REPORT ON SURVEY ON PARTICIPATION IN GAMBLING ACTIVITIES AMONG SINGAPORE RESIDENTS, 2020

NATIONAL COUNCIL ON PROBLEM GAMBLING
29 JULY 2021

REPORT ON SURVEY ON PARTICIPATION IN GAMBLING ACTIVITIES AMONG SINGAPORE RESIDENTS, 2020

1. This report summarises the findings from the 2020 survey on participation in gambling activities among Singapore Residents. This is the sixth survey conducted on participation in gambling activities among Singapore Residents, following similar studies conducted in 2005, 2008, 2011, 2014 and 2017.

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. COVID-19 brought about significant disruptions to gambling activities in Singapore. Strict safe distancing measures were implemented and most gambling operations, including lotteries, sports betting, and casinos, were suspended from 7 April to 19 June 2020, with gradual reopening thereafter. As a result, several adjustments were made to the way that the survey was conducted, including adjusting the time period of gambling behaviour asked of respondents and offering respondents the option of videoconferencing instead of face-to-face interviews. Details of the survey methodology, including adjustments made due to COVID-19, are provided in Annex A.

GAMBLING PATTERNS

Overall Gambling Participation

4. 44% of Singapore residents aged 18 and above reported that they had participated in at least one form of gambling activity in the 2020 survey. The decrease of eight percentage points from 52% in 2017 was statistically significant[1] and reductions were observed across most demographic groups and gambling products such as 4D, TOTO and Social Gambling (see Annex B, Tables B1 & B2). Restrictions on gambling activities during the period of survey might have affected responses, partly explaining the lower gambling participation rate in the 2020 survey.[2] Nonetheless, on the whole, gambling participation rates have remained at around the 50% mark since the inception of the survey in 2005 (see Annex B, Table B3).

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[1] All tests for statistical significance in this report are based on the 5% level.
[2] To minimise the impact of COVID-19 restrictions on respondents' reported gambling behaviour, the survey questionnaire was revised to ask respondents about their gambling behaviour in 2019 (pre-COVID-19).

Gambling Participation by Demographic Groups

5. Relatively higher gambling participation rates were found among the following groups (see <u>Annex B, Table B1</u>):
    a. Chinese (53%)
    b. Male (53%)

Gambling Participation by Type of Gambling Activities

6. Similar to the survey in 2017, the 2020 survey found that the most popular types of gambling activities were 4D (34%), Toto (31%), Singapore Sweep (17%) and Social Gambling (16%) (see <u>Annex B, Table B2</u>).

Betting Amounts

7. The median monthly betting amount decreased from $30 in the 2017 survey to $15 in the 2020 survey (see <u>Annex B, Table B4</u>). Similar to the decrease in the gambling participation rate, the decline in the median monthly betting amount may be partly due to restrictions on gambling activities during the period of survey. The majority (89%) bet $100 or less per month. Only a very small proportion (0.3%) gambled with large amounts (i.e. average monthly betting amount of more than $1,000). Similar to the 2017 survey, the monthly average betting amount in the 2020 survey was generally higher for those with higher personal incomes than those with lower personal incomes (see <u>Annex B, Table B5</u>).

Starting Age and Gambling Activity

8. 67% of the respondents in the 2020 survey who had ever gambled stated that they started to gamble before the age of 30. This was statistically lower than the 74% reported in 2017. About 49% of the respondents in the 2020 survey stated that they started to gamble regularly (i.e. at least once a week) before they turned 30 years old, which was the same as the 49% reported in 2017 (see <u>Annex B, Table B6</u>). Similar to the 2017 survey, the 2020 survey found that most started with 4D, Social Gambling and TOTO (see <u>Annex B, Table B7</u>).

PERCEPTION TOWARDS VARIOUS GAMBLING FORMS

9. Similar to the survey in 2017, the 2020 survey found that the majority of respondents regarded the various forms of gambling as gambling activities rather than leisure activities. Perceptions were broadly similar between the 2020 and 2017 surveys. Gamblers were more likely than non-gamblers to regard the various forms of gambling as leisure activities (see <u>Annex B, Table B8</u>).

PROBABLE PATHOLOGICAL AND PROBLEM GAMBLING

10. Probable pathological and problem gamblers were identified based on their responses to screening questions on an internationally established diagnostic tool designed with the DSM-V screening criteria (see Annex C). Pathological gambling represents a more severe form of gambling addiction compared to problem gambling.

11. The 2020 survey found that between 0.02% 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 2020 survey, compared to 0.1% in 2017. This difference in probable pathological gambling rate from 2017 to 2020 was not statistically significant (see Annex B, Table B9). That is, the proportion of respondents classified as probable pathological gamblers remained stable from 2017 to 2020.

12. The 2020 survey found that between 0.6% and 1.5% 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 1.0 % in 2020, compared to 0.8% in 2017. This difference in probable problem gambling rate between 2017 and 2020 was not statistically significant (see Annex B, Table B9). That is, the proportion of respondents classified as probable problem gamblers remained stable from 2017 to 2020.

13. The overall probable pathological and problem gambling rate in the 2020 survey was between 0.8% and 1.7%. In terms of a single point estimate, the proportion of respondents classified in this category is 1.2% in 2020, compared to 0.9% in 2017. This difference between 2017 and 2020 was not statistically significant (see Annex B, Table B9). That is, the proportion of respondents classified as probable pathological and problem gamblers remained stable from 2017 to 2020.

14. Similar to all past surveys, the 2020 survey found that median betting amount per month for probable pathological and problem gamblers ($100) was higher than that for all gamblers ($15) (see Annex B, Table B10).

SELF-CONTROL IN GAMBLING

15. Similar to the 2017 survey, the 2020 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 Sports Betting, Table Games (Cruises/Outside Singapore), Horse Racing and Online Gambling (see Annex B, Table B11).

16. Similar to the 2017 survey, the 2020 survey found that frequent gamblers (i.e.

those who gambled at least once a week) were more likely than non-frequent gamblers to have poor self-control in gambling (see Annex B, Table B12).

NEGATIVE OUTCOMES OF GAMBLING

17. The 2020 survey also included items to assess negative outcomes of gambling, by asking gamblers whether they experienced certain problems because of their gambling.

18. Similar to the 2017 survey, results from the 2020 survey showed that gamblers with poor self-control in gambling were more likely to regret the way they had gambled their money and experienced various problems due to gambling such as difficulties paying bills and living expenses, emotional problems and family quarrels (see Annex B, Table B13).

SUMMARY OF KEY FINDINGS AND IMPLICATIONS FROM THE SURVEY ON PARTICIPATION IN GAMBLING ACTIVITIES, 2020

19. The key findings of the 2020 Survey on Participation in Gambling Activities among Singapore Residents are summarised as follows:

   i.   44% of Singapore residents aged 18 and above reported that they had participated in at least one form of gambling activity in the 2020 survey. Gambling participation rates have remained at around the 50% mark, since the inception of the survey in 2005.

   ii. Most gamblers spent low amounts on gambling, with 89% reporting betting $100 or less per month.

   iii. Probable pathological and problem gambling rates have remained low over the years. Nonetheless, problem gambling remains a concern. NCPG and MSF will continue to work together to tackle problem gambling.

   iv. Similar to previous surveys, gamblers with poorer self-control in gambling were found to be more likely to report negative outcomes, such as regretting the way they gambled their money, having emotional problems and family quarrels, due to 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 2020 and December 2020. Minority ethnic groups were over-sampled to allow for meaningful analysis. Post-survey weightings were applied based on corresponding cohort proportions from published resident figures by the Department of Statistics as of 2020.

Questionnaire Design

2.   The screening questions to identify probable pathological and problem gamblers 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 the 2017 survey.

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 have led to under-reporting of gambling participation and effects of problem gambling 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 the interview.

Impact of COVID-19 and Adjustments Made to the 2020 Survey

4.   COVID-19 brought about significant disruptions. Strict safe distancing measures were implemented and most gambling operations (e.g. lotteries, sports betting, casinos) were suspended from 7 April to 19 June 2020, with gradual reopening thereafter (see Table A1 below for details). As a result, we have made several adjustments to the way that the survey was conducted:

   a. Instead of asking respondents about their gambling activities in the last 12 months, as was in the case in past surveys, the survey questionnaire was revised in June 2020 to ask respondents about their gambling behaviour in 2019 (pre-COVID-19) to minimise the impact of COVID-19 restrictions on their reported gambling behaviour. Nonetheless, restrictions on gambling activities during the period of survey may still have affected responses. This may partly explain the lower reported gambling participation rate of 44% for the 2020 survey.

   b. As the Circuit Breaker and Safe Distancing Measures disrupted face-to-face interviews, respondents were offered the option to complete the survey via videoconferencing, in addition to face-to-face interviews. 18% of respondents completed the survey via videoconferencing while the remaining 82% of

respondents completed the survey via face-to-face interviews. Amidst COVID-19 restrictions, a larger number of potential respondents rejected participation. The 2020 survey achieved a response rate of 62%, lower than the response rates of previous iterations of the survey[3].

Table A1: Details on Suspension of Gambling Operations

	Circuit Breaker (7 Apr – 1 Jun 2020)	**Phase 1** (2 – 18 Jun 2020)	**Phase 2** (19 Jun – 28 Dec 2020)
Casinos (MBS & RWS)	Suspended	Suspended	Gradual reopening from 1 Jul 2020
Singapore Pools (Online & retail outlets)	Suspended (from 26 Mar 2020)	Only online sports betting and online horse wagering (overseas races) were reopened from 15 Jun 2020	Retail outlets gradually reopened from 24 Jun 2020
Fruit Machine Rooms in Private Clubs	Suspended (from 27 Mar 2020)	Suspended	Gradual reopening from 4 Jul 2020

END OF ANNEX A

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[3] The response rates for the 2017 survey and the 2014 survey were 77% and 73% respectively.

Table B1 – Gambling Participation Rates, by Demographic Groups (%)

	2017	2020
	(%)	(%)
Overall	**52**	**44**
Ethnicity		
Chinese	62	53
Malay	9	5
Indian	33	27
Gender		
Male	58	53
Female	48	37
Age Group (Years)		
18 to 29	41	38
30 to 39	48	43
40 to 49	57	45
50 to 59	58	47
60 and above	57	47
Highest Education Level		
PSLE and below	58	49
GCE 'O' Level/ITE/VITB	56	46
GCE 'A' Level/Polytechnic	49	44
University Degree and above	51	43
Monthly Personal Income ($)		
No Income	44	37
1 – 999	56	48
1,000 – 1,999	58	45
2,000 – 2,999	52	46
3,000 – 3,999	57	54
4,000 and above	56	48
Marital Status		
Never Married	46	45
Married with no children	48	51
Married with children	55	43
Divorced/Separated/ Widowed	66	46
Religion		
Taoism	76	69
Buddhism	67	60
No Religion	60	52
Christianity	44	34
Hinduism	42	30
Islam	10	6

Note: Figures above refer to the gambling participation rates within each demographic group. Differences in gambling participation rates between different categories for each demographic variable were only statistically significant at the 5% level for ethnicity and gender.

Table B2 – Gambling Participation Rates, by Type of Games (%)

Types of Games	2017 (%)	2020 (%)
All Games	**52**	**44**
4D	42	34
TOTO	36	31
Singapore Sweep	18	17
Social Gambling	21	16
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	1	1
Horse Betting	1	1
Online Gambling	1	0.3

Table B3 – Gambling Participation Rates, by Year of Survey

	2005	2008	2011	2014	2017	2020
Gambling Participation Rate	58%	54%	47%	44%	52%	44%

Table B4 – Median Monthly Betting Amount ($)

	2017	2020
Median Monthly Betting Amount	$30	$15

Table B5 – Average Monthly Betting Amount 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	93 (94)	6 (4)	0 (2)	1 (0)	0 (0)	100 (100)
$1 – $999	95 (89)	5 (9)	0 (2)	0 (0)	0 (0)	100 (100)
$1,000 – $1,999	82 (86)	17 (9)	0 (2)	1 (3)	0 (0)	100 (100)
$2,000 – $2,999	86 (83)	12 (16)	1 (0)	1 (1)	0 (0)	100 (100)
$3,000 – $3,999	94 (88)	4 (10)	1 (1)	0 (0)	0 (0)	100 (100)
$4,000 and above	84 (84)	12 (13)	0 (2)	3 (2)	1 (0)	100 (100)
Total	89 (88)	9 (9)	0 (1)	1 (1)	0 (0)	100 (100)

Note: Percentages for the 2017 survey in brackets. Figures may not add up to 100% due to rounding. The 'Total' row included a small number of respondents who did not indicate their monthly personal income. For the 2020 survey, 0.3% of all gamblers had an average monthly betting amount of more than $1,000.

Table B6 – Starting Age of First Gambling Participation and First Regular (i.e. at least once a week) Gambling Participation (%)

Starting Age of Gambling	2017		2020	
	First Gambling Participation	First Regular Gambling Participation	First Gambling Participation	First Regular Gambling Participation
	(%)	(%)	(%)	(%)
Below 18 Years	12	3	15	4
18-24	45	28	36	27
25-29	17	18	17	18
30-39	15	24	19	26
40-49	6	17	8	15
50-59	4	8	4	8
60 and above	1	2	2	3

Table B7 – First Gambling Activity and First Regular (i.e. at least once a week) Gambling Activity (%)

Types of Games	2017		2020	
	First Gambling Participation (%)	First Regular Gambling Participation (%)	First Gambling Participation (%)	First Regular Gambling Participation (%)
4D	57	82	59	78
Social Gambling	27	5	17	5
TOTO	10	8	16	9
Singapore Sweep	3	2	3	2
Sports Betting	1.3	2	1.3	2
Horse Betting	0.3	0.3	0.7	1.6
Jackpot Machines in Local Casinos (IRs)	0	0	0	0
Jackpot Machines in Local Clubs	0.1	0	0.1	0.1
Jackpot Machines in Cruises/Outside Singapore	0.9	0.3	1.1	0
Table Games in Local Casinos (IRs)	0	0	0.1	0.7
Table Games in Cruises/Outside Singapore	0.6	0	0.9	0
Online Gambling	0.2	0	0.3	0.5

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

Table B8 – Perception of Various Gambling Forms as "Leisure" Activities

Types of Games	All respondents		Gamblers		Non-Gamblers	
	2017	2020	2017	2020	2017	2020
	(%)	(%)	(%)	(%)	(%)	(%)
Online Gambling	11	12	16	16	7	8
Horse Betting	10	13	13	18	6	9
Table Games in Casinos (local/cruises/outside Singapore)	10	10	14	15	6	7
Sports Betting	13	17	18	26	7	11
Jackpot Machines in Casinos (local/cruises/ outside Singapore)	13	14	18	20	8	9
Jackpot Machines in Local Clubs	14	20	19	27	8	14
4D	46	39	58	56	31	26
TOTO	46	39	58	57	31	25
Singapore Sweep	48	41	60	58	34	27
Social Gambling	53	55	65	70	38	42

Note: Respondents were asked whether they felt that each type of game was a "leisure" or "gambling" activity.

Table B9 – Prevalence of Probable Pathological and Problem Gambling

	2017	2020
Probable Pathological Gambling	0.1% (0.03% to 0.2%)	0.2% (0.02% to 0.4%)
Probable Problem Gambling	0.8% (0.5% to 1.1%)	1.0% (0.6% to 1.5%)
Total	0.9% (0.6% to 1.2%)	1.2% (0.8% to 1.7%)

Note: Figures in brackets refer to confidence intervals at the 95% level. The analyses showed that the changes in rates from 2017 to 2020 were all not statistically significant.

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

	Among All Gamblers		Among Probable Pathological and Problem Gamblers	
	2017	2020	2017	2020
Median Monthly Betting Amount	$30	$15	$89	$100

Note: Figures to be interpreted with caution due to the small sample size of probable pathological and problem gamblers.

Table B11 – 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	
	2017	**2020**
TOTO	3.4	6.5
4D	3.8	5.6
Singapore Sweep	4.5	7.2
Social Gambling	4.6	9.6
Sports Betting	9.1	23.4
Horse Racing*	20.7	15.4
Jackpot Machines in Local Casinos (IRs)*	4.9	7.5
Jackpot Machines in Local Clubs*	6.7	9.7
Jackpot Machines in Cruises/Outside Singapore*	5.0	10.1
Table Games in Local Casinos (IRs)*	4.8	9.5
Table Games in Cruises/Outside Singapore*	2.9	23.4
Online Gambling*	7.1	12.2
Among All Gamblers	**3.9**	**5.7**

Note: A higher percentage indicates a larger share of gamblers with poor self-control in gambling.

*Figures to be interpreted with caution due to the small sample size of gamblers who have participated in these gambling activities.

Table B12 – 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)	
	2017	**2020**	**2017**	**2020**
	(%)	**(%)**	**(%)**	**(%)**
Poor Self-Control in Gambling	2.8	5.0	6.2	7.4

Note: A higher percentage indicates a larger share of gamblers with poor self-control in gambling.

Table B13 – Negative Outcomes (%), among Gamblers with Poor Self-Control

Negative Outcomes	Gamblers without Poor Self-Control		Gamblers with Poor Self-Control	
	2017	2020	2017	2020
	(%)	(%)	(%)	(%)
Regretted the way they gambled their money	2	5	36	47
Problems with paying bills & living expenses due to gambling	0	1	5	6
Emotional problems due to gambling	1	0	13	4
Family quarrels due to gambling	1	0	5	5

END OF ANNEX B

**PROBABLE PATHOLOGICAL AND PROBLEM GAMBLING
SCREENING CRITERIA**

The diagnostic criteria used in the survey was taken from the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-V), which was developed by the American Psychiatric Association (APA).

Table C: DSM-V Diagnostic Criteria for Pathological and Problem Gambling

Preoccupation	Is often preoccupied with gambling (e.g. having persistent thoughts of reliving past gambling experiences)
Tolerance	Needs to gamble with increasing amounts of money in order to achieved desired excitement
Loss of control	Has made repeated unsuccessful efforts to control, cut back, or stop gambling
Withdrawal	Is restless or irritable when attempting to cut down or stop gambling
Escape	Often gambles when feeling distressed (e.g. helpless, guilty, anxious, depressed)
Chasing	After losing money gambling, often returns another day to get even ("chasing" one's losses)
Lying	Lies to conceal the extent of involvement with gambling
Risked Significant Relationship	Has jeopardised or lost a significant relationship, job, or educational or career opportunity because of gambling
Bailout	Relies on others to provide money to relieve desperate financial situations caused by gambling

END OF ANNEX C