

**REPORT OF SURVEY ON PARTICIPATION IN  
GAMBLING ACTIVITIES AMONG SINGAPORE  
RESIDENTS, 2014**



**NATIONAL COUNCIL ON PROBLEM GAMBLING  
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## **REPORT OF SURVEY ON PARTICIPATION IN GAMBLING ACTIVITIES AMONG SINGAPORE RESIDENTS, 2014**

This report summarises the findings from the 2014 survey on participation in gambling activities among Singapore Residents. This is the fourth survey conducted on participation in gambling activities among Singapore Residents, following similar studies conducted in 2005, 2008 and 2011.

### **OBJECTIVES OF SURVEY**

2. The objectives of this survey are to:
  - a. Assess the extent and pattern of gambling among adult Singapore residents; and
  - b. Ascertain the prevalence of problem gambling and profile of problem gamblers.
3. Details of the survey methodology are provided in Annex A.

### **GAMBLING PATTERNS**

4. Similar to the survey in 2011, respondents in the 2014 survey who had participated in at least one form of gambling in the last 12 months were classified as gamblers.

#### ***Overall Gambling Participation***

5. The gambling participation rate remained stable from 2011 to 2014. In the 2014 survey, 44% of Singapore residents aged 18 and above reported that they have participated in at least one form of gambling activity in the last 12 months, compared to 47% in the 2011 survey. The three percentage point difference was not statistically significant.

#### ***Gambling Participation by Demographic Groups***

6. Relatively higher gambling participation rates were found among the following groups (for more details, see Annex B, Table B1):

- a. Chinese (53%)
- b. Male (49%)
- c. Residents aged 40 years old & above (50%)
- d. Residents with PSLE and below educational qualification (52%)
- e. Residents with average monthly personal income of \$2,000 to \$2,999 (53%)

### ***Gambling Participation by Type of Gambling Activities***

7. Similar to the survey in 2011, the 2014 survey found that the most popular types of gambling activities were 4D (35%), Toto (27%), Singapore Sweep (16%) and Social Gambling (10%) (see Annex B, Table B2).

### ***Betting Amounts***

8. The median monthly betting amount on games in 2014 was \$20, down from \$40 in 2011. Similarly, the average monthly betting amount was lower in 2014 at \$70, compared to \$212 in 2011 (see Annex B, Table B3). Similar to 2011, the monthly average betting amount in 2014 was generally higher for those with higher personal incomes than those with lower personal incomes (see Annex B, Table B4).

9. The results show that most Singapore Residents were gambling with a lower amount in 2014 as compared to 2011. A majority (64%) betted less than \$50 per month and the large majority (90%) betted less than \$200 per month. Only a small proportion (0.3%) gambled with large amounts (i.e. average monthly betting amount of more than \$1,000) and the proportion has decreased from 2011 to 2014 across all income groups.

### ***Starting Age and Gambling Activity***

10. In 2014, 54% of the respondents who have ever gambled stated that they started to gamble at the age of 24 or younger, which was a statistically significant decrease of five percentage points from 59% in 2011. About 52% of the respondents in the 2014 survey stated that they started to gamble regularly (at least once a week) before they turned 30 years old, which is a statistically significant decrease of four percentage points from 56% in 2011 (see Annex B, Table B5). Similar to the 2011 survey, the 2014 survey found that most started with 4D and social gambling (see Annex B, Table B6).

## **PERCEPTION TOWARDS VARIOUS GAMBLING FORMS**

11. Similar to the survey in 2011, the 2014 survey found that overall the majority of respondents regarded the various forms of gambling as gambling activities rather than leisure activities. The perceptions of the various forms of gambling as gambling activities versus leisure activities were generally similar between the 2014 and 2011 surveys. Similar to the survey in 2011, the 2014 survey found that gamblers were more likely than non-gamblers to regard the softer forms of games (i.e., 4D, Toto, Singapore Sweep, Social Gambling) as leisure activities. In addition, the proportions of gamblers who regard 4D, Toto and Singapore Sweep as leisure activities have decreased by seven percentage points from 2011 to 2014 (see [Annex B, Table B7](#)).

## **PROBABLE PATHOLOGICAL AND PROBLEM GAMBLING**

12. Probable pathological and problem gamblers were detected based on their responses to screening questions on an internationally established diagnostic tool (which was also used in previous MSF-NCPG surveys) designed with the DSM-IV screening criteria (see [Annex C](#)). Pathological gambling represents a more severe form of gambling addiction compared to problem gambling.

### ***Probable Pathological & Problem Gambling Rates***

13. The 2014 survey found that between 0.03% and 0.4% of the respondents may be classified as probable pathological gamblers. In terms of a single point estimate, the proportion of respondents classified as probable pathological gamblers is 0.2% in the 2014 survey, compared to 1.4% in 2011. This decrease in probable pathological gambling rate from 2011 to 2014 was statistically significant (see [Annex B, Table B8](#)).

14. The 2014 survey found that between 0.3% and 0.8% of the respondents may be classified in the less severe category of probable problem gamblers. In terms of a single point estimate, the proportion of respondents classified in this category is 0.5%, compared to 1.2% in 2011. This decrease in probable problem gambling rate from 2011 to 2014 was statistically significant (see [Annex B, Table B8](#)).

### ***Profile of Probable Pathological Gamblers***

15. Slightly higher prevalence of probable pathological gambling rate was found among residents with the following profiles (see [Annex B, Table B9](#)):

- a. Male (0.3%)
- b. Chinese (0.3%)
- c. Those aged 40 to 49 years (0.3%) and 60 years & above (0.5%)
- d. Those with “O” level / ITE / Primary or no education (0.4%)
- e. Those with monthly personal income of \$1,000-\$1,999 (0.4%) and \$3,000-\$3,999 (0.6%)

16. Similar to all gamblers, the median and average monthly betting amounts among probable pathological gamblers were lower in 2014 (median: \$80; average: \$313) as compared to 2011 (median: \$581; average: \$1,713). Similar to 2011 survey, the 2014 survey found that these amounts were higher than that for all gamblers (median: \$20; average: \$70) (see Annex B, Table B10).

17. The 2014 survey found that 83% of probable pathological gamblers were frequent gamblers (i.e. having gambled at least once a week), compared to 37% for all gamblers. This pattern of results was similar to the findings in the 2011 survey. However, the proportion of frequent gamblers among probable pathological gamblers in the 2014 survey was higher compared to 2011 which was at 68%, even though the proportion of frequent gamblers among all gamblers in the 2014 survey was lower compared to 2011 which was at 43% (see Annex B, Table B11).

18. In the 2014 survey, 67% of probable pathological gamblers indicated that they started gambling regularly at the age of below 30 years old, up from 53% in 2011. About 17% of the probable pathological gamblers in 2014 started gambling regularly at young age (i.e. below 18 years old), up from 5% in 2011 (see Annex B, Table B12).

## **SELF-CONTROL IN GAMBLING**

19. Similar to the 2011 survey, the 2014 survey included items that assessed the gambler’s self-control in gambling, by asking the gambler whether he gambled more than he had planned to, in terms of having gambled for a longer period of time, with more money and more frequently than he had planned to. The proportion of gamblers with poor self-control in gambling tended to be higher among gamblers who had participated in the online gambling, table games and jackpot machines (see Annex B, Table B13).

20. Similar to the 2011 survey, the 2014 survey found that frequent gamblers were more likely than non-frequent gamblers to have poor self-control in gambling (see Annex B, Table B14).

21. Similar to the 2011 survey, the 2014 survey found that probable pathological gamblers (PPGs) were much more likely than non-PPG gamblers to have poor self-control in gambling. The proportion of probable pathological gamblers with poor self-control in gambling, in terms of having gambled for a longer period of time or more money than they had planned to, was higher in 2014 as compared to 2011 (see [Annex B, Table B15](#)).

## **FAMILY OUTCOMES OF GAMBLING**

22. The 2014 survey also included items to assess family outcomes of gambling, by asking the gambler whether he has experienced certain problems because of their gambling. The results showed that gamblers with poor self-control in gambling and probable pathological gamblers (PPGs) were much more likely to regret the way they have gambled their money and experience various family problems due to gambling such as paying bills and living expenses, emotional problems and family quarrels. These gamblers were also less likely to be satisfied with their family life (see [Annex B, Tables B16 & B17](#)).

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## **SURVEY METHODOLOGY**

### **Sampling and Data Weighting**

A probability disproportionate stratified sampling method was used to select the subjects. From a sampling frame of residents' addresses, a randomly selected sample of 3,000 Singapore residents was interviewed using a structured questionnaire between March 2014 and August 2014. The minority ethnic groups were over-sampled to allow for meaningful analysis. The survey achieved a response rate of 73%, thus ensuring that the results were representative. Post-survey weightings were applied based on corresponding cohort proportions from published resident figures by the Department of Statistics as of 2014.

### **Questionnaire Design**

2. The survey was conducted via face-to-face interviews. The screening questions to detect probable pathological and problem gamblers, which were identical to those in previous MSF-NCPG surveys, were based on diagnostic criteria in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV) developed by the American Psychiatric Association (APA). The same diagnostic criteria were used in similar studies in Hong Kong, Macau and the United States.

### **Qualifications and Mitigating Factors**

3. Given that the main instrument used in the study is a survey, we can only capture "self-professed" behaviour rather than actual behaviour. Social desirability may also undermine the gambling and problem gambling participation as the survey touched on sensitive gambling habits and family relations. To mitigate this, surveyors were asked to assure interviewees about the strict confidentiality of individual responses at two prescribed junctures of each interview.

4. A statistical test on the reliability of the screening tool revealed that the screening questions were internally consistent (Cronbach's alpha of 0.86).

**Table B1 – Gambling Participation Rates, by Demographic Groups (%) in the last 12 months**

	<b>2011</b>	<b>2014</b>
<b>Overall</b>	<b>47</b>	<b>44</b>
<b>Ethnicity</b>		
Chinese	57	53
Malay	6	7
Indian	25	28
<b>Gender</b>		
Male	55	49
Female	40	39
<b>Age Group (Years)</b>		
18 to 29	32	28
30 to 39	49	42
40 to 49	54	46
50 to 59	54	53
60 and above	48	53
<b>Highest Education Level</b>		
PSLE and below	52	52
GCE 'O' Level/ITE/VITB	51	48
GCE 'A' Level/Polytechnic	50	43
University Degree and above	41	42
<b>Monthly Personal Income (\$)</b>		
No Income	36	31
1-999	43	49
1,000 – 1,999	46	50
2,000 – 2,999	51	53
3,000 – 3,999	49	48
4,000 and above	61	46
<b>Marital Status</b>		
Never Married	38	38
Married with no children	52	48
Married with children	51	47
Divorced/Separated/Widowed	55	43
<b>Religion</b>		
Taoism	65	62
Buddhism	63	63
No Religion	56	48
Christianity	42	30
Hinduism	29	37
Islam	6	8



**Table B2 – Gambling Participation Rates, by Type of Games (%) in the last 12 months**

<b>Types of Games</b>	<b>2011</b>	<b>2014</b>
<b>All Games</b>	<b>47</b>	<b>44</b>
4D	38	35
TOTO	28	27
Social Gambling	13	10
Singapore Sweep	16	16
Sports Betting	2	2
Jackpot Machines in Local Casinos (IRs)	3	1
Jackpot Machines in Local Clubs	2	1
Jackpot Machines in Cruises/Outside Singapore	3	2
Table Games in Local Casinos (IRs)	4	1
Table Games in Cruises/Outside Singapore	4	2
Horse Betting	1	1
Online Gambling	1	1

**Table B3 – Median and Average Monthly Betting Amount (\$) in last 12 months**

	<b>2011</b>	<b>2014</b>
Median Monthly Betting Amount	\$40	\$20
Average Monthly Betting Amount	\$212	\$70

**Table B4 – Average Monthly Betting Amount (last 12 months), by Monthly Personal Income (%)**

Monthly Personal Income	Average Betting Amount per month					
	\$100 and below	\$101 - \$300	\$301 - \$500	\$501 - \$1,000	More than \$1,000	Total
No Income	91 (81)	7 (11)	1 (4)	1 (3)	0 (2)	100 (100)
\$1-\$999	90 (85)	9 (11)	1 (0)	0 (2)	0 (2)	100 (100)
\$1,000-\$1,999	79 (81)	18 (13)	1 (2)	3 (2)	0 (2)	100 (100)
\$2,000-\$2,999	82 (70)	14 (18)	3 (7)	1 (3)	1 (3)	100 (100)
\$3,000-\$3,999	87 (67)	12 (12)	1 (10)	0 (6)	0 (5)	100 (100)
\$4,000 and above	85 (63)	9 (16)	3 (9)	3 (5)	1 (7)	100 (100)

Note: Percentages for the 2011 survey in brackets. Figures may not add up to 100% due to rounding off error.

**Table B5 – Starting Age of First Gambling Participation and First Regular (i.e. at least once a week) Gambling Participation (%)**

Starting Age of Gambling	2011		2014	
	First Gambling Participation	First Regular Gambling Participation	First Gambling Participation	First Regular Gambling Participation
	(%)	(%)	(%)	(%)
Below 18 Years	14	4	12	2
18-24	45	33	42	31
25-29	16	19	17	19
30-39	16	26	18	31
40-49	6	13	8	12
50-59	3	4	2	4
60 and above	0	1	1	1

Note: Figures may not add up to 100% due to rounding off error.

**Table B6 – First Gambling Activity and First Regular (i.e., at least once a week) Gambling Activity (%)**

Types of Games	2011		2014	
	First Gambling Participation (%)	First Regular Gambling Participation (%)	First Gambling Participation (%)	First Regular Gambling Participation (%)
4D	61	75	63	84
Social Gambling	22	11	17	4
TOTO	8	6	11	8
Singapore Sweep	2	0.6	4	2
Sports Betting	2	2	2	0.8
Horse Betting	0.4	1.4	0.5	0.2
Jackpot Machines in Local Casinos (IRs)	0.2	0	0	0
Jackpot Machines in Local Clubs	0.5	0	0.4	0
Jackpot Machines in Cruises/Outside Singapore	0.9	0	1.4	0.2
Table Games in Local Casinos (IRs)	1.2	2.3	0.2	0
Table Games in Cruises/Outside Singapore	1.8	1.3	0.5	0.2
Online Gambling	0.3	0	0.1	0.2

Note: Figures may not add up to 100% due to rounding off error.

**Table B7 – Perception of Various Gambling Forms as “Leisure” Activities**

Types of Games	All respondents		Gamblers		Non-Gamblers	
	2011 (%)	2014 (%)	2011 (%)	2014 (%)	2011 (%)	2014 (%)
Online Gambling	10	10	11	11	9	10
Horse Betting	10	9	11	9	8	9
Table Games in Casinos (local/cruises/outside Singapore)	10	8	12	8	8	8
Sports Betting	15	16	17	20	14	13
Jackpot Machines in Casinos (local/cruises/outside Singapore)	17	12	18	15	12	10
Jackpot Machines in Local Clubs	18	17	22	22	15	14
4D	43	39	58	51	30	30
TOTO	45	40	59	52	31	31
Singapore Sweep	49	45	64	57	35	35
Social Gambling	50	51	62	65	39	40

Non-Gamblers: Did not participate in gambling activities in the last 12 months.

**Table B8 – Prevalence of Probable Pathological and Problem Gambling**

	2011	2014
Probable Pathological Gambling	1.4 (1.0% to 1.7%)	0.2 (0.03% to 0.4%)
Probable Problem Gambling	1.2 (0.9% to 1.6%)	0.5 (0.3% to 0.8%)
<b>Total</b>	2.6 (2.0% to 3.1%)	0.7 (0.4% to 1.0%)

Notes: Figures in brackets refer to confidence interval at 95% level. The analyses showed that the changes in rates from 2011 to 2014 were statistically significant.

**Table B9 – Prevalence of Probable Pathological Gambling, by Demographic Groups**

Profiles	Probable Pathological Gamblers (%)	
	2011	2014
<b>Ethnicity</b>		
Chinese	1.6	0.3
Malay	0*	0*
Indian	0.7	0*
<b>Gender</b>		
Male	2.1	0.3
Female	0.6	0.2
<b>Age Group (Years)</b>		
18 to 29	1.6	0.2
30 to 39	0.9	0*
40 to 49	1.8	0.3
50 to 59	1.5	0*
60 and above	0.5	0.5
<b>Highest Education Level</b>		
PSLE and below	0.6	0.4
GCE 'O' Level/ITE/VITB	2.2	0.4
GCE 'A' Level/Polytechnic	1.4	0*
University Degree and above	0.6	0*
<b>Monthly Personal Income (\$)</b>		
No Income	0.8	0.1
1-999	0.5	0*
1,000 – 1,999	1.5	0.4
2,000 – 2,999	1.9	0.2
3,000 – 3,999	1.4	0.6
4,000 and above	1.7	0*
<b>Marital Status</b>		
Never Married	1.7	0.1
Married with no children	2.6	0*
Married with children	1.0	0.2
Divorced/Separated/Widowed	1.8	0.7
<b>Religion</b>		
Taoism	1.2	0*
Buddhism	1.2	0.4
No Religion	2.1	0.2
Christianity	2.1	0*
Hinduism	1.3	0*
Islam	0*	0.2

Note: An asterisk (\*) indicates that none detected as probable pathological gamblers in the sample.

**Table B10 – Median and Average Monthly Betting Amount in Gambling Activities, among Probable Pathological Gamblers**

	Among All Gamblers		Among Probable Pathological Gamblers	
	2011	2014	2011	2014
Median Monthly Betting Amount	\$40	\$20	\$581	\$80
Average Monthly Betting Amount	\$212	\$70	\$1,713	\$313

Note: Figures to be interpreted with caution due to small sample size for probable pathological gamblers.

**Table B11 – Frequency of Gambling Participation (%), among Probable Pathological Gamblers**

	Among All Gamblers (%)		Among Probable Pathological Gamblers (%)	
	2011	2014	2011	2014
Non-Frequent Gamblers (Gambled less than once a week in last 12 months)	57	63	32	17
Frequent Gamblers (Gambled at least once a week in last 12 months)	43	37	68	83

Note: Percentages to be interpreted with caution due to small sample size for probable pathological gamblers.

**Table B12 – Starting Age of First Regular (i.e. at least once a week) Gambling Participation, among Probable Pathological Gamblers**

Starting Age of First Regular Gambling Participation	Among All Gamblers (%)		Among Probable Pathological Gamblers (%)	
	2011	2014	2011	2014
Below 18 Years	4	2	5	17
18-24	33	31	38	33
25-29	19	19	10	17
30-39	26	31	25	33
40-49	13	12	23	0
50-59	4	4	0	0
60 and above	1	1	0	0

Notes: Figures may not add up to 100% due to rounding off errors. Percentages to be interpreted with caution due to small sample size for probable pathological gamblers.

**Table B13 – Poor Self-Control in Gambling (%), among Gamblers who have Participated in Specific Gambling Activities**

<b>Among gamblers who have participated in ...</b>	<b>% who gambled for a longer period of time than had planned to</b>	<b>% who gambled with more money than had planned to</b>	<b>% who gambled more frequently than had planned to</b>
TOTO	1.8 (4.6)	5.4 (4.7)	2.1 (3.8)
4D	2.2 (4.9)	5.0 (4.8)	1.9 (3.8)
Singapore Sweep	2.6 (6.2)	5.2 (5.4)	1.9 (4.8)
Social Gambling	7.7 (8.9)	12.7 (7.7)	3.6 (5.1)
Sports Betting	4.8 (11.8)	7.9 (10.5)	3.1 (10.5)
Horse Racing	9.1 (21.3)	4.8 (14.9)	4.8 (0.0)
Jackpot Machines in Local Casinos (IRs)	7.9 (19.1)	2.6 (14.4)	2.6 (10.1)
Jackpot Machines in Local Clubs	18.8 (9.8)	6.3 (11.5)	6.5 (13.1)
Jackpot Machines in Cruises/Outside Singapore	3.9 (13.0)	7.8 (12.0)	3.8 (5.4)
Table Games in Local Casinos (IRs)	11.6 (26.5)	7.0 (23.5)	2.4 (21.3)
Table Games in Cruises/Outside Singapore	6.8 (17.2)	9.1 (16.5)	2.2 (11.2)
Online Gambling	4.5 (30.4)	13.1 (33.3)	4.5 (29.2)
<b>Among All Gamblers</b>	<b>2.1 (5.0)</b>	<b>4.6 (5.1)</b>	<b>1.7 (4.0)</b>

Note: A higher percentage indicates poorer self-control in gambling. Figures in brackets represent proportions in the 2011 Survey.

**Table B14 – Poor Self-Control in Gambling (%), among Non-Frequent Gamblers and Frequent Gamblers**

	Type of Gamblers (by Gambling Frequency)		Among All Gamblers
	Non-Frequent Gamblers (less than once a week)	Frequent Gamblers (at least once a week)	
Gambled for a longer period of time than had planned to	1.6 (3.6)	2.9 (6.9)	2.1 (5.0)
Gambled with more money than had planned to	3.2 (4.3)	6.8 (6.2)	4.6 (5.1)
Gambled more frequently than had planned to	1.0 (2.4)	2.7 (5.1)	1.6 (4.0)

Note: A higher percentage indicates poorer self-control in gambling. Figures in brackets represent proportions in the 2011 Survey.

**Table B15 – Poor Self-Control in Gambling (%), among Probable Pathological Gamblers**

	Type of Gamblers (by PPG)		Among All Gamblers
	Non-PPG Gamblers	Probable Pathological Gamblers	
Gambled for a longer period of time than had planned to	1.4 (1.8)	83.3 (75.6)	1.7 (5.0)
Gambled with more money than had planned to	3.3 (1.9)	100 (71.1)	3.6 (5.1)
Gambled more frequently than had planned to	1.1 (1.7)	50.0 (55.6)	1.3 (4.0)

Note: A higher percentage indicates poorer self-control in gambling. Figures in brackets represent proportions in the 2011 Survey. Percentages to be interpreted with caution due to small sample size for probable pathological gamblers.



**Table B16 – Negative Family Outcomes (%), among Gamblers with Poor Self-Control**

<b>Family Outcomes</b>	<b>Self-Control</b>	
	<b>Gamblers without Poor Self-Control</b>	<b>Gamblers with Poor Self-Control</b>
Regretted the way they gambled their money	4	48
Problems with paying bills & living expenses due to gambling	1	13
Emotional problems due to gambling	0	13
Family quarrels due to gambling	0	11
Satisfied with family life	88	82

**Table B17 – Negative Family Outcomes (%), among Probable Pathological Gamblers**

<b>Family Outcomes</b>	<b>Type of Gamblers (by PPG)</b>	
	<b>Non-PPG Gamblers</b>	<b>Probable Pathological Gamblers</b>
Regretted the way they gambled their money	5	75
Problems with paying bills & living expenses due to gambling	1	67
Emotional problems due to gambling	1	67
Family quarrels due to gambling	1	86
Satisfied with family life	88	50

**PROBABLE PROBLEM AND PATHOLOGICAL GAMBLING  
SCREENING CRITERIA**

The diagnostic criteria (see Table C) in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV) was developed by the American Psychiatric Association (APA).

**Table C – DSM-IV Diagnostic Criteria for Problem and Pathological Gambling**

Preoccupation	Is preoccupied with gambling (e.g. preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble).
Tolerance	Needs to gamble with increasing amounts of money in order to achieve the desired excitement.
Withdrawal	Is restless or irritable when attempting to cut down or stop gambling.
Escape	Gambles as a way of escaping from problems or relieving dysphoric mood (e.g. feelings of depression, guilt, anxiety or depression).
Chasing	After losing money gambling, often returns another day in order to get even (“chasing one’s losses”).
Lying	Lies to family members, therapists, or others to conceal the extent of involvement with gambling.
Loss of control	Has made repeated unsuccessful efforts to control, cut back, or stop gambling.
Illegal acts	Has committed illegal acts (e.g. forgery, fraud, theft or embezzlement) in order to finance gambling.
Risked significant relationship	Has jeopardised or lost a significant relationship, job, or educational or career opportunity because of gambling.
Bailout	Has relied on others to provide money to relieve a desperate financial situation caused by gambling.