REPORT OF SURVEY ON PARTICIPATION IN GAMBLING ACTIVITIES AMONG SINGAPORE RESIDENTS, 2017

NATIONAL COUNCIL ON PROBLEM GAMBLING
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ACTIVITIES AMONG SINGAPORE RESIDENTS, 2017**

This report summarises the findings from the 2017 survey on participation in gambling activities among Singapore Residents. This is the fifth survey conducted on participation in gambling activities among Singapore Residents, following similar studies conducted in 2005, 2008, 2011 and 2014.

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 2014, respondents in the 2017 survey who had participated in at least one form of gambling in the last 12 months were classified as gamblers.

Overall Gambling Participation

5.   In 2017, 52% of Singapore residents aged 18 and above reported that they had participated in at least one form of gambling activity in the last 12 months. The increase of eight percentage points from 44% in 2014 was statistically significant and due to the increase in gambling participation among Chinese and for 4D, Toto and Social Gambling (see Annex B, Tables B1 & B2).

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 (62%)
    b. Male (58%)
    c. Residents aged 40 years old & above (58%)
    d. Residents with PSLE and below educational qualification (58%)
    e. Residents with average monthly personal income of $1,000 to $1,999 (58%)

Gambling Participation by Type of Gambling Activities

7.   Similar to the survey in 2014, the 2017 survey found that the most popular types of gambling activities were 4D (42%), Toto (36%), Singapore Sweep (18%) and Social Gambling (21%) (see Annex B, Table B2).

Betting Amounts

8.   The median monthly betting amount in 2017 was $30, which was slightly higher than $20 in 2014 (see Annex B, Table B3).

9.   The results show that most Singapore Residents were gambling with a similar amount in 2017 as compared to 2014. A majority (58%) betted less than $50 per month and the large majority (91%) betted less than $200 per month. Only a very small proportion (close to 0%) gambled with large amounts (i.e. average monthly betting amount of more than $1,000) and the proportion has generally remained stable from 2014 to 2017 across all income groups. Similar to 2014, the monthly average betting amount in 2017 was generally higher for those with higher personal incomes than those with lower personal incomes (see Annex B, Table B4).

Starting Age and Gambling Activity

10.   In 2017, 74% of the respondents who had ever gambled stated that they started to gamble before the age of 30, which was similar to the percentage of 71% in 2014 (i.e., difference was not statistically significant). About 49% of the respondents in the 2017 survey stated that they started to gamble regularly (at least once a week) before they turned 30 years old, which was similar to the percentage of 52% in 2014 (i.e., difference was not statistically significant; see Annex B, Table B5). Similar to the 2014 survey, the 2017 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 2014, the 2017 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 2017 and 2014 surveys. Similar to the survey in 2014, the 2017 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 (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-V 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 2017 survey found that between 0.03% and 0.2% 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 0.1% in the 2017 survey, compared to 0.2% in 2014. This difference in probable pathological gambling rate from 2014 to 2017 was not statistically significant (see Annex B, Table B8). That is, the proportion of respondents classified as probable pathological gamblers remained stable from 2014 to 2017.

14.   The 2017 survey found that between 0.5% and 1.1% 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 0.8% in 2017, compared to 0.5% in 2014. This difference in probable problem gambling rate from 2014 to 2017 was not statistically significant (see Annex B, Table B8). That is, the proportion of respondents classified as probable problem gamblers remained stable from 2014 to 2017.

15.   Slightly higher prevalence of probable pathological gambling was found among residents of the following demographic groups (see Annex B, Table B9):

    a. Male (0.1%)
    b. Chinese (0.1%)
    c. Those aged 50 to 59 years (0.4%)
    d. Those with "O" level / ITE / Primary or no education (0.2%)
    e. Those with monthly personal income of $1,000-$1,999 (0.5%)

16.   Similar to all past surveys, the 2017 survey found that median betting amount for probable pathological gamblers ($250) was higher than that for all gamblers ($30) (see Annex B, Table B10).

17.   The 2017 survey found that practically all probable pathological gamblers were frequent gamblers (i.e. having gambled at least once a week), compared to 31% for all gamblers (see Annex B, Table B11).

SELF-CONTROL IN GAMBLING

18.   Similar to the 2014 survey, the 2017 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 gambling activities such as horse racing, online gambling, table games and jackpot machines (see Annex B, Table B12).

19.   Similar to the 2014 survey, the 2017 survey found that frequent gamblers were more likely than non-frequent gamblers to have poor self-control in gambling (see Annex B, Table B13).

20.   Similar to the 2014 survey, the 2017 survey found that probable pathological gamblers (PPGs) were much more likely than non-PPG gamblers to have poor self-control in gambling (see Annex B, Table B14).

FAMILY OUTCOMES OF GAMBLING

21.   The 2017 survey also included items to assess family outcomes of gambling, by asking the gambler whether he has experienced certain problems because of their gambling. Similar to the 2014 survey, results from the 2017 survey showed that gamblers with poor self-control in gambling 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, Table B15).

NATIONAL COUNCIL ON PROBLEM GAMBLING

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 February 2017 and June 2017. The minority ethnic groups were over-sampled to allow for meaningful analysis. The survey achieved a response rate of 77%, 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 2017.

Questionnaire Design

2.   The survey was conducted via face-to-face interviews. The screening questions to detect probable pathological and problem gamblers, which were similar to those in previous MSF-NCPG surveys, were based on diagnostic criteria in the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-V) 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.

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

	2014	2017
	(%)	(%)
Overall	**44**	**52**
Ethnicity		
Chinese	53	62
Malay	7	9
Indian	28	33
Gender		
Male	49	58
Female	39	48
Age Group (Years)		
18 to 29	28	41
30 to 39	42	48
40 to 49	46	57
50 to 59	53	58
60 and above	53	57
Highest Education Level		
PSLE and below	52	58
GCE 'O' Level/ITE/VITB	48	56
GCE 'A' Level/Polytechnic	43	49
University Degree and above	42	51
Monthly Personal Income ($)		
No Income	31	44
1 – 999	49	56
1,000 – 1,999	50	58
2,000 – 2,999	53	52
3,000 – 3,999	48	57
4,000 and above	46	56
Marital Status		
Never Married	38	46
Married with no children	48	48
Married with children	47	55
Divorced/Separated/Widowed	43	66
Religion		
Taoism	62	76
Buddhism	63	67
No Religion	48	60
Christianity	30	44
Hinduism	37	42
Islam	8	10

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

Types of Games	2014 (%)	2017 (%)
All Games	**44**	**52**
4D	35	42
TOTO	27	36
Social Gambling	10	21
Singapore Sweep	16	18
Sports Betting	2	2
Jackpot Machines in Local Casinos (IRs)	1	1
Jackpot Machines in Local Clubs	1	1
Jackpot Machines in Cruises/Outside Singapore	2	2
Table Games in Local Casinos (IRs)	1	1
Table Games in Cruises/Outside Singapore	2	1
Horse Betting	1	1
Online Gambling	1	1

Table B3 – Median Monthly Betting Amount ($) in last 12 months

	2014	2017
Median Monthly Betting Amount	$20	$30

**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	94	4	2	0	0	100
	(91)	(7)	(1)	(1)	(0)	(100)
$1 – $999	89	9	2	0	0	100
	(90)	(9)	(1)	(0)	(0)	(100)
$1,000 – $1,999	86	9	2	3	0	100
	(79)	(18)	(1)	(3)	(0)	(100)
$2,000 – $2,999	83	16	0	1	0	100
	(82)	(14)	(3)	(1)	(1)	(100)
$3,000 – $3,999	88	10	1	0	0	100
	(87)	(12)	(1)	(0)	(0)	(100)
$4,000 and above	84	13	2	2	0	100
	(85)	(9)	(3)	(3)	(1)	(100)

Note: Percentages for the 2014 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	2014		2017	
	First Gambling Participation (%)	First Regular Gambling Participation (%)	First Gambling Participation (%)	First Regular Gambling Participation (%)
Below 18 Years	12	2	12	3
18-24	42	31	45	28
25-29	17	19	17	18
30-39	18	31	15	24
40-49	8	12	6	17
50-59	2	4	4	8
60 and above	1	1	1	2

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

Types of Games	2014		2017	
	First Gambling Participation (%)	**First Regular Gambling Participation (%)**	**First Gambling Participation (%)**	**First Regular Gambling Participation (%)**
4D	63	84	57	82
Social Gambling	17	4	27	5
TOTO	11	8	10	8
Singapore Sweep	4	2	3	2
Sports Betting	2	0.8	1.3	2
Horse Betting	0.5	0.2	0.3	0.3
Jackpot Machines in Local Casinos (IRs)	0	0	0	0
Jackpot Machines in Local Clubs	0.4	0	0.1	0
Jackpot Machines in Cruises/Outside Singapore	1.4	0.2	0.9	0.3
Table Games in Local Casinos (IRs)	0.2	0	0	0
Table Games in Cruises/Outside Singapore	0.5	0.2	0.6	0
Online Gambling	0.1	0.2	0.2	0

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	
	2014 (%)	2017 (%)	2014 (%)	2017 (%)	2014 (%)	2017 (%)
Online Gambling	10	11	11	16	10	7
Horse Betting	9	10	9	13	9	6
Table Games in Casinos (local/cruises/outside Singapore)	8	10	8	14	8	6
Sports Betting	16	13	20	18	13	7
Jackpot Machines in Casinos (local/cruises/outside Singapore)	12	13	15	18	10	8
Jackpot Machines in Local Clubs	17	14	22	19	14	8
4D	39	46	51	58	30	31
TOTO	40	46	52	58	31	31
Singapore Sweep	45	48	57	60	35	34
Social Gambling	51	53	65	65	40	38

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

Table B8 – Prevalence of Probable Pathological and Problem Gambling

	2014	2017
Probable Pathological Gambling	0.2 (0.03% to 0.4%)	0.1 (0.03% to 0.2%)
Probable Problem Gambling	0.5 (0.3% to 0.8%)	0.8 (0.5% to 1.1%)
Total	0.7 (0.4% to 1.0%)	0.9 (0.6% to 1.2%)

Notes: Figures in brackets refer to confidence interval at 95% level. The analyses showed that the changes in rates from 2014 to 2017 were not statistically significant.

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

Profiles	Probable Pathological Gamblers	
	2014	**2017**
	(%)	**(%)**
Ethnicity		
Chinese	0.3	0.1
Malay	0*	0*
Indian	0*	0*
Gender		
Male	0.3	0.1
Female	0.2	0*
Age Group (Years)		
18 to 29	0.2	0*
30 to 39	0*	0*
40 to 49	0.3	0*
50 to 59	0*	0.4
60 and above	0.5	0*
Highest Education Level		
PSLE and below	0.4	0*
GCE 'O' Level/ITE/VITB	0.4	0.2
GCE 'A' Level/Polytechnic	0*	0*
University Degree and above	0*	0*
Monthly Personal Income ($)		
No Income	0.1	0*
1 – 999	0*	0*
1,000 – 1,999	0.4	0.5
2,000 – 2,999	0.2	0*
3,000 – 3,999	0.6	0*
4,000 and above	0*	0*
Marital Status		
Never Married	0.1	0.2
Married with no children	0*	0*
Married with children	0.2	0*
Divorced/Separated/Widowed	0.7	0*
Religion		
Taoism	0*	0*
Buddhism	0.4	0*
No Religion	0.2	0*
Christianity	0*	0.6
Hinduism	0*	0*
Islam	0.2	0*

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

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

	Among All Gamblers		Among Probable Pathological Gamblers	
	2014	**2017**	**2014**	**2017**
Median Monthly Betting Amount	$20	$30	$80	$250

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 (%)	
	2014	**2017**	**2014**	**2017**
Non-Frequent Gamblers (Gambled less than once a week in last 12 months)	63	69	17	0
Frequent Gamblers (Gambled at least once a week in last 12 months)	37	31	83	100
Total	100	100	100	100

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

Table B12 – Poor Self-Control in Gambling (%), among Gamblers who have Participated in Specific Gambling Activities

Among gamblers who have participated in …	% of gamblers with poor self-control in gambling	
	2014	**2017**
TOTO	7.0	3.4
4D	6.7	3.8
Singapore Sweep	7.5	4.5
Social Gambling	18.5	4.6
Sports Betting	12.7	9.1
Horse Racing	14.3	20.7
Jackpot Machines in Local Casinos (IRs)	10.5	4.9
Jackpot Machines in Local Clubs	21.9	6.7
Jackpot Machines in Cruises/Outside Singapore	9.6	5.0
Table Games in Local Casinos (IRs)	14.0	4.8
Table Games in Cruises/Outside Singapore	13.0	2.9
Online Gambling	14.3	7.1
Among All Gamblers	**6.2**	**3.9**

Note: A higher percentage indicates poorer self-control in gambling.

Table B13 – Poor Self-Control in Gambling (%), among Non-Frequent Gamblers and Frequent Gamblers

	Type of Gamblers (by Gambling Frequency)			
	Non-Frequent Gamblers (less than once a week)		Frequent Gamblers (at least once a week)	
	2014	**2017**	**2014**	**2017**
	(%)	**(%)**	**(%)**	**(%)**
Poor Self-Control in Gambling	4.8	2.8	8.7	6.2

Note: A higher percentage indicates poorer self-control in gambling.

Table B14 – Poor Self-Control in Gambling (%), among Probable Pathological Gamblers

	Type of Gamblers (by PPG)			
	Non-PPG Gamblers		Probable Pathological Gamblers	
	2014	**2017**	**2014**	**2017**
	(%)	**(%)**	**(%)**	**(%)**
Poor Self-Control in Gambling	4.7	3.1	100	100

Note: A higher percentage indicates poorer self-control in gambling.
Percentages to be interpreted with caution due to small sample size for probable pathological gamblers.

Table B15 – Negative Family Outcomes (%), among Gamblers with Poor Self-Control

Family Outcomes	Self-Control			
	Gamblers without Poor Self-Control		Gamblers with Poor Self-Control	
	2014	2017	2014	2017
	(%)	(%)	(%)	(%)
Regretted the way they gambled their money	4	2	48	36
Problems with paying bills & living expenses due to gambling	1	0	13	5
Emotional problems due to gambling	0	1	13	13
Family quarrels due to gambling	0	1	11	5
Satisfied with family life	88	88	82	82

**PROBABLE PROBLEM AND PATHOLOGICAL GAMBLING
SCREENING CRITERIA**

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

Table C – DSM-V 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.
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.