

**A PRELIMINARY EXPLORATION OF THE POSITIVE AND NEGATIVE
IMPACTS OF GAMBLING AND WAGERING ON ABORIGINAL PEOPLE IN
NSW."**

**A supplementary report to "Study 2 – An examination of the Socio – economic effects on
Individuals, Families and the Community including research into the costs of Problem
Gambling in New South Wales"**

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EXECUTIVE SUMMARY

Background

The Casino Control Act provided for the establishment of the Casino Community Benefit Fund into which the operator, Sydney Harbour Casino Pty.Ltd., is required to pay a 2% levy on gaming revenue. Trustees of the Fund, as part of their duties in advising the Minister for Gaming and Racing on the allocation of monies from the Fund, commissioned two studies:

- **Study 1** to establish a profile of services and related research into gambling and problem gambling in NSW (completed by consultants Keys Young).
- **Study 2** an examination of the socio-economic effects of gambling on individuals, families and the community, including research into the costs of problem gambling in NSW.

Study 2 completed by the Australian Institute for Gambling Research also included a survey of Aboriginal respondents in NSW gathered by a separate, non-random method of sampling.

The following is a discussion document based on an analysis of the data from the Aboriginal respondents:

Sample

- 222 interviews (103 women 119 men) were completed in Sydney metropolitan and urban, country NSW

RESULTS

Patterns of gaming and wagering

- Over 50% of men and women gamble weekly, 15% and 21% respectively monthly and 13% and 17% respectively don't gamble.
- Almost 1 in 4 respondents have a weekly habit playing one or more of Lotto, TAB, Poker Machines or Card Machines.
- Average session spend reported by Aboriginal players is similar to that reported by non-indigenous respondents in Study 2 but as Aboriginal players report more sessions per week and play more forms their calculated weekly spend is significantly higher.
- Compared with Study 2 of whom almost 45% men and women rated Lotto as their favourite form only 10% of men and 14% of women of the Aboriginal respondents rated it as their favourite. In the latter group Racing and Gaming Machines were more popular.

Attitudes towards Gambling

- 38% agreed that "gambling is an important leisure activity for Australians".
- 32% nominated "government" as most responsible for funding services to problem gamblers and their families.
- 79% agreed that gambling results in serious problems for some individuals and families.

Reports of Family Members experiencing gambling related problems

- 32% reported family members experiencing gambling related problems of whom 55% had occurred in the last 6 months. (Compares with 15% of whom 26% were in last 6 months in Study 2 non-indigenous sample.)

Intentions to visit Sydney Harbour Casino

- 30% of respondents indicated they were "somewhat likely" or "very likely" to play at the Sydney Harbour Casino.
- The strongest preferences were for gaming machines (19%), card games (17%), 2-up and wheel games (9%)

Comparisons of regular players of continuous forms such as TAB, Gaming Machines, Keno, Cards with regular players in the non-indigenous sample

Spend

- 70% of regular players spend over \$100 per week on gambling compared with 22% of Study 2 non-indigenous regular players (OTHER)

Motivation

- Aboriginal regular players show higher endorsement of all aspects of enjoyment, pleasure and involvement compared with Study 2 regular players (OTHER)
- Aboriginal players were less likely to endorse;
"When I gamble I only risk what I can afford"
"My gambling is problem free"

Negative Impacts

- Almost one in ten Aboriginal respondents in the group of regular players reported that they "had gone for help with their gambling" - this is five times the rate reported by the non-indigenous regular players.
- Significantly higher levels of all types of negative impacts were reported by Aboriginal regular players eg.

- My gambling has caused arguments about money with family & friends	%
- I've lost time from work or study due to gambling	56 (18)
- I've gambled to try and win money to pay gambling debts	34 (6)
- I've borrowed money without permission to gamble	84(19)
	36 (4)

(figures in brackets equivalent non-indigenous regular gamblers)

Prevalence of problem gambling

- based on the same criteria used in Study 2, from the regular gambler group only, prevalence is estimated to be of the order of 11% of the adult population - some 20 times higher than that found for non-indigenous respondents.
- this high rate was seen as a function of high levels of expenditure by a group with high risk factors, ie younger aged, single men and women compared with Study 2 non-indigenous respondents, plus less resources to cope with the negative impacts of gambling ie. a greater proportion earning less than \$10,000 p.a., smaller proportion in full-time work and greater proportion in part-time work.

Conclusion

- Taken as a preliminary study the results strongly support the need for further research to clarify exactly how gaming and wagering impacts on Aboriginal people, their families and communities and how best the apparently very strong negative impacts can be ameliorated.

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LITERATURE REVIEW

Historical Perspective:

There are at present no published reports to suggest that gambling i.e. the staking of valued possessions on the outcomes of a game, was part of the traditional activities amongst Australian Aboriginal communities. None-the-less it is apparent that within a relatively short time of European and Chinese contact, card games and "two up" (betting on either pairs of heads or tails resulting from the simultaneous toss of two coins), had become extremely popular. Writing in the Northern Territory Berndt & Berndt (1947) described the playing of card games by Aboriginal people as

"perhaps one of the most obvious manifestations of culture contact",

particularly in the main areas of contact, around towns and settlements, they wrote, card games had,

"reached an intensity which is unrivalled by any other indigenous or introduced similar occupation".

The authors and subsequent research workers, have proposed that gambling games were not for amusement only but were seen as a process whereby money, tobacco etc. might be won by an individual. Within the family or community group gambling was a means whereby an unequal resource could be made more equally available (Goodale 1987) or sums of money could be redistributed (Chase 1980).

Goodale, from her work amongst the Tiwi in North Australia maintained that there were two types of card game, "play-type" games which occurred amongst close relatives in which stakes were shared, and more serious games with distant relatives and strangers. The latter were viewed as work, the former as recreation or leisure.

Gender differences were also reported by Goodale (1987). She observed that Tiwi women who received less income but had a higher daily financial need because of their continuing primary responsibility for providing household subsistence, participated to a far greater extent and intensity than did Tiwi men. Men played when there was big money available in the community.

"For women the activity may be equated to foraging - a low risk activity but fundamental for personal status in that it is directed toward providing daily subsistence, while for men the activity closely resembles hunting - a high risk activity where success is less likely but also essential for personal status" (1978/88:6).

Chase in his research at Lockhart River mission on the east coast of Cape York in the late 1970s also observed gender differences. At Lockhart several gambling schools operated. Being banned, these schools operated outside the settlement fence every lunch hour and afternoon. They were most active on payday and for the two or three days following and were attended only by men. Women played in the privacy of their homes.

Chase demonstrated how the winnings had to be redistributed to countrymen and that heavy winners were expected to pass on no less than half their winnings. Those few who did not share their winnings were generally not included in others' distributions (1980:272-277).

All the above authors comment upon the role of beliefs about magic influencing Aboriginal people's understanding of success in the game. Altman (1985) wrote that "gambling magic" is a frequent cause of disputes. He said that large takings were almost always attributed to real or imagined ownership of a charm. Chase wrote that

"Younger men who frequently visited Cairns and other places were believed to have an advantage with card magic. Their collections of jewellery emblems and other paraphernalia from the towns were seen as giving them an unfair advantage over the bush medicines available to older men" (1980:277).

Goodale described how one Tiwi man ascribed his expertise at card playing to his having lived underground in the spiritual world of the *paranumua* (1987/88:12).

Contemporary Social Impact Studies of Gaming and Wagering

While card games and other forms of gambling that were incorporated into Aboriginal culture and communities over the last ten years in Australia may have been increasingly in competition with legalised forms of gaming and wagering so too the research concern has broadened to embrace the possible impacts of these readily accessible commercial forms of gambling.

In the context of the established research literature that documents the very high rates of negative impacts on indigenous people of the availability of alcohol and other addictive substances, Volberg and Stuefen (1994) pose the question of whether the introduction of legalised forms of gambling is likely to expose indigenous populations to similar concurrent, negative social and economic impacts.

In the United States high levels of gambling related problems have been recorded among Native Americans attending treatment programs for alcoholism and other forms of substance abuse (Elia & Jacobs 1993). However published research describing gambling impacts based on population surveys of indigenous people are rare. In 1991 in New Zealand a population survey on problem gambling included an additional 120 respondents of Maori or Pacific Islanders (Abbott & Volberg 1991, 1992). The only other study was also conducted by Volberg & Silver (1993) in North Dakota where a population survey included an additional sample of 400 Native American respondents.

As these two studies used very similar methods they have been summarised together below.

Sampling Method

New Zealand:

The New Zealand Department of Internal Affairs funded a national prevalence study of gambling and problem gambling in the adult population. A nationwide random sample of almost 4,000 people aged 18 years and older was obtained by random digit dialling. Given the lower telephone ownership of Maori and Pacific Islanders an additional 120 respondents were added using the same random method but excluding respondents who were not Maori or Pacific Islanders thereby ensuring the proportional representative of these two largest groups of indigenous people (12% and 4% of the population respectively).

North Dakota

The Department of Human Services funded a prevalence study of gambling and problem gambling (Volberg & Silver 1993). A sample of 1500 adults was generated at random from telephone subscribers with random selection within households. An additional sample of 400 Native American respondents was developed by telephone, targetting the four communities in North Dakota with the greatest proportion Native American residents and by face-to-face interviews in a percentage of households without telephones.

Questionnaire

In both studies the interview sought information in three areas:

- involvement in all types of gambling
- The South Oaks Gambling Screen (SOGS) - a scale designed to assess the extent and degree of gambling related problems (Lesieur & Blume 1987)
- demographic information

Results

- In both studies indigenous people, compared with the remainder of the sample in each jurisdiction had tried more types of gaming and wagering, were more likely to have become a regular player once they had tried a game, and as a group spent more on gambling than non-indigenous respondents.

Table 1 - The percentage distribution of SOGS scores for Caucasian and Indigenous respondents in New Zealand and North Dakota.

SOGS	NEW ZEALAND		NORTH DAKOTA	
	Caucasian (N=3456)	Indigenous (N=323)	Caucasian (N=1465)	Indigenous (N=434)
Score 3-4	1.4%	4.6%	1.3%	5.8%
Score > 5	0.6%	2.2%	0.5%	6.5%

- Table 1 shows the significantly higher level of current gambling problems (ie problems occurring in the last 6 months (NZ study) or 12 months (North Dakota study) for the indigenous respondents in each jurisdiction.
- Indigenous respondents from both countries were substantially younger, less likely to be married, less likely to have completed secondary education and more likely to have low annual incomes.

Conclusions drawn from the two Studies

The authors (Volberg & Abbott 1994) are very conservative in attempting to generalise from their results particularly in the light of the significant demographic differences noted above between the indigenous and non-indigenous respondents in each sample. For example younger age and single status are both established predictors of gambling related problems. In addition lower educational attainment and higher unemployment render those who gamble regularly more vulnerable to the development of gambling related problems.

None-the-less the consistency of the results was taken as confirmation that, as with alcohol and other addictive substances, the negative impacts of legalised gaming and wagering on indigenous populations may be at least 3 or 4 times greater than the negative impacts on non-indigenous populations within the same jurisdiction.

THE PRESENT STUDY of the Impacts of Gaming and Wagering on Aboriginal People in New South Wales.

Objectives: in the original expression of interest for the conduct of Study 2 the research team noted that from their experience of conducting similar projects in other states it was expected that a random population sample of adults in New South Wales would not generate a representation sample of Aboriginal people.

In order to provide information about the impacts of gaming and wagering on Aboriginal people in New South Wales it was therefore proposed that a separate sampling be carried out focussing on areas where demographic data confirmed a high density of Aboriginal households.

It was accepted that such a survey was far from ideal given the complexities of conducting adequate research with Aboriginal people given that they

"are the owners of the oldest and surviving culture throughout the world".

(Directors and Staff of Tharawal Aboriginal Corporation, Henderson & Gray 1994)

None-the-less within the time and cost constraints of Study 2 the inclusion of a sample of Aboriginal people was a valuable addition to the main study that would ensure that some preliminary and exploratory information concerning the impacts of gaming and wagering on Aboriginal people could be gathered and evaluated.

Sampling

- * Interviews were conducted in Redfern Housing Co-operative and LaPerouse Housing Co-operative (City sample N-91) and in Wollongong, Hilltop and Kempsey (country sample N-121) (10 postcodes, missing data).
- * The majority of interviews were conducted by Aboriginal interviewers with training and experience in conducting survey work for Roy Morgan Research Centre.
- * The interviewers selected respondents using network sampling techniques. Although not a random sample many start points for interviewing were involved. Therefore a reasonable spread of interviews was obtained, generating a more representative sample.
- * In all other respects the procedures were as per the main sample in Study 2. Respondents were not screened prior to answering the survey.
- * The sampling method resulted in 222 interviews, 103 women and 119 men.

THE SURVEY used in the interviews comprised:

Part I of the Survey

Answers to questions on the following factors to establish:

Community Gambling Patterns

- the percentage of the population who participate in particular form of gambling
- the frequency of gambling
- the amounts of time and money spent per week and per occasion
- the percentage of people who do not gamble and why they do not

Interest in the Sydney Casino

- the likelihood of visiting
- the likely frequency of visits
- the games preferred by those who expect to visit
- the amount of money that would be put at risk each visit

Motivational Factors

As identified by players who prefer different forms of gambling such as:

- poker machines
- horse racing
- lotto

Social Impact of Gambling

As perceived by the community, including:

- an exploration of attitudes toward gambling and problem gambling
- an estimate of the percentage of the population who knew of a family member who had encountered problems caused by excessive gambling plus a comparison with Tasmanian and Western Australian findings

Demographic Data

- Sex
- age
- marital status or household structure
- employment status
- educational level
- non-English speaking background
- Aboriginal/Torres Strait Islander descent
- Income level

Part II of the Survey

Part II was given only to respondents who have a regular, weekly or more frequent, habit of gambling.

This two-stage methodology permits the collection of the data and demographics listed above from all respondents and then delivers a second part of the interview as an in-depth interview only with those who gamble weekly or more frequently.

Experience using this approach in the national study (see reference list) and the subsequent projects in Tasmania and Western Australia, confirms that this is a very cost-effective way of developing a detailed description of the group of gamblers who are most likely to be at risk of experiencing negative impacts of gambling.

A show-card method, using different orders to statements not known to the interviewer, enables the interviewee to report personal, sometimes negative experiences such as job loss, criminal proceedings, or break-up of a significant relationship, without the interviewer knowing. This method has been tested with almost 5,000 interviews nationally, including the two projects in Tasmania and Western Australia.

For Part II, questions provide an in-depth description of:

- positive consequences of gambling, for example motivational themes of the regular gamble, such as excitement, relaxation, skill, etc.
- negative consequences of gambling, such as excessive expenditure, preoccupation with gambling etc.

Some 12 of these questions about negative effects experienced by the respondent can be taken together and scored as The Gambling Screen (SOGS), the only validated measure the use in the screening for problem gambling. This method is explained in Appendix 1.

The scores on this scale have enabled comparisons to be made between the prevalence of problem gambling in New South Wales and earlier studies in Australia, New Zealand, USA and Europe.

In addition, other questions focused on the impacts of problem gambling on:

- family life
- employment and productivity
- indebtedness
- criminal activities in support of gambling

together with the demographic variables, and enable the production of a detailed profile of the characteristics and associated negative impacts of problem gambling. These latter items, such as lost productivity, provide the first qualitative links with the costing of the impacts associated with problem gambling.

Finally, the survey included an exploration of the associations found in New Zealand between problem gambling and:

- excess, at risk use of alcohol (as measured by the Alcohol Use Disorders Identification Test, known as AUDIT)*
- generally poorer health (as measured by the General Health Questionnaire, GHQ 12).

Reliability of the Survey Method

In Study 2 it was argued that the survey contents and techniques had proved robust and of acceptable reliability over a series of projects.

None-the-less neither the use of the method nor the underlying concepts of negative impacts and problem gambling have been validated with Aboriginal respondents. However, the use of similar scales and questions in research in Native Americans with both telephone and face-to-face interviews has been considered by the research teams to provide data that was of acceptable reliability.

In the present study the coefficient of reliability of the three standardised measures was very similar for both the non-indigenous sample in Study 2 and for Aboriginal respondents.

	Aboriginal Respondents	Study 2
• South Oaks Gambling Screen (SOGS)	.84	.84
• General Health Questionnaire (GHQ12)	.72	.71
• Alcohol Use Disorders Identification Test (AUDIT)	.84	.77

The Study Team concluded that the sample of respondents is reasonably representative of Aboriginal people living in Sydney Metropolitan and Country urban settings.

RESULTS OF SURVEY

Part I of the Survey

Patterns of Gaming and Wagering

TABLE 2: FREQUENCY OF PLAY BY FORM

Form N=222	Weekly Habit	Monthly Habit %	Less Often %
Lotto	23.9 (29)	11.7	14.9
Instant Lottery	9.5	12.2	15.3
Pools	0.9	1.4	4.1
Bingo	10.4 (2)	6.3	11.7
Keno	14.4 (3)	8.1	12.6
Cards	9.5 (1)	5.0	7.2
Totalizator	1.8	3.6	9.0
TAB	23.0 (4)	11.7	8.1
Bookmakers	0.9	0.9	5.0
Poker Machines	22.1 (6)	16.7	9.9
Card Machines	24.3 (2)	16.2	9.5
Casino	0.0	0.9	3.6
Other	0.0	1.4	0.0

TABLE 3: FREQUENCY OF PLAY BY SEX

	Weekly	Monthly %	Less Often	Can't Say /Don't Play
Men (n=119)	58.8(41)	15.1(20)	12.6(20)	13.4(19)
Women (n=103)	54.4(35)	21.4(19)	7.8(26)	16.5(21)

Note: Contrasts with Study 2 findings:

Throughout the following Results section whenever comparisons are made with the equivalent data from the main Study 2 sample comprising 1390 non-indigenous respondents these are included either in brackets or in a separate identified column immediately beside the data from the Aboriginal respondents.

As shown in Tables 2 and 3 there is a strongly evidenced trend for Aboriginal people both men and women, to be more likely than non-indigenous people to participate in gaming and wagering on a regular weekly or more frequent basis. When considered by specific types of gaming and wagering product then this greater regularity of play is associated with the continuous forms of gaming and wagering namely;

- Bingo
- Keno
- Cards
- TAB
- Poker Machines) almost 1 in 4 Aboriginal respondents play these forms
- Card Machines) weekly or more frequently

As discussed above in the discussion of the sampling method used in the present study, there is the possibility that networking tended to select respondents who were people who gambled. In the New Zealand and North Dakota sampling this particular bias did not influence the selection of respondents. Table 4 compares the distributions of weekly and more frequent players for those two studies, and the present findings, for indigenous versus non-indigenous respondents.

Table 4: A COMPARISON OF THE DISTRIBUTION OF INDIGENOUS AND NON-INDIGENOUS REGULAR GAMBLERS ACROSS 3 STUDIES

	Weekly Gamblers (%)		
	North Dakota (USA)	New Zealand	New South Wales (Aust)
Non-indigenous	28.9	47.0	38.0
Indigenous	39.2	52.9	56.8

It can be argued that given the similar accessibility and range of gaming and wagering products in New Zealand as in New South Wales, the present sample may not be strongly biased toward sampling Aboriginal people who gamble. The participation rates found for regular gamblers amongst the Aboriginal respondents is very similar to that found in New Zealand where the sample selection was randomly generated.

Expenditure on Gaming and Wagering

TABLE 5: AVERAGE WEEKLY SPEND FOR ALL PLAYERS BY AREA AND SEX AND DOLLARS

	Aboriginal Respondents			Study 2		
	Mean	St Dev	Median	Mean	St Dev	Median
COUNTRY						
men (n=60)	\$492.26	(808.00)	220.50	\$41.40	(160.78)	6.35
women (n=43)	\$259.95	(363.52)	123.75	\$19.23	(121.39)	3.01
CITY						
men (n=39)	\$320.43	(511.48)	111.00	\$36.50	(114.97)	5.96
women (n=41)	\$125.77	(161.10)	91.00	\$ 9.87	(20.64)	3.10

Weekly expenditure was calculated by taking typical session spend for each form of gambling for each player, multiplying this by the frequency and sessions per week and summing expenditure for all different forms participated in by each player.

As shown in Table 5 this expenditure is significantly greater than that calculated for the main sample of non-indigenous respondents (Study 2). Given the very high measure of dispersion (a standard deviation of over \$800) the median may be the more appropriate figure to consider when considering the expenditure pattern of the group as a whole.

Although this very high figure for expenditure requires further research an examination of the average session spend by form of gambling shows figures ranging from \$5.90 for Lotto up to \$15.00 for a casino visit (see appendix 2). These do not appear exaggerated or unreasonable estimates. The much larger weekly expenditure arises primarily from Aboriginal respondents reporting more sessions per week and for more forms of gambling.

TABLE 6: AVERAGE SESSION SPEND FOR ALL PLAYERS BY AREA AND SEX

	Aboriginal Respondents			Study 2		
	Mean	St Dev	Median	Mean	St Dev	Median
COUNTRY						
men (n=60)	\$31.93	(33.03)	22.00	\$41.40	(160.78)	6.35
women (n=43)	\$26.07	(31.17)	19.00	\$19.23	(121.39)	3.01
CITY						
Men (n=39)	\$52.80	(63.81)	26.00	\$36.50	(114.97)	5.96
women (n=41)	\$27.12	(34.53)	15.00	\$9.87	(20.64)	3.10

For the entire Study 2 sample 5% of respondents spend 25% or more of their income on gambling which exactly matches the proportion reported in the most recent general population survey in Victoria (Victorian Casino Gaming Authority 1996).

For the OTHER group* in Study 2 25% of respondents spend 25% or more of their income on gambling.

For the Aboriginal OTHER group 43.6% spend 25% or more of their weekly income on gambling (this uses the session spend figures).

TABLE 7: FAVOURITE FORM BY SEX

Favourite Form	Aboriginal Respondents		Study 2	
	Men %	Women %	Men %	Women %
Lotto	9.5	14.0	37.9	39.6
Lottery/Pool/Bingo	6.8	23.3	13.9	25.1
Keno	11.7	5.8	3.3	4.2
Cards	2.9	5.8	3.1	2.6
Racing	35.9	8.1	16.3	5.8
Gaming Machines	27.2	32.6	19.3	17.2
Casino	0.0	0.0	4.1	0.9
Other	0.0	9.3	2.0	4.5
Can't Say	5.8	9.3		

*(Other group are regular players on continuous forms defined at page .)

As shown in Table 7 the favourite forms of gaming and wagering indicated by the Aboriginal respondents parallel frequency data discussed above with significantly greater preference shown for continuous forms of gaming and wagering and significantly lower preference shown for discontinuous forms such as Lotto, when compared with the main sample of non-indigenous respondents. It is important to note that this is true for men and women.

Community Attitudes Towards Gambling

The distribution of the answers of Aboriginal respondents to the three attitude questions;

- * Gambling is an important leisure activity for Australians
- * Which one should be most responsible for funding services to help problem gamblers and their families?
- * Gambling results in serious problems for some individuals and families

are given in Tables 8, 9 & 10 and compared with Study 2.

Generally speaking there are few differences between the two groups of respondents. Aboriginal respondents were rather more likely to nominate "Government" and less likely to nominate "Gambling Operators" as being most responsible for funding services for problem gamblers. Aboriginal respondents were also less likely to agree that gambling resulted in serious problems for some individuals, more preferring to disagree or not express an opinion one way or the other.

TABLE 8: "GAMBLING IS AN IMPORTANT LEISURE ACTIVITY FOR AUSTRALIANS"

	Aboriginal Respondents	Study 2
	%	%
Response		
Strongly Disagree	22.5	21.9
Mildly Disagree	12.2	18.8
Neither Disagree nor Agree	22.1	19.9
Mildly Agree	21.2	24.6
Strongly Agree	17.1	14.2
Can't Say	5.0	0.6

TABLE 9: "WHICH ONE SHOULD BE MOST RESPONSIBLE FOR FUNDING SERVICES TO HELP PROBLEM GAMBLERS AND THEIR FAMILIES"

Possible Responses	Aboriginal Respondents	Study 2
	%	%
Government	31.5	22.5
Gambling Operators	13.5	21.2
Gambling Venues	15.8	19.6
Problem Gamblers themselves	31.1	30.6
None	3.2	2.6
Can't Say	5.0	3.4

TABLE 10: "GAMBLING RESULTS IN SERIOUS PROBLEMS FOR SOME INDIVIDUALS AND FAMILIES".

Response	Aboriginal Respondents	Study 2
	%	%
Strongly Disagree	4.5	3.7
Mildly Disagree	2.7	0.6
Neither Disagree nor Agree	8.6	1.7
Mildly Agree	20.7	14.6
Strongly Agree	58.1	79.1
Can't Say	5.4	0.3

TABLE 11: REPORTS OF FAMILY MEMBERS EXPERIENCING GAMBLING RELATED PROBLEMS

	ABORIGINAL RESPONDENTS N=222 %	ABORIGINAL OTHER GROUP* n=104 %	STUDY 2 OTHER GROUP* n=159 %
Family Member ever experienced difficulties with excessive gambling?			
Yes	32.0 (14.5)	24.0	20.1
No	52.3 (85.0)	57.7	78.6
Can't Say	15.8 (0.5)	18.3	1.3
Family Member with Current Problem			
	(N=71) (N=25)	(n=25)	(N=32)
In the last 6 months	54.9 (26.4)	52.0	37.5
More than six months	40.8 (70.1)	48.0	56.3
Can't say	4.2 (3.5)	0.0	6.3
Family Member Involved			
Self	11.3	12.0	9.4
Father	19.7	32.0	2.5
Mother	18.3	12.0	0.0
Brother	22.5	32.0	3.8
Sister	16.9	16.0	0.6
Grandfather	1.4	0.0	0.0
Grandmother	1.4	0.0	0.0
Aunt	2.8	0.0	1.3
Uncle	11.3	8.0	5.7
Other	22.5	24.0	5.0
Can't Say	2.8	0.0	0.6

Across the entire sample, Aboriginal respondents have reported more than double the incidence of family members experiencing gambling related problems than did Study 2 respondents; 32% (50.7% male, 49.3% female) compared with 14.5% (40.3% male, 59.7% female). Aboriginal respondents have also recorded a much higher level of "can't say" when asked this question; 15% compared to 0.6% by respondents in Study 2.

Not only do Aboriginal respondents more frequently report the experience of gambling related problems within their families but also more frequently report that this had occurred in the last 6 months.

This apparently higher level of negative impact within the family requires further more detailed exploration than is possible from a single, structured interview.

This would need to be done in the context of a knowledge of the possible significant different meaning of 'family' within Aboriginal culture compared with non-indigenous respondents.

Despite this reservation the comparison between regular players in Study 2 and in the Aboriginal respondents (columns labelled "OTHER" in Table 11) suggests that problems in the last six months involving "Self", "Father" and "Mother" are so much higher for Aboriginal respondents than for non-indigenous respondents that this is a real difference in the way in which legalised gaming and wagering impacts on Aboriginal people in New South Wales.

(*OTHER group are regular players on continuous forms, defined at page)

Community Intentions to Visit Sydney Harbour Casino

TABLE 12: LIKELIHOOD OF RESPONDENTS PLAYING AT SYDNEY HARBOUR CASINO BY FAVOURITE FORM

	LIKELIHOOD OF PLAYING AT SYDNEY HARBOUR CASINO					
	Very Likely %	Somewhat Likely %	Neither Likely nor Unlikely %	Somewhat Unlikely %	Very Unlikely %	Can't Say %
Sex						
Males (n=119)	10.9 (9.6)	23.5 (13.0)	10.9	5.0	49.6	0.0
Females (n=103)	9.7 (4.1)	15.5 (9.5)	3.9	9.7	61.2	0.0
Favourite Form						
Lotto (n=22)	4.5	9.1	0.0	9.1	77.3	
Lottery (n=8)	25.0	25.0	0.0	12.5	37.5	
Pools (n=0)						
Bingo (n=19)	5.3	15.8	0.0	21.1	57.9	
Keno (n=17)	11.8	17.6	17.6	5.9	47.1	
Cards (n=8)	37.5	25.0	0.0	0.0	37.5	
Totalizator (n=1)	0.0	0.0	0.0	0.0	100.0	
TAB (n=42)	9.5	33.3	9.5	4.8	42.9	
Bookmakers (n=1)	100.0	0.0	0.0	0.0	0.0	
Card Machine (n=56)	16.1	25.8	12.9	6.5	38.7	
Poker Machine (n=133)	8.0	20.0	12.0	12.0	48.0	
Casino (n=0)						
Other (n=34)	0.0	0.0	0.0	0.0	100.0	
Can't Say (n=75)	14.3	28.6	7.1	7.1	42.9	

Of the 67 (30.2%) respondents (41 men and 26 women) who indicated that they were 'somewhat' or 'very' likely to play at the Sydney Harbour Casino, approximately 38% said they would do so 'rarely', 40% 'sometimes' and 20% 'often'. Compared with the non-indigenous respondents a higher proportion of men and women Aboriginal respondents indicated that they would visit the casino.

For these 67 respondents the strongest preferences were shown for gaming machines (19%), card games (17%), 2-up (11%), wheel games (9%), as shown in Table 13. The least preferred games were craps and Asian games such as Pai Gow and Sic Bo, as was the case for Study 2 respondents.

When the 67 putative players at the Casino were asked whether the amount they would spend would be an increase on top of their normal spending on other activities/games, 50% said 'yes' and 38.8% 'no' with 10.4% 'Don't know'.

TABLE 13 : PREFERENCES OF THOSE SOMEWHAT OR VERY LIKELY TO PLAY AT CASINO

PREFERENCE	ABORIGINAL (30.2% of 222) n=67	STUDY 2 (18% of 1390) n=251
	%	
Gaming Machines	19	23
Card Games	17	24
Roulette	7	21
2-Up	12	11
Wheel Games	10	15

Part II of the Survey

Respondents were selected for the in-depth questions concerning the positive and negative impacts of gaming and wagering in the same way as in Study 2.

- * **LOTTO ONLY** those respondents with a weekly or more frequent habit on Lotto/Lottery/Instant Lottery but no other form weekly or more frequently

- * **OTHER** those respondents who played some other form of gambling (ie other than Lotto/Lottery/Instant Lottery), weekly or more frequently. Many also played Lotto etc on a regular basis

Only 7 Respondents qualified for LOTTO ONLY indicating that as discussed above, Aboriginal respondents showed a much stronger preference for all forms of gaming and wagering. Given the small number in this category the following section presents information and comparing with Study 2 only for the OTHER group (N=104).

Note: an additional 16 people were eligible for inclusion in the OTHER group but were not offered the Part II questions as a quota of approximately 100 had been predetermined.

Expenditure by Regular Gamblers

TABLE 15: AVERAGE WEEKLY EXPENDITURE BY 'OTHER' GROUP

Form	<\$10	\$11-\$20	\$21-\$40	\$41-\$70	\$71-\$100	\$101-\$500	\$500-
Study 2							
OTHER %	12.1	13.4	22.9	20.4	9.6	16.6	5.1
Aboriginal Respondents							
OTHER %	1.9	1.9	6.7	1.9	9.6	51.0	10.2

The expenditure patterns of Aboriginal respondents who gamble weekly or more frequently gives a modal weekly expenditure between \$101-500 compared with \$41-70 for the regular gamblers in the non-indigenous sample in Study 2. Therefore not only do a much greater percentage of Aboriginal people gamble regularly on continuous forms of gaming and wagering but they also spend more when compared with non-indigenous regular gamblers. The 27% of Aboriginal respondents calculated to spend over \$500 per week is difficult to understand given the income data at Appendix 1. This is confirmed when the ratio of gambling spend to income shows that spend exceeds income by a factor of 2 or 1.5 (for mean and median spend respectively). Clearly further research is needed to clarify the expenditure patterns of frequent gamblers in relation to their income.

Motivational Aspects or Positive Impacts Reported by Regular Players

The positive impacts of gaming and wagering were assessed by a number of statements to which respondents indicated whether each particular statement was true for them. The randomised order of those statements was rotated during survey administration and positive impact items were mixed with negative impact items. Negative impact statements are described in the next section.

Table 16 summarises the proportion of each group of regular gamblers who gave affirmative responses for positive impacts classified into those relating to financial, work, family and friends, and personal experiences of the individual player.

With only two exceptions the positive or motivational themes are endorsed more frequently by Aboriginal respondents. This greater involvement in gambling as it has been called in recent surveys in Victoria has good face validity as to an extent it is a function of the greater time and money expenditure of Aboriginal regular gamblers who prefer continuous forms of gaming and wagering.

TABLE 15: AFFIRMATIVE RESPONSES TO GAMBLING FOR LOTTO ONLY VS OTHER PLAYERS

	OTHER	
	ABORIGINAL RESPONDENTS	STUDY 2
	N=104	N=159
	%	
FINANCIAL		
Winning at gambling has helped me financially	79.8	44.0
When I gamble I only risk what I can afford	88.5	91.2
I have won more than I have lost at gambling	73.1	49.1
I've had a big win from gambling (\$1,000+)	40.4	31.4
WORK-RELATED		
I've been gambling with people from work	51.0	37.1
Being a person who gambles has helped me get on at work	36.5	17.0
Thinking about gambling has helped in a boring job	36.5	18.9
Gambling is something we all talk about at work	65.4	45.9
FAMILY AND FRIENDS		
Gambling has given me something to talk about with family and friends	72.1	60.4
I have gone gambling with family or friends	91.3	73.0
PERSONAL EXPERIENCES		
Gambling has been a hobby and interest for me	86.5	78.0
Gambling has given me pleasure and fun	95.2	87.4
My gambling is problem free	76.9	85.5
I daydreamed of getting a big win	91.3	79.9
I am more likely to gamble for celebration	84.6	56.6
When I was gambling I felt excited	86.5	79.2
My gambling has been skilful	68.3	56.6
When I was gambling I felt relaxed	84.6	72.3

The only two which show a lower endorsement than the non-indigenous respondents in Study 2 are:

- When I gamble I only risk what I can afford
- My gambling is problem free

and these anticipate the following section concerning the reported negative effects of regular gambling.

Negative impacts of gaming and wagering reported by regular players

TABLE 16: AFFIRMATIVE RESPONSES TO NEGATIVE EFFECTS OF GAMBLING FOR REGULAR PLAYERS:

	Aboriginal Respondents N=104	Other Study 2 N=159
	%	%
PERSONAL		
I have told lies about my gambling	52.9	24.5
When I felt depressed I used gambling to escape	41.3	18.9
I have felt that my gambling was a problem*	51.0	15.7
After losing heavily I have felt depressed	79.8	46.5
I went for help with my gambling	9.6	1.9
When I've lost gambling, I've bragged about winning*	51.9	17.6
I've felt like stopping but didn't think I could*	67.3	25.8
After losing I've gone back to win back money lost*	77.9	38.4
If lost more than planned, go on if excited	72.1	34.0
When I've gambled I've gone on for longer than planned*	78.8	50.9
When I had a bad day I was more likely to gamble	57.7	29.6
When I finished gambling I have felt guilty*	66.3	29.6
Each time I gambled I expected to win	91.3	74.8
FAMILY & FRIENDS		
My gambling has caused problems for family or friends	44.2	11.9
My gambling has caused the break-up of relationship	14.4	3.8
My family or friends have criticised my gambling*	53.8	27.0
My gambling has caused arguments about money with family/friends*	55.8	17.6
I have hidden betting slips, lottery tickets etc. from family or friends*	37.5	8.2
My gambling has been more important than socialising	42.3	22.0
WORK-RELATED		
I've moved or changed jobs because of my gambling	12.5	3.1
I've lost time from work or study due to gambling*	33.7	6.3
My gambling has stopped me working efficiently	24.0	7.5
I've been sacked from my job because of gambling	8.7	1.9
FINANCIAL		
I've gambled to try and win money to pay gambling debts	83.7	18.9
I spent more than I could afford on gambling	73.1	34.6
I've borrowed money to gamble or pay gambling debts*	45.2	0.7
I've borrowed money and not paid it back for gambling*	39.4	3.1
If I had urgent debts I would go on gambling	51.9	14.5
Family and friends have had to pay my gambling debts	20.2	2.5
LEGAL		
I've borrowed money without permission to gamble	35.6	3.8
Thought about doing something illegal for gambling money	32.7	5.7
I've appeared in court on charges related to gambling	15.4	4.4
My gambling has led to problems with the police	9.6	1.9
I have been in prison because of my gambling	6.7	0.6

(* Items in the SOGS)

Almost one in ten of the Aboriginal respondents in the OTHER group reported;

* "I went for help with my gambling".

This is five times the rate reported by the equivalent group of non-indigenous respondents in Study 2.

This single item sets the scene for a very high level of reported negative impacts by Aboriginal regular gamblers in all domains of their lives:-

* <u>Family & Friends</u>	
"My gambling has caused arguments about money with family & friends"	56%
* <u>Work Related</u>	
"I've lost time from work or study due to gambling"	34%
* <u>Financial</u>	
"I've gambled to try and win money to pay gambling debts"	84%
* <u>Legal</u>	
"I've borrowed money without permission to gamble"	36%

TABLE 17: AFFIRMATIVE RESPONSES TO NEGATIVE IMPACTS BY OTHER PLAYERS BY SEX

FORM	N	PERSONAL %	FINANCIAL %	FAMILY & FRIENDS %	WORK RELATED %	LEGAL %
Study 2						
OTHER						
Men	99	91.9	49.5	49.5	13.1	11.1
Women	60	71.7	36.7	33.3	5.0	8.3
Aboriginal Respondents						
OTHER						
Men	61	96.7	90.2	88.5	54.1	62.3
Women	43	97.7	97.7	65.1	32.6	44.2

Table 17 illustrates how the negative impacts are reported at significantly greater rates particularly in relation to employment and legal impacts - ie. the more severe and 'costly' impacts both for the individual and his or her family welfare and in terms of the costs to the community as appraised in Study 2.

Prevalence of problem gambling amongst Aboriginal people in New South Wales.

TABLE 18: COMPARISON OF SOGS SCORES FOR ABORIGINAL AND STUDY 2 RESPONDENTS

	N	0	1-2	3-4	5-9	10-15
OTHER		%	%	%	%	%
Aboriginal Respondents						
Men		4.9	3.2	11.5	49.8	28.9
Women		9.3	9.4	25.6	39.7	16.3
Study 2						
Men		40.6	28.2	17.1	11.2	3.0
Women		55.0	28.7	10.9	4.0	1.6

When negative impacts are scored on the South Oaks Gambling Screen (SOGS) (See Appendix 4 for information about this scale) almost 80% of the men and 56% of the women who are regular gamblers amongst the Aboriginal respondents score either as 'cases' of problem gamblers (scores 10 and over) or at some risk of gambling related problems (scores 5-9).

When 'cases' only are considered then if the present sample is representative of Aboriginal people in New South Wales then the prevalence can be estimated as follows:

- 24% of OTHER group classified as Problem Gamblers
- OTHER group is 47% of sample

- prevalence is approximately 11% of the adult Aboriginal population in New South Wales

This is higher by a factor of 20 compared with the non-indigenous respondents for whom a prevalence for problem gambling was calculated at 0.5% of the adult population.

Even if the sampling is assumed to be totally unrepresentative and that the proportion of the Aboriginal population who were regular, weekly or more frequent players on continuous forms of gaming and wagering (ie. satisfied with criteria for OTHER group) was the same as for non-indigenous people ie. 11.4% instead of 47% - the prevalence rate would be 2.7%, higher by a factor of 5.

When considering this much higher level of negative impacts the demographics of this group must be considered (see Appendix 1). The Aboriginal respondents comprise a greater proportion of younger age men and women and more single rather than partnered when compared to the Study 2 OTHER group. Both of these are predisposing factors for problem gambling.

In addition, given the very high weekly expenditure of the Aboriginal respondents they are, as a group, significantly less likely to be able to withstand the times when losses are excessive as compared with non-indigenous respondents;

- a greater proportion earn less than \$10,000 p.a.
- a smaller proportion are in full-time work
- a greater proportion are in part-time work
- a greater proportion are unemployed

The Measure of Mental Health (GHQ-12) and Excessive Drinking (Audit)

TABLE 19: MEANS AND STANDARD DEVIATIONS FOR GHQ AND AUDIT BY SEX

OTHER	GHQ		AUDIT	
	Mean	St. Dev	Mean	St. Dev
STUDY 2				
Men	1.59	(2.16)	6.97	(4.93)
Women	1.30	(1.61)	3.77	(4.05)
ABORIGINAL RESPONDENTS				
Men	2.05	(2.05)	9.98	(8.75)
Women	1.72	(2.03)	7.74	(7.90)

TABLE 20 : PERCENTAGE DISTRIBUTION FOR AUDIT SCORES BY CATEGORY FOR ABORIGINAL OTHER GROUP

	0-7	8-19	20+
	%	%	%
Male	43.5 (61)	42.0 (38)	14.5 (1)
Female	59.2 (85)	32.6 (13)	8.2 (2)

The results for the measure of excessive drinking of alcohol amongst the OTHER group shows that 56.5% of men and 40.8% of women score in the NH&MRC harmful category or higher (compared with 39% and 15% for men and women respectively in the non-indigenous OTHER group : Table 2.1). This level of harmful drinking may be compared with results from studies completed in rural Aboriginal communities in the Northern Territory and in the Kimberley region in Western Australia.

- Northern Territory (N=1764) (Watson, Fleming & Alexander 1988)
69% men 68% women harmful drinking
- Kimberley (N=516)(Hunter, Hall & Spargo 1991)
70% men 42% women harmful drinking

More recently in New South Wales a study completed by the Henderson & Grey (1994) on behalf of the Tharawal Aboriginal Health Service reported on a sample of 162 adults of whom 70% of the men and 72% of the women drank 3 or more standard drinks per session.

This findings on both scales suggest that the overall survey results may be valid as there is reasonable correspondence with projects that have focussed on alcohol use.

In addition the relationships between measures found in previous studies and in Study 2 are also found for this group of Aboriginal respondents (see Appendix 3). As in Study 2 there is a positive association between harmful levels of drinking and increased risk of gambling related problems.

Discussion of Findings

- Given the different sampling methods the comparisons with Study 2 for the whole sample of respondents may be more difficult to interpret and defend.
- The comparison between the indigenous and non-indigenous respondents of the OTHER group, those with a weekly or more frequent usage of continuous forms of gaming and wagering, are more easily defended as they were selected on similar criteria.
- Aboriginal people who are regular users of continuous forms of gaming and wagering report very high levels of negative impacts in all areas of their lives, family, employment, financial and gambling related crime.
- High levels of problem gambling amongst Aboriginal respondents may in part be a function of the demographic composition of the group eg. younger age and single status predisposing the players to problem gambling and lower income and higher unemployment limiting the ability of individuals and families to cope with gambling losses.
- Taken as a preliminary study the results strongly support the need for further research to clarify exactly how gaming and wagering impacts on Aboriginal people, their families and communities and how best the negative impacts can be ameliorated.

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APPENDIX 1

APPENDIX 1

DEMOGRAPHICS OF (ALL) REGULAR GAMBLERS

	LOTTO ONLY N=7	OTHER N=104		SOGS Scores 4+ N=86	SOGS Scores 5+ N=75	SOGS Scores 10+ N=25
SEX	%	%	*	%	%	%
Male	14.3	58.7	(62.3)	61.6	65.3	72.0
Female	85.7	41.3	(37.7)	38.4	34.7	28.0
AGE						
18-19	0.0	3.8	(3.8)	3.5	4.0	4.0
20-24	0.0	23.1	(13.8)	22.1	22.7	16.0
25-29	0.0	20.2	(7.5)	24.4	20.0	24.0
30-34	14.3	11.5	(11.9)	15.1	16.0	12.0
35-39	28.6	14.4	(7.5)	11.6	13.3	16.0
40-44	28.6	16.3	(8.8)	14.0	14.7	16.0
45-49	0.0	4.8	(9.4)	3.5	4.0	4.0
50-54	0.0	2.9	(6.9)	3.5	4.0	8.0
55-59	14.3	2.9	(3.8)	2.3	1.3	0.0
60-64	14.3	0.0	(7.5)	0.0	0.0	0.0
65-69	NONE	NONE	(6.9)	NONE	NONE	NONE
>70	NONE	NONE	(11.9)	NONE	NONE	NONE
MARITAL STATUS						
Partnered	71.4	33.7	(51.6)	37.2	41.3	36.0
Single	28.6	66.3	(48.4)	62.8	58.7	64.0
EDUCATIONAL LEVEL						
Primary	14.3	5.8	(3.8)	5.8	4.0	4.0
Secondary	71.4	70.2	(61.0)	67.4	69.3	76.0
Tertiary	14.3	24.0	(35.2)	26.7	26.7	20.0
WORK STATUS						
Full time-worker	42.9	23.1	(43.4)	20.9	21.3	16.0
Part-time worker	28.6	31.7	(13.8)	33.7	34.7	32.0
Looking for Work	14.3	22.1	(2.5)	22.1	21.3	32.0
Retired/Non Worker	14.3	16.3	(30.2)	17.4	18.7	20.0
Home Duties	0.0	6.7	(10.1)	5.8	4.0	0.0

*Figures in brackets are the % distribution for Other (N=159) from Study 2, non-indigenous respondents.

	LOTTO ONLY N=7	OTHER N=104		SOGS Scores 4+ N=86	SOGS Scores 5+ N=75	SOGS Scores 10+ N=25
INCOME *						
<\$10,000	40.0	40.4	(13.5)	46.8	42.9	58.3
\$10,001-\$19,999	20.0	19.3	(13.5)	17.0	19.0	8.3
\$20,00-\$20,999	20.0	22.8	(30.3)	17.0	16.7	8.3
\$30,000-\$30,999	20.0	8.8	(12.4)	10.6	11.9	25.0
\$40,000-\$40,999	0.0	3.5	(11.2)	4.3	4.8	0.0
\$50,000-\$60,000	0.0	0.0	(5.6)	0.0	0.0	0.0
>\$60,000	0.0	3.5	(6.7)	2.1	2.4	0.0
No Answer	0.0	1.8	(6.7)	2.1	2.4	0.0
OCCUPATION**						
Professional	0.0	0.0	(3.4)	0.0	0.0	0.0
Managers/Business Owners	0.0	1.8	(60.7)	2.1	2.4	0.0
Trades	20.0	29.8	(11.2)	27.7	28.6	41.7
Clerical/sales	60.0	40.4	(24.7)	38.3	38.1	41.7
Unskilled/labourer	0.0	28.1		31.9	31.0	16.7
Unclassifiable	20.0	0.0		0.0	0.0	0.0

**for those employed (n=62) i.e. 49 of the regular gamblers are unemployed hence no income given and 12/25 in the 10+ SOGS group are unemployed*

***49/111 responses missing (percents are of valid responses)*

APPENDIX 2 & 3

APPENDIX 2

AVERAGE SESSION SPEND ON GAMBLING

FORM	SESSION SPEND	NO OF RESPONDENTS	AVERAGE SESSION SPEND
	\$	n	\$
LOTTO	650	110	5.91
LOTTERY	503	80	6.29
POOLS	90	14	6.43
BINGO	508	61	8.33
KENO	595	74	8.04
CARDS	404	48	8.42
TOTE	383	31	12.36
TAB	816	94	8.68
BOOKIES	183	14	13.07
CARD MACHINES	964	107	9.00
POKER MACHINES	1090	104	10.48
CASINO	135	9	15.00
OTHER	4	3	1.33

APPENDIX 3

CORRELATION MATRIX OF SOGS, GHQ, & AUDIT BY EXPENDITURE IN DOLLARS AND HOURS, SEX, MARITAL STATUS, AGE AND INCOME

	SOGS	GHQ	AUDIT
SOGS	1.0000	-.0643	.3470***
GHQ	-.0643	1.000	.0557
AUDIT	.3470***	.0557	1.000
SESSION EXPENDITURE (\$)	.3165**	-.0562	.0980
TIME EXPENDITURE (HRS)	.3025**	-.0532	.1645
SEX	-.2740**	.0186	-.1305
MARITAL STATUS	-.0446	-.0561	.0458
AGE	-.1559	.0489	-.1205
INCOME (ANNUAL)	-.0578	.0051	.0000

*p<0.05 **p<0.01 ***P<.001

APPENDIX 4

The South Oaks Gambling Screen (SOGS) (Lesieur & Blume, 1987)

The SOGS is the only internationally established measure validated against the Diagnostic and Statistical Manual (edition III-R) (American Psychiatric Association, 1987), diagnosis of 'pathological gambling'. This measure was included in the in-depth section of the interview given only to the regular gamblers. The SOGS consists of 13 items based on a ratio scale with forced choice answers to each item and scores are determined by adding up the items. A score of 0-2 indicates no problem with gambling, 3-4 indicates possible problematic gambling and a score of 5 or more indicates probable pathological gambling (out of a possible 20 points). Whilst there has been criticism of the heterogenous nature of this instrument as well as the hazardous nature of using 'cut-off' points to identify 'cases' of pathological gambling (Dickerson, 1991), this study used both the conventional SOGS scoring system (for comparisons with previous research in the US and NZ), and the SOGS as a continuous measure by employing a 5 point scale (1=never; 2 = rarely; 3=sometimes; 4=often; 5=always). This is preferable on psychometric grounds and it was envisaged that the measure would allow determination of degrees of excessive behaviour experienced by the gambler.

APPENDIX 5

"AUDIT" (Alcohol Use Disorders Identification Test) has been developed by the World Health Organisation to enable the early detection of persons who are likely to suffer harm as a result of their drinking. It can be completed by the person as part of a routine check-up, or in any circumstances where early diagnosis is important.

SCORING

The scores for each question range from 0 to 4 (progressively from left to right).

Items 11 and 12 are not scored. They are simply additional questions which will indicate a person's "readiness to change".

A score of 8 or more for the whole AUDIT questionnaire (questions 1-10) suggests this person has a harmful pattern of drinking.

A score of less than 8 for questions 1-10 indicates a low risk of the person experiencing problems due to hazardous alcohol consumption.

A score of 8-19 for questions 1-10 suggests that the person may be at moderate risk of alcohol-related harm.

A score of greater than 20 for questions 1-10 indicates that the person falls into the high risk category for potential alcohol-related problems.

Additional information (not a diagnosis) can be obtained by looking at the answers to each section:

CONSUMPTION, DEPENDENCE, LIFE PROBLEMS AND READINESS TO CHANGE

Questions 1-3 refer to the level of the person's alcohol consumption.

Questions 4-7 enquire about symptoms of dependence; the possibility that the person may be psychologically or physically dependent on alcohol.

Questions 8-10 enquire about problems the person has experienced that are related to drinking. A high score indicates that there have been significant problems already.

Questions 11 and 12 (which are not scored numerically) will supply information about the person's "readiness to change" and will assist you in deciding what level of intervention is appropriate at this stage. People with the most positive outlook are those who think they have a problem with drinking and think reducing or stopping will be relatively easy. Brief counselling is appropriate for these people. Many others with harmful or hazardous consumption will also respond to straightforward advice.

APPENDIX 6

The General Health Questionnaire (GHQ) (Goldberg, 1972)

The GHQ is a self-administered scale, designed for screening of non-psychotic psychiatric illness, and used in this survey as an estimator of morbidity. Used in this way, Tamopolksy, Hand, McLean, Roberts and Wiggins (1979) found that "the GHQ predicts with reasonable closeness, the proportion of psychiatric disorders" in the community.