a desktop computer

(RESPONSE FRAME)
1. Enter times per week (RANGE 1 TO 14 times)
2. Enter times per month (RANGE 1 TO 62 times)
3. Enter times per year (RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

PROGRAMMER: TOTAL ANNUAL TIMES GAMBLED CALCULATION USING RESPONSE FRAME AT D6a
- NUMBER TIMES PER WEEK x 52 OR
- NUMBER TIMES PER MONTH x 12 OR
- NUMBER TIMES PER YEAR

USE CALCULATION FOR EACH STATEMENT AT D6a (A-C) AND SUM INTO ONE TOTAL ANNUAL FIGURE FOR D6a

*(PLAY BINGO) (DV2_7=1)
D6c In the past 12 months, how much time ON AVERAGE did you SPEND during EACH SESSION of playing bingo?

(IF NECESSARY: You can specify hours and/or minutes, whichever is easiest)

(INTERVIEWER NOTE:
- Each time equals one session (i.e., betting during a discrete period of time EXCLUDING BREAKS at one location)
- If under an hour record in minutes option. If more than an hour record in hours option with decimal. 0.5 = half an hour.)

1. Enter hours (RANGE 1.00 TO 24.00 HOURS – ALLOW DECIMALS) *(DISPLAY "UNLIKELY RESPONSE" IF >15)
2. Enter minutes (RANGE 1 TO 60 MINUTES)
3. (Don't know)
4. (Refused)

*(PLAY BINGO) (DV2_7=1)
D6b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH SESSION of playing bingo?

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one

location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

(INTERVIEWER NOTE: If respondent spontaneously says their AVERAGE per session results in winnings, then enter $0 spent. This will be very rare. Do not prompt)

1. Enter money spent (RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >500)
2. (Don't know)
3. (Refused)

*(ALL)
TS10 TIMESTAMP 10

*(BET ON SPORT EVENTS) (DV2_8=1)
D7a In the last 12 months, how many times per week, or per month, or per year have you bet on SPORTING OR OTHER EVENTS... (READ OUT)?

(STATEMENTS)
a. At an off-course venue (such as UBET/TOTE/TAB, club, hotel or casino)
b. Over the Internet on a mobile device (website or app on a smartphone, laptop, or iPad)
c. Over the Internet using a desktop computer
d. By telephone or SMS (landline or mobile phone)

(RESPONSE FRAME)
1. Enter times per week (RANGE 1 TO 14 times)
2. Enter times per month (RANGE 1 TO 62 times)
3. Enter times per year (RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

PROGRAMMER: TOTAL ANNUAL TIMES GAMBLED CALCULATION USING RESPONSE FRAME AT D7a
- NUMBER TIMES PER WEEK x 52 OR
- NUMBER TIMES PER MONTH x 12 OR
- NUMBER TIMES PER YEAR

USE CALCULATION FOR EACH STATEMENT AT D7a (A-D) AND SUM INTO ONE TOTAL ANNUAL FIGURE FOR D7a

*(BET ON SPORT EVENTS) (DV2_8=1)
D7c In the past 12 months, how much time ON AVERAGE did you SPEND during EACH SESSION of betting on sporting or other events?

(IF NECESSARY: You can specify hours and/or minutes, whichever is easiest)

(INTERVIEWER NOTE:
- Each time equals one session (i.e., betting during a discrete period of time EXCLUDING BREAKS at one location)
- If under an hour record in minutes option. If more than an hour record in hours option with decimal. 0.5 = half an hour.)

1. Enter hours (RANGE 1.00 TO 24.00 HOURS – ALLOW DECIMALS) *(DISPLAY "UNLIKELY RESPONSE" IF >15)
2. Enter minutes (RANGE 1 TO 60 MINUTES)
3. (Don't know)
4. (Refused)

*(BET ON SPORT EVENTS) (DV2_8=1)

D7b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH SESSION of betting on sporting or other events?

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

(INTERVIEWER NOTE: If respondent spontaneously says their AVERAGE per session results in winnings, then enter $0 spent. This will be very rare. Do not prompt)

1. Enter money spent (RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >5000)
2. (Don't know)
3. (Refused)

*(ALL)
TS11 TIMESTAMP 11

*(BET ON PRIVATE GAMES) (DV2_9=1)
D8a In the last 12 months, how many times per week, or per month, or per year have you bet on INFORMAL PRIVATE GAMES FOR MONEY (e.g. cards, mah-jong, snooker, online or offline computer games, board games, sports)?

1. Enter times per week (RANGE 1 TO 14 times)
2. Enter times per month (RANGE 1 TO 62 times)
3. Enter times per year (RANGE 1 TO 730 times)
4. (Don't know)
5. (Refused)
6. None

PROGRAMMER: TOTAL ANNUAL TIMES GAMBLED CALCULATION USING RESPONSE FRAME AT D8a

- NUMBER TIMES PER WEEK x 52 OR
- NUMBER TIMES PER MONTH x 12 OR
- NUMBER TIMES PER YEAR

USE CALCULATION TO SUM INTO ONE TOTAL ANNUAL FIGURE FOR D8a

*(BET ON PRIVATE GAMES) (DV2_9=1)
D8c In the past 12 months, how much time ON AVERAGE did you SPEND during EACH SESSION of betting on informal private games for money?

(IF NECESSARY: You can specify hours and/or minutes, whichever is easiest)

(INTERVIEWER NOTE:

- Each time equals one session (i.e., betting during a discrete period of time EXCLUDING BREAKS at one location)
- If under an hour record in minutes option. If more than an hour record in hours option with decimal. 0.5 = half an hour.)

1. Enter hours (RANGE 1.00 TO 24.00 HOURS – ALLOW DECIMALS) *(DISPLAY "UNLIKELY RESPONSE" IF >15)
2. Enter minutes (RANGE 1 TO 60 MINUTES)
3. (Don't know)
4. (Refused)

*(BET ON PRIVATE GAMES) (DV2_9=1)
D8b In the past 12 months, how much money, ON AVERAGE, did you SPEND during EACH SESSION of betting on informal private games for money?

(INTERVIEWER NOTE: Each session means betting during a discrete period of time at one location | Spend = the difference between what you took with you (including any additional money withdrawn or borrowed during the period of play) and had left when you finished playing)

(INTERVIEWER NOTE: If respondent spontaneously says their AVERAGE per session results in winnings, then enter $0 spent. This will be very rare. Do not prompt)

1. Enter money spent (RANGE 0 TO 100000) *(DISPLAY "UNLIKELY RESPONSE" IF >5000)
2. (Don't know)
3. (Refused)

*(ALL)
TS12 TIMESTAMP 12

*(ALL) (HIDDEN)
GAMBLING FREQUENCY TOTAL

- TOTAL ANNUAL TIMES GAMBLED ACROSS ALL TYPES OF GAMBLING EXCEPT DAY TRADING …
  - C1 (A-D) – egm
  - D1a (A-E) – horses/dogs
  - D2a (A-C) – scratch tickets
  - D3a (A-C) – lotteries
  - D4a (A-E) – keno
  - D5a (A-C) – table games
  - D6a (A-C) – bingo
  - D7a (A-D) – sports events
  - D8a – private games
  - D10a – other

*(ALL)
TS15 TIMESTAMP 14

7. *SECTION E: PROBLEM GAMBLING SEVERITY (PGSI)

*(ALL GAMBLERS) (DV0=1)
E1 For this next series of questions, please try to be as accurate as possible. Please bear with me, as I understand that these questions may not apply to your situation but we do have to ask them of everyone.
Thinking about the last 12 months how often … (PROGRAMMER SET UP SO IT INSERTS STATEMENT)?

(STATEMENTS) (RANDOMISE)

a. have you bet more than you could really afford to lose?
b. have you needed to gamble with larger amounts of money to get the same feeling of excitement?
c. have you gone back another day to try to win back the money you lost?
d. have you borrowed money or sold anything to get money to gamble?
e. have you felt that you might have a problem with gambling?
f. have people criticized your betting or told you that you had a gambling problem, whether or not you thought it was true?
g. have you felt guilty about the way you gamble or what happens when you gamble?
h. has your gambling caused you any health problems, including stress or anxiety?

i. has your gambling caused financial problems for you or your household?

(RESPONSE FRAME) (READ OUT)
1. Almost always
2. Most of the time
3. Sometimes
4. Never
5. (Don't know)
6. (Refused)

*(HIDDEN) (ALL)
DV3 Problem Gambling

1. (IF E1a-i ALL = 4-6) Non Problem Gambling
2. (IF E1a-i ANY = 1-3) Some Problem Gambling

*(ALL)
TS16 TIMESTAMP 15

8. *SECTION S: GAMBLING HARMS (GAMBLERS)

*(ALL GAMBLERS) (DV0=1)
SS1 These next questions are about how gambling can affect people in a negative way. In the last 12 months, have you experienced any of the following issues as a result of your gambling …

(STATEMENTS) (RANDOMISE)
a. reduction of your available spending money
b. reduction of your savings
c. less spending on recreational expenses such as eating out, going to movies or other entertainment
d. had regrets that made you feel sorry about your gambling
e. felt ashamed of your gambling
f. sold personal items
g. increased credit card debt
h. spent less time with people you care about
i. felt distressed about your gambling
j. felt like a failure

(RESPONSE FRAME)
1. Yes
2. No
3. (Don't know)
4. (Refused)

*(HIDDEN) (ALL GAMBLERS) (DV0=1)
DV6 Short Gambling Harms Scale

1. (ALL STATEMENTS SS1 = 2 OR 3 OR 4) No harms
2. (IF ANY STATEMENT SS1 = 1) Harms

*(ALL)
TS17 TIMESTAMP 16

BRIEF DISABILITY WEIGHT QUALITY OF LIFE ELICITATION PROTOCOL FOR GAMBLERS

*(ALL GAMBLERS) (DV0=1)
SS2 Over the past year, has your gambling made your life better or worse?

(RESPONSE FRAME)

1. Better
2. Worse
3. (Neither)
4. (Don't know)
5. (Refused)

*(GAMBLING MADE YOUR LIFE BETTER) (SS2=1)
SS2a Overall, how much better has gambling made your life? (READ OUT)

1. Less than 2% better
2. < 5% better
3. < 10% better
4. <20% better
5. 50% better or more
6. (Don't know)
7. (Refused)

*(GAMBLING MADE YOUR LIFE WORSE) (SS2=2)
SS2b Overall, how much worse has gambling made your life? (READ OUT)

(RESPONSE FRAME)

1. Less than 2% worse
2. < 5% worse
3. < 10% worse
4. <20% worse
5. 50% worse or more
6. (Don't know)
7. (Refused)

*(ALL)
TS18 TIMESTAMP 17

PROGRESSIVE DISCRETE CHOICE QUALITY OF LIFE ELICITATION PROTOCOL FOR GAMBLERS

*(ALL GAMBLERS) (DV0=1)
DV7 RANDOM ASSIGNMENT FOR PDCQOLE ORDER

1. Order A (50% of sample)
2. Order B (50% of sample

ORDER A
UPSIDE PROTOCOL FOR GAMBLERS

***(**DV7 =1) (ORDER A)
SS3a For this next set of questions, I will ask you to consider how your life might be changed by either living with- or without gambling.

Imagine two situations:

a) You live a further 10 years without being able to gamble at all
b) You live only a further 5 years and are able to gamble normally and without problems

For you, which is the better option? (a or b).

1. a) You live a further 10 years without being able to gamble at all
2. b) You live only a further 5 years and are able to gamble normally and without problems
3. (Don't know)
4. (Refused)

***(**DV7 =1 AND SS3a = 1) (ORDER A AND CHOSE OPTION A AT SS3a)
SS3b Imagine two situations:

a) You live a further 10 years without being able to gamble at all
b) You live only a further 8 years and are able to gamble normally and without problems

For you, which is the better option? (a or b)

1. a) You live a further 10 years without being able to gamble at all
2. b) You live only a further 8 years and are able to gamble normally and without problems
3. (Don't know)
4. (Refused)

***(**DV7 =1 AND SS3b = 1) (ORDER A OF PDCQOLE AND CHOSE OPTION A AT SS3b)
SS3c Imagine two situations:

a) You live a further 10 years without being able to gamble at all
b) You live only a further 9 years and are able to gamble normally and without problems

For you, which is the better option? (a or b).

1. a) You live a further 10 years without being able to gamble at all
2. b) You live only a further 9 years and are able to gamble normally and without problems
3. (Don't know)
4. (Refused)

***(**DV7 =1 AND SS3c = 1) (ORDER A OF PDCQOLE AND CHOSE OPTION A AT SS3b)
SS3d Imagine two situations:

a) You live a further 10 years without being able to gamble at all
b) You live only a further 9 years and 6 months, and are able to gamble normally and without problems

For you, which is the better option? (a or b).

1. a) You live a further 10 years without being able to gamble at all
2. b) You live only a further 9 years and 6 months, and are able to gamble normally and without problems
3. (Don't know)
4. (Refused)

*(DV7 =1 AND SS3d = 1) (ORDER A OF PDCQOLE AND CHOSE OPTION A AT SS3d)
SS3e Imagine two situations:

a) You live a further 10 years without being able to gamble at all
b) You live only a further 9 years and 9 months, and are able to gamble normally and without problems

For you, which is the better option? (a or b).

1. a) You live a further 10 years without being able to gamble at all
2. b) You live only a further 9 years and 9 months, and are able to gamble normally and without problems
3. (Don't know)
4. (Refused)

*(DV7 =1 AND SS3e = 1) (ORDER A OF PDCQOLE AND CHOSE OPTION A AT SS3e)
SS3f Imagine two situations:

a) You live a further 10 years without being able to gamble at all
b) You live 1 week less than 10 years, and are able to gamble normally and without problems.

For you, which is the better option? (a or b)

1. a) You live a further 10 years without being able to gamble at all
2. b) You live 1 week less than 10 years, and are able to gamble normally and without problems
3. (Don't know)
4. (Refused)

ORDER A
DOWNSIDE PROTOCOL FOR GAMBLERS

***(**DV7 =1) (ORDER A)
SS4a For this next set of questions, I will ask you to consider any negative consequences that may arise from your gambling. Consider how your life might be different living with or without these consequences.

Imagine two situations in which you continue gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
b) You live only a further 5 years, but are able to gamble without any negative consequences

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 5 years, but are able to gamble without any negative consequences
3. (Don't know)
4. (Refused)

***(**DV7 =1 AND SS4a = 1) (ORDER A AND CHOSE OPTION A AT SS4a)
SS4b Imagine two situations in which you continue gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
b) You live only a further 8 years, but are able to gamble without any negative consequences

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 8 years, but are able to gamble without any negative consequences
3. (Don't know)
4. (Refused)

***(**DV7 =1 AND SS4b = 1) (ORDER A AND CHOSE OPTION A AT SS4b)
SS4c Imagine two situations in which you continue gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
b) You live only a further 9 years, but are able to gamble without any negative consequences

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 9 years, but are able to gamble without any negative consequences
3. (Don't know)
4. (Refused)

***(**DV7 =1 AND SS4c = 1) (ORDER A AND CHOSE OPTION A AT SS4c)

SS4d Imagine two situations in which you continue gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
b) You live only a further 9 years and 6 months, but are able to gamble without any negative consequences

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 9 years and 6 months, but are able to gamble without any negative consequences
3. (Don't know)
4. (Refused)

*(DV7 =1 AND SS4d = 1) (ORDER A AND CHOSE OPTION A AT SS4d)
SS4e Imagine two situations in which you continue gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
b) You live only a further 9 years and 9 months, but are able to gamble without any negative consequences

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 9 years and 9 months, but are able to gamble without any negative consequences
3. (Don't know)
4. (Refused)

*(DV7 =1 AND SS4e = 1) (ORDER A AND CHOSE OPTION A AT SS4e)
SS4f Imagine two situations in which you continue gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
b) You live 1 week less than 10 years, but are able to gamble without any negative consequences

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live 1 week less than 10 years, but are able to gamble without any negative consequences
3. (Don't know)
4. (Refused)

*(ALL)
TS18 TIMESTAMP 18

ORDER B
UPSIDE PROTOCOL FOR GAMBLERS

***(**DV7 =2) (ORDER B)
SS3f2 For this next set of questions, I will ask you to consider how your life might be changed by either living with- or without gambling.

Imagine two situations:

a) You live a further 10 years without being able to gamble at all
b) You live 1 week less than 10 years, and are able to gamble normally and without problems.

For you, which is the better option? (a or b)

1. a) You live a further 10 years without being able to gamble at all
2. b) You live 1 week less than 10 years, and are able to gamble normally and without problems
3. (Don't know)
4. (Refused)

***(**DV7 =2 AND SS3f2= 2) (ORDER B OF PDCQOLE AND CHOSE OPTION B AT SS3f2)
SS3e2 Imagine two situations:

a) You live a further 10 years without being able to gamble at all
b) You live only a further 9 years and 9 months, and are able to gamble normally and without problems

For you, which is the better option? (a or b).

1. a) You live a further 10 years without being able to gamble at all
2. b) You live only a further 9 years and 9 months, and are able to gamble normally and without problems
3. (Don't know)
4. (Refused)

***(**DV7 =2 AND SS3e2= 2) (ORDER B OF PDCQOLE AND CHOSE OPTION B AT SS3e2)
SS3d2 Imagine two situations:

a) You live a further 10 years without being able to gamble at all
b) You live only a further 9 years and 6 months, and are able to gamble normally and without problems

For you, which is the better option? (a or b). Respondents answering (b) skip all remaining items

1. a) You live a further 10 years without being able to gamble at all
2. b) You live only a further 9 years and 6 months, and are able to gamble normally and without problems
3. (Don't know)
4. (Refused)

***(**DV7 =2 AND SS3d2 = 2) (ORDER B OF PDCQOLE AND CHOSE OPTION B AT SS3d2)
SS3c2 Imagine two situations:

a) You live a further 10 years without being able to gamble at all
b) You live only a further 9 years and are able to gamble normally and without problems

For you, which is the better option? (a or b).

1. a) You live a further 10 years without being able to gamble at all

2. b) You live only a further 9 years and are able to gamble normally and without problems
3. (Don't know)
4. (Refused)

*(DV7 =2 AND SS3c2 = 2) (ORDER B AND CHOSE OPTION B AT SS3c2)
SS3b2 Imagine two situations:

a) You live a further 10 years without being able to gamble at all
b) You live only a further 8 years and are able to gamble normally and without problems

For you, which is the better option? (a or b)

1. a) You live a further 10 years without being able to gamble at all
2. b) You live only a further 8 years and are able to gamble normally and without problems
3. (Don't know)
4. (Refused)

*(DV7 =2 AND SS3b2 = 2) (ORDER B AND CHOSE OPTION B AT SS3b2)
SS3a2 For this next set of questions, I will ask you to consider how your life might be changed by either living with- or without gambling.

Imagine two situations:

a) You live a further 10 years without being able to gamble at all
b) You live only a further 5 years and are able to gamble normally and without problems

For you, which is the better option? (a or b).

1. a) You live a further 10 years without being able to gamble at all
2. b) You live only a further 5 years and are able to gamble normally and without problems
3. (Don't know)
4. (Refused)

*(ALL)
TS19 TIMESTAMP 19

ORDER B
DOWNSIDE PROTOCOL FOR GAMBLERS

***(**DV7 =2) (ORDER B)
SS4f2 For this next set of questions, I will ask you to consider any negative consequences that may arise from your gambling. Consider how your life might be different living with or without these consequences

Imagine two situations in which you continue gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
b) You live 1 week less than 10 years, but are able to gamble without any negative consequences

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live 1 week less than 10 years, but are able to gamble without any negative consequences
3. (Don't know)
4. (Refused)

***(**DV7 =2 AND SS4f2 = 2) (ORDER B AND CHOSE OPTION B AT SS4f2)
SS4e2 Imagine two situations in which you continue gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
b) You live only a further 9 years and 9 months, but are able to gamble without any negative consequences

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 9 years and 9 months, but are able to gamble without any negative consequences
3. (Don't know)
4. (Refused)

***(**DV7 =2 AND SS4e2 = 2) (ORDER B AND CHOSE OPTION B AT SS4e2)
SS4d2 Imagine two situations in which you continue gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
b) You live only a further 9 years and 6 months, but are able to gamble without any negative consequences

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 9 years and 6 months, but are able to gamble without any negative consequences
3. (Don't know)
4. (Refused)

*(DV7 =2AND SS4d2 = 2) (ORDER B AND CHOSE OPTION B AT SS4d2)
SS4c2 Imagine two situations in which you continue gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
b) You live only a further 9 years, but are able to gamble without any negative consequences

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 9 years, but are able to gamble without any negative consequences
3. (Don't know)
4. (Refused)

*(DV7 =2 AND SS4c2 = 2) (ORDER B AND CHOSE OPTION B AT SS4c2)
SS4b2 Imagine two situations in which you continue gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
b) You live only a further 8 years, but are able to gamble without any negative consequences

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 8 years, but are able to gamble without any negative consequences
3. (Don't know)
4. (Refused)

*(DV7 =2 AND SS4b2 = 2) (ORDER B AND CHOSE OPTION B AT SS4b2)
SS4a2 Imagine two situations in which you continue gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
b) You live only a further 5 years, but are able to gamble without any negative consequences

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 5 years, but are able to gamble without any negative consequences
3. (Don't know)
4. (Refused)

*(ALL)
TS20 TIMESTAMP 20

9. *SECTION T: GAMBLING HARMS (AFFECTED OTHERS)

*(ALL)
T1 These next questions are about how another person's gambling can affect you in a negative way.

In the past 12 months, have you been personally affected by another person's gambling?

INTERVIEWER NOTE: By affected we mean in regards to finances, relationships, emotional and mental health, physical health, work or study

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
TS21 TIMESTAMP 21

GAMBLING HARMS CHECKLIST

Financial impact

*(AFFECTED OTHERS) (T1 =1)
T2 The next questions will ask about how this person's gambling has impacted you.

In the last 12 months, have you been impacted financially by this person's gambling in any of the following ways. Please say yes' or 'no' to each as I read them out.

INTERVIEWER NOTE: If a respondent indicates that they have been affected by more than one person's gambling, they should be instructed to respond to all following questions according to the person who has affected them the MOST.

(STATEMENTS) (RANDOMISE)

a. Reduction of my savings
b. Reduction of my available spending money
c. Increased credit card debt
d. Sold personal items
e. Took on additional employment
f. Late payments on bills (e.g. utilities, rates)
g. Less spending on recreational expenses such as eating out, going to movies or other entertainment.
h. Less spending on beneficial expenses such as insurances, education, car and home maintenance
i. Less spending on essential expenses such as medications, healthcare and food

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(AFFECTED OTHERS) (T1 =1)
T3 In the past 12 months, did this person's gambling contribute to or cause you to experience any of the following situations?

(STATEMENTS) (RANDOMISE)

a. Needed assistance from welfare organisations (foodbanks or emergency bill payments)

b. Loss of supply of utilities (electricity, gas, etc.)
c. Loss of significant assets (e.g. car, home, business, superannuation)
d. Bankruptcy
e. Needed emergency or temporary accommodation

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
TS22 TIMESTAMP 22

Relationships impact

*(AFFECTED OTHERS) (T1 =1)
T4 In the last 12 months, have your relationships been impacted by this person's gambling in any of the following ways. Please say yes' or 'no' to each as I read them out.

(STATEMENTS) (RANDOMISE)

a. Spent less time with people I care about
b. Got less enjoyment from time spent with people I care about
c. Neglected my relationship responsibilities
d. Spent less time attending social events (non-gambling related)
e. Experienced greater tension in my relationships (suspicion, lying, resentment, etc.)
f. Experienced greater conflict in my relationships (arguing, fighting, ultimatums)
g. Felt belittled in my relationships

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(AFFECTED OTHERS) (T1 =1)
T5 In the last 12 months, did this person's gambling contribute to or cause you to experience any of the following situations?

(STATEMENTS) (RANDOMISE)

a. Threat of separation or ending a relationship/s
b. Actual separation or ending a relationship/s
c. Social isolation (felt excluded or shut-off from others)

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
TS23 TIMESTAMP 23

Emotional or psychological impact

*(AFFECTED OTHERS) (T1 =1)
T6 In the last 12 months, has your emotional or psychological wellbeing been impacted by this person's gambling in any of the following ways. Please say yes' or 'no' to each as I read them out.

(STATEMENTS) (RANDOMISE)

a. Felt distressed about their gambling
b. Felt ashamed of their gambling
c. Felt like a failure
d. Felt insecure or vulnerable
e. Felt angry about not controlling their gambling
f. Felt worthless

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(AFFECTED OTHERS) (T1 =1)
T7 In the past 12 months, did this person's gambling contribute to or cause you to experience any of the following issues?

(STATEMENTS) (RANDOMISE)

a. Feelings of hopelessness about their gambling
b. Feelings of extreme distress
c. Thoughts of running away or escape

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
TS24 TIMESTAMP 24

Health impact

*(AFFECTED OTHERS) (T1 =1)
T8 In the last 12 months, has your health been impacted by this person's gambling in any of the following ways. Please say yes' or 'no' to each as I read them out.

(STATEMENTS) (RANDOMISE)

a. Reduced physical activity due to their gambling
b. Stress related health problems (e.g. high blood pressure, headaches)
c. Loss of sleep due to spending time with the person gambling
d. Loss of sleep due to stress or worry about their gambling or gambling-related problems
e. Neglected my hygiene and self-care

f. Neglected my medical needs (including taking prescribed medications)
g. Didn't eat as much or often as I should
h. Ate too much
i. Increased my use of tobacco
j. Increased my consumption of alcohol
k. Increased experience of depression
l. Experienced family violence due to their involvement in gambling
m. Increased use of health services due to health issues caused or exacerbated by their gambling
n. Committed acts of self-harm

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(AFFECTED OTHERS) (T1 =1)
T9 In the last 12 months, did this person's gambling contribute to or cause you to experience any of the following situations?

(STATEMENTS) (RANDOMISE)

a. Unhygienic living conditions (living rough, neglected or unclean housing, etc)
b. Violence due to their gambling involvement
c. Required emergency medical treatment for health issues caused or exacerbated by their gambling
d. Attempted suicide

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
TS25 TIMESTAMP 25

Work or Study Impacts

*(AFFECTED OTHERS) (T1 =1)
T10 In the last 12 months, has your work or study been impacted by this person's gambling in any of the following ways. Please say yes' or 'no' to each as I read them out.

(STATEMENTS) (RANDOMISE)

a. Reduced performance at work or study (i.e. due to tiredness or distraction)
b. Was late for work or study
c. Was absent from work or study
d. Hindered my job-seeking efforts
e. Used my work or study time to attend to issues caused by their gambling
f. Used my work or study resources to assist with matters arising from their gambling
g. Lack of availability for additional commitments
h. Lack of progression in my job or study
i. Conflict with my colleagues

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(AFFECTED OTHERS) (T1 =1)
T11 In the last 12 months, did this person's gambling contribute to or cause you to experience any of the following situations?

(STATEMENTS) (RANDOMISE)

a. Lost my job
b. Excluded from study

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
TS26 TIMESTAMP 26

Other Problems

*(AFFECTED OTHERS) (T1 =1)
T12 In the last 12 months, has this person's gambling impacted you in any of the following ways. Please say yes' or 'no' to each as I read them out.

(STATEMENTS) (RANDOMISE)

a. Left children unsupervised
b. Not fully attending to needs of children
c. Petty theft, including taking money or items from friends or family without asking first
d. Committing a criminal act to fund their gambling or pay debts (e.g. stealing, trafficking/selling drugs, dishonestly claiming government payments, prostitution, dealing in stolen goods, etc.)
e. Arrested for unsafe driving
f. Was violent (include family/domestic violence)

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
TS27 TIMESTAMP 27

PROBLEM GAMBLING – SIGNIFICANT OTHER IMPACT SCALE

*(AFFECTED OTHERS) (T1 =1)
T13 The following questions are about HOW OFTEN this person's gambling has had an effect on you. There may be some repetition with the questions we have just asked you.

In the last 12 months, how often:

(STATEMENTS) (RANDOMISE)

a. Have you or your family experienced financial hardship as a result of this person's gambling?
b. Have you experienced feelings of sadness, anxiety, stress or anger due to this person's gambling?
c. Has the quality of your relationship with this person been affected by his/her gambling?
d. Has your social life been affected by this person's gambling?
e. Has your ability to work or study been affected by this person's gambling?
f. Has your physical health been affected by this person's gambling?

(RESPONSE FRAME)

1. Often
2. Sometimes
3. Rarely
4. Not at all
5. (Don't know)
6. (Refused)

*(ALL)
TS28 TIMESTAMP 28

BRIEF GAMBLING QUALITY OF LIFE ELICITATION (UPSIDE AND DOWNSIDE) PROTOCOL FOR AFFECTED OTHERS

*(AFFECTED OTHERS) (T1 =1)
T14 Over the past year, has this person's gambling made your life better or worse?

1. Better
2. Worse
3. (Neither)
4. (Don't know)
5. (Refused)

*(OTHERS GAMBLING MADE LIFE BETTER) (T14=1)
T14a Overall, how much better has their gambling made your life? (READ OUT)

1. Less than 2% better
2. < 5% better
3. < 10% better
4. <20% better
5. 50% better or more
6. (Don't know)
7. (Refused)

*(OTHERS GAMBLING MADE LIFE WORSE) (T14=2)
T14b Overall, how much worse has their gambling made your life? (READ OUT)

1. Less than 2% worse
2. < 5% worse
3. < 10% worse
4. <20% worse
5. 50% worse or more

6. (Don't know)
7. (Refused)

*(ALL)
TS29 TIMESTAMP 29

PROGRESSIVE DISCRETE CHOICE QUALITY OF LIFE ELICITATION (DOWNSIDE) PROTOCOL FOR AFFECTED OTHERS

*(AFFECTED OTHERS) (T1 =1)
DV8 RANDOM ASSIGNMENT FOR PDCQOLE ORDER

1. Order 1 (50% of sample)
2. Order 2 (50% of sample

ORDER I
DOWNSIDE PROTOCOL FOR AFFECTED OTHERS

*(DV8 =1) (ORDER 1)
T15a For this next set of questions, I will ask you to consider how your life might be changed by either living with- or without this person's gambling.

Imagine two situations in which this person continues gambling as they have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live only a further 5 years, but during this time this person has stopped gambling completely.

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 5 years, but during this time this person's has stopped gambling completely
3. (Don't know)
4. (Refused)

*(DV8 =1 AND T15a =1) (ORDER 1 AND CHOSE OPTION A AT T15a)
T15b Imagine two situations in which this person continues gambling as they have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live only a further 8 years, but during this time this person has stopped gambling completely.

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
2. b) You live only a further 8 years, but during this time this person has stopped gambling completely.
3. (Don't know)
4. (Refused)

*(DV8 =1 AND T15b =1) (ORDER 1 AND CHOSE OPTION A AT T15b)
T15c Imagine two situations in which this person continues gambling as they have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live only a further 9 years, but during this time this person has stopped gambling completely.

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
2. b) You live only a further 9 years, but during this time this person has stopped gambling completely.
3. (Don't know)
4. (Refused)

*(DV8 =1 AND T15c =1) (ORDER 1 AND CHOSE OPTION A AT T15c)

T53d Imagine two situations in which this person continues gambling as they have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live only a further 9 years and 6 months, but during this time this person has stopped gambling completely.

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 9 years and 6 months, but during this time this person has stopped gambling completely
3. (Don't know)
4. (Refused)

*(DV8 =1 AND T15d =1) (ORDER 1 AND CHOSE OPTION A AT T15d)

T15e Imagine two situations in which this person continues gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live only a further 9 years and 9 months, but during this time this person has stopped gambling completely.

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 9 years and 9 months, but during this time this person has stopped gambling completely
3. (Don't know)
4. (Refused)

*(DV8 =1 AND T15e =1) (ORDER 1 AND CHOSE OPTION A AT T15e)

T15f Imagine two situations in which this person continues gambling as they have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live 1 week less than 10 years, but during this time this person has stopped gambling completely.

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live 1 week less than 10 years, but during this time this person has stopped gambling completely
3. (Don't know)
4. (Refused)

ORDER 2
DOWNSIDE PROTOCOL FOR AFFECTED OTHERS

*(DV8 =2) (ORDER 2)
T15f2 For this next set of questions, I will ask you to consider how your life might be changed by either living with- or without this person's gambling.

Imagine two situations in which this person continues gambling as they have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live 1 week less than 10 years, but during this time this person has stopped gambling completely.

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live 1 week less than 10 years, but during this time this person has stopped gambling completely
3. (Don't know)
4. (Refused)

*(DV8 =2 AND T15f2 =2) (ORDER 2 AND CHOSE OPTION B AT T15f2)
T15e2 Imagine two situations in which this person continues gambling as you have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live only a further 9 years and 9 months, but during this time this person has stopped gambling completely.

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 9 years and 9 months, but during this time this person has stopped gambling completely
3. (Don't know)
4. (Refused)

*(DV8 =2 AND T15e2 =2) (ORDER 2 AND CHOSE OPTION B AT T15e2)
T15d2 Imagine two situations in which this person continues gambling as they have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live only a further 9 years and 6 months, but during this time this person has stopped gambling completely.

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 9 years and 6 months, but during this time this person has stopped gambling completely
3. (Don't know)
4. (Refused)

*(DV8 =2 AND T15d2 =2) (ORDER 2 AND CHOSE OPTION B AT T15d2)
T15c2 Imagine two situations in which this person continues gambling as they have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live only a further 9 years, but during this time this person has stopped gambling completely.

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
2. b) You live only a further 9 years, but during this time this person has stopped gambling completely.
3. (Don't know)
4. (Refused)

*(DV8 =2 AND T15c2 =2) (ORDER 2 AND CHOSE OPTION B AT T15c2)
T15b2 Imagine two situations in which this person continues gambling as they have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live only a further 8 years, but during this time this person has stopped gambling completely.

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
2. b) You live only a further 8 years, but during this time this person has stopped gambling completely.
3. (Don't know)
4. (Refused)

*(DV8 =2 AND T15b2 =2) (ORDER 2 AND CHOSE OPTION B AT T15b2)
T15a2 Imagine two situations in which this person continues gambling as they have done in the last 12 months:

a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life.
b) You live only a further 5 years, but during this time this person has stopped gambling completely.

For you, which is the better option? (a or b).

1. a) You live a further 10 years, experiencing the same degree of negative consequences to your quality of life
2. b) You live only a further 5 years, but during this time this person's has stopped gambling completely
3. (Don't know)
4. (Refused)

*(ALL)
TS30 TIMESTAMP 30

10. *SECTION K: HELP-SEEKING

*(ALL)
C8 Have you ever excluded yourself from gambling in venues using the Tasmanian Gambling Exclusion Scheme?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
K1 Have you EVER tried to get any sort of help from the 24-hour hotline, Gambler's Help, or Gambling Help Online for...

(INTERVIEWER NOTE: In Tasmania, face-to-face gambling counselling is provided by the Gambler's Help program run by Relationships Australia and Anglicare)

(STATEMENTS) (RANDOMISE)

a. problems related to your gambling?
b. problems related to someone else's gambling?

(RESPONSE FRAME)

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
TS31 TIMESTAMP 31

11. *SECTION L: QUALITY OF LIFE

*(ALL)
L1a The next questions ask how you feel about your health, or other areas of your life.

In the last FOUR WEEKS, how would you rate your quality of life?

(RESPONSE FRAME)

1. Very poor
2. Poor
3. Neither good nor poor
4. Good
5. Very good
6. (Don't know)
7. (Refused)

*(ALL)
L3 In the LAST FOUR WEEKS…. (READ OUT)

(STATEMENTS) (RANDOMISE)

a. Have you had enough energy for everyday life...?
c. Have you had enough money to meet your needs...?

(RESPONSE FRAME) (READ OUT)

1. Completely
2. Mostly
3. Moderately

4. A little
5. Not at all
6. (Don't know)
7. (Refused)

*(ALL)
L4 Could please tell me how satisfied or dissatisfied you are with each of the following aspects of your life? How satisfied are you with… *(PROGRAMMER: USE AS STRING) (INSERT STATEMENT)

(IF NECESSARY: Is that very dissatisfied, dissatisfied, neither, satisfied or very satisfied)

(STATEMENTS) (RANDOMISE)
a. your health?
c. your ability to perform your daily living activities?
e. yourself?
f. your personal relationships?
h. the conditions of your living place?

(READ OUT)

(RESPONSE FRAME)

1. Very dissatisfied
2. Dissatisfied
3. Neither satisfied nor dissatisfied
4. Satisfied
5. Very satisfied
6. (Don't know)
7. (Refused)
8. (Not applicable)

*(ALL)
TS32 TIMESTAMP 32

12. *SECTION N: MENTAL HEALTH COMORBIDITIES

*(ALL)
N1 The next questions are about how you feel about different aspects of your life. In answer to each of the following statements, please indicate which you feel most closely reflects your situation.

Over the last 2 weeks, how often have you been bothered by any of the following? [INSERT STATEMENT]. Is that…

(STATEMENTS) (RANDOMISE)

a. Little interest or pleasure in doing things
b. Feeling down, depressed or hopeless
c. Feeling nervous, anxious or on edge
d. Not being able to stop or control worrying

(READ OUT)

(RESPONSE FRAME)

1. Not at all
2. For several days
3. More than half the days
4. Nearly every day

5. (Don't know)
6. (Refused)

*(ALL)
TS33 TIMESTAMP 33

13. *SECTION M: SUBSTANCE USE

*(ALL)
M2 I am now going to ask you some questions about your use of alcohol and other substances. Please be assured that the information you provide will be treated as strictly confidential.

Thinking specifically about your alcohol consumption, a standard drink is a small glass of wine, a pot of regular beer, a shot of spirits or a mixed drink. How many standard drinks do you have on a typical day when you are drinking?

(INTERVIEWER NOTE: A can of regular beer and a typical glass of wine is 1.5 standard drinks)

1. Number given (specify)
2. Do not drink alcohol
3. (Don't know)
4. (Refused)

*(ALL)
M1 Now thinking more generally about your use of alcohol and other substances.

*(STRING TEXT) How often do you… (INSERT STATEMENT)?

(STATEMENTS) (RANDOMISE)

a. have a drink containing alcohol? (DO NOT ASK IF M2=2)
b. have six or more drinks on one occasion? (DO NOT ASK IF M2=2)
c. use tobacco products (INTERVIEWER NOTE: cigarettes, chewing tobacco, cigars, etc.)
d. use cannabis or other non-prescription substances, such as cocaine, amphetamine type stimulants, inhalants like petrol or glue, hallucinogens, or heroin (INTERVIEWER NOTE: also coke, crack, speed, ice, g, diet pills, ecstasy, paint thinner, nitrous, LSD, mushrooms, special K, acid, PCP, methadone if not prescribed)
e. used prescription medications NOT as directed by your doctor, such as sleeping pills, pain medications, or diet pills (INTERVIEWER NOTE: such as sedatives, Valium, Serapax, Rohypnol, codeine, methadone)

(RESPONSE FRAME)

1. Every day
2. 4-6 times a week
3. 2-3 times a week
4. Once a week
5. 2-3 times a month
6. Monthly or less
7. Not in the last year
8. Never
9. (Don't know)
10. (Refused)

*(ALL)
TS34 TIMESTAMP 34

14. *SECTION P: DEMOGRAPHICS

*(ALL)
P0 Thanks for that, now some questions about your household. Firstly, including yourself, how many people aged 18 years or older currently live in this household?

(PROGRAMMER NOTE: ALLOW RESPONSES 1-20. DISPLAY 'UNLIKELY RESPONSE' IF ANSWER IS GREATER THAN 10)

1. Number given (Specify___) (RANGE 1 TO 20)
2. (Don't know)
3. (Refused)

*(ALL)
P1 Which of the following best describes your household? (READ OUT)

(INTERVIEWER NOTE: If joint custody count as children living at home)

1. Couple with no children
2. Couple with children still at home
3. Couple with children not living at home
4. Single person household (no children)
5. Single with children still at home
6. Single with children not living at home
7. Group or shared household
8. In some other arrangement
9. (Don't know)
10. (Refused)

*(ALL)
P2 What is your current employment status?

1. In paid employment full time (35 hours/week or more)
2. In paid employment part time/casual
3. Primarily household duties
4. Student
5. Retired
6. Looking for work
7. Unable to work / pension
8. Unpaid voluntary worker
9. Other (SPECIFY)
10. (Don't know)
11. (Refused)

*(ALL)
P3 Could you please tell me your approximate annual PERSONAL income BEFORE TAX. Is it...

1. Less than $10,000
2. $10,000 to $19,999
3. $20,000 to $29,999
4. $30,000 to $39,999
5. $40,000 to $49,999
6. $50,000 to $59,999
7. $60,000 to $69,999
8. $70,000 to $79,999
9. $80,000 to $89,999
10. $90,000 to $99,999
11. $100,000 to $109,999
12. $110,000 to $119,999
13. $120,000 to $129,999
14. $130,000 to $139,999

15. $140,000 to $149,999
16. $150,000 or more
17. (Don't know)
18. (Refused)

*(ALL)
P4 In what country were you born?

1. Australia
2. Canada
3. China (excluding Taiwan)
4. Germany
5. Greece
6. India
7. Indonesia
8. Italy
9. Malaysia
10. Netherlands (Holland)
11. New Zealand
12. Philippines
13. Poland
14. Singapore
15. South Africa
16. United Kingdom (INTERVIEWER NOTE: Includes England, Wales, Scotland, and Northern Ireland – Other Ireland goes into Other specify)
17. USA
18. Vietnam
19. Other (Specify)
20. (Refused)
21. Don't know

*(ALL)
P5 What is the main language spoken at home?

1. English
2. Arabic
3. Cantonese Chinese
4. German
5. Greek
6. Italian
7. Mandarin Chinese
8. Spanish
9. Turkish
10. Vietnamese
11. Chinese
12. (Don't know)
13. (Refused)

*(ALL)
P5a Which cultural or ethnic group do you MAINLY identify with? (PROBE IF NECESSARY)

1. Aboriginal or Torres Strait Islander
2. Arabic
3. Australian
4. Chinese
5. Dutch
6. English
7. German
8. Greek
9. Italian

10. New Zealander
11. Other (SPECIFY)
12. (Don't know)
13. (Refused)

*(ALL)
P6 What is the highest level of education or trade qualifications you have completed? (INTERVIEWER NOTE: If less than year 12, probe for vocational or trade qualifications)

1. Primary school only
2. Secondary school: not completed year 12
3. Year 12
4. Vocational or Trade qualifications (e.g. Certificate or Diploma)
5. Higher education / University undergraduate degree
6. Post graduate qualification
7. Other (SPECIFY)
8. (Don't know)
9. (Refused)

*(ALL)
TS35 TIMESTAMP 35

15. *SECTION Q: TELEPHONE STATUS

*(SAMTYPE=2) (MOBILE SAMPLE)
Q1 To help us finish off the survey I have a question or two about your use of telephone services.

Is there at least one working fixed line telephone inside your home that is used for making and receiving calls?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(SAMTYPE=1 OR SAMTYPE=2 AND Q1=1) (LANDLINE SAMPLE OR MOBILE SAMPLE WITH LANDLINE)
Q2 (To help us finish off the survey I have a question or two about your use of telephone services). How many residential phone numbers do you have in your household not including lines dedicated to faxes, modems or business phone numbers? Do not include mobile phones.

INTERVIEWER NOTE: If needed, explain as 'how many individual landline numbers are there at your house that you can use to make and receive calls?'

1. Number of lines given (SPECIFY_____) RECORD WHOLE NUMBER (ALLOWABLE RANGE 1 TO 15) *(DISPLAY "UNLIKELY RESPONSE" IF >3)
2. (Don't know)
3. (Refused)

*(SAMTYPE=1) (LANDLINE SAMPLE)
Q3 Do you also have a working mobile phone?

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(SAMTYPE=2 OR Q3=1) (HAS MOBILE PHONE)
Q4 Is your mobile phone smartphone?

IF NECESSARY: a smart phone is a mobile phone that performs many of the functions of a computer, typically having a touchscreen interface, Internet access, and an operating system capable of running downloaded apps.

1. Yes
2. No
3. (Don't know)
4. (Refused)

*(ALL)
TS36 TIMESTAMP 36

16. *SECTION R: FUTURE RESEARCH

*(ALL)
R1a We would like to contact you again in the future to participate in similar research. Would it be ok to call you to see if you are available to participate in future similar surveys?

1. Agree to participate
2. Refused

(IF NECESSARY: Your name and number is stored separately to the information you have just provided us. Your contact details would be used for re-contacting you for follow up research only and not passed onto any third party for any other purpose.)

*(AGREES TO PARTICIPATE, MONTHLY GAMBLERS OR HARMS OR PG, WITH SMARTPHONE) (R1a = 1 AND (GAMBLING FREQUENCY TOTAL = 12 OR GREATER OR DV6 = 2 OR DV3 = 2) AND Q4 =1)
R1b We are conducting a follow-up study that involves a mini-survey twice a day for four weeks using your smartphone. This study is one of the first of its kind to use smartphone technology to track gambling sessions as they occur in real life. Overall, you can receive between $150 to $200 in gift vouchers as compensation for your time and the inconvenience. Would you be interested in participating?

1. Agree to participate
2. Refused

(IF NECESSARY: Your name and number is stored separately to the information you have just provided us. Your contact details would be used for re-contacting you for follow up research only and not passed onto any third party for any other purpose.)

*(AGREES TO PARTICIPATE, AFFECTED OTHERS, NOT GAMBLER WITH HARMS) (R1a = 1 AND T1 =1 AND DV6 = 1 AND DV3 = 1)
R1c We would like to contact you again to get some more detailed information about how another person's gambling has affected you. We would provide you with a $50 gift voucher as compensation for your time. Would you be interested in participating?

1. Agree to participate
2. Refused

(IF NECESSARY: Your name and number is stored separately to the information you have just provided us. Your contact details would be used for re-contacting you for follow up research only and not passed onto any third party for any other purpose.)

*(AGREED TO BE RECONTACTED FOR ANY FOLLOW-UP) (R1a, R1b, R1c = 1)
R2n Could I please record your name?

1. Name given (SPECIFY)

2. Refused name

*(AGREED TO BE RECONTACTED FOR ANY FOLLOW-UP) (R1a, R1b, R1c = 1)
R2tel Could I confirm the best number to call you on:
NUMBER FROM SAMPLE: (DISPLAY NUMBER FROM SAMPLE)

1. Number from sample is best number
2. Collect other number (SPECIFY TEN DIGIT NUMBER)

*(AGREED TO BE RECONTACTED FOR ANY FOLLOW-UP) (R1a, R1b, R1c = 1)
R2alt Are there other numbers or a mobile for future contact?

1. Yes (SPECIFY TEN DIGIT NUMBER))
2. No

*(PROBLEM GAMBLERS OR GAMBLERS WITH HARMS OR AFFECTED OTHERS) (DV3=2 OR DV6 = 2 OR T1=1)
R3 IF NECESSARY: I was wondering whether you may be interested in some free confidential support from the Gamblers Help Line. Would you like their number?

1. Number is... 1800 858 858

*(IF T9d=1 OR M1b=1 OR M1d=1) (THOUGHT ABOUT SUICIDE OR ABUSER OF ALCOHOL OR DRUGS)
END1a I know that some of the topics covered in this survey are sensitive and I just wanted to check you have access to support and help if you need it.

If not I can recommend some contact numbers if you would like to talk to someone.

1. Wants contact details (GO TO END2)
2. Does not want contact details (GO TO END3)

*(NOT T9d=1 OR M1b=1 OR M1d=1) (NOT THOUGHT ABOUT SUICIDE OR ABUSER OF ALCOHOL OR DRUGS)
END1 That is all the questions that I have for you. Thank you very much again for your assistance and time. A reminder that my name is (…) from the Social Research Centre. This research has been conducted on behalf of the Tasmanian Government.

If you would like the details of people you can contact with any questions about this survey I can give them to you now. Would you like to get a pen to write down the details?

1. Wants contact details (GO TO END2)
2. Does not want contact details (GO TO END3)

*(END1=1) (WANTS CONTACT DETAILS)
END2

- If you have questions about who is conducting the study and how your telephone number was obtained, you can contact the Social Research Centre on 1800 023 040. You can find a written description of this study on the Social Research Centre's website www.srcentre.com.au. If you have any complaints about any aspect of the project, the way it is being conducted or any questions about your rights as a research participant, then you may contact The Manager of Integrity, Ethics and Biosafety at Deakin University on 9251 7129 or at research-ethics@deakin.edu.au. Please quote project number [2017-145].
- *(PROGRAMMER:ONLY DISPLAY IF T9d=1 (THOUGHT ABOUT SUICIDE)) If you wish, you can contact Mental Health Services Helpline (Tasmania specific) 1800 332 388 (PAUSE AND REPEAT IF NECESSARY), *beyondblue* on 1300 22 46 36 (PAUSE AND REPEAT IF NECESSARY), Lifeline on 13 11 14 (PAUSE AND REPEAT IF NECESSARY) or
- *(PROGRAMMER NOTE: Only display Mensline if male respondent (A5=1)) Mensline on 1300 78 99 78 (PAUSE AND REPEAT IF NECESSARY).
- *(ONLY DISPLAY IF M1b=1 OR M1d=1 (ABUSER OF ALCHOL OR DRUGS)) If you wish, you can contact the Alcohol and Drug Information Service (24 hours) (Tasmania) 1800 811 994

END3 Thank you very much for your time. A reminder that my name is (…) from the Social Research Centre. This research has been conducted on behalf of the Tasmanian Government.

*(ALL)
TS37 TIMESTAMP 37

17. *REASONS FOR REFUSAL

*(REFUSED)
RR1 OK, that's fine, no problem, but could you just tell me the main reason you do not want to participate, because that's important information for us?

1. No comment / just hung up
2. Too busy
3. Not interested
4. Too personal / intrusive
5. Don't like subject matter
6. Don't believe surveys are confidential / privacy concerns
7. Silent number
8. Don't trust surveys / government
9. Never do surveys
10. Interview length is too long
11. Get too many calls for surveys / telemarketing
12. Too old / frail / deaf / unable to do survey (CODE AS TOO OLD / FRAIL / DEAF)
13. Not a residential number (business, etc.) (CODE AS NOT A RESIDENTIAL NUMBER)
14. Language difficulty (CODE AS LANGUAGE DIFFICULTY NO FOLLOW UP)
15. Going away / moving house (CODE AS AWAY DURATION)
16. Asked to be taken off list (add to do not call register)
17. Other (SPECIFY)
18. Object to being called on their mobile phone (DISPLAY IF SAMTYP=2)

*(REFUSED)
RR2 RECORD RE-CONTACT TYPE

2. Definitely don't call back
3. Possible conversion

18. *TERMINATIONS

*(LOTE) (S1=7 OR S2=4 OR S4=6)
ALOTE That's all the questions I have for you today. Thank you for your time and assistance.

1. LOTE

TERM1 That's all the questions I have for you today. For this research we need to speak to Tasmanian residents. Thank you for your time and assistance.

1. Not a Tasmanian resident

TERM2 That's all the questions I have for you today. For this research we need to speak to people aged 18 or over. Thank you for your time and assistance.

TERM3 That's all the questions I have for you today. Due to the nature of this research we need to know your suburb, town or postcode. We respect that you do not wish to give this information so we will finish the interview here. Thank you for your time and assistance.

1. Refused location information

TERM4 Sorry, but we have got all the interviews we need from people in your local area. Thank you for your time and assistance.

TERM6 That's all the questions I have for you today. Due to the nature of this research we need to verify your age. We respect that you do not wish to give this information so we will finish the interview here. Thank you for your time and assistance.

1. Refused age

19. *ALLTERM

Allterm	Definition	Detailed outcome (SUR)	Summary outcome (SUR)	AAPOR Detailed outcome	AAPOR Detailed outcome code
2	S1=4	Household refusal	Refusal	Household level refusal	2.111
3	S1=5	Not a resident of Tasmania	Out of scope	No eligible respondent	4.7
4	S1=6	No-one in household aged 18 or over	Out of scope	No eligible respondent	4.7
5	S1=7	Household LOTE	Out of scope	Eligible, non-interview	2.33
6	S2=3	Respondent refusal	Refusal	Refusal	2.11
7	S2=4	Respondent LOTE	Out of scope	Eligible, non-interview	2.33
8	S4=3	Not a resident of Tasmania	Out of scope	No eligible respondent	4.7
9	S4=4	Respondent not 18 years or over	Out of scope	No eligible respondent	4.7
10	S4=5	Respondent refusal	Refusal	Residential unknown if eligible	3.2
11	S4=6	Respondent LOTE	Out of scope	Residential unknown if eligible	3.2
12	S5=3	Respondent refusal	Refusal	Refusal	2.11
13	S6=3	Respondent refusal	Refusal	Refusal	2.11
14	S7=3	Respondent refusal	Refusal	Refusal	2.11
16	LOCALITIES1=4	Suburb or location refused	Refusal	No screener completed, residential and live contact made	3.211
17	LOCALITYTEXT=2	Suburb or location not known	Refusal	No screener completed, residential and live contact made	3.211
18	LOCALITYTEXT=3	Suburb or location refused	Refusal	No screener completed, residential and live contact made	3.211
19	LOCALITIES2=2	Suburb or location not known or refused	Refusal	No screener completed, residential and live contact made	3.211
20	A3=1	Respondent not 18 years or over	Out of scope	No eligible respondent	4.7
20	A4=12	Age refused	Refusal	No screener completed, residential and live contact made	3.211
21	LOCALITIES1=3	Suburb or location not known	Refusal	No screener completed, residential and live contact made	3.211

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