Population Gambling trends

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Executive Summary

OVERVIEW

- This project involved a secondary data analysis of the 2001 S.A. Department of Health gambling prevalence study and Health Monitor Surveys 2002-2004.
- The purpose of the project was to examine recent trends in gambling participation and problem gambling in South Australia.
- A surrogate measure of problem gambling used in the Health Monitor Surveys was validated against the South Oaks Gambling Screen using data from the 2001 prevalence survey.

GAMBLING PREVALENCE

- Overall gambling participation rates have remained very stable over the four years (2001-2004).
- Approximately 76%-80% of people gamble at least once per year.
- The most popular activities continue to be lotteries (60%), poker machines (36-38%), and scratch tickets (32%).
- Participation rates for individual activities remain very close to their 2001 levels.
- Problem gamblers gamble on a wider range of activities than other gamblers, but have significantly reduced their involvement in lottery products over the last 4 years.
- Problem gamblers' participation rates are significantly higher on almost all activities with a rate of 85% for poker machines.
- Men are significantly more likely to gamble on racing, keno, casino games, sports betting and private gambling activities, whereas women are more likely than men to gamble on bingo and lotteries.
- Younger people (18-24 year olds) are more likely than older people to gamble in general.
- Younger people are more likely than older people to gamble on casino games, sports betting and racing. Lotteries tend to be less popular amongst the 18-24 year old age-group compared with all other age groups.

PROBLEM GAMBLING

- The percentage of people scoring in the problematic range of the scale validated against the SOGS has increased by 50% from 2001 to 2004.
- Problem gamblers are more likely to be male and younger.
- The demographic profile of problem gamblers generally remains unchanged since 2001.
- There has also been an increase in the percentage of people reporting significant others with gambling problems.
- 70% of significant others were reported to be experiencing problems with poker machines.

Approximately 76%-80% of people gamble at least once per year. The most popular activities continue to be lotteries (60%), poker machines (36-38%), and scratch tickets (32%).

List of tables and figures

1. Overview

Since 1995, there have only three formal prevalence studies of gambling in South Australia. The first of these was a telephone survey of 1206 adults conducted by Delfabbro and Winefield in 1996. The second was a national survey conducted by the Federal Productivity Commission in 1999 and the third was a large-scale survey of over 6000 people conducted by the Department of Human Services in 2001. The Delfabbro and Winefield survey showed that 1.20% of South Australians could be classified as problem gamblers, with a slightly higher figure (2.0%) obtained by the Department of Human Services in 2001. These figures were generally in accordance with the gradual increase in gambling expenditure observed during that time period. In 1996, South Australians spent $530 per adult on gambling every year and this had increased to $736 by 2001.

Since then no formal prevalence research has been undertaken to investigate the gambling patterns of South Australians. Instead, most knowledge concerning the nature of South Australian gambling has to be inferred from existing aggregate data maintained by the Department of Treasury and the Office of the Liquor and Gambling Commissioner. This aggregate data suggests that many of the trends observed in the late 1990s appear to have continued to this day. As indicated in Figure 1, net gambling expenditure per South Australian adult has continued to increase at a steady rate over the last four years from $736 in 2001 to $840[1] in 2003 for every South Australian adult. Much of this increase can be attributed to the ongoing growth in revenue from electronic gaming machines (EGMs). Net expenditure on this one form of gambling has increased from $472.58 per adult in 2001 to $629.22 in 2004 (a 33% increase). Annual rates of EGM revenue growth have ranged from 8% to 12%.

Unfortunately, what remains unclear from these aggregate data is whether there have been any systematic changes in the behaviour of individual gamblers. For example, is this greater expenditure on gambling the result of a greater proportion of the population being involved in gambling, or are existing gamblers merely spending more money per capita? Other important questions relate to the nature of problem gambling. To what extent has problem gambling increased over the last four years, and has there been any change in the gambling habits of problem gamblers in terms of the type of activities preferred and in type of gambling most likely to contribute to problems? Furthermore, there is interest in determining whether the gambling participation rates of South Australians have changed more broadly, not only in terms of the range of activities preferred, but also in the demographic profile of the people who gamble.

For these reasons, the Department of Families and Communities commissioned the University of Adelaide to undertake a series of analyses to investigate these questions. The data analysed for this purpose were derived from Health Monitor Surveys conducted by the South Australian Department of Health from 2002 to 2004. Health Monitor surveys are conducted two or three times annually by the Department to obtain important information concerning the health and well-being of the South Australian community. Since the prevalence study in 2001, questions relating to the gambling habits South Australian have been routinely included in the Health Monitor surveys, but so far none of the data relating to people's gambling habits and self-reported difficulties with gambling have been systematically analysed or reported. Accordingly, the purpose of this report is to provide a summary of the results of a series of analyses conducted on these data to provide further information concerning the nature and extent of gambling, as reported by the South Australian population.

1 *South Australia did not submit data for racing to the Tasmanian Gaming Commission in 2002-2003 so no official per capita expenditure figure is available. The figure of $840 is based upon the known data for that year ($755) + the per capita racing expenditure for 2001-2002 ($85).*

The first part of this report contains a brief summary is provided of the 2001 prevalence survey that forms the baseline against which most of the subsequent data are compared. In a second section, a brief overview is provided of sampling methodology and variables available in the Health Monitor surveys, and how variables were selected and utilised to allow comparative analyses. The third section provides a summary of the results and the conclusions that can be drawn from the findings.

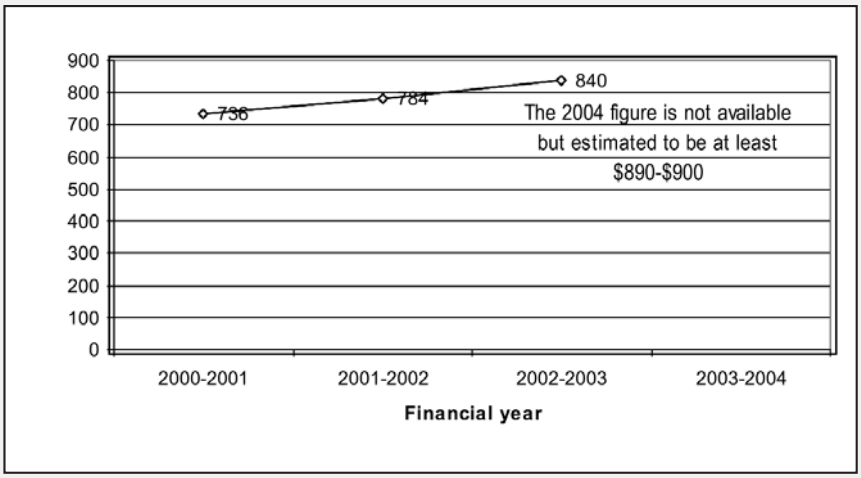

Figure 1. Adult per capita gambling revenue for South Australia (based upon total revenue / adult population of 1.15 million)

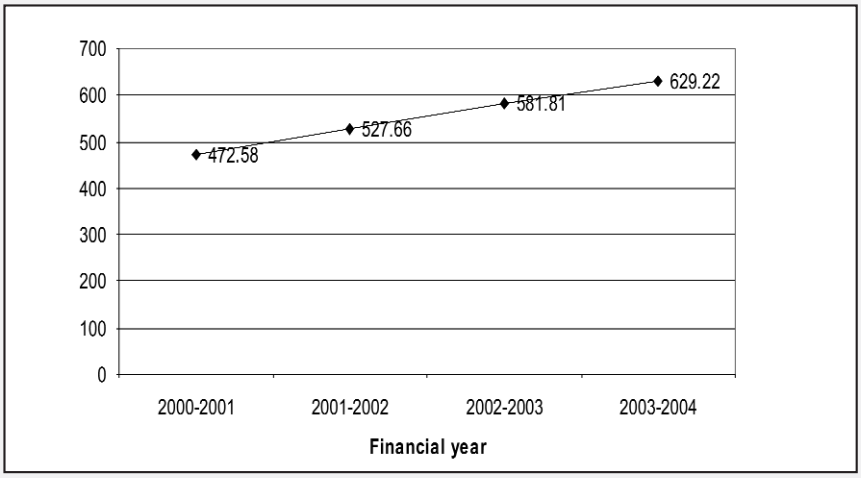

Figure 2. Adult per capita poker machine revenue for South Australia (based upon total revenue / adult population of 1.15 million)

2. The 2001 Prevalence Survey

In 2001, the Population Research and Outcome Studies Unit of the Department of Human Services conducted a telephone survey of 6045 South Australian adults to ascertain the prevalence of gambling and gambling-related harm, as well as details of other health-related behaviours and indicators. All residents were asked to indicate whether they gambled, the types of gambling they preferred and were administered various questions concerning their psychological and physical health. Those who were found to gamble on continuous (or non-lottery) forms of gambling at least fortnightly were also administered a serious of items relating to problem gambling. These included the 20-item South Oaks Gambling Screen (SOGS) and questions relating to the personal, social, legal, vocational and financial impacts of gambling on themselves and those close to them. The whole sample was also asked whether they knew anyone with a gambling problem and what form of gambling was involved. A final section of the survey required participants to provide demographic information including their age, gender, ethnicity, marital status and employment status (amongst other variables).

The 2001 survey showed that 76% of participants had gambled at least once per year and that 2% could be classified as probable problem gamblers as based upon their scores on the SOGS (a score of 5 or greater). Problem gamblers were more likely to be younger and male, to have poorer mental and physical health, and to have higher levels of smoking and alcohol consumption. In terms of variations in gambling preferences, it was found that 61% of the population had gambled on lotteries, 36% on poker machines, with lower figures for all other gambling forms. Younger people and males had a preference for casino games, racing and sports-betting, whereas bingo and lotteries were generally favoured by older age-groups.

Problem gamblers were more likely to be younger and male, to have poorer mental and physical health.

3. Health Monitor Surveys and Gambling Data

3.1 HEALTH MONITOR SURVEY METHODOLOGY

Although multiple Health Monitor Surveys were conducted in the last four years, the data analysis here is confined to the first survey conducted each year (2002A, 2003A, 2004A) so as to allow direct comparability of the reference frame for the questions (usually previous 12 months). Each gambling survey was undertaken using a similar methodology to the 2001 prevalence study. Resident households were randomly selected from the current White Pages listings and the adult with the next birthday was interviewed. All households were contacted by mail prior to the telephone calls to notify them of the impending survey. Overall, the response rates to the survey were very good with response rates based upon the original sample selection ranging from 70 to 75%. The 2002 survey contained a final interview sample of 2005; there were 2009 for the 2003 survey and 2012 interviewed in the 2004 survey.

3.2 GAMBLING DATA AVAILABLE

As indicated above, not all of the four surveys contained identical items. Nevertheless, there were many items which were shared by at least three, and mostly importantly by the original 2001 prevalence survey. These included:

- Demographic variables: gender, age, marital status (and others)
- Overall participation rates in all forms of gambling (Coded 0 = Not involved, 1 = Involved)
- Self-rating of gambling problem on a 10 point scale (Coded 1 = No problem at all, and 10 = A serious problem)
- Item 2 from the SOGS (problem gambling self-rating, "Do you feel you have had a problem with your gambling?) (Coded: 1 = Yes, in the past but not now, 2 = Yes, I feel this way now, 3 = No I haven't). Responses 1 or 2 score a point on the SOGS
- Significant others with gambling problems: "Do you know of someone who has experienced serious problems with their gambling?" (Coded 1 = Yes, 2 = No)
- Relationship of the person and type of gambling involved
- Frequency of gambling on poker machines (Number of times per Year, Month or Week)
- Frequency of gambling on gambling in general (i.e., other than poker machines) (Number of times per Year, Month or Week)

The extent to which these data were available across the 4 years is summarised in Table 1. As indicated, very consistent data were available for overall gambling participation rates, the type of gambling activity preferred, and questions relating to problem gambling. However, there were also inconsistencies. For example, the 2002 lacked the 10-point problem gambling rating scale, and there were inconsistencies in the methods used to collect information on gambling frequency. In the 2001 survey, frequency data was asked for all forms of gambling; in 2002 only poker machine frequency was recorded; 2003 separated poker machine frequency from other forms of gambling; in 2004 only gambling in general was recorded. These inconsistencies meant that gambling frequency and problem gambling status could not be crosstabulated in 2002. In addition, it was questionable to compare how often people gambled in 2001 based on responses to multiple questions (i.e., for each type of gambling) with the results from latter surveys that asked only one question (i.e., how often do you gamble in general). Respondents to the 2001 survey may have reported gambling more frequently and accurately only because they were given the opportunity to report their frequency of participation for each activity separately.

Table 1. Availability of gambling data across the 4 years

	2001	2002	2003	2004
Overall gambling involvement	a	a	a	a
Involvement by type of activity	a	a	a	a
Self-rating of gambling problem	a	-	a	a
SOGS item 2	a	a	a	a
Others with problem	a	a	a	a
Frequency on poker machines	a	a	a	-
Frequency on other activities	a	-	a	a

3.3 IDENTIFYING PROBABLE PROBLEM GAMBLERS

Another principal problem in this analysis was that a valid psychometric measure of problem gambling (the SOGS) was only employed in the original 2001 survey. In all subsequent Health Monitor Surveys (except 2002), only a single item rating scale was available to indicate whether the respondent had a gambling problem. Thus, in order to provide any meaningful analysis of problem gambling it was necessary to determine whether the single item rating scale (1 = Not a problem, 10 = A serious problem) could be used to differentiate between non-problem and problem gamblers.

Pearson correlation analysis of the 2001 data showed that the SOGS and rating scale were highly correlated, $r = 0.69$, $p < .001$, suggesting that both were measuring a similar construct. However, it was also necessary to determine what score on this 10 point rating scale was the most appropriate cut-off score to classify the two groups. To do this, a receiver operator characteristic (ROC) analysis was undertaken to identify the cut-off score that most reliably classified cases into the problem and non-problem group. All those participants who scored 5 or more on the SOGS were classified as problem gamblers, and lower scores were considered non-problem gamblers. In ROC analysis, the classification errors associated with different cut-off scores are plotted on the Y-axis. One type of error, false positives, involves setting the cut-off score too low so that too many people are classified as problem gamblers. The other type of error, false negatives, involves setting the score too high so that problem gamblers (who genuinely have SOGS scores greater than 5) are classified problem gamblers. Ideally, the aim is to choose the score which minimises both types of error. Since the false negative rate gets higher as the false positive rate gets lower (i.e., as the cut-off score is increased), it is possible to identify an intercept point where the two types of error are minimised. This point is illustrated in Figure 3 below. As indicated, the optimum cut-off score was 1.5 suggesting that any person who scored 2 or more on the scale was likely to be a problem gambler. To confirm this, a t-test comparison of SOGS scores was undertaken using a cut-off score of 1. Those who scored 1 on the rating scale had a mean SOGS score of .09 ($SD = .54$) and this was significantly lower than that of the comparison group scoring 2 or more on the scale ($M = 4.28$, $SD = 3.54$), $t(6043) = 18.06$, $p < .001$. Importantly, the mean score of the comparison group was very close to the 5-point cut-off for problem gambling identified by the SOGS (Lesieur & Blume, 1987).

This finding suggests that any person who is willing to rate their problem as greater than 1 was likely to be problem gambler using the SOGS, and suggests that this single rating scale could usefully be introduced to future public health surveys, where it is not possible to include a longer measure.

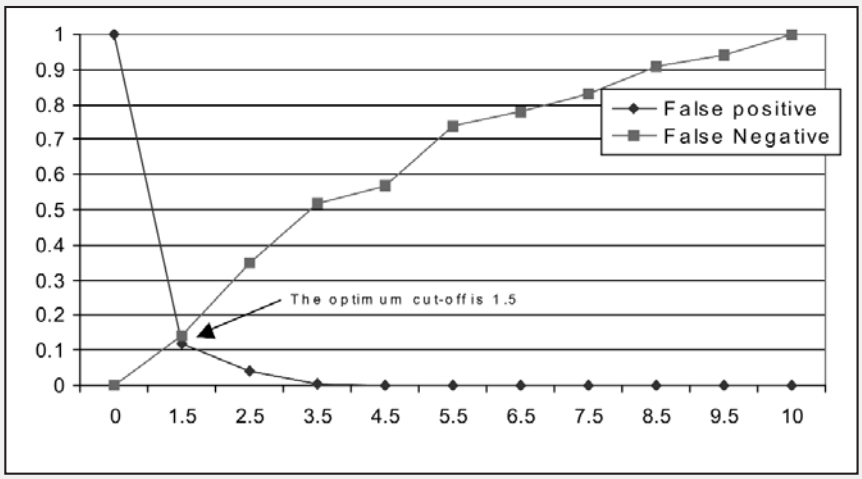

Figure 3. ROC graph identifying optimum cut-off score for surrogate problem gambling measure

3.4 SAMPLE EQUIVALENCE

A final technical issue that needed to be addressed before some analyses were undertaken was the difference in sampling methods used across the different surveys. In the 2001 survey, problem gambling questions were only administered to respondents who had gambled at least fortnightly on continuous forms of gambling (i.e., lotteries and bingo were not included). By contrast, problem gambling questions were completed by all participants in the Health Monitor Surveys irrespective of how often they gambled. For this reason, it is not possible to make direct comparisons of the prevalence of problem gambling (derived from the self-ratings) across the different surveys using the raw data alone. It is highly likely that some people who did not gamble fortnightly very likely would have scored 2 or more on the problem gambling self-rating in the 2001 survey had they been allowed to respond to this question. This means that the 2001 problem gambling prevalence figures based on the 10-point rating scale (scores > 1) would be lower than the subsequent surveys for this reason alone. To account this difference in sampling, it was therefore necessary to select regular / fortnightly gamblers from the 2003 and 2004 data-sets (i.e., using the same methodology used in the 2001 survey). In this way, comparisons of the relative proportion of the samples scoring 2 or more on the 10-point scale would therefore be based on the same sampling methodology across all the surveys.

The study provides a useful starting point for future research, and makes a significant contribution to existing knowledge in this complex area

4. Variations in overall participation rates

4.1 OVERALL PARTICIPATION

In 2001, 75.6% of the sample were found to have gambled on at least once activity in the previous 12 months. Similar figures were calculated for 2002-2004 and are summarised in Figure 4. The results show that the overall participation rate has remained almost constant from 2001 to 2004.

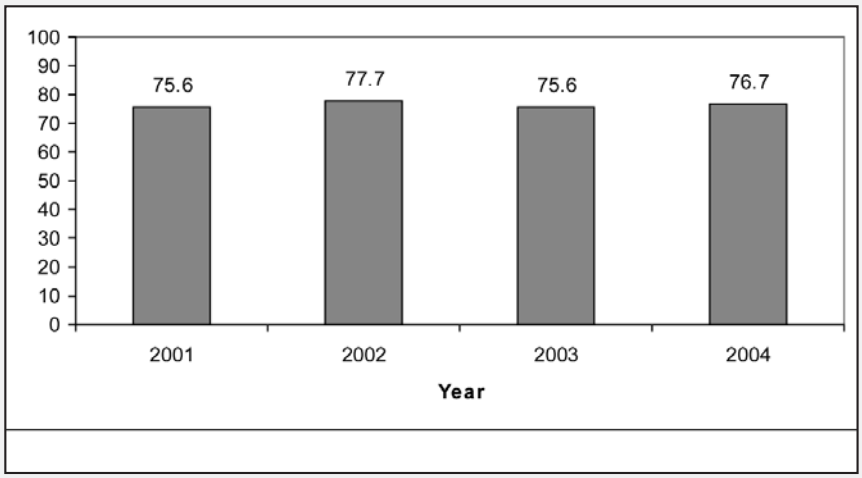

Figure 4. Overall gambling participation rates 2001-2004

4.2 MEAN NUMBER OF ACTIVITIES UNDERTAKEN

A second analysis examined the mean number of different activities undertaken by the sample across time. Separate figures were calculated for non-problem and problem gamblers (Figure 5). As indicated Figure 5, the range of activities undertaken by non-problem gamblers has remained relatively unchanged over the 4 years. In contrast, problem gamblers were found to have narrowed their range of preferences (M = 3.92 activities, SD = 1.51 in 2001 vs. M = 3.37, SD = 1.42 in 2004), t (379) = 5.22, p < .001 (Cohen's d = 0.37)[2]. Despite this, problem gamblers still gambled on a wider range of activities than non-problem gamblers in all three years, e.g., for 2004 the figures were as follows (M = 3.37, SD = 3.37 vs. M = 1.67, SD = 1.47), t (2010) = 13.94, p < .001 (Cohen's d = 1.18).

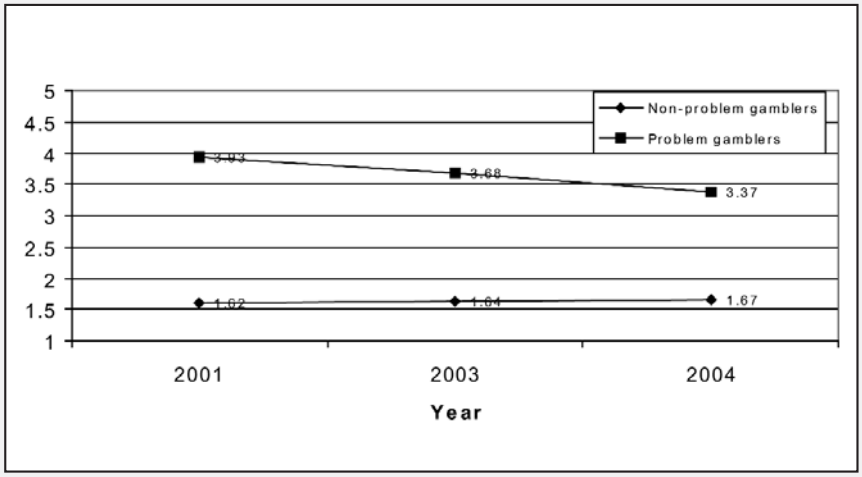

Figure 5. Mean number of activities by gambler status 2001-2004

2 A Cohen's d value of .30 is considered a moderate effect size.

A clearer understanding of the range of preferred activities can be discerned from Figures 6a and 6b which indicate the frequency of different numbers of gambling preferences for both groups.

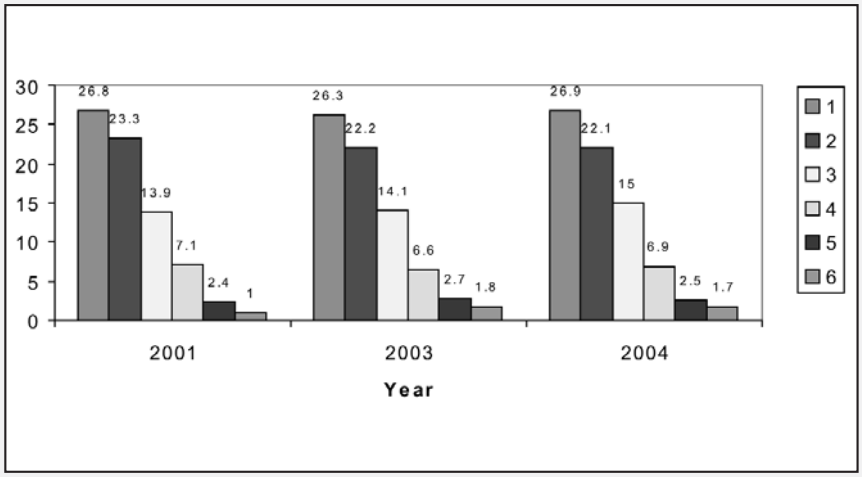

Figure 6a. Frequency of multiple gambling preferences (non-problem gamblers)

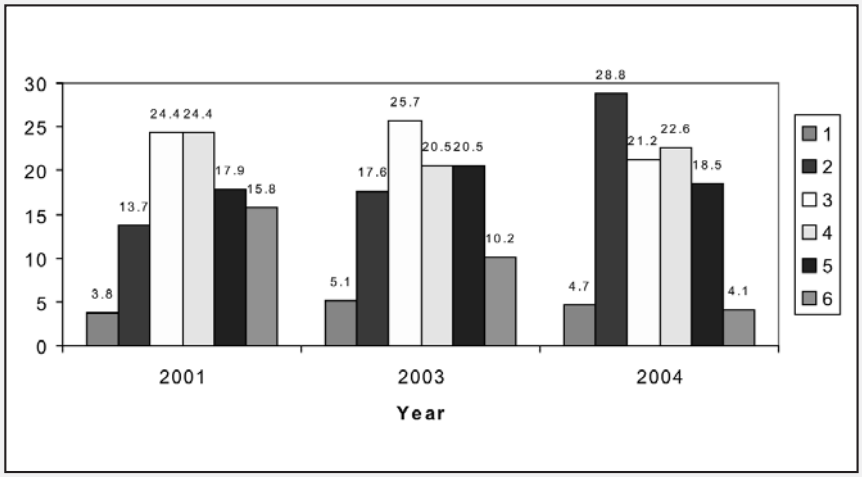

Figure 6b. Frequency of multiple gambling preferences (problem gamblers). 1-6 refers to how many activities the person reported having gambled on in the previous 12 months

Whereas the distribution of preferences for non-problem gamblers is positively skewed with over 50% indicating a preference for only 1 or 2 activities (higher if non-gamblers are excluded), problem gamblers tend to engage in multiple activities. Approximately 40% gamble on 4-5 activities, and 4% choose 6 or more. However, as can be observed in the comparison of 2001 and 2004 figures, there has been a significant decline (over 15% to 4%) of problem gamblers in this final category. There is clear trend towards a concentration on a smaller number of activities. In the following section, an analysis of specific activities provides insights into the types of activities that many problem gamblers appear to have relinquished.

4.3 PARTICIPATION RATES FOR SPECIFIC ACTIVITIES

A series of analyses were undertaken to compare participation rates for problem gamblers and non-problem gamblers on individual forms of gambling (Figure 7a to 7i). What is immediately striking about almost all of these figures is that gambling participation rates for problem gamblers are consistently higher for almost all forms of gambling. For poker machines, for example, the rate is almost double, and almost triple for sports-betting, casino games and keno. On the whole, participation rates for non-problem gamblers across all the major forms of gambling have been generally very stable, and this is generally consistent with aggregate expenditure trends reported by the Tasmanian Gaming Commission in 2004 (Australian Gaming Council, 2004). On the other hand, the same cannot be said for problem gamblers. Although participation rates for poker machines have remained relatively constant (around 85%), there have been significant decreases in racing participation and quite substantial decreases for lottery products including lotteries, scratch cards and keno ($p < .001$). Lottery and scratch card participation has dropped 10 percentage points (a loss of 16% of problem gamblers), whereas keno has dropped almost 20 percentage points representing over a third of problem gamblers.

A hypothesis arising from these figures is that many problem gamblers are relinquishing these activities in order to concentrate more time on other activities such as poker machines. To examine this proposition, the frequency of poker machine gambling amongst problem and non-problem gamblers in 2001 vs. 2003 was compared. This revealed no significant changes in gambling frequency. However, this analysis does not rule out the possibility that gamblers may be spending longer sessions at gambling venues than they did before.

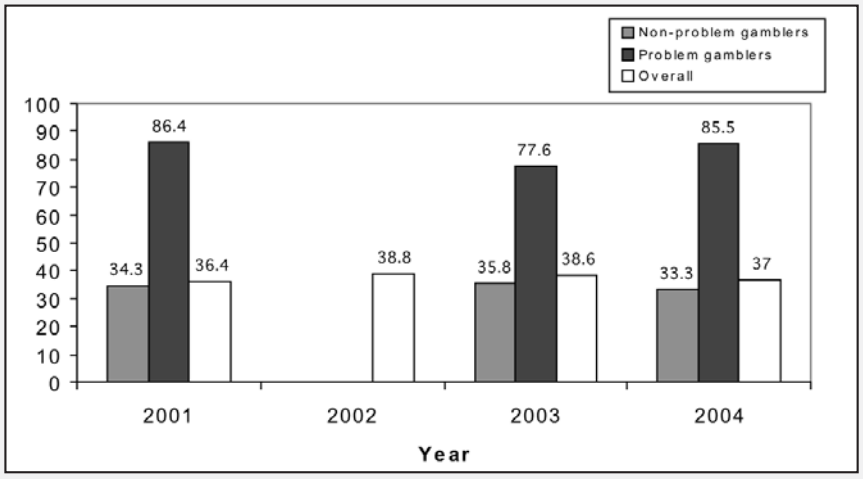

Figure 7a. Trends in poker machine participation: 2001-2004

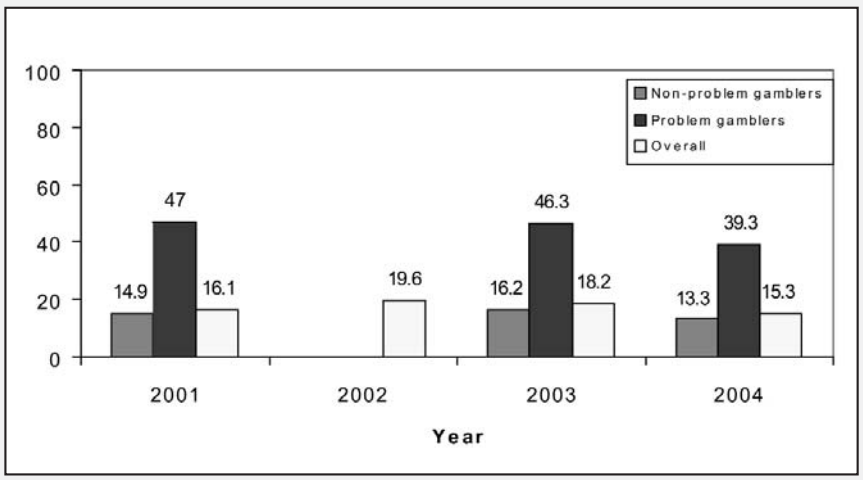

Figure 7b. Trends in racing participation

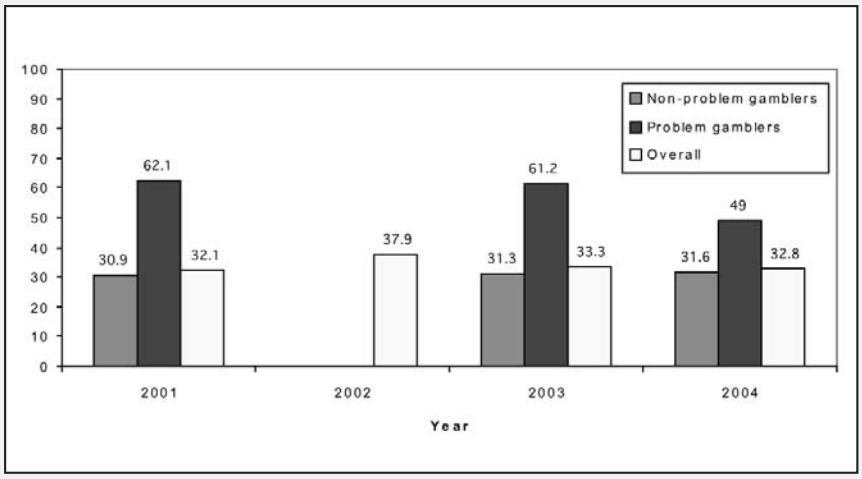

Figure 7c. Trends in scratch-card participation

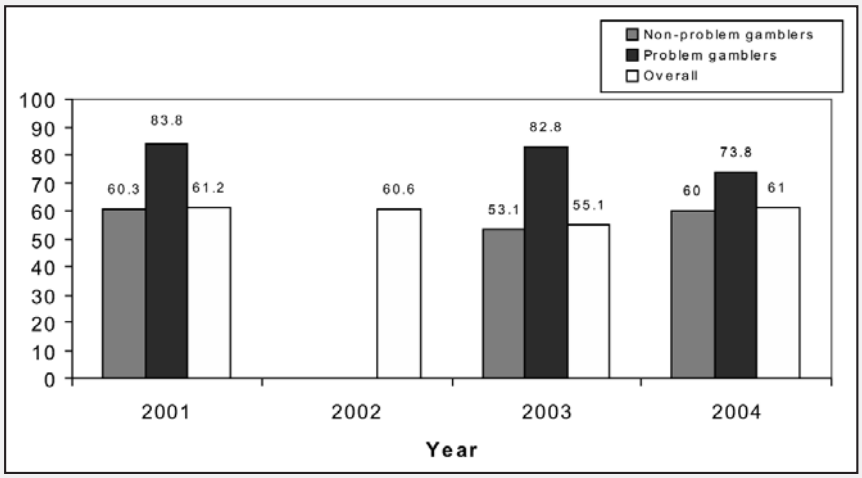

Figure 7d. Trends in lottery participation

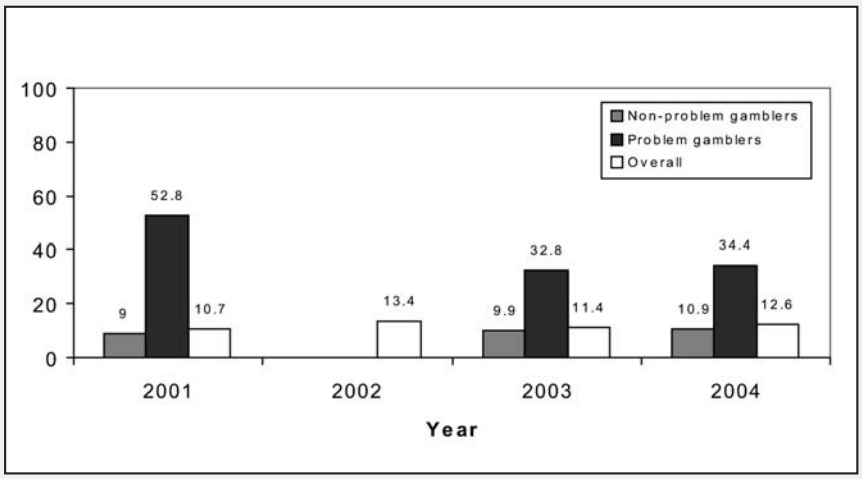

Figure 7e. Trends in keno participation

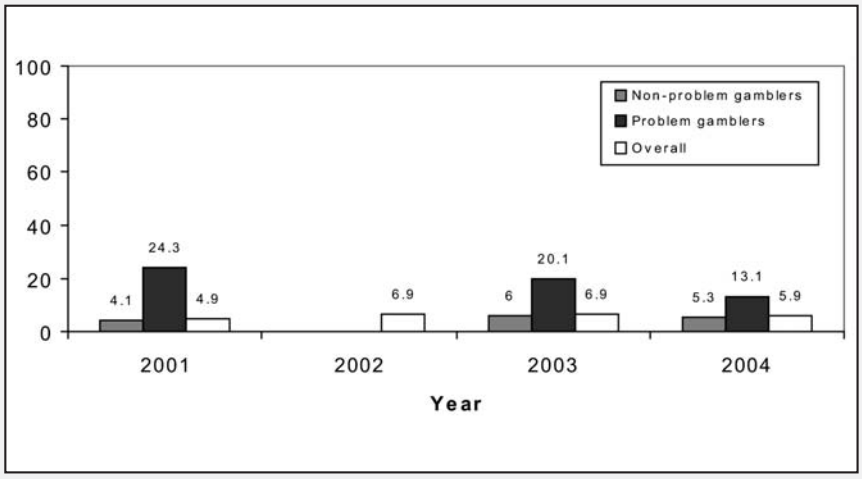

Figure 7f. Trends in casino game participation

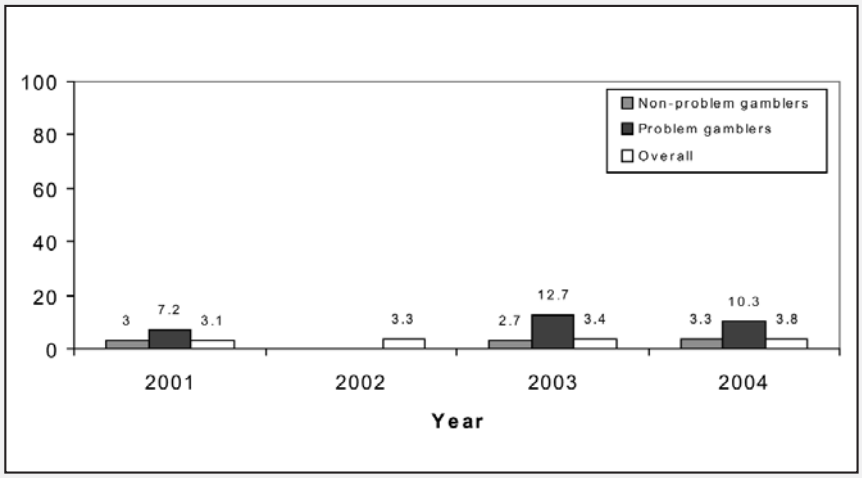

Figure 7g. Trends in bingo participation

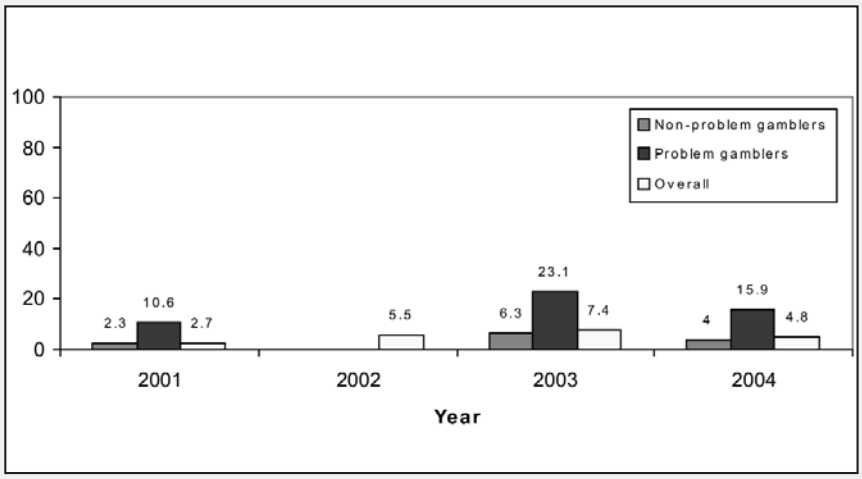

Figure 7h. Trends in sports betting

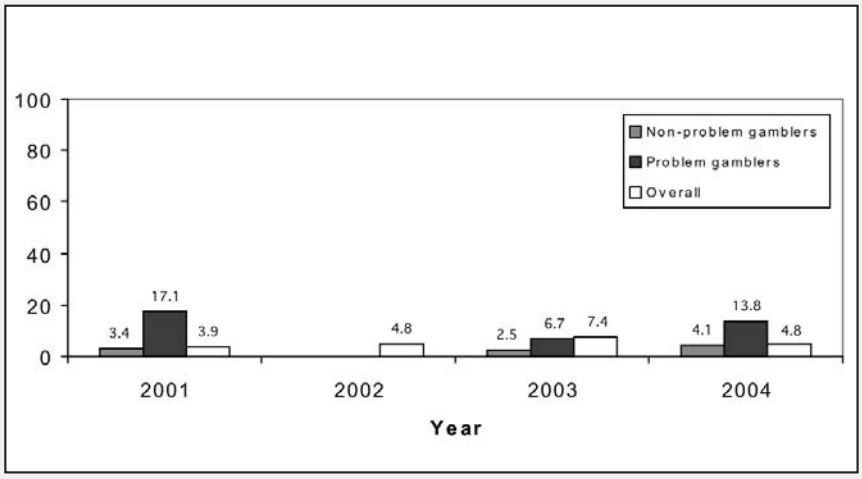

Figure 7i Trends in private card game participation

4.4 DEMOGRAPHIC PROFILES OF GAMBLERS

In previous research undertaken by Delfabbro (1998) and by the Productivity Commission (1999) it was found that age and gender were the only two demographic factors that reliably predicted gambling participation rates and gambling preferences. Although marital status and occupational status have also been found to be related to variations in gambling habits, these factors are confounded with age and gender. Younger people or males are more likely to be single or in the workforce, so that when age and gender are controlled in regression analyses, almost all other demographic factors tend to be non-significant. Accordingly, the analyses that follow are based upon an analysis of gender and age-related trends in gambling participation across time.

4.4.1 Gender and gambling participation

For all 4 years, there was no significant difference in overall gambling participation. Similarly, there was very little change in terms of the relative proportion of males and females engaged in each individual activity. Comparative figures for 2004 are presented in Figure 8 and reveal exactly the same pattern of differences observed in all other years. There was no significant gender difference for poker machines or lotteries, but differences for all the rest (all $p < .001$). Men were significantly more likely to have gambled on racing, keno, casino table games, sports and on private games, whereas women were significantly more likely to have gambled on scratch cards and bingo.

4.4.2 Age-related differences

An initial analysis examined the relative percentage of people in different age groups who gambled overall. This analysis revealed some fluctuation in participation rates possibly due to sampling variations from one year to the next. The only generally consistent finding was that the 75+ age-group tended to have lower rates of participation than the other groups (although the 35-44 age-group were also lower in 2004). There were also no declines or increases in participation within particular age-groups, although the rates for the two older age-groups were significantly higher than they had been in 2001 ($p < .05$).

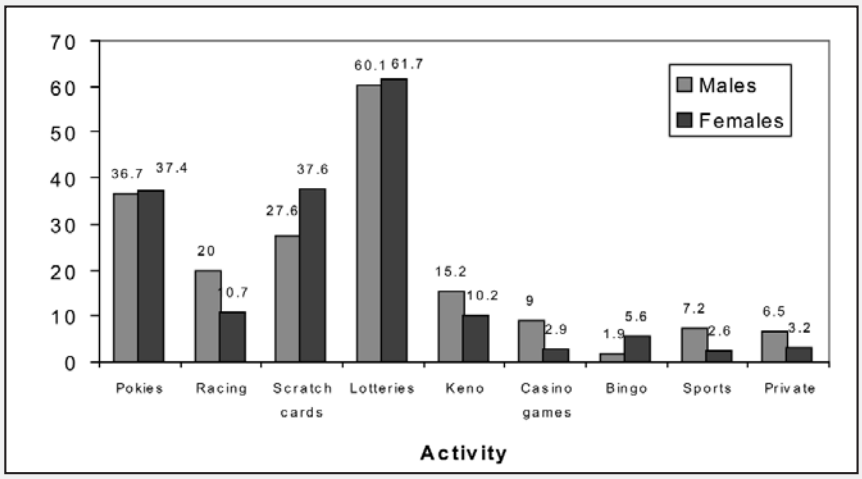

Figure 8. Participation in individual activities broken down by gender

Table 2. Percentage of people in each age group who gambled annually

Age group	2001	2002	2003	2004
18-24	72.5	77.0	79.7	73.6
25-34	79.5	81.6	76.3	80.3
35-44	77.9	75.9	79.5	66.4
45-54	78.5	83.1	66.5	78.9
55-64	78.2	80.3	65.1	77.4
65-74	71.5	72.8	69.1	81.9
75+ 59.0	66.5	62.5	64.0	

A clearer understanding of variations is gained from Table 3 which summarises the percentage of people in different age groups participating in each activity. As can observed, participation rates amongst the older age groups for poker machines, racing, casino games and sports-betting tended to be lower. Scratch card, keno and bingo participation rates were relatively similar across the different age groups, whereas lotteries were clearly much less popular amongst the 18-24 year old age-group. In terms of age-related changes for specific gambling products, several small, but identifiable trends emerged. Younger people (those aged 18-24) appear to have increased their involvement in casino games, sports-betting and racing, whereas lottery products (lotteries, scratch cards and keno) appear slightly more popular amongst older people (all increases, $p < .05$ using proportion difference tests).

Table 3. Percentage of people in each age group participating in each activity

Age group	2001	2002	2003	2004
Poker machines				
18-24	51.1	58.2	61.0	53.6
25-34	35.7	40.8	38.7	39.7
35-44	32.2	31.7	29.8	30.0
45-54	36.9	33.9	33.4	34.9
55-64	38.8	43.2	39.9	37.4
65-74	34.3	35.5	29.9	38.4
75+	24.8	31.5	25.8	28.5
Racing				
18-24	16.3	26.2	27.9	24.6
25-34	20.7	22.2	23.3	16.1
35-44	18.8	19.8	16.5	17.6
45-54	17.0	19.6	17.9	13.4
55-64	15.3	18.4	9.6	16.3
65-74	10.5	16.7	10.7	8.6
75+	5.5	9.0	8.8	5.9
Scratch cards				
18-24	37.7	35.2	40.7	33.9
25-34	34.8	48.5	36.7	39.4
35-44	31.9	36.8	34.7	32.3
45-54	34.0	38.0	29.9	30.6
55-64	28.6	37.2	32.5	30.4
65-74	27.9	34.0	24.9	33.3
75+	25.1	27.5	26.4	27.0
Lotteries				
18-24	38.9	36.1	34.3	30.4
25-34	67.5	63.1	51.8	62.8
35-44	68.8	65.7	67.3	69.2
45-54	67.6	71.6	69.0	70.0
55-64	68.9	68.8	63.2	68.1
65-74	57.5	58.9	49.2	65.2
75+	41.3	60.6	45.3	46.5

Table 3. Percentage of people in each age group participating in each activity - continued

Age group	2001	2002	2003	2004
Keno				
18-24	16.4	21.7	15.9	17.7
25-34	12.1	20.1	13.6	13.1
35-44	11.9	12.0	10.8	12.9
45-54	10.8	8.3	11.2	13.9
55-64	8.8	13.2	10.1	8.1
65-74	7.4	9.9	6.2	13.1
75+	3.4	5.6	6.3	9.2
Casino games				
18-24	12.1	22.9	18.7	20.7
25-34	7.4	13.0	12.3	10.0
35-44	5.5	4.0	4.0	4.0
45-54	3.0	3.3	1.3	2.9
55-64	2.2	1.6	1.8	1.2
65-74	1.1	1.0	0.6	1.5
75+	0.1	0.6	1.9	0.5
Bingo				
18-24	3.1	1.6	2.2	5.5
25-34	2.9	2.4	4.2	3.1
35-44	1.9	3.3	2.0	2.2
45-54	1.7	2.8	3.5	2.4
55-64	3.8	2.4	3.1	3.5
65-74	4.7	5.9	3.4	4.0
75+	7.4	6.2	6.9	9.7
Sports				
18-24	5.5	13.5	14.2	11.4
25-34	4.0	7.6	9.4	5.3
35-44	3.2	5.8	5.9	4.7
45-54	2.2	2.5	8.8	4.0
55-64	1.2	4.4	3.1	3.1
65-74	0.9	2.5	1.1	3.0
75+	0.0	1.1	1.3	1.6

4.5 ESTIMATED CHANGES IN PROBLEM GAMBLING

As indicated above, although no validated measure of problem gambling was consistently available across all 4 years, two rating scales were administered to the samples on at least 3 occasions. Thus, although it was not possible to calculate comparative problem gambling prevalence figures for all years, it was nonetheless possible to compare the percentage of regular gamblers scoring 2 or more points on the 10-point rating scale for 2001, 2003 and 2004. In addition, the data allows one to indicate the percentage who scored positively on the 3-point rating scale derived from the SOGS.

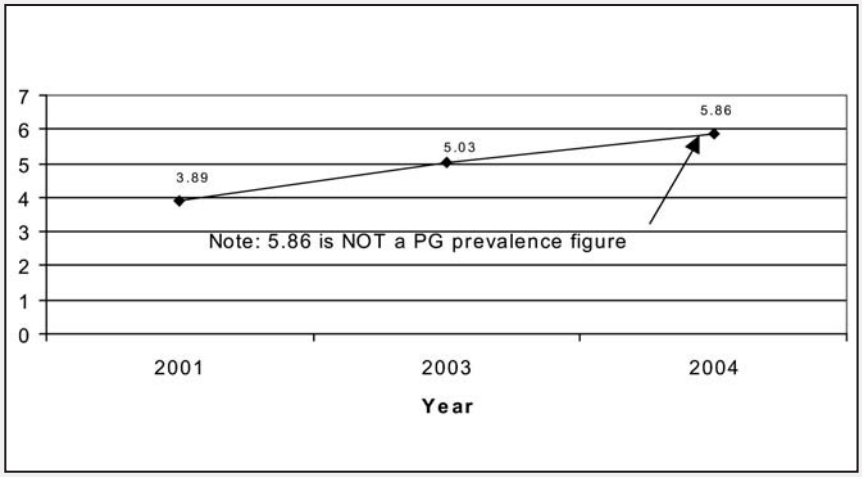

Figure 9. The percentage of regular gamblers scoring 2 or more on the 10-point problem gambling scale

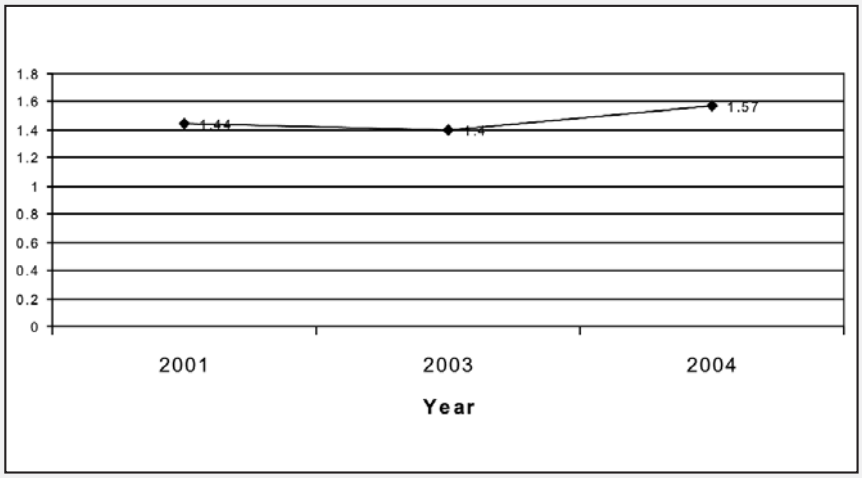

Figure 10. The percentage of regular gamblers scoring 1 or more on the 3-point problem gambling scale

Although both Figure 9 and 10 show increases in the percentage endorsement of these items, the increase depicted for the second rating scale is very small and non-significant, and is based on a measure that was not amenable to the same validation procedure used for the other rating scale. The most valid comparison is therefore that based on the 10-point rating scale, despite the caveats identified above. The 2001 figure represents the number of regular (fortnightly non-lottery gamblers) who scored 2 or more on the 10-point rating scale as a proportion of the whole sample (235 / 6045 = 3.90). In 2003, there were 134 people out of 2009 who scored 2 or more, but only 101 were regular gamblers. Thus, the valid figure for 2003 is 101 / 2009 = 5.03. Similarly, in 2004, there were 146 people scoring 2 or higher of whom 118 were regular gamblers (118/ 2012 = 5.86). A proportion difference test was conducted to compare the 2004 figure with the 2001 figure, and show that the 2004 figure was significantly higher, $z = 3.72$, $p < .01$.

4.6 DEMOGRAPHIC PROFILE OF PROBLEM GAMBLERS OVER TIME

It was also possible to examine the demographic characteristics of those who scored 2 or more on the 10 point scale. In 2004, the percentage for men (8.28) was found to be significantly greater than that for women (3.58), $z = 4.48$, $p < .01$. In addition, the percentage of problem gamblers in the 18-24 year age group (12.29%) was found to be significantly higher than for the 75+ age group ($p < .05$) (3.24). Figures for the other age-groups were as follows: 6.10 for the 25-34 group, 4.20 for the 35-44 group, 7.24 for the 45-54 group, 5.45 for the 55-64 group, 6.56 for the 65-74 group.

4.7 GAMBLING BY SIGNIFICANT OTHERS

In the 2001-2003 surveys, all participants were asked to indicate whether they knew anyone close to them who had a gambling problem. The results showed some modest increase in the proportion of people reported to have problems with an increase from 23.3% in 2001 to 33.4% in 2002 and 28.3% in 2004. Both 2002 and 2003 figures were significantly higher than the 2001 figure ($p < .01$).

Table 4. Profile of significant others with gambling problems

	(n = 1407) 2001 %	(n = 670) 2002 %	(n = 569) 2003 %	(n.a.) 2004 %
Relationship				
Spouse	25 (1.8)	18 (2.7)	6 (1.1)	Not
Parent	55 (3.9)	25 (4.2)	23 (4.0)	Available
Friend	817 (58.1)	381 (56.9)	346 (60.8)	
Other relative	233 (16.6)	105 (15.7)	88 (15.5)	
Work colleague	101 (7.2)	57 (8.5)	43 (7.6)	
Gambling type				
Poker machines	953 (67.7)	441 (65.8)	406 (71.5)	
Racing	254 (18.0)	132 (19.8)	104 (18.3)	
Casino games	96 (6.8)	36 (5.4)	28 (4.9)	
Keno	47 (3.3)	23 (3.5)	5 (0.9)	
Various forms	9 (0.6)	1 (0.1)	5 (0.9)	

Table 4 further shows the relationship of the person to the respondent as well as the type of gambling involved. As indicated, these figures have remained very stable over time. Friends and relatives make up the greater proportion of people identified as problem gamblers and poker machines are reported to be the problem in around 70% of cases, racing in approximately 20% of cases and casino games 5%.

5. Discussion

Overall, the results show that gambling participation rates and patterns of gambling have remained relatively unchanged over the last four years. Although South Australians now spend more per capita than in 2001, approximately the same proportion of the population gambles (around three quarters), and the same trends are observed for individual activities. Lotteries, poker machines and scratch tickets are still the most popular forms of gambling, with relatively low participation rates observed for sports-betting, casino games and minor forms of gambling such as bingo and private games. Younger people tend to gamble more than older people. Males still typically gamble more often on casino games, racing, sports and keno, whereas women gamble more often on bingo and scratch tickets. In terms of age-related variations, it is clear that younger people in the 18-24 age-group are more likely to gamble on most forms of gambling, including poker machines, racing, casino games, sports-betting, whereas older people tend to prefer scratch cards, bingo and lotteries. In fact, there was some evidence to suggest that these differences had strengthened over the last four years.

Analysis of the limited problem gambling data indicated that there has been an increase in the percentage of the population concerned about their own gambling as well as the gambling of others close to them. The percentage of the sample reporting at least some difficulty with gambling (i.e., who were not willing to give themselves the minimum rating on the 10-point scale) had increased significantly from 2001 by 50%, although it must be recognised that this figure does not represent a prevalence rate. Problem gamblers were generally more likely to be male and younger, although the principal age-difference related to the disproportionately low figure observed amongst those over 75 years of age. Those with possible gambling problems tended to gamble on wider range of activities than other gamblers, but this difference had decreased considerably over the last four years. In particular, analysis of changes in preferences for individual activities indicated that problem gamblers appear to have decreased their participation in lottery products such as lotto, keno and scratch tickets. Future Health Monitor surveys could, therefore, include more detailed information concerning the intensity of gambling to determine whether problem gamblers are increasing their level of involvement in poker machines and racing (i.e., how much time and money they are spending per session) at the expense of other forms.

Finally, as was also found in 2001, around 85% of those who scored in the problematic range on the rating scale reported playing poker machines, with 60% of all reports of problem gambling amongst others found to be related to this form of gambling. Thus, consistent with recent South Australian Break Even data reported by the Department, poker machines clearly remain the major cause of gambling related problems in South Australia.

6. Directions for future research

In summary, the findings from this report show that the South Australian gambling market is characterised by two seemingly conflicting trends. On the one hand, per capita expenditure on gambling has been steadily increasing, but there has been little change in the demographic characteristics of those who gamble, or in the relative proportion of the population gambling on different activities. This suggest that the intensity and /or frequency of gambling is very likely to have increased. One possibility for this is that many problem gamblers have lost interest in activities such as keno and other lottery products and now concentrate predominantly on poker machine gambling. Another possibility is that gamblers in general are gambling just as often as before, but spending more because of changes to gambling products. New generation of gaming machines, improved race or sports betting facilities may be more attractive to gamblers in general, and are therefore allowing them to spend money more quickly. If this is indeed so, a question then arises as to whether this effect is equally strong amongst problem as opposed to non-problem gamblers.

New generation of gaming machines, improved race or sports betting facilities may be more attractive to gamblers in general, and are therefore allowing them to spend money more quickly. If this is indeed so, a question then arises as to whether this effect is equally strong amongst problem as opposed to non-problem gamblers.

Accordingly, a recommendation for future Health Monitor Surveys would be to include a validated screen such as the SOGS or Canadian Problem Gambling Index to validate these findings using a bona fide measure of problem gambling. In addition, it would be worthwhile to introduce more detailed questions concerning the number of lines and credits and denomination of machines that are being played. Such data could then be compared with similar information collected in 2001 to examine whether there has been any systematic change in the behaviour of problem gamblers in relation to how much time and money they spend per session. Similar questions could also be asked concerning racing and sports-betting, although without any comparable baseline figures in 2001[3], one would have to rely upon people's general impressions of changes in their behaviour over time, rather than direct comparisons of standard denominations or units of play.

3 Details of how intensely people gambled on poker machines was recorded in 2001, but not in the other surveys.

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