

Northern Territory Gambling Prevalence Survey 2015

Methodology Report

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- Prepared for -

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1. INTRODUCTION

1.1 Background

Roy Morgan Research was commissioned by the Menzies School of Health at Charles Darwin University (Menzies) to conduct a telephone survey to help determine the prevalence of gambling in the Northern Territory in 2015. Roy Morgan Research had conducted previous gambling research for Charles Darwin University in the Northern Territory in 2005.

1.2 Research objectives

The overall purpose of the 2015 study was to provide an up-to-date measure of gambling prevalence in the key locations in NT in order to inform Government and welfare agencies' policies and strategies for the future.

NT residents aged 18 and over were in-scope for the survey. All respondents were to be administered at least a 'short' interview, including the Canadian Problem Gambling Severity Index (PGSI) for all gamblers. A sub-sample of respondents were to be allocated to the 'long' survey, based on their gambling behaviour.

1.3 Methodology

The survey was conducted as a Computer Assisted Telephone Interviewing (CATI) survey, with a final sample of 4,945 Northern Territory adults aged 18 or over.

The survey used a random digit dialling sample frame for landline interviewing, and a combination of three lists for mobile sampling.

A pilot was conducted from 8-12 October 2015. Fieldwork for the main study took place over nine weeks, between October 19 and December 23, 2015.

2. SAMPLING

2.1 Sampling frames

For the survey a dual sampling frame approach was used. The landline sample frame used was the Random Digit Dialling (RDD) sample frame developed and maintained by Roy Morgan Research. Refer to Appendix A for an explanation of the RDD process. Mobile sample was obtained from three sources detailed below.

Landline RDD sampling frames offer the benefit of including unlisted landline numbers – both those that are deliberately 'silent' and those that have been recently connected. Renters, recent movers, and people living in newly developed areas are included in an RDD sample.

While landline RDD sample includes unlisted landline numbers, it does not account for the growing proportion of households without a landline/fixed telephone line, i.e. 'mobile only' households. This issue is particularly (but not only) relevant to the representativeness of young adults.

The challenge with including mobile sample for an NT survey (as with any survey of a small regional sub-population) is that mobile numbers are not geographically linked, and therefore an RDD approach would be cost prohibitive (as over 98% of all numbers would turn out to be in parts of Australia other than the NT). Therefore, for this component of the sample frame, various sample lists were used, comprising mobile numbers known to be in the NT.

Mobile sample was obtained from three sources:

- 1) Past respondents to Roy Morgan Research Single Source (a nationally representative syndicated survey based on stratified random address-based sampling) who lived in the NT and had given a mobile number and had agreed they could be recontacted. Approximately 1,800 mobile numbers were available and loaded from this source.
- 2) Mobile numbers listed in the most recent version of the Northern Territory White Pages. Approximately 2,000 mobile numbers were available and loaded from this source.
- 3) Accountable List Brokers (an independent sample broker suggested by Menzies.) Approximately 6,000 mobile numbers attempted were from this source.

Prior to loading, de-duplication steps were undertaken between these three sources, as some numbers existed in more than one of the lists.

This approach (RDD sampling of landlines, and random sampling of mobiles from available lists) sought to achieve a broad cross-section of the population within the overall sample frame, including households:

- with silent numbers;
- with new numbers not yet recorded in phone listings;

- which were solely mobile phone households with no landline number.

By conducting the survey via CATI people living in households without either a landline or a mobile phone were, in effect, excluded from the survey. In the case of the NT, this means that Indigenous people living in remote communities are relatively unlikely to be within the coverage of the sample frame.

Within the landline sampling frame, broadly population-proportional quotas were initially set for by the following geographical regions:

- Darwin/Palmerston
- Alice Springs
- Katherine
- Tennant Creek
- Nhulunbuy
- Rest of NT

The quotas for the landline RDD sample was initially set to align the number of interviews conducted in each geographic stratum with population proportions, with some adjustments for the fact that a significant proportion of the population of the "Rest of NT" stratum was not likely to be contactable by telephone. As part of the survey, the postcode of each respondent was also collected to check that they were being allocated to the correct area.

In mid-November, Menzies decided to increase the size of the landline target sample from $n=4,000$ to $n=5,000$. At the same time, it was recognised that this target may not be achievable, as all available landline sample had already been loaded into the survey sample. Roy Morgan Research agreed to attempt to achieve 5,000 interviews, if possible, including conducting an update of the sample seeding process for the NT RDD sample frame. This process added a significant number of new numbers, however only a small proportion of these turned out to be working residential numbers. Roy Morgan Research continued to advise that the available sample may not support this target.

The initial target for mobile interviews had been tentatively set at $n=250$. At the time of discussing the overall increase in sample it was also agreed between Menzies and Roy Morgan Research to explore cost-effective options for increasing the sample achieved from mobile numbers, in order to achieve as close to 5,000 interviews in total. It was on this basis that the three different sources of mobile sample were agreed upon.

2.2 Selection of respondent

For the mobile sample, the interview was conducted with the person who answered the phone, as long as they were aged 18 years or over.

For the landline RDD sample, a 'last birthday' approach was used to select the respondent within the household. Fieldwork commenced with the approach of asking to speak to the person with the most recent birthday. Reflecting the relative differences in contact and response rates for males and females, this approach was obtaining noticeably too many females and too few males. On 12 November (about mid-way through fieldwork) it was discussed and agreed between Roy Morgan Research and Menzies to switch to one of the other standard implementations of the birthday method, whereby the interviewer initially asks to

speak to the male with the most recent birthday, but switches to ask for the female with the most recent birthday if there are no males in the household.

At the same time it was agreed to set territory-wide age/sex quotas in order that the overall sample did not become too disproportionate on these dimensions.

No respondent substitution was permitted.

2.3 Sample breakdown

Details of the total sample attempted by phone type are shown below in Table 1.

Table 1: Breakdown of sample attempted by Sample Type

Sample Type	Amount of Sample Attempted
Landline Sample	148,288
Mobile Sample	9,482

The final overall age/gender breakdown of the achieved sample is shown in the following table.

Table 2: Age by Gender – unweighted – Total respondents

		Gender		Total
		Male	Female	
Age -	18-34	317	450	767
	35-49	634	1,004	1,638
	50-64	869	853	1,722
	65+	426	392	818
Total		2,246	2,699	4,945

The breakdown of the achieved sample by Indigenous status is shown in the following table.

Table 3: Indigenous status– unweighted – Total respondents

Indigenous status	Respondents
Aboriginal / Torres Strait Islander	267
Non-Indigenous	4,678
Total	4,945

The breakdown of the achieved sample by region is shown in the following table.

Table 4: Region– unweighted – Total respondents

Region	Respondents
Darwin / Palmerston	3,289
Alice Springs	857
Katherine	247
Tennant Creek	59
Nhulunbuy	78
Rest of NT	415
Total	4,945

The questionnaire was programmed to randomly select one in four 'non-problem gamblers' and one in four 'non-gamblers' as defined by their CPGI/PGSI scores, and allocate this sub-sample to receive the full questionnaire, along with 100% of those defined as 'problem gamblers', 'low-risk gamblers' and 'moderate-risk gamblers'.

The following table shows the unweighted number of respondents by gambling type and by whether they were administered the 'short' or 'long' interview.

Table 5: Gambling type by short/long interview– unweighted – Total respondents

Gambling type	Long interviews	Short interviews	Total interviews
Non gamblers	332	848	1,180
Non Problem gamblers	806	2,551	3,357
Low risk gamblers	290	0	290
Moderate risk gamblers	93	0	93
Problem gamblers	25	0	25
Total	1,546	3,399	4,945

3. QUESTIONNAIRE DESIGN AND PILOT TESTING

3.1 Questionnaire design

The questionnaire was developed and provided by Menzies based to some extent on the survey conducted in 2005. Roy Morgan Research worked with Menzies to refine the questionnaire. Demographic questions asked of respondents included the following: sex, age, location, language(s) spoken at home, household size & status, education, occupation/work status, and income.

The questionnaire was also subjected to the customary questionnaire checking procedures as part of Roy Morgan Research's Quality Assurance program certified to AS/NZS ISO 9001 and AS/ISO 20252.

A copy of the final questionnaire is provided in Appendix C.

3.2 Pilot testing

The survey was piloted from 8-12 October 2015. Review of the data indicated all questionnaire routing appeared to be working as expected. An SPSS file of the pilot data was provided to Menzies.

Based on interviewer feedback from the pilot, some changes were made to the introductory text after consultation with Menzies. In particular, the reference to problem gambling was removed, as interviewers reported that it appeared to discourage response from people who considered they did not have a problem

with gambling, despite attempts to convince them that the research was trying to capture the opinions of a cross section of the community. For similar reasons, the pilot introduction's reference to 'helping vulnerable segments of the population' was removed for the main survey. Pilot interviewers also provided feedback in relation to a few questions, which appeared confusing or worded awkwardly. These were updated for the main survey in consultation with Menzies. In addition, it was agreed to remove a small number of open-ended questions that were infrequently asked.

Based on Menzies review of the pilot database some minor changes were made to the way the data was proposed to be collected and provided for the main survey.

The questionnaire also included a request to respondents to provide their consent and additional contact details in case there was a need for any follow-up research.

4. FIELDWORK

The main survey was in field for a total of nine weeks. Interviews commenced on Monday, October 19, 2015 and concluded on Wednesday, December 23, 2015.

Interviews were primarily conducted in the evenings and weekends. Field reports were provided to Menzies every few days.

4.1 Interviewer Management

4.1.1 CATI Interviewer Selection and Training

In total, 61 interviewers worked on the survey. All of these interviewers had undergone Roy Morgan Research's multistage training program. This training includes:

- Company background and information
- Field methodology
- Questioning techniques
- Asking and answering questions
- Practicing difficult questions
- Practice survey completion
- Assessments of surveys
- Refusal conversion techniques

Roy Morgan Research believes that the quality of interviewing is vital to achieve successful research. Roy Morgan Research does not sub-contract to field companies to conduct interviews as we have our own fully integrated facilities and interviewing teams.

Interviewers working on this project also participated in a briefing session specifically for this project, conducted by the project team and field supervisors. Details of the interviewer briefing are provided in Appendix B.

4.1.2 CATI Interviewer Supervision and Auditing

Roy Morgan Research interviewers work under very strict controls and understand the need for adherence to all specified contact, call-back and reporting procedures. CATI interviewing is supervised and a minimum of 10% of interviews are

audited. Our auditing system enables the supervisor to monitor live interviews and therefore assure our quality and authenticity of interviews. The auditing of an interview means that at least part of the interview is observed and listened to by the supervisor. Auditing includes monitoring all stages of interviewing, such as the conduct of an interview as well as refusals and how interviewers assign non-contact records.

We provide a ratio of one supervisor to 12 interviewers. As well as supervising interviewers, the supervisors deal with issues raised by respondents that could not be adequately addressed by interviewers. For every telephone survey:

- There are supervisors present for all shifts to oversee interviewers; and
- Supervisors randomly listen in on phone calls to ensure interviews are being conducted correctly.

Where respondents require clarification of the intent of the study, they are referred to a supervisor or the researcher for further explanation. When required, field queries and issues are logged via CATI debrief forms or emails to the researcher. The required action is noted and the researcher follows the issue up immediately.

4.2 Briefing

Before commencing work on the survey, interviewers participated in a survey-specific briefing session. The initial briefing session was conducted by the Project Director and Project Manager. Subsequent briefing sessions were conducted by the Field Manager and supervisor. The following key points were highlighted in the briefing session:

- Importance of the survey and how to introduce it.
- The town or suburb respondents were in was important to accurately quota the survey.
- Accurately collecting the data on the amount respondents spent on gambling activities
- The importance of statements that relate to time periods (e.g. "Thinking about the past 12 months...")
- Helplines for respondents

The interviewer briefing notes are provided in Appendix B.

4.3 Number of calls made to complete an interview

Over 330,000 calls were made during the fieldwork period. The approach applied to the survey was to attempt up to 5 calls to a number in order to seek to establish contact, then if contact was established, up to 5 more calls to obtain an interview, unless at any point a final outcome was achieved earlier (for example, about half of the landline sample was identified on the first call as not being a connected number, and another 14% of the landline sample had other types of final outcomes on the first call).

For both the landline and the mobile sample, the majority of completed interviews were achieved within 3 call attempts (Landline 89% and Mobile 80%) as shown in the following table.

Table 6: Number of calls made to obtain successful interview by Sample Type

Number of calls needed	Interviews from Landline RDD Sample	Interviews from Mobile Sample
	%	%
1	51.9	44.1
2	25.0	23.9
3	12.1	12.0
4	6.4	6.8
5	3.0	3.7
6	1.1	3.5
7	0.3	2.3
8	0.2	1.9
9	0	1.5
10	0	0.3
TOTAL	100	100

Base: Completed interviews for each sample type

4.4 Response Rates

As part of Roy Morgan Research's multistage interviewer training program, interviewers are thoroughly trained in maximizing response rate. Strategies employed to minimize cases of non-contact and non-response included:

- Emphasising the importance of the survey;
- Having interviewers arrange appointments at suitable times for the respondent; and
- Re-assuring respondents about the confidentiality of their responses.

To maximise the response rates, Roy Morgan Research interviewers attempted up to 5 telephone calls at different times on different days to try to establish contact with the household or mobile user.

Furthermore, up to five (and in some cases more) attempts were made to complete an interview with the selected respondent, once contact had been made.

During fieldwork, detailed breakdowns of the number and type of refusal and termination were provided to Menzies. Menzies provided feedback on this with the aim of fine-tuning the interviewing practices so as to minimize refusals, maximise the consent rate and fine-tune the usage of various categories of reasons for refusal. Roy Morgan Research's field managers and supervisors took account of this feedback and rebriefed and closely monitored interviewers, as appropriate.

As part of this close monitoring of refusal rates, it was agreed with Menzies after approximately one week of interviewing to make some changes to the introductory text in order to aim to improve consent rates. These changes – which emphasised that the survey was important and was on behalf of the NT

Government – appeared to have a positive effect, with consent rates increasing from approximately 25% to over 30%.

From the total sample of phone numbers attempted (157,770 numbers), 4,945 participants completed the survey. A detailed breakdown of the outcomes for these 157,770 numbers is provided in tables 8, 9 and 10. Overall, 3,760 interviews were completed with landline sample and 1,185 were completed with mobile sample as shown in Table 7.

Table 7: Number of completed interviews by Sample Type

RDD Sample type	Completes
Landline	3,760
Mobile	1,185
TOTAL	4,945

The following three tables provide a breakdown of all sample records activated for the survey. “Fresh” sample – i.e. numbers not attempted – is not shown in these tables.

Each table also provides a percentage breakdown by:

- Total sample
- Total usable numbers (i.e. excluding numbers that were disconnected, fax, modem, etc)
- Total contacts (i.e. those numbers that were answered, other than those answered by an answering machine etc)

Table 8: Landline RDD sample disposition

	Landline sample records	As % of sample loaded	As % of usable numbers attempted	As % of contacts made
Contacts:				
Completed	3,760	2.5%	5.6%	14.2%
Appointment	446	0.3%	0.7%	1.7%
Refusal	9,601	6.5%	14.3%	36.2%
Business number	8,270	5.6%	12.3%	31.1%
Termination - language problem	622	0.4%	0.9%	2.3%
Termination - hearing difficulty/incapable	561	0.4%	0.8%	2.1%
Failed screener / Quota failure / Out-of-scope	1,532	1.0%	2.3%	5.8%
Other terminations	1,758	1.2%	2.6%	6.6%
Non-contacts:				
No reply	34,419	23.2%	51.3%	
Engaged	1,003	0.7%	1.5%	
Answer machine	5,152	3.5%	7.7%	
Unusable numbers:				
Modem or fax	5,625	3.8%		
Unobtainable/not connected etc	74,838	50.5%		
Not attempted as already on 'do not call' list	701	0.5%		
Total landline sample	148,288	100.0%		
Usable numbers attempted	67,124		100.0%	
Contact made	26,550			100.0%

Of the total attempted **landline RDD** sample of 148,288 numbers, 50.5% turned out to be unobtainable/not connected and another 3.8% turned out to be modem or fax numbers. A small proportion (0.5%) were also unable to be attempted because checking against Roy Morgan Research's registers found that they had already requested never to be called.

Discounting unusable numbers, a total of 67,124 usable landline numbers were attempted, from which contact was made with 26,550. No replies accounted for 34,419 of the landline numbers attempted, and answering machines accounted for another 5,152.

Of the 26,550 numbers where some form of contact was made, 31.1% turned out to be business numbers and 5.8% either failed the screener questions, failed quotas or were otherwise out-of-scope. Refusals accounted for 36.2% of contacts and completed interviews accounted for 14.2% of contacts.

Table 9: Mobile sample disposition

	Mobile sample records	As % of sample loaded	As % of usable numbers attempted	As % of contacts made
Contacts:				
Completed	1,185	12.5%	14.0%	28.5%
Appointment	18	0.2%	0.2%	0.4%
Refusal	1,498	15.8%	17.6%	36.0%
Business number	124	1.3%	1.5%	3.0%
Termination - language problem	26	0.3%	0.3%	0.6%
Termination - hearing difficulty/incapable	42	0.4%	0.5%	1.0%
Failed screener / Quota failure / Out-of-scope	844	8.9%	9.9%	20.3%
Other terminations	419	4.4%	4.9%	10.1%
Non-contacts:				
No reply	1,529	16.1%	18.0%	
Engaged	15	0.2%	0.2%	
Answer machine/voice-mail	2,794	29.5%	32.9%	
Unusable numbers:				
Modem or fax	11	0.1%		
Unobtainable/not connected etc	873	9.2%		
Not attempted as already on 'do not call' list	104	1.1%		
Total mobile sample	9,482	100.0%		
Usable numbers attempted	8,494		100.0%	
Contact made	4,156			100.0%

Of the total attempted **mobile** sample of 9,582 numbers (from all three sources), 9.2% turned out to be unobtainable/not connected. A small proportion (1.1%) were also unable to be attempted because checking against Roy Morgan Research's registers found that they had already requested never to be called.

Discounting unusable numbers, a total of 8,494 usable mobile numbers were attempted, from which contact was made with 4,156. Answer-machines/voice-mail accounted for 2,794 of the mobile numbers attempted, and no replies accounted for another 1,529.

Of the 4,156 mobile numbers where some form of contact was made, 20.3% either failed the screener questions, failed quotas or were otherwise out-of-scope. Refusals accounted for 36.0% of contacts and completed interviews accounted for 28.5% of contacts.

Table 10: Overall sample disposition

	Total sample records	As % of sample loaded	As % of usable numbers attempted	As % of contacts made
Contacts:				
Completed	4,945	3.1%	6.5%	16.1%
Appointment	464	0.3%	0.6%	1.5%
Refusal	11,099	7.0%	14.7%	36.1%
Business number	8,394	5.3%	11.1%	27.3%
Termination - language problem	648	0.4%	0.9%	2.1%
Termination - hearing difficulty/incapable	603	0.4%	0.8%	2.0%
Failed screener / Quota failure / Out-of-scope	2,376	1.5%	3.1%	7.7%
Other terminations	2,177	1.4%	2.9%	7.1%
Non-contacts:				
No reply	35,948	22.8%	47.5%	
Engaged	1,018	0.6%	1.3%	
Answer machine	7,946	5.0%	10.5%	
Unusable numbers:				
Modem or fax	5,636	3.6%		
Unobtainable/not connected etc	75,711	48.0%		
Not attempted as already on 'do not call' list	805	0.5%		
Total sample	157,770	100.0%		
Usable numbers attempted	75,618		100.0%	
Contact made	30,706			100.0%

Of the total attempted sample from **all sources** (157,770 numbers), 52.1% were unusable numbers and 47.9% were usable.

Discounting unusable numbers, a total of 75,618 usable numbers were attempted, from which contact was made with 30,706 (40.2%).

Of the 30,706 numbers where some form of contact was made, 27.3% were business numbers and 7.7% either failed the screener questions, failed quotas or were otherwise out-of-scope. Refusals accounted for 36.1% of all contacts and completed interviews accounted for 16.1% of contacts. Cases that were terminated because of language problems accounted for 2.1% of contacts, while cases that were terminated because of hearing difficulties or other capability issues such as sickness, drunkenness etc accounted for 2.0% of contacts.

The overall consent rate, defined as *completes/(completes + refusals)* was 30.8%. The overall response rate defined as *completes/(in-scope contacts)* was 24.8%. (For this calculation, completes, appointments, refusals, language terminations, hearing difficulty/capacity terminations, and other terminations were included.)

4.5 Interview length

Interview length varied considerably according to the extent of gambling activity that respondents took part in, and whether the respondent was randomly allocated to the long or the short interview. The average interview length was approximately 10 minutes.

4.6 Fieldwork – issues arising

There were several occasions where Menzies employees were contacted as part of the sampling process. In some of these cases, the respondent and/or the interviewer incorrectly decided that it would not be appropriate that they be included in the survey. This issue was clarified with Menzies, and it was agreed that, for this survey, there was no reason to exclude Menzies staff from the sample. Nevertheless, there were still a handful of instances where exclusions of this nature were incorrectly made. Once they were identified, attempts were made to recontact the respondent to see whether they would agree to being included. Most of these attempts were successful. (It should be noted that for many surveys a standard approach is to exclude people who work for the organisation commissioning the survey, and some interviewers and some supervisors incorrectly believed that such an approach also applied to this survey.)

5. ANALYSIS AND WEIGHTING

5.1 Coding

There were two fully open-ended questions in the survey requiring code frame development and several 'other-specify' questions. Draft code frames were developed by Roy Morgan Research and approved by Menzies.

Back-coding was also undertaken of 'other-specify' responses, i.e. identifying any open-ended responses that could be back-coded to existing response options.

5.2 Editing

As the survey was conducted using CATI, data entry was automatic at the point of interviewing. The questionnaire programming had built in routing. Programming checked responses and directed interviewers to ask respondents questions that were applicable to them depending on the responses given to previous questions. As a result, there was little need to edit the data for any inconsistencies. A small number of respondents had to be edited/flagged as they had initially indicated they undertook a gambling activity but after answering the CPGI questions they indicated that they did not actually play that activity. (All these cases were non-problem gamblers with a CPGI Score of 0.) There were also several cases where post-interview back-coding of an other-specify response resulted in respondents not having an answer to a relevant subsequent question, as they had not been asked it. In such cases these respondents were allocated a 'don't know' code.

5.3 Weighting

Several options for weighting were discussed. The final weighting design was developed by Roy Morgan Research following discussions between Bruce Packard, Matthew Stevens, Tony Barnes and Sara Hare. The design takes into account the need to be able to weight both the overall sample and the sub-sample asked the long questionnaire. It also takes into account phone connectedness, age, sex, region and Indigenous status. An appropriate approach to probability weighting for this survey is also addressed.

5.3.1 Probability of selection

When using a dual sample frame approach and random respondent selection, Roy Morgan Research typically adopts a weighting design which initially adjusts for the probability of selection, then adjusts for non-response and demographic factors.

This standard approach with some adjustments, was used for this survey. The standard approach is as follows:

Let p = sampling fraction for interviews via mobile phone (number of interviews achieved divided by number of mobile phone owners).

Let h = sampling fraction for interviews via landline (number of interviews achieved divided by number of households with a landline phone).

Let e = number of persons in respondent's household eligible for the survey.

Let k = number of separate landlines (i.e. the number of different telephone numbers, not handsets for the same phone number) in respondent's household.

Let n = number of mobile phones, capable of receiving calls, owned by the respondent.

Let s = number of eligible persons sharing the mobile phone on which the respondent is contacted.

For a person living in a household with at least one landline the probability of being interviewed by landline is $= hk/e$. This is the same whether or not that person also has a mobile phone. For a person with a mobile, the probability of being interviewed via that mobile phone is pn/s , again irrespective of whether or not that person has a landline at home.

A mobile phone owner who also has a landline at home could be interviewed via either channel. The probability in the case of each channel is as given above. As the sampling fractions in both cases will be very small, the probability of being interviewed via both channels in the same survey is small enough to be disregarded. So the probability of being interviewed at all, i.e. via either channel, can for practical purposes be regarded as the sum of the two probabilities, or $pn/s + hk/e$.

To summarise, the probabilities for respondents in the three channel segments are:

landline only	hk/e
mobile only	pn/s
both	$pn/s + hk/e$

The weight to be applied to counter the biases in a dual frame sample design is therefore the reciprocal of whichever probability the respondent turns out to have.

For this survey of Northern Territory residents, this standard approach required some amendment, partly as some of the population (particularly the more remote Indigenous population) was out of the scope of a telephone survey, partly as some of the information was missing (the relevant questions were not part of the survey), and partly as information on telephone connectedness of the Northern Territory population is limited. The necessary modifications are discussed throughout this section.

5.3.2 *Treatment of Indigenous status in the weighting*

It was recognised by both Menzies and Roy Morgan Research that while the survey methodology was likely to produce a reasonably representative sample of non-Indigenous Territorians, it was not able to produce a representative sample of Indigenous Territorians, chiefly as a large proportion are not reachable by a telephone methodology. A weighting design that weighted the data to total Territorians would therefore have been inappropriate. The approach agreed with Menzies was to weight the non-Indigenous sample to the non-Indigenous population. The Indigenous sample was also weighted, using a slightly different approach. Just two geographical categories were used for the Indigenous sample: Darwin/Palmerston and Remainder of Territory.

5.3.3 *Main weighting – all non-Indigenous sample (Weight Set One)*

Geography: The small strata of Tennant Creek and Nhulunbuy were combined for weighting purposes.

Age/Sex: The age/sex categories used to monitor sampling were 18-34; 35-49; 50-64 and 65 plus. The gambling segmentation patterns by age were examined to see whether estimates of gambling prevalence and the prevalence of problem gambling would be inadvertently distorted by using these age categories for weighting purposes. There were some minor age differences apparent, with those at the younger and older extremes tending to be less involved in gambling. However, the impact of using a larger number of age bands on the overall weighted estimates of the proportion of gamblers (and type of gambler) would be very small. It was agreed with Menzies to use the four age bands 18-34; 35-49; 50-64 and 65 plus for weighting.

Phone Connectedness: The sampling involved an RDD landline sample frame and three lists of mobile numbers. Menzies requested that the weighting take account of phone connectedness as far as possible. Ideally this would take the form of a selection weight, but there was insufficient data collected in the survey and insufficient data for phone connectedness for all areas of the NT, or for more than a small proportion of Indigenous Territorians, to be able to take account of this in the standard Roy Morgan Research approach summarised above. A simplified form of this weighting step, applying only to the non-Indigenous sample, was adopted.

Number of adults in household: For the landline sample frame, just one respondent was selected per household. The main weighting included an adjustment for the probability of selection, given the household size. To avoid creating extreme individual weights, it was agreed with Menzies that a limit be set on this particular adjustment, whereby respondents from a household with 5 or more eligible adults be allocated a value of 5.

First stage: Probability of selection (non-Indigenous sample)

The following details the steps for the first stage of weighting of the non-Indigenous sample – adjustment for probability of selection. It also details the variations required from the standard Roy Morgan Research approach.

Let p = sampling fraction for interviews via mobile phone (number of interviews achieved divided by number of mobile phone owners). The number of non-Indigenous mobile phone owners aged 18+ in NT is not known precisely but was based on results from Roy Morgan Single Source, which only covers Darwin/Palmerston and Alice Springs. In order to improve the reliability of this estimate, Single Source data for 2013-2015 was used – giving an estimate of 92.3%.

Therefore 92.3% of NT non-Indigenous people 18+ are estimated to have a mobile. This equates to 92.3% of 138,517 = 127,851. A total of 1,114 non-Indigenous respondents were interviewed by mobile. Therefore $p = 1,114/127,851 = 0.008713$

Let h = sampling fraction for interviews via landline (number of interviews achieved divided by number of households with a landline phone). The total number of non-Indigenous households in NT with a landline phone is also not known precisely, but was based on results from Roy Morgan Single Source for Darwin/Palmerston and Alice Springs for 2013-2015 – an estimate of 67.05%.

Therefore 67.05% of NT non-Indigenous households are estimated to have a landline. This equates to 67.05% of 57,169 = 38,332. A total of 3,564 non-Indigenous were interviewed by landline. Therefore $h = 3,564/38,332 = 0.092977$

Let e = number of persons in respondent's household eligible for the survey. (To avoid creating extreme individual weights, it was agreed that a limit be set on this particular element, whereby respondents from a household with 5 or more eligible adults be allocated an e value of 5).

Let k = number of separate landlines (i.e. the number of different telephone numbers, not handsets for the same phone number) in respondent's household. (To avoid creating extreme individual weights, it was agreed that the value for this component for households with 3 or more landlines be set at 3.)

The standard approach would be to let n = number of mobile phones, capable of receiving calls, owned by the respondent. However, this question was not asked of respondents in this survey. The latest Roy Morgan data available showed that the proportion of adults without a mobile phone was very low (less than 8% nationally), so in this case it was reasonable to assume that $n=1$ and effectively ignore this element of the weighting.

The standard approach would be to let s = number of eligible persons sharing the mobile phone on which the respondent is contacted. However, this question was not asked in this survey, so s was assumed to be 1.

As questions on mobile usage were not asked of landline respondents in this survey, it was not possible to identify the (very small) group of people who are landline only. In this survey, therefore, there were effectively only two groups for the purposes of this pre-weighting stage: mobile only; and anyone with a landline (i.e. all other respondents).

Taking into account all the above points with respect to the probability weighting stage, the probabilities for respondents were calculated as:

mobile only (i.e. mobile-interviewed, no landline) p (i.e.0.008713)

all other respondents $p + hk/e$ (i.e. $0.008713 + 0.092977$ multiplied by number of landlines in the respondent's household divided by the number of adults in the respondent's household)

The final result of this first weighting stage was the reciprocal of each respondent's selection probability.

Second stage: Non response (demographic) weighting

This second stage of weighting for non-Indigenous respondents corrected proportions of respondents across the groups within the following variables, and projected the weighted sample to the population:

- Age
- Sex
- Region

The targets used for this step were age by sex by region data derived by applying Census 2011 proportions for the non-Indigenous population to the August 2015 ABS population estimates.

(As the first weighting stage had already made broad corrections for phone connectedness, it was agreed with Menzies not to include phone-connectedness as an element of the second stage.)

Effectively in this stage the weighted sample was also scaled to match population data.

5.3.4 Weight Set Two: Sub-Sample Adjustments, Non-Indigenous

The questionnaire was programmed to randomly select one in four 'non-problem gamblers' and one in four 'non-gamblers' as defined by their CPGI/PGSI scores, and allocate this sub-sample to receive the full questionnaire, along with 100% of those defined as 'problem gamblers', 'low-risk gamblers' and 'moderate-risk gamblers'. Menzies requested that a second set of weights be provided to allow for this sub-sampling. Roy Morgan Research has considerable experience in this particular task – the re-weighting of a sub-sample to represent the already weighted sample.

In addition to the basic requirement of this second set of weights (i.e. to multiply the weight of each selected non-problem gambler and non-gambler by the inverse of the proportion actually selected) slight corrections to other parameters were required so that the characteristics of the overall weighted sample, using this second set of weights remained largely the same as the main weighted sample. Initial checks of the raw data show that the age, sex, region, ATSI status and phone type of the two sub-samples very closely matched the patterns for the two total samples from which they were drawn.

The second set of weights is that used for the sub-sample of one in four non-gamblers and one in four non-problem gamblers (all non-Indigenous). The agreed approach for this survey is outlined below:

For each of the two relevant groups (non-problem gamblers and non-gamblers) calculate the following figures for each of the 8 age-by-sex cells:

- a) Sum of weights for all the relevant group (e.g. sum of weights for male non-gamblers aged 18-34)
- b) Sum of weights for the sub-sampled members of the relevant group (e.g. sum of weights for male non-gamblers aged 18-34 who were selected to complete the long questionnaire)

Divide (a) by (b) for each age/sex group for each of the two relevant groups, giving 16 adjustment factors (c).

For Weight Set Two, set each respondent's weight as follows:

- For non-gamblers who were not in the sub-sample, set their weight to zero
- For non-gamblers who were selected for the sub-sample to get the long questionnaire, multiply their weight by the relevant (c) factor.
- For non-problem gamblers who were not in the sub-sample, set their weight to zero
- For non-problem gamblers who were selected for the sub-sample to get the long questionnaire, multiply their weight by the relevant (c) factor.
- All other respondents retain the same weight they have for Weight Set One.

Generally speaking, Weight Set One should be used for all analysis involving the first half of the questionnaire, and Weight Set Two should be used only for analysis involving the second half of the questionnaire (the part where the sub-sampling applied). The two weight sets will not produce identical results, but the differences should be very minor.

5.3.5 *Weight Set Three: Indigenous Respondents*

There is much less available, reliable information about the phone connectedness status of Indigenous Territorians, and the proportion who are even contactable by telephone is likely to be quite low outside the main cities. Menzies requested a simple approach to weighting the Indigenous sample.

On the assumption that, despite the lack of phone connectedness, the sample may be broadly representative of the total Indigenous population, then the following approach was agreed.

Collapse the regions into just two: Darwin/Palmerston and Remainder of Territory.

Using simple age by sex by region cell weighting, weight the Indigenous respondents to the estimated Indigenous population of Darwin/Palmerston and Remainder of Territory (created from August 2015 ABS population estimates adjusted by the 2011 ABS Census figures for the proportion that are Indigenous.)

5.3.6 *Weight Set Four: Sub-Sample Adjustments, Indigenous*

The fourth set of weights is that used for the sub-sample of one in four non-gamblers and one in four non-problem gamblers, as applied to Indigenous respondents. Cell sizes were too small to adopt the same approach as Weight Set Two. Rather, a simpler approach was agreed:

For each of the two relevant groups (non-problem gamblers and non-gamblers) calculate the following figures:

- a) Sum of weights for all the relevant group (e.g. sum of weights for Indigenous non-gamblers)
- b) Sum of weights for the sub-sampled members of the relevant group (e.g. sum of weights for Indigenous non-gamblers who were selected to complete the long questionnaire)

Divide (a) by (b) for each of the two relevant groups, giving 2 adjustment factors (c).

For Weight Set Four, set each Indigenous respondent's weight as follows:

- For non-gamblers who were not in the sub-sample, set their weight to zero
- For non-gamblers who were selected for the sub-sample to get the long questionnaire, multiply their weight by the relevant (c) factor.
- For non-problem gamblers who were not in the sub-sample, set their weight to zero
- For non-problem gamblers who were selected for the sub-sample to get the long questionnaire, multiply their weight by the relevant (c) factor.
- All other Indigenous respondents retain the same weight they have for Weight Set Three.

The final SPSS data file also included two additional weight sets, Weight 5 and Weight 6, which were created to simplify the task for researchers who may wish to run tables etc including both Indigenous and non-Indigenous respondents in the same table.

- Weight 5 (total sample) equals Weight 1 for all non-Indigenous respondents and equals Weight 3 for all Indigenous respondents.
- Weight 6 (sub-sample adjustment) equals Weight 2 for all non-Indigenous respondents and would equal Weight 4 for all Indigenous respondents.

APPENDIX RMR – A: RDD Sampling Frame Generation

Roy Morgan Research has considerable experience in both generating and using Random Digit Dialling (RDD) sample. RDD sample provides a way of contacting the maximum number of households, including those whose telephone numbers are not listed in telephone directories.

General Procedure for Generating Landline RDD sample

1. All listed residential numbers are obtained from the Electronic White Pages (EWP) and similar sources.
 - Roy Morgan Research originally seeded their landline RDD sample using the 2004 DTMS electronic white pages. Since then, Roy Morgan Research has added new listings to the seed frame approximately every one to two years.
 - By enhancing our electronic white pages regularly we believe we have the best possible base for generating landline RDD sample, minimising household selection bias.

2. The numbers are then sorted into numerical order.
3. A file of blocks is generated for all those blocks having at least one listed number in the white pages. For example if the number 0396296888 is listed in the white pages, then generate a block of 100 numbers going from 0396296800 to 0396296899.
4. Records are flagged or removed according to the business rules described below:
 - Numbers that are coded as listed in the Yellow Pages, but are not listed in the White Pages are removed from the sampling frame.
 - Any block, where all of its listed white page numbers are also listed in the yellow pages, is excluded from the sampling frame.
 - All other numbers that are listed in both the White Pages and the Yellow Pages are kept in the sampling frame and flagged as Yellow Pages numbers.
5. Initially, all 'listed' phone numbers are geo-coded. Where available, listed numbers are geo-coded based on CCD or SA1. Where CCD or SA1 are not available, listed numbers are geo-coded based on their postcode.
6. Geo-coding for unlisted numbers is assigned based on the dominant codes within each block of 100 numbers.
7. The geo-coding of phone numbers within the landline RDD sampling frame is for the purpose of apriori allocation of numbers to geographical strata. When interviewed, postcode is collected from respondents to allow each respondent to be allocated to their correct geographical stratum.

Drawing/Using Landline RDD sample

For any particular project, the landline RDD sample is randomly selected from the sampling frame within each specified stratum. Once selected, the sample is randomised before being loaded into the interviewing system.

All RDD sample selected for any particular project is run against our "do not contact" list of numbers before use. This list is used to record telephone numbers where the respondent never wants to be contacted again.

APPENDIX B: SAMPLE CHARACTERISTICS

Variables	Unweighted % (n)	Weighted % (SE)	Population N
Northern Territory	100.0 (4,945)	100.0	176,916
Region			
Darwin & Palmerston	67.7 (3346)	60.8 (1.3)	107,512
Alice Springs	17.3 (857)	18.6 (1.0)	32,967
Regional Towns	7.8 (384)	9.8 (0.9)	17,250
Rest of NT	7.2 (358)	10.8 (1.1)	19,187
Age (years)			
18-24	3.4 (167)	8.4 (1.1)	14,892
25-34	12.1 (600)	29.8 (1.4)	52,775
35-44	21.2 (1,046)	20.0 (0.9)	35,378
45-54	25.0 (1,238)	19.3 (0.8)	34,176
55-64	21.8 (1,076)	12.8 (0.5)	22,623
65 or more	16.5 (818)	9.6 (0.4)	17,072
Gender			
Male	45.4 (2,246)	52.3 (1.1)	92,606
Female	54.6 (2,699)	47.7 (1.1)	84,310
Indigenous status			
Non-Indigenous	94.6 (4,678)	78.3 (1.7)	138,517
Indigenous	5.4 (267)	21.7 (1.7)	38,399
Main language spoken at home			
English	95.3 (4,709)	93.4 (0.9)	165,083
Not English	4.7 (231)	6.6 (0.9)	11,752
Household type			
Couple: children living at home	40.3 (1,988)	38.9 (1.3)	68,785
Couple: no children/not living at home	30.2 (1,491)	26.7 (1.1)	47,145
Single: children living at home	6.2 (306)	7.9 (1.1)	13,936
Single person	15.7 (774)	13.0 (1.0)	22,987
Group or share house	5.1 (251)	10.1 (1.0)	17,924
Other	2.6 (127)	3.4 (0.6)	5,973
Labour force status			
Full-time employed	60.2 (2,972)	66.6 (1.3)	117,688
Part-time employed	15.1 (745)	13.5 (1.0)	23,866
Unemployed (looking for work)	2.6 (126)	3.9 (0.7)	6,943
NILF	21.3 (1,053)	14.9 (0.8)	26,305
Other	0.9 (43)	1.1 (0.3)	1,937
Student status			
Full-time student	2.6 (126)	4.7 (0.8)	8,266
Part-time student	8.6 (425)	9.5 (0.8)	16,711
Not studying	88.8 (4,385)	85.9 (1.0)	151,744
Highest education			
Bachelor degree or higher	37.9 (1,864)	33.1 (1.2)	58,450
Diploma, technical Certificate III-IV	30.1 (1,481)	30.2 (1.3)	53,325
Finished Year 12 (Senior)	15.4 (760)	15.4 (0.9)	27,259
Finished Year 10 (Junior)	12.1 (597)	14.6 (1.3)	25,752
Less than Year 10	4.5 (220)	6.6 (0.8)	11,666
Gross personal income			
Less than \$30,000	11.3 (464)	10.9 (0.9)	16,408
\$30,000 - \$49,999	6.8 (280)	5.7 (0.8)	8,580
\$50,000 - \$69,999	11.6 (479)	10.9 (0.9)	16,270
\$70,000 - \$99,999	17.5 (723)	18.9 (1.2)	28,405
\$100,000 - \$119,999	24.1 (993)	26.2 (1.4)	39,306
\$120,000 or more	28.8 (1,186)	27.3 (1.3)	40,932

APPENDIX C: SURVEY INSTRUMENT

2015 Northern Territory Gambling Prevalence Survey

The following to appear on every CATI screen throughout the interview

Attrition risk

We'd really appreciate you taking part. This is one of the world's few studies to explore a link between gambling and health and well-being. We hope to understand how to protect people from developing problem gambling and poor mental health as a result of gambling.

So would you please take part? It would be much appreciated (pause).

Doesn't gamble

We're just as interested in people who don't gamble, as this study is also exploring why some people prefer not to gamble and why some people do not develop gambling problems, while others do. So we need to understand the views of people who don't gamble, to compare them to people who do gamble.

The following to appear on every CATI screen throughout the interview

Mental distress

Problem gambling counselling for those affected or families (24/7) - 1800 858 858
gamblinghelponline.org.au (Online counselling)
Lifeline 13 11 14

Respondent Anger

Perhaps it may be useful if I get one of the study researchers to call you directly
(If consent - Record name and number)

Landline introduction – Landline sample

Good [morning/afternoon/evening]. This is [name] from Roy Morgan Research calling on behalf of Menzies School of Health Research and the Northern Territory Community Benefit Fund. We are conducting a study into an important health and wellbeing issue in the NT.

May I speak to the person in your household, 18 years or older, with the most recent birthday.

Mobile introduction – Mobile sample

Good [morning/afternoon/evening]. This is [name] from Roy Morgan Research calling on behalf of Menzies School of Health Research. We are conducting a study

into an important health and wellbeing issue in the NT and are speaking to adults aged 18 years and older.

Is it convenient to talk now?

If agreed

Thanks. Your responses are strictly confidential and the survey will take between less than 10 minutes up to 15 minutes, depending on your answers.

Dispositions for CATI interviews (and scope/response rate calculations)

Busy/Engaged		Call Cycle Dead	
No Answer/No Reply		Appointment hard	
Fax/Computer/Modem		Appointment soft	
Disconnected		Call back	
Duplicate Number		Information sheet prior to call	
Answering Machine - Business		Interrupted - appointment set	
Cognitive/drunk		Too ill to participate	
Business		Survey completed	
Answering Machine-personal		Regional quotas full	
Language barrier		Answering Machine	
Away study duration		Unknown Result Code	
Operational Mobile		No one 18+	
Respondent - hard refusal		Hearing impaired	
Respondent - soft refusal		Non Northern Territory resident	
Household - hard refusal		Session - timeout	
Household - soft refusal		Record accessed > once	
Refused to continue		Disconnected by supervisor	
Final Refusal			

START SURVEY

Q1 May I just confirm you are currently living in the Northern Territory

1. Yes
2. No – thanks but this is for Northern Territory residents only. Thank you for your time.

EXIT – record disposition as non-Northern Territory resident

Q2 May I confirm your age _____. → Go to Q3
(998 Refused, 999 Don't know)

If under 18, I'm sorry but you do not qualify for the study. [record disposition as under 18)]

Q2a (If 998 in Q2 or 999 Don't know) - No worries, could you possibly then just confirm whether you fall into any of the following broad age categories?

1. <18 (Go to exit)
2. 18-24
3. 25-29

4. 30-34
 5. 35-39
 6. 40-44
 7. 45-49
 8. 50-54
 9. 55-59
 10. 60-64
 11. 65 or more
- (998 Refused, 999 Don't know)

Q3 Record gender

1. Male
2. Female

Q4 Are you are of Aboriginal or Torres Strait Islander origin?

1. Yes
2. No

Q5 What is the total number of people 18 years or older who live in your household including yourself? Enter Number: _____ (max 25 - check)

Q6 What is the total number of land telephone lines in your household? Enter Number: _____
(min 0 allowed)

Q7 What suburb do you live in?

Insert pull down list of Northern Territory localities (link to postcode and other geography)

Recode to weighting stratum

We should work out weighting strata and insert in CATI program

Pokies (electronic gaming machines)

Q8 Have you spent any money on pokies or gaming machines in the last 12 months?

1. Yes
2. No → Go to Q11 (horse, harness, greyhound racing)

Q9 Did you play at a _____ [read out] [multiple response]

- a. Pub – 1 Yes, 2 No
- b. Club – 1 Yes, 2 No
- c. Casino – 1 Yes, 2 No
- d. Online – 1 Yes, 2 No
- e. Other – 1 Yes, 2 No. Specify **Q9e_o** _____

Q10 How often did you play the pokies overall in the last 12 months? [Enter number as per respondents base]

1. Week _____
2. Month _____
3. Year _____

Q10a Calculate annual pokies play

If Q10=1 then Q10a = Q10 x 52

If Q10=2 then Q10a = Q10 x 12

If Q10=3 then Q10a = Q10 x 1

Betting on horse or harness racing or greyhounds - excluding sweeps

Q11 Have you spent any money on horse, harness or greyhound races, but EXCLUDING sweeps in the last 12 months?

1. Yes
2. No → Go to Q14 (instant scratchies)

Q12 Did you bet at a _____ [Read out] [multiple response]

- a. Racetrack – 1 Yes, 2 No
- b. TAB – 1 Yes, 2 No
- c. Pub – 1 Yes, 2 No
- d. Club – 1 Yes, 2 No
- e. Casino – 1 Yes, 2 No
- f. Phone – 1 Yes, 2 No
- g. Online – 1 Yes, 2 No
- h. Other – 1 Yes, 2 No. Specify **Q12h_o** _____

Q13 How often did you bet on horse, harness or greyhound races in the last 12 months? [Enter number as per respondents base]

1. Week _____
2. Month _____
3. Year _____

Q13a Calculate annual racetrack betting

If Q13=1 then Q13a = Q13 x 52

If Q13=2 then Q13a = Q13 x 12

If Q13=3 then Q13a = Q13 x 1

Instant Scratchies

Q14 Have you bought instant scratch tickets for yourself in the last 12 months?

1. Yes
2. No → Go to Q16 (keno)

Q15 How often did you buy them for your own use in the last 12 months?

1. Week _____
2. Month _____
3. Year _____

Q15a Calculate annual instant scratchie buying

If Q15=1 then Q15a = Q15 x 52

If Q15=2 then Q15a = Q15 x 12

If Q15=3 then Q15a = Q15 x 1

Keno

Q16 Have you played Keno in the last 12 months?

1. Yes
2. No → Go to Q19 (lotto, powerball or the pools)

Q17 Did you play at a _____ [read out] [multiple response]

- a. Pub – 1 Yes, 2 No
- b. Club – 1 Yes, 2 No
- c. Casino – 1 Yes, 2 No
- d. Online – 1 Yes, 2 No
- e. Other – 1 Yes, 2 No. Specify **Q17e_o** _____

Q18 How often did you play in the last 12 months?

1. Week _____
2. Month _____
3. Year _____

Q18a Calculate annual keno play

If Q18=1 then Q18a = Q18 x 52

If Q18=2 then Q18a = Q18 x 12

If Q18=3 then Q18a = Q18 x 1

Lotto, Powerball or the Pools

Q19 Have you bought lottery tickets such as Powerball, Lucky Lotteries or 6 from 38 Pools - in the last 12 months?

1. Yes
2. No → Go to Q21 (bingo)

Q20 How often did you buy tickets in the last 12 months?

1. Week _____
2. Month _____
3. Year _____

Q20a Calculate annual lotto play

If Q20=1 then Q20a = Q20 x 52

If Q20=2 then Q20a = Q20 x 12

If Q20=3 then Q20a = Q20 x 1

Bingo

Q21 Have you played bingo money in the last 12 months?

1. Yes
2. No → Go to Q23 (casino table games)

Q22 How often did you play bingo for money in the last 12 months?

1. Week _____

2. Month _____
3. Year _____

Q22a Calculate annual bingo play

If Q22=1 then Q22a = Q22 x 52

If Q22=2 then Q22a = Q22 x 12

If Q22=3 then Q22a = Q22 x 1

Casino table games like Blackjack, baccarat, or Roulette or poker

Q23 Have you played casino table games such as Blackjack, baccarat, or Roulette or poker in the last 12 months?

1. Yes
2. No → Go to Q26 (sport)

Q24 Did you play at a _____ [read out] [multiple response]

- a. Casino – 1 Yes, 2 No
- b. Online – 1 Yes, 2 No
- c. Other – 1 Yes, 2 No. Specify **Q24c_o** _____

Q25 How often did you play in the last 12 months?

1. Week _____
2. Month _____
3. Year _____

Q25a Calculate annual casino table games

If Q25=1 then Q25a = Q25 x 52

If Q25=2 then Q25a = Q25 x 12

If Q25=3 then Q25a = Q25 x 1

Sports betting like on soccer, AFL, cricket or tennis

Q26 Have you bet on a sport like AFL, cricket or tennis in the last 12 months?

1. Yes
2. No → Go to Q28 (non-sporting events)

Q26 Did you bet at a _____ [read out] [multiple response]

- a. Pub – 1 Yes, 2 No
- b. Club – 1 Yes, 2 No
- c. TAB – 1 Yes, 2 No
- d. Casino – 1 Yes, 2 No
- e. Over the telephone – 1 Yes, 2 No
- f. Online – 1 Yes, 2 No
- g. Other – 1 Yes, 2 No. Specify **Q26g_o** _____

Q27 How often did you bet on a sporting event in the last 12 months?

1. Week _____
2. Month _____
3. Year _____

Q27a Calculate annual sports betting

If Q27=1 then $Q27a = Q27 \times 52$

If Q27=2 then $Q27a = Q27 \times 12$

If Q27=3 then $Q27a = Q27 \times 1$

Non-sporting events betting like betting on Logies, Fantasy Sports or an election

Q28 Have you bet on a non-sporting event like the Logies, Fantasy Sports or an election in the last 12 months?

1. Yes
2. No → Go to Q30 (Raffles and sweeps)

Q29 How often did you bet on a non-sporting event in the last 12 months?

1. Week _____
2. Month _____
3. Year _____

Q29a Calculate annual bingo play

If Q29=1 then $Q29a = Q29 \times 52$

If Q29=2 then $Q29a = Q29 \times 12$

If Q29=3 then $Q29a = Q29 \times 1$

Raffles or sweeps and other phone and SMS competitions

Q30 Have you spent money on a raffle ticket or sweeps or SMS or phone-in competition in the last 12 months?

1. Yes
2. No → Go to 32 (informal private games - cards)

Q31 How often did you participate in the last 12 months?

1. Week _____
2. Month _____
3. Year _____

Q31a Calculate annual raffles play

If Q31=1 then $Q31a = Q31 \times 52$

If Q31=2 then $Q31a = Q31 \times 12$

If Q31=3 then $Q31a = Q31 \times 1$

Betting on Informal private games like playing cards, mah-jong or snooker for money at home

Q32 Have you bet on any informal private games for money such as betting on cards, mah-jong, pool in the last 12 months?

1. Yes
2. No → Go to Q34 (other)

Q33 How often did you play in the last 12 months?

1. Week _____
2. Month _____
3. Year _____

Q33a Calculate annual informal games betting

If Q33=1 then Q33a = Q33 x 52

If Q33=2 then Q33a = Q33 x 12

If Q33=3 then Q33a = Q33 x 1

Other gambling activity

Q34 Is there any other gambling activity you've spent money on in the last 12 months?

1. Yes
2. No → Go to DV1

Q34a What did you gamble on? (Record SINGLE ACTIVITY only) _____

**Description needed for possible back coding

Q35 How often did you play/bet in the last 12 months?

1. Week _____
2. Month _____
3. Year _____

Q35a Calculate annual informal games betting

If Q35 = 1 then Q35a = Q35 x 52

If Q35 = 2 then Q35a = Q35 x 12

If Q35 = 3 then Q35a = Q35 x 1

Create dummy variable for Gambler

DV1 Gambling status (last 12 months)

1. Gamblers → If [Q8=1 or Q11=1 or Q14=1 Q16=1 or Q19=1 or Q21=1 or Q23=1 or Q26=1 or Q28=1 or Q30=1 or Q32=1 or Q34=1] then QHS1 (highest spend)

2. Otherwise ALL others are Non-gamblers → Q58

Highest spend activity

QHS1 Of all the gambling activities you spent money on in the past 12 months, on which activity did you spend the most money? [read out ONLY activities played]

1. Playing the pokies or gaming machines
2. Betting on horse or harness or greyhound racing, but excluding sweeps
3. Instant scratch tickets
4. Keno
5. Lotto, Powerball or the Pools
6. Bingo
7. Betting on table games like blackjack, baccarat, or Roulette or poker
8. Betting on sports - like on AFL, cricket or tennis
9. Betting on non-sporting events like Logies, Fantasy Sports or an election
10. Raffles, sweeps or SMS or phone-in competitions
11. Informal private games for money such as betting on cards, mah-jong, snooker
12. Other gambling activity

QHS2 How much money did you spend on average, when you played [insert QHS1 gambling activity] [insert times activity played and base as measured in previous gambling frequency questions – e.g., Once per week, Once per month or Once per Year - as per previous questions]?

(999998, Refused, 999999. Don't Know)

*Use a refusal code that is likely to be out of range

QHS2 Enter amount (\$) _____

INSERT QHS2 BASE VARIABLE (CALLED QHS2_BASE) with 1=Week, 2=Month and 3=Year

QHS2_Annual spend calculated as follows

Calculate annual spend on highest spend activity:

If QHS2_BASE=1, then QHS2_Annual = QHS2 x 52

If QHS2_BASE=2, then QHS2_Annual = QHS2 x 12

If QHS2_BASE=3, then QHS2_Annual = QHS2 x 1

All gamblers

PGSI - Problem gambling Severity Index

PGSI1 Thinking about the past 12 months, how often have you bet more than you could really afford to lose? Would you say

0. Never
1. Sometimes
2. Most of the time
3. Almost always

PGSI2 Thinking about the past 12 months, how often have you needed to gamble with larger amounts of money to get the same feeling of excitement? Would you say

0. Never
1. Sometimes
2. Most of the time
3. Almost always

PGSI3 Thinking about the past 12 months, how often have you gone back another day to try to win back the money you lost Would you say

0. Never
1. Sometimes
2. Most of the time
3. Almost always

PGSI4 Thinking about the past 12 months, how often have you borrowed money or sold anything to get money to gamble? Would you say

0. Never
1. Sometimes
2. Most of the time
3. Almost always

PGSI5 Thinking about the past 12 months, how often have you felt that you might have a problem with gambling? Would you say

0. Never
1. Sometimes
2. Most of the time
3. Almost always

PGSI6 Thinking about the past 12 months, how often have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true? Would you say

0. Never
1. Sometimes
2. Most of the time
3. Almost always

PGSI7 Thinking about the past 12 months, how often have you felt guilty about the way you gamble, or what happens when you gamble? Would you say

0. Never
1. Sometimes
2. Most of the time
3. Almost always

PGSI8 Thinking about the past 12 months, how often has gambling caused you any health problems, including stress or anxiety? Would you say never, sometimes, most of the time, or almost always?

0. Never
1. Sometimes
2. Most of the time
3. Almost always

PGSI9 Thinking about the past 12 months, how often has your gambling caused any financial problems for you or your household? Would you say

0. Never
1. Sometimes
2. Most of the time
3. Almost always

Q45 $CPGI_SCORE = PGSI1 + PGSI2 + PGSI3 + PGSI4 + PGSI5 + PGSI6 + PGSI7 + PGSI8 + PGSI9$

GAMBLER_TYPE

1. Non-problem gamblers = $CPGI_SCORE=0$
2. Low risk gamblers = $CPGI_SCORE=1$ to 2
3. Moderate risk gamblers = $CPGI_SCORE=3-7$
4. Problem gamblers = $CPGI_SCORE=8-27$
5. Non-gamblers (REST OF SAMPLE – non-gamblers did not do PGSI above)

Pokies players only (all) if Q8=1

Q46 In the last 12 months, at which venue did you most frequently play the pokies?

INSERT DROP DOWN LIST OF ALL VENUES IN NT – MATT TO SUPPLY
ADD OTHER SPECIFY (If cannot select from menu) (RECORD) – **Q46o**

98. Refused (Do not read) → Go to **Q49** (pokies harm reductions measures)

99. Don't know (Do not read) → Go to **Q49** (pokies harm reductions measures)

Q48 About how far from your home is this venue?

1. 1 km or less
2. 1.1-5 km
3. 5.1-10 km
4. 10 km or more

98. Refused (Do not read)

99. Don't know (Do not read)

Pokies harm reduction measures

Q49 Has the ban on smoking in gaming areas increased, not changed, or decreased the amount of money you have spent on pokies?

1. Increased
2. No change
3. Decreased

98. Refused (Do not read)

99. Don't know (Do not read)

Q50 Has putting the ATM out of sight away from the gaming floor increased, decreased or not changed the amount of money you spend on pokies?

1. Increased
2. No change
3. Decreased

98. Refused (Do not read)

99. Don't know (Do not read)

At-risk Gamblers only (Low risk gamblers, moderate risk gamblers and problem gamblers to do questions below) – i.e. GAMBLER_TYPE=2, 3 or 4

Policy measures effectiveness

Q51 Have you accessed cash from an ATM for gambling when in a gambling venue (such as in a pub, club, TAB or casino) in the past 12 months?

1. Yes
 2. No → Go to **Q53**
 3. Don't gamble in venues → Go to **Q53**
98. Refused [Do not read] → Go to **Q53**
99. Don't know [Do not read] → Go to **Q53**

Q52 How many times on average per gambling session did you access cash from the ATM?

1. Less than once
2. Once
3. Two times
4. Three times
5. Four or more times
98. Refused [Do not read]
99. Don't know [Do not read]

Q53 In the last 12 months, has a staff member of a gambling venue ever spoken with you to check if you are okay while you were gambling?

1. Yes
2. No
98. Refused [Do not read]
99. Don't know [Do not read]

0.25 Non-problem gamblers, All low risk gamblers, All moderate risk gamblers and All problem gamblers)
Gambling motives

Q54 While thinking about your favourite type of gambling, please indicate how strongly you agree or disagree with the following statements. [Read out: You can say you Strongly disagree, disagree, neither agree or disagree, Agree, Strongly agree]

- a. Gambling is a rush
- b. Gambling is a way to win big money immediately
- c. Gambling is about enjoying intensive feelings
- d. Gambling gives a feeling of being really alive
- e. Gambling provides a good chance to win big with small money
- f. Gambling is a way to forget everyday problems
- g. Gambling is the best way to relax
- h. Gambling can help clear your mind
- i. Gambling helps release tension
- j. Gambling is about feeling like an expert
- k. Gambling produces a feeling of importance
- l. Gambling is about feeling in control
- m. Gambling produces a feeling of being powerful
- n. Gambling is a way to make big money
- o. Gambling provides an opportunity to be with similar people
- p. Gambling is a way to meet new people
- q. Gambling provides an opportunity to get along with others favourably
- r. Gambling provides an opportunity to be with friends

1. Strongly disagree
2. Disagree
3. Neither agree or disagree
4. Agree
5. Strongly agree
98. Refused [Do not read]
99. Don't know [Do not read]

(All low risk gamblers, All moderate risk gamblers and all problem gamblers)

Negative consequences of persons gambling

Q55 In the last 12 months, has your own gambling affected you in any of the following ways?

[read out]

- a. Ran out of money for rent or mortgage
- b. Ran out of money for food
- c. Ran out of money for other bills (e.g. electricity)
- d. Raided savings accounts/funds
- e. Borrowed money from family or friends
- f. Debt collectors repossessed goods
- g. Sold/hocked possessions
- h. Relationship problem with friends
- i. Relationship problems with family
- j. Physical or verbal violence toward you
- k. Kids did not attend school
- l. Kids missed out on something (e.g. school excursion)
- m. Felt stress, anxiety or depression
- n. Did something outside the law
- o. Had a problem with work (e.g. time off, lost job)
- p. Other (specify **Q55p_o** _____)

Each of the above negative consequences items to have following scale –

1. Yes, 2. No, 98. Refused [Do not read], 99. Don't know [Do not read]

Q56 Did you seek help for problems related to your own gambling in the last 12 months?

[Read out: such as help from a counsellor or a friend]

1. Yes
2. No → Go to Q58 (affect by other's gambling)
98. Refused [Do not read]
99. Don't know [Do not read]

Q57 Did you seek help from any of the following _____ [read out] multiple responses

- a. Called the gambling helpline
- b. Self-excluded from venue
- c. Saw a gambling counsellor
- d. Saw another social worker
- e. Spoke to a staff member at gambling venue
- f. Went to Gamblers Anonymous
- g. Spoke to a church or religious worker
- h. Used internet online help
- i. Saw a Doctor
- j. Talked to your spouse or partner
- k. Talked to other family
- l. Talked to friends
- m. Did you seek help in any other way (specify **Q57m_o**)

n. None of the above

All above items to include following scale:

1. Yes
2. No
98. Refused [Do not read]
99. Don't know [Do not read]

All respondents section (Survey 0.25 Non-gamblers, 0.25 non-problem gamblers, All low risk gamblers, All moderate risk gamblers and All problem gamblers)
--

Affected by other persons gambling

Q58 In the last 12 months have you been negatively affected by someone else's gambling?

1. Yes
2. No → Go to Q63 (pokies increase or not)
98. Refused [Do not read]
99. Don't know [Do not read]

Q59 Is this person your _____? [Prompt if a respondent replies there is more than one person. If there is more than one person, think about the person that has affected you the most]

1. Parent
2. Son or daughter
3. Friend
4. Work colleague
5. Spouse
6. Acquaintance
7. Other (please specify) **Q59o** _____
98. Refused [Do not read]
99. Don't know [Do not read]

Q60 Has this person's gambling affected you in any of the following ways? [RA]

- a. Ran out of money for rent or mortgage
- b. Ran out of money for food
- c. Ran out of money for other bills (e.g. electricity)
- d. Raided savings accounts/funds
- e. Borrowed money from family or friends
- f. Debt collectors repossessed goods
- g. Sold/hocked possessions
- h. Relationship problem with friends
- i. Relationship problems with family
- j. Physical or verbal violence toward you
- k. Kids did not attend school
- l. Kids missed out on something (e.g. school excursion)
- m. Felt stress, anxiety, depression or shame
- n. Did something outside the law
- o. Had a problem with work (e.g. time off, lost job)
- p. Other (specify **Q60o**) _____

Each of the above negative consequences items to have following scale –

1. Yes,
2. No,
98. Refused [Do not read],
99. Don't know [Do not read]

Q61 Did you seek help when you were affected by this person's gambling in the last 12 months? [Prompt: such as help from a counsellor or a friend]

1. Yes
2. No → Go to Q63 (pokies increase or decrease)
98. Refused [Do not read]
99. Don't know [Do not read]

Q62 Did you seek help from any of the following _____ [Read out] multiple responses

- a. Called the gambling helpline
- b. Self-excluded from venue
- c. Saw a gambling counsellor
- d. Saw another social worker
- e. Spoke to a staff member at gambling venue
- f. Went to Gamblers Anonymous
- g. Spoke to a church or religious worker
- h. Used internet online help
- i. Saw a Doctor
- j. Talked to your spouse or partner
- k. Talked to other family
- l. Talked to friends
- m. Did you seek help in any other way (specify **Q62o**) _____
- n. None of the above

All above items to include following scale:

1. Yes
2. No
98. Refused [Do not read]
99. Don't know [Do not read]

Q63_Pubs - Should the number of pokies in Pubs should be increased, decreased or stay the same?

1. Increase
2. Stay the same
3. Decrease
98. Refused [Do not read]
99. Don't know [Do not read]

Q63_Clubs - Should the number of pokies in clubs should be increased, decreased or stay the same?

1. Increase
2. Stay the same
3. Decrease
98. Refused [Do not read]
99. Don't know [Do not read]

Q63_Casino - Should the number of pokies in the casino should be increased, decreased or stay the same?

1. Increase
2. Stay the same
3. Decrease
98. Refused [Do not read]
99. Don't know [Do not read]

Public health questions (Survey 0.25 Non-gamblers, 0.25 non-problem gamblers, All low risk gamblers, all moderate risk gamblers and All problem gamblers)

Alcohol

Q64 Have you drank alcohol in the last 12 months?

1. Yes
2. No → Go to Q69 (smoking)
98. Refused [Do not read]
99. Don't know [Do not read]

Q65 In the last 12 months, have you ever felt you should cut down on your drinking?

1. Yes
2. No

Q66 In the last 12 months, have people annoyed you by criticizing your drinking?

1. Yes
2. No

Q67 In the last 12 months, have you ever felt bad or guilty about drinking?

1. Yes
2. No

Q68 In the last 12 months, have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (i.e. An eye opener)?

1. Yes
2. No

Smoking

Q69 Do you currently smoke?

1. Yes
2. No → Got to Q71
98. Refused (Do not read)
99. Don't know (Do not read)

Q70 Do you smoke regularly, that is, at least once a day?

1. Yes → Go to Q70a
2. No → Go to Q72
98. Refused (Do not read)
99. Don't know (Do not read)

Q70a How many cigarettes per day would you usually smoke?

Enter number _____ → Go to Q72

998 Refused → Go to Q72,

999 Don't know → Go to Q72

Q71 Have you ever smoked regularly, that is, at least once a day?

1. Yes

2. No

98. Refused (Do not read)

99. Don't know (Do not read)

Q72 Using the scale never, sometimes, most of the time and always, do you or does anyone ever smoke inside your house/unit?

1. Never

2. Sometimes

3. Most of the time

4. Always

98. Refused [Do not read]

99. Don't know [Do not read]

Self-assessed health

Q73 In general, would you say your health is [read out]

1. Excellent

2. Very good

3. Good

4. Fair

5. Poor

98. Refused (Do not read)

99. Don't know (Do not read)

Exposure to personal stressors

Q74 In the last 12 months, have any of the following been a problem for you, a close friend or family member? [read out]

a. Serious illness or disability

b. Serious accident

c. Death of a family member or close friend

d. Mental illness

e. Divorce or separation

f. Not able to get a job

g. Involuntary loss of job

h. Alcohol-related problems

i. Drug-related problems (not alcohol)

j. Witness to violence

k. Abuse or violent crime

l. Trouble with the police

m. Gambling problem

n. Discrimination because ethnic/cultural background

o. Other (**Q74o** please specify _____)

Use the following scale below for each item above

1. Yes
2. No
98. Refused (Do not read)
99. Don't know (Do not read)

Financial stress

Q75 In the last 12 months, have you run out of money for essentials such as food and rent?

1. Yes
2. No → Go to **Q77** (Demographics)
98. Refused (Do not read)
99. Don't know (Do not read)

Q76 In the last 2 weeks, have you run out of money for essentials such as food and rent?

1. Yes
2. No
98. Refused (Do not read)
99. Don't know (Do not read)



Demographics (all)

I am now going to ask you a few questions to ensure we survey a good cross-section of the community. All information is strictly confidential and only reported for the survey overall.

Q77 Is English the main language spoken in your household?

1. Yes
2. No
98. Refused [Do not read]
99. Don't know [Do not read]

Q78 Which of the following best describes your household? [Read out]

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. Other living arrangement
98. Refused [Do not read]
99. Don't know [Do not read]

Q79 Are you currently studying at University, College or TAFE? [Read out if Yes: Would that be Full-time or Part-time?]

1. Full-time
2. Part-time
3. Not studying
98. Refused [Do not read]
99. Don't know [Do not read]

Q80 Which of the following best describes your current work status? [Read out]

1. Working full-time
2. Working part-time
3. Home duties
4. Retired (self-supporting, in receipt of superannuation)
5. Pensioner
6. Unemployed (or looking for work)
7. Other [Do not read]
98. Refused [Do not read]
99. Don't know [Do not read]

Q81 Are you a Fly-in Fly-out or Drive-in Drive-out worker?

1. Yes
2. No
98. Refused [Do not read]
99. Don't know [Do not read]

Q82 What is the highest completed education qualification you have received?
[read out]

1. University Bachelor or above
2. A trade, technical certificate (III or IV) or Diploma
3. Completed Senior high school (Year 12)
4. Completed Junior high school (Year 10)
5. Less than year 10
98. Refused [Do not read]
99. Don't know [Do not read]

Q83 Could you please tell me your personal annual income from all sources before tax? [Read out if necessary]

1. Less than \$20,000 (less than \$769 per fortnight)
2. \$20,000 - \$29,999 (\$770 – \$1,154 per fortnight)
3. \$30,000 - \$49,999 (\$1,155 – \$1,884 per fortnight)
4. \$50,000 - \$69,999 (\$1,885 – \$2,654 per fortnight)
5. \$70,000 - \$99,999 (\$2,655 – \$3,808 per fortnight)
6. \$100,000- \$119,999 (\$3,809 – \$4,615 per fortnight)
7. \$120,000 or more (\$4,615 or more per fortnight)
98. Refused [Do not read]
99. Don't know [Do not read]

Q84 We may do a follow-up study. May we contact you about this? [If NO then tell respondent they can decline at the time]

1. Yes
2. No [Finish]

Record contact details if Yes

Q85a Home phone number [insert sample item number and confirm]

Q85b Mobile number

Q85c Work number

This completes the survey. My supervisor may call to check that the interview, so could I have your first name please? (Record _____)

Thank you very much for your time and assistance. Your co-operation is greatly appreciated.

Would you like any numbers for the Gambling Helpline or Life line?

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