GAMBLING AND PROBLEM GAMBLING AMONG RECENTLY SENTENCED MALES IN FOUR NEW ZEALAND PRISONS

Report Number Five of the New Zealand Gaming Survey

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Foreword

Gambling and Problem Gambling Among Recently Sentenced Males in Four New Zealand Prisons is the fifth report from the New Zealand Gaming Survey. It is a companion work to the fourth report which examines gambling and problem gambling among recently incarcerated women prisoners.

The primary objective of the report is to assess the nature of gambling and problem gambling among recently incarcerated male prisoners. The major focus of attention is their pre-incarceration gambling behaviour and the identification of any relationships between gambling and criminal offending.

Interviews were conducted with 357 men from four prisons, a relatively large sample when compared with many previous prison gambling surveys published in the international literature. This, taken in conjunction with the high level of problem gambling prevalence found, meant that there were sufficient problem gamblers to permit the researchers to examine relationships between problem gambling and other factors to an extent that has not been possible previously.

I would like to thank Professor Max Abbott, Brian McKenna, Lynne Giles, and Andy Heinemann and his team of National Research Bureau interviewers, for their work in producing the report. I would also like to thank staff from the Department of Corrections who facilitated access to the prisoners, and the participating prisoners whose contribution and co-operation made the study possible.

This report is the latest in a series of studies that make up the New Zealand Gaming Survey, a substantial body of gambling research commissioned by the Department of Internal Affairs. The full suite of seven reports from the Survey will comprise:

- A critical review of international literature on gambling participation and problem gambling prevalence
- Results from fresh interviews with people who participated in Phase 2 of a previous national survey in 1991/1992
- Results of the 1999 two-phase national prevalence study
- A survey in two reports of the gambling behaviour of recently incarcerated prisoners
- A synthesis of all aspects of the research project.

In addition, the Department has recently published a supplementary report bringing together in one volume three years of Problem Gambling Committee data on problem gambling counselling in New Zealand.

This is a very significant body of work that will assist Government in making informed choices in relation to its policy on gambling and responses to problem gambling in New Zealand.

Peter Hughes
Secretary for Internal Affairs
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EXECUTIVE SUMMARY

Introduction

This report presents the major findings from a survey of gambling and problem gambling among recently sentenced male inmates in four New Zealand prisons. Previous research on gambling, problem gambling and gambling-related offending among prisoners and other offender populations is reviewed. The findings of the present survey are discussed in the context of this research, which includes a parallel study of women prisoners in New Zealand (Abbott & McKenna, 2000).

The male prison study is one component of a research programme, the New Zealand Gaming Survey (NZGS). This programme was commissioned by the Department of Internal Affairs (DIA). The general purpose of the NZGS is to investigate the impact that the recent increase in gambling in New Zealand has had on peoples' lives and to advance scientific understanding of gambling and problem gambling.

The main objective of the present study is to assess the nature of gambling and problem gambling among recently incarcerated male prisoners and to examine relationships between gambling and criminal offending.

This is one of a small number of published studies, internationally, that have investigated prison inmates' gambling and problem gambling. If the four prisons surveyed are considered separately, this report doubles the number of male prison surveys that have been published in the international literature. In contrast to all but one of the previous studies, the combined sample is large. This, taken in conjunction with high problem gambling prevalence, meant that there were sufficient problem gamblers to enable the examination of relationships between problem gambling and other factors to an extent that has not been possible previously. However, because problem gamblers in prisons differ in various ways from problem gamblers who present for treatment or who are identified in general population surveys, it cannot be assumed that these and other findings from the study apply to all problem gamblers.

This summary provides an overview of some of the major survey findings and their implications.

Sample

Interviews were completed with 357 men. The number from each prison ranged from 49 to 124. The overall response rate was 86 percent. While the four prisons were selected so that inmates from most parts of the country would be included, it was not expected that the total sample would be representative of all recently sentenced male inmates in New Zealand. Consequently, it was intended at the outset to treat each prison survey as a separate study. However, it was found that the total sample did not differ significantly from the relevant sector of the total prison population on a number of relevant variables. This strengthened the case for conducting analyses using the whole sample, in addition to considering the prisons separately. This also means that the findings may have wider applicability than was anticipated.
Gambling Participation Prior to Imprisonment

Ninety-six percent of the prisoners reported having gambled at some stage in their lives and 84 percent indicated that they had taken part in at least one type of gambling activity during the six months prior to imprisonment. These rates are similar to those of adult males in the general population (Abbott & Volberg, 2000) and somewhat lower than those obtained for recently sentenced women prisoners (Abbott & McKenna, 2000).

In contrast to men in the general population, a high rate of frequent (weekly or more) participation prior to imprisonment was found. Two-thirds indicated participating this frequently in one or more forms of gambling. A notable feature was the very high rates of frequent participation in forms of gambling that have been shown in previous New Zealand and Australian studies to be strongly associated with problem gambling. These types of gambling are continuous in nature and some involve an element of skill.

Twenty percent or more of the prisoners reported that they played non-casino gaming machines or purchased Instant Kiwi tickets weekly or more often. Relative to men in the general population, very high rates of frequent participation were also mentioned for betting on horse or dog races, card games, taking money bets with friends and workmates, other sports betting and casino gaming machines.

Reported average monthly gambling expenditure prior to imprisonment was NZ$305, almost six times that of men in the general population. In the recent companion study, a similar difference was evident for women prisoners relative to women in the general population. Considering that the majority of prisoners had low household incomes, this difference would have been much greater if presented as a percentage of monthly income. Non-casino gaming machines, betting on horse and dog races and casino games other than gaming machines were the forms with the highest average expenditure. Lotto and gaming machines, along with Instant Kiwi and betting on horse or dog races, were the types of continuous gambling most often mentioned as being particularly enjoyed.

The prisoners reported somewhat longer typical gambling sessions than men in the general population but shorter sessions than were found for women prisoners.

Most frequently mentioned reasons for gambling, in descending rank order, were:

- To win money
- For entertainment or fun
- For excitement or challenge
- To socialise
- For something to do or to relieve boredom
- To support worthy causes.

Relative to men in the general population, supporting worthy causes was much less often mentioned as a reason for gambling. This was also the case for women prisoners. In other respects, the reasons resemble those of men generally.
Gambling in Prison

As was found for women prisoners, the majority of men did not report taking part in any form of gambling during their current period of imprisonment. However, of the 26 percent who did, the majority did so weekly or more often. Card games, taking money bets with other prisoners, betting on sports events other than horse and dog racing, and Lotto were the types of gambling mentioned most often.

Average monthly gambling expenditure in prison was appreciably lower than it was prior to imprisonment. Just under half of the men who gambled in prison reported spending less than NZ$30 per month. However, wide variation was evident and some reported high expenditure. In contrast to women prisoners, few items other than money were used for gambling.

Relative to gambling patterns prior to imprisonment, gambling sessions in prison were of shorter duration and more often involved other people.

Reasons most often mentioned for gambling in prison, in descending order, were:

- Something to do or to relieve boredom
- To win money
- To socialise
- For entertainment or fun
- For excitement or challenge

In contrast to pre-incarceration reasons for gambling, gambling to win money and for entertainment or fun were mentioned less often. Gambling for something to do or to relieve boredom and to socialise were more often mentioned. Similar findings pertained to women prisoners.

Only 15 percent of prisoners who gambled in prison considered that their participation affected their quality of life. Numbers were almost equally divided between those who reported positive and negative effects.

Gambling-related Offending

Fifteen percent of the male prisoners reported having committed a crime to obtain money to gamble or to pay gambling debts. The percentage varied somewhat across prisons, ranging from ten percent in Waikeria to 25 percent in Paparua. Burglary was the most frequently mentioned gambling-related offence, followed by theft, fraud and robbery.

Proportionately more women prisoners reported gambling-related offending and, of the crimes reported, the women mentioned fraud and shoplifting more often.

Nine percent of the men indicated that they had been convicted for a gambling-related crime. Over half of these men reported five or more convictions of this type and the average number was 14. In contrast, 19 percent of the women reported gambling-related convictions. Ten percent of the men said they had
been in prison because of charges related to gambling and over a half of these men said this was often or always the case. This suggests that about six percent of recently sentenced male inmates are in prison primarily or exclusively for gambling-related crimes.

A small number (11 men) reported that their gambling-related offending involved over NZ$50,000. Similarly, a small group of five men reported that they each had over 40 gambling-related convictions.

Problem Gambling

Just over one in five men (21%) were classified on the basis of their SOGS-R scores as lifetime probable pathological gamblers and somewhat less, 16 percent, were classified as probable pathological gamblers during the six months prior to imprisonment (‘current’ probable pathological gamblers). Rates varied somewhat across prisons, being highest in Paparua and lowest in Waikeria.

A further ten percent were classified as lifetime problem gamblers, with less serious problems than probable pathological gamblers, and seven percent were classified as ‘current’ problem gamblers.

In other words, almost a third (31%) of the men were assessed as having experienced significant gambling problems at some stage in their lives and just under a quarter (23%) had such problems at the time of their current imprisonment. The corresponding percentages for women prisoners were 45 and 34, suggesting that these women have significantly higher rates of problem gambling than their male counterparts.

The probable pathological and problem gambling rates for the male prisoners are similar to those obtained from a previous New Zealand survey of men serving non-custodial community sentences and some overseas prison studies. They are many times higher than lifetime and past six months probable pathological gambling prevalence estimates for men in the general New Zealand population. The male lifetime probable pathological gambling estimate from the 1999 national survey was 1.2 percent. The past six months estimate was 0.4 percent.

The ‘current’ probable pathological gambling categorisations (based on the SOGS-R) were checked by administering a second problem gambling screening test (the Fisher Screen). Of the 56 SOGS-R defined ‘current’ probable pathological gamblers, 49 (88%) were similarly classified by the Fisher Screen. Five of the remaining participants were classified by this measure as ‘current’ problem gamblers and the other two were deemed to be non-problem gamblers. Fifteen of the 25 SOGS-R ‘current’ problem gamblers were classified by the Fisher Screen as ‘current’ problem or probable pathological gamblers and ten scored in the non-problem range. Although the Fisher Screen was not administered to SOGS-R defined non-problem gamblers, these findings indicate a high level of agreement between the two screens. Additionally they suggest that, had the Fisher Screen been used instead of the SOGS-R to determine prevalence rates, very similar results would have been obtained.
In contrast to probable pathological and problem gamblers identified in the general population, a large proportion had very high SOGS-R and Fisher Screen scores. Scores in this range are characteristic of the majority of men who present to problem gambling services for support or treatment.

The difference between the lifetime and 'current' probable pathological and problem gambling prevalence rates in this study was considerably less than differences found in general population surveys. This suggests that male prisoners' problems display high chronicity (i.e. they are less likely to overcome them). However, there are other possible explanations for this finding that are discussed in the report.

Health, Mental Health and Substance Use and Misuse

Seventy-one percent of the prisoners rated their general health as good and a similar percentage indicated that they had been very happy or somewhat happy prior to imprisonment. Ratings of happiness reduced somewhat following imprisonment. In this respect the findings differed from those of women prisoners, who reported increased happiness following imprisonment.

As in the women's prison study, very high rates of substance use were reported. Prior to imprisonment, over half of the prisoners said that they drank ten or more drinks of alcohol on a typical drinking day. Seventy-one percent smoked cigarettes daily, 54 percent smoked marijuana twice a week or more and 22 percent used other illicit drugs this often.

Two-thirds were found to have engaged in hazardous drinking prior to imprisonment and 23 percent were assessed as currently experiencing clinically significant levels of non-psychotic psychological disturbance.

Nearly three-quarters (72%) of the men were assessed as having a conduct disorder during childhood and 14 percent were currently classified as having antisocial personality disorder.

Fourteen percent of the prisoners said that they had at some time received treatment for a mental health problem. Reasons most frequently mentioned for receiving treatment included depression or affective disorders, "for my offences" and anger.

Comparisons between Problem and Non-problem Gamblers

In contrast to the findings of the 1999 national prevalence survey, with respect to sociodemographic characteristics, there was little difference between the problem (probable pathological and problem groups combined) and non-problem gamblers. Prisoners who were unemployed, of younger age, or lacked a secondary school qualification were somewhat more likely to be problem gamblers. However, the relationships between these attributes and problem gambling generally fell just short of statistical significance in multivariate analyses.

Participation in all of the main forms of gambling considered was associated with both lifetime and 'current' problem gambling. However, from multivariate
analyses, playing card games for money, betting on horse or dog races and playing gaming machines (both non-casino and casino) were identified as the most important predictors of problem gambling. These forms of gambling also had a strong relationship with problem gambling in the 1999 national survey. They are all continuous in nature and two forms, card games and track betting, involve a degree of skill.

Prisoners who reported having a preference for track betting or non-casino gaming machines were also found to be at high risk for problem gambling.

Although problem gamblers reported few instances of gambling-related violent crime, there was no difference between the problem and non-problem groups with respect to the most serious offence that they had ever been convicted for. However, the 'current' problem gamblers were significantly more likely than the non-problem gamblers to have a most serious present conviction for property offences and they were less likely to have a drug or traffic conviction.

Problem gamblers reported starting offending at a younger age than non-problem gamblers. However, there was no difference between the groups with respect to the age when they were first convicted.

A modest number of problem gamblers said that their early offending and/or first conviction were for gambling-related offences (5% and 9% respectively) in comparison with none in the non-problem gambling group. These findings are consistent with the hypothesis that the large majority of problem gamblers in this population are 'criminals first and problem gamblers second.' However, they also suggest that a minority of the problem gamblers developed gambling problems prior to the initiation of their offending which was predominantly or exclusively gambling-related. Similar results were obtained in the study of recent women prisoners.

The lifetime and 'current' problem gamblers were much more likely than non-problem gamblers to report that:

- They had thought about doing something illegal to get money for gambling or to repay gambling debts
- They had borrowed money without permission or authority to gamble
- They had committed a crime to get money for gambling or to repay gambling debts
- They had gambled instead of committing a crime
- Their gambling had led to problems with the police
- They had appeared in court on charges related to their gambling
- They had been in prison because of charges related to their gambling.

Of the prisoners with gambling problems at the time they were imprisoned ('current' problem gamblers), over half (51%) said they had committed a crime to get money for gambling or to pay gambling debts. Over a third (35%) said they had been in prison because of charges related to gambling. The corresponding percentages for non-problem gamblers were seven and two percent.
The women prisoners' gambling-related offending was similar to the men's, albeit that somewhat more women reported these behaviours and their consequences.

Men with particularly serious gambling problems (lifetime SOGS-R scores of 10 or more) were significantly more likely than those with less severe problems to report experiencing all of the gambling-related behaviours and consequences listed above. Over three-quarters (76%) of the men in this group said they had committed a crime for gambling or to pay gambling debts and over a half (59%) said they had been in prison for charges related to gambling. They also reported substantially higher losses in a single day gambling than those with less serious gambling problems.

While men with serious gambling problems reported much higher levels of gambling-related offending that was predominantly non-violent, they were no less likely than prisoners with less severe problems to have engaged in violent offending. Neither were they significantly more likely to report that their early offending or first conviction was gambling-related.

These findings suggest that while relatively few male prisoners began their criminal careers in association with or in response to problem gambling, gambling appears to have played an important part in the subsequent offending of many men who became problem gamblers. Following the development of gambling problems, approximately a half apparently committed either predominantly gambling-related offences or a mix of gambling-related and non-gambling-related offences. This was particularly the case for men with severe gambling problems and greater gambling losses. However, a similar number of the problem gamblers indicated that they had never engaged in gambling-related criminal activities. These men committed other types of offence.

The gambling-related offending findings also indicate that many offences of this type go undetected and/or do not lead to the involvement of the criminal justice system.

As in the women's prison study, many problem gamblers, especially those with more serious problems, indicated that they at least sometimes gambled instead of committing a crime. This phenomenon was strongly associated with gambling-related offending, suggesting that it came about through gambling winnings reducing the need to engage in criminal activities to finance gambling participation or gambling debts. However, other factors may also be involved and this is a potentially interesting finding that warrants further investigation.

Consistent with the findings of research with other groups of problem gamblers, very high rates of substance use and misuse were evident. Immediately prior to imprisonment, the problem gamblers reported significantly higher levels of alcohol consumption, daily cigarette smoking and illicit drug use other than cannabis, than non-problem gamblers. They also had a higher rate of hazardous alcohol consumption, indicating that they were either experiencing alcohol-related problems or were at risk for the future development of such problems. The problem and non-problem women prisoners did not differ on any of these measures.

Like the problem gamblers in the women's prison study, male problem gamblers experienced significantly higher rates of conduct disorder during childhood than did
their non-problem gambler counterparts. In contrast to the women, the male problem gamblers also had significantly higher rates of antisocial personality disorder as adults. Again in contrast to the women, they were not more likely than the male non-problem gamblers to currently (while in prison) be experiencing non-psychotic mental disorder.

There was no difference between the problem and non-problem groups with respect to having received help for a mental health problem, either in the past or during their present imprisonment.

As in a number of previous studies, including the 1999 national survey, the problem gamblers reported starting gambling at a younger age and were significantly more likely to indicate that one or both of their parents had a gambling problem. For males, the association was stronger with their fathers’ problem gambling. For women prisoners, there was a stronger association with their mothers’ problem gambling. In the case of both male and female problem gamblers, other family members and people in their lives also appeared to have elevated rates of problem gambling. Further research is required to determine how these associations arise and examine the potential role of genetic, social learning and other factors in the development of gambling problems.

Relationships between Performance on the Problem Gambling Screens, other Clinical Measures, Age, and Age when First Started Offending

Relationships between performance on the problem gambling and other psychometric instruments were examined by correlation analysis. As mentioned earlier with respect to 'caseness' or categorical measures derived from the SOGS-R, a very strong association (positive correlation) was found between lifetime and 'current' scores. This suggests that there is a high degree of continuity of gambling problems over time in this population. High correlation was also found between performance on the Fisher DSM-IV Screen and the two SOGS-R scales. This finding suggests that they are essentially measuring the same thing and that, in this population at least, one scale could be substituted for the other.

Higher levels of problem gambling as measured by the SOGS-R scales had statistically significant but only weak to modestly strong correlation with both hazardous drinking and antisocial personality disorder. A statistically significant but weak association was also found between problem gambling severity and commencing offending at a younger age.

Higher scores on the personality disorder measure (PDQ-4+) also had significant associations, of moderate strength, with both hazardous alcohol consumption and commencing offending at a younger age. Additionally, younger prisoners were somewhat more likely to obtain higher personality disorder scores.

Multivariate Analyses of Predictors of Problem Gambling

From the foregoing summary, it is apparent that many factors have an association, of varying strength, with problem gambling. As noted in the previous section, a number of these variables are inter-related. Consequently, multivariate analyses were undertaken to partially account for these inter-relationships and identify a parsimonious set of predictors of problem gambling.
From multiple logistic regression analyses it was found that the factors associated with a very high likelihood of being a problem gambler included usually gambling for periods of time exceeding six hours and having lost large sums of money gambling in a single day. The only other gambling participation measure that emerged as a statistically significant, albeit much weaker, predictor of problem gambling was lifetime casino gaming machine participation. However, this does not mean that this form of gambling is more important in this respect than non-casino gaming machine participation, track betting and other forms reported earlier as having a particularly strong link with problem gambling. The effects of these more strongly linked forms of gambling are probably reflected in long typical gambling sessions and large gambling losses.

While long periods of participation in continuous forms of gambling and heavy losses are generally considered to be important in the development of problem gambling, they also characterise problem and pathological gambling per se. Having ever felt nervous about the amount of money gambled was a further factor identified as being an important predictor of problem gambling. This experience could also precede and/or follow the development of serious gambling problems.

A history of childhood conduct disorder was also associated with a high likelihood of being a problem gambler.

The only other factors to emerge were not having a secondary school qualification and reporting having a parent with a gambling problem.

When the effects of these and other variables were taken into account, there was no statistically significant difference between the prisons with respect to problem gambling prevalence.

The multivariate analyses did not examine interaction terms made up of two or more variables. Such analyses may identify more complex relationships between predictor variables and problem gambling.

Problem Gambling Subgroups

The relatively large number of problem gamblers included in this study made it possible to examine a number of problem gambling subgroups, including many that have not been considered previously. Although both lifetime and current problem gamblers were assessed, given the high degree of similarity in the findings, only those pertaining to lifetime problem gamblers are reported here. Each of the subgroups was compared using a large number of variables. With respect to the large majority of these variables, no statistically significant differences were evident between the groups that were compared.

Māori and non-Māori

Although more than half of the problem gamblers were Māori, as in the women's prison study, Māori were no more likely to be problem gamblers than non-Māori. This is because the percentage of Māori problem gamblers was similar to the
percentage of Māori in the prison samples. In the 1999 national general population survey, Māori had a significantly higher problem gambling prevalence rate than non-Māori.

Māori were significantly more likely than non-Māori problem gamblers to have played cards for money at some time in their lives and less likely to have bet on horse or dog races or purchased Lotto tickets during the six months prior to imprisonment.

Fifty percent of the Māori problem gamblers reported having a parent with a gambling problem relative to 30 percent of the non-Māori. They were also more likely to report past and current convictions for violent offending and were less likely to indicate that their most serious past or current convictions were for property offences. No other significant differences were found between Māori or non-Māori on the wide range of measures that were examined.

Hazardous Alcohol Consumption

Seventy-six percent of problem gamblers were hazardous drinkers compared to 61 percent of the non-problem gamblers. The problem gamblers with patterns of hazardous alcohol use, in addition to having higher levels and frequencies of alcohol consumption and indications of alcohol-related problems, reported that they more often smoked marijuana prior to entering prison than problem gamblers without patterns of hazardous alcohol use. Other than the problem gamblers who were also hazardous drinkers being more likely to live in a larger household prior to imprisonment, there was no sociodemographic difference between the two groups. With respect to gambling participation, the hazardous drinkers more often reported playing gaming machines, having shorter typical gambling sessions and having lost smaller sums of money gambling during a single day. Significantly more people in this group were serving current sentences for violent offences and none were serving sentences for fraud. They also reported that they were happier prior to imprisonment than problem gamblers who did not have co-morbid hazardous alcohol consumption.

Conduct Disorder

Ninety percent of the problem gamblers had a history of childhood conduct disorder compared to 65 percent of the non-problem gamblers.

Consistent with a pattern of disruptive and antisocial behaviour during childhood and early adolescence, problem gamblers in this group were much less likely to have a secondary school qualification than non-conduct disordered problem gamblers. The conduct and non-conduct disordered problem gamblers did not differ with respect to any of the other sociodemographic measures. Conduct disordered problem gamblers also reported first starting gambling, engaging in criminal activities and being convicted at a much younger age. They were much less likely to say that their early offending and first convictions were gambling-related. These findings suggest that, with the possible exception of a few individuals, problem gamblers with conduct disorder started offending before they developed gambling problems. Although their early offending was rarely gambling-related, the frequency of their subsequent gambling-related offending was similar to that of the other problem gamblers.

With respect to lifetime and six months prior to imprisonment gambling participation and preferences, the only difference between the two groups was that the conduct
disordered prisoners were much more likely to report playing card games for money prior to imprisonment.

The conduct disordered problem gamblers also reported higher lifetime conviction rates for violent offending and lower rates for drug-related offences. The finding of higher levels of violent offending was consistent with 32 percent of these men meeting the diagnostic criteria for antisocial personality disorder. They also reported higher levels of illicit drug use.

**Antisocial Personality Disorder**

As with conduct disorder, problem gamblers had a much higher prevalence of antisocial personality disorder than the non-problem gamblers. Twenty-nine percent of the problem gamblers had this disorder relative to only seven percent of the non-problem gamblers.

Because there is overlap between antisocial personality disorder and childhood conduct disorder, it was expected that there would be similarities between the problem gamblers with antisocial personality disorder and problem gamblers without antisocial personality disorder. However, a number of differences were found. In contrast to the conduct disordered group, the problem gamblers with antisocial personality disorder did not differ from the problem gamblers without this disorder with respect to school qualifications. While they also reported that they much more often played card games for money, in addition, they reported higher levels of participation in a variety of other forms of gambling, namely track betting, housie, TeleBingo, taking money bets with friends and workmates and purchasing other lotteries or raffles.

Unlike the conduct disordered problem gamblers, differences were not evident with respect to age of first offending, age of first conviction or their early offending and first conviction being gambling-related. Neither did they differ from problem gamblers without antisocial personality disorder in terms of their most serious lifetime conviction. It is likely that these differences failed to emerge because a large number of problem gamblers without adult antisocial personality disorder did have a conduct disorder during childhood. Although, by definition, all of the men with antisocial personality disorder had a prior history of conduct disorder, so too did many of the other problem gamblers.

Relative to problem gamblers without antisocial personality disorder, men with this disorder reported lower levels of happiness prior to imprisonment and higher rates of non-psychotic mental disorder at the time they were interviewed. They also had higher levels of tobacco use.

**Gambling-related Offending**

Approximately half of the six months prior to imprisonment 'current' problem gamblers indicated that they had committed a crime to get money to gamble or to pay gambling debts. Few non-problem gamblers reported offending of this type. The question used to define the 'offending' group for analysis purposes was "Have you ever been in trouble with the law because of gambling?"

The problem gamblers who reported that they had been in trouble with the law because of their gambling did not differ from other problem gamblers in terms of their
sociodemographic profile. With respect to gambling participation, the major
difference was that the former group much more often reported higher levels of
participation in betting on horse and dog races. They also reported lower levels of
involvement in Lotto and other lotteries and raffles. Their gambling sessions were
longer than those of other problem gamblers and they much more often indicated
that they had lost large sums of money on a single day. They also more often
reported gambling alone and that they had a parent with gambling problems.
However, they did not differ with respect to the age at which they first started
gambling or whether they ever felt nervous about gambling.

These two groups reported starting offending and first being convicted at similar
ages. They differed in that the group with gambling-related offences contained more
men who reported that their early offending and convictions were gambling-related.
Very large numbers in this group also indicated that they had engaged in a wide
range of gambling related criminal activities. While they did not differ from other
problem gamblers in terms of the percentage who reported that their most serious
offence ever convicted for involved violence, the ‘offending’ group significantly more
often reported that their most serious conviction was for a property offence. They
less often reported that it was drug-related. However, they did report much higher
levels of personal illicit drug use.

It is apparent that this group contains the large majority of problem gamblers whose
initial offending related to problem gambling. These men appear to continue to
commit gambling-related crimes. In addition, there is a larger group of men with a
prior history of non-gambling-related offending who have subsequently developed
gambling problems. Those with more severe gambling problems appear to constitute
another subgroup that is highly likely to engage in gambling-related offending. As
mentioned previously, this particular type of offending rarely involves violence.
Longitudinal studies are required to examine changing patterns of problem gambling
in relation to gambling-related offending. The present findings suggest that the
development of gambling problems among some men with a history of violent
offending may reorient their offending toward gambling-related property crime.

**Gambling in Prison**

Forty percent of the problem gamblers said that they gambled during their current
imprisonment compared to 18 percent of the non-problem gamblers. Half of the men
who reported gambling in prison were problem gamblers.

The only sociodemographic measure that differentiated problem gamblers who
reported gambling in prison from problem gamblers who did not was household
income. The former group indicated higher income levels.

With respect to gambling participation, problem gamblers who gambled in prison
reported significantly greater lifetime and/or six months prior to imprisonment
involvement with casino and non-casino gaming machines, betting on horse and dog
races, card games for money, housie and money bets with friends or workmates.
They also reported commencing gambling at a younger age and significantly more
said they had committed a crime to get money for gambling or gambling debts and
been in trouble with the law because of gambling. In addition, they reported higher
levels or alcohol consumption and more frequent illicit drug use prior to
imprisonment.
Self-recognition of Gambling Problems

Forty-five percent of the problem gamblers indicated that they considered that they had a gambling problem. Given that self-recognition is considered to be important in help-seeking and recovery from gambling problems, this subgroup of problem gamblers was compared with problem gamblers who did not indicate that they believed they had a problem.

These two groups differed significantly on some sociodemographic variables. Specifically, the self-recognition group contained more people who were in paid employment prior to imprisonment, and more who had no religion, or declined to give a religion. It contained less people who did not belong to major Christian denominations.

With respect to gambling participation, the self-recognition group more often reported having played casino gaming machines at some time and having played non-casino gaming machines during the six months prior to imprisonment. The group also contained more men who said that non-casino gaming machines were their most preferred form of gambling and less who said they most preferred Lotto or Instant Kiwi. This group also differed in that more reported large gambling losses in a single day, gambling alone and receiving their first conviction in relation to gambling. Men in this group also reported much higher rates of gambling-related criminal activities than those who did not recognise that they had a problem.

People in the self-recognition group appear to have more serious gambling problems, have committed more gambling-related offences and had more contact with the police, courts and prisons as a consequence of their gambling problems. Employment status and religious affiliation also may be important. Further research is required to clarify how these and other factors contribute to problem recognition, help seeking and recovery through self change, mutual help group participation or treatment.

Parental Gambling Problems

Forty-one percent of problem gamblers indicated that they believed one or both of their parents had had a gambling problem at some time. This subgroup of problem gamblers was compared with problem gamblers who did not report parental problem gambling to see what factors differentiated the two groups.

Apart from more often living with a partner/wife or living alone and less often living with other adults, there were no sociodemographic differences between these two groups. The group with parental gambling problems more often reported receiving their first conviction before the age of 11 years and less often reported doing so after the age of 20 years. They also reported higher rates of gambling-related criminal activities and contacts with the criminal justice system because of gambling-related offences. No other differences were identified between these groups.

The Development of Gambling Problems

Problem gamblers, especially those with more serious problems (probable pathological gamblers) were more likely than non-problem gamblers to report that people in their family of origin gambled a lot or a moderate amount. Prisoners who
did not gamble, who gambled infrequently or who gambled frequently on non-
continuous forms were somewhat more likely to report that people in their family of
origin did not gamble at all.

Probable pathological gamblers more often reported that their friends gambled a lot. Non-gamblers, infrequent gamblers and frequent non-continuous gamblers more
often mentioned that their friends did not gamble at all.

Problem gamblers much more often mentioned that the amount of money that they
gambled had at some time made them nervous. Of the gamblers who had had this
experience, 25 percent did so before the age of 16 years, 47 percent between the
ages of 16 to 20, 12 percent between the ages of 21 to 25 and 16 percent after the
age of 25.

Gambling activities most often reported in association with first becoming anxious
about the amount gambled included betting on horse or dog races, non-casino
gaming machines and playing card games for money.

Fifty-seven percent of the lifetime probable pathological gamblers and 20 percent of
the lifetime problem gamblers indicated that they considered that they had a
problem with their gambling. No non-problem gamblers reported that they
considered that they had a gambling problem. Fourteen percent of the prisoners who
considered that they had a problem said that they first noticed this before the age of
16 years, 36 percent between the ages of 16 to 20, 18 percent between the ages of
21 to 25 and 30 percent after the age of 25.

**Help-seeking and Self Recovery**

Of the 50 men who themselves considered that they had at some time had a problem
with gambling, 37 (74%) said they had at some time wanted help to stop gambling.
Eleven of these men said they had tried to get help of this type. Alcohol and drug
treatment centres were mentioned most often in this regard, followed by mutual help
groups (GA or GAMANON), family friends, mental health professionals and general
medical practitioners.

Twenty-nine (58%) of the 50 men who said they had had a gambling problem said
they had had one or more periods of six months or longer when they were free or
mostly free of gambling problems. Of those who reported problem cessation or a
substantial reduction in gambling problems, 59 percent said this had come about
mainly by their own efforts and 21 percent because they were in prison. Help from
family or friends was mentioned by a few men. One mentioned a mutual help group
and one an alcohol or drug treatment centre. None mentioned medical or mental
health professionals in this regard even though a small number had reported
consulting them for help with a gambling problem. Specialist gambling helpline or
counselling services were not mentioned.

Twelve men said they had sought help for a gambling problem while they were in
prison. Three said they had received the help that they sought and two indicated that
they considered that it had been of assistance.
Effects of Other People's Problem Gambling

Over half of the prisoners mentioned that at least one family member or other important person in their life had a gambling problem.

A variety of adverse impacts of other people's gambling on the prisoners' lives were mentioned. Most frequently mentioned impacts included:

- Loss of household or personal money
- Arguments, anger and violence
- Neglect of family or negative effect on their relationship
- Contributed to the development of their own gambling problems.

Having a spouse or partner with a gambling problem was most often reported as having adverse impacts, followed by their father, a friend or someone else in their life, mother, brother, sister and other relatives.

Participants' Comments about Gambling and Problem Gambling

At the end of the interview, participants were asked if there were any additional comments that they would like to make about gambling or problem gambling in their own lives, within New Zealand society or within prison. A third of the men gave some response.

Most frequently mentioned were that gambling can be addictive, that it is a "loser's game" or waste of money, that it breaks down families, creates problems for lower income groups and increases crime. A number of men, mainly problem gamblers, said that more help was needed for problem gamblers and some mentioned that more help of this type was required in prison. A small number, all problem gamblers, said that they would like to give up gambling. A few said there should be more education about gambling and gambling problems.

A moderate number of men said there was too much gambling in New Zealand or that it was too accessible and needed more controls over it. Others said they were opposed to gambling or that it should be stopped. A number were specifically opposed to casinos.

A moderate number also mentioned positive things about gambling. Some said they enjoyed it, that it was a personal choice or that gambling in moderation was acceptable.

While the focus of the interview on gambling problems may have influenced the content of the prisoners' comments, they appear to reflect the wide range of opinions about the topic of gambling and problem gambling within the wider community.
1. INTRODUCTION

This report outlines the findings of a study of sentenced male prisoners in four New Zealand prisons. All participants had been resident in prison for less than 12 months at the time of their interviews. The study results are discussed in relation to previous gambling research involving prisoners and gambling in relation to criminal offending. It is one of only a small number of previous studies of gambling and problem gambling in prison settings. It is unique in that it provides parallel information from four different prisons within the same jurisdiction and has a large sample.

Prisoners are not included in general population studies of gambling and problem gambling, yet prison populations studied to date typically have high rates of problem gambling (Abbott & McKenna, 2000). In the present instance, the high prevalence of problem gambling and relatively large combined sample from the four prisons facilitates examination of a variety of risk factors for problem gambling as well as other aspects of problem gambling. To obtain a sample of lifetime probable pathological gamblers from the general New Zealand population as large as that obtained in this study would require the assessment of approximately 7,500 people.

The general aim of this study is to assess the nature of gambling and problem gambling among recently incarcerated male prisoners. This includes an examination of their pre-incarceration gambling behaviour and histories and relationships between gambling and criminal offending.

The present study is part of the New Zealand Gaming Survey (NZGS), conducted by a research consortium directed by Professor Max Abbott and Dr Rachel Volberg. Other consortium partners include the National Research Bureau, Statistics New Zealand and Taylor, Baines and Associates.

The NZGS was commissioned by the Department of Internal Affairs (DIA). The Department administers New Zealand’s three pieces of gaming legislation and services the Lottery Grants Board, which distributes the profits of the Lotteries Commission to the community. Most of the funding for the research programme derives from the undistributed profits of the Lotteries Commission (applied to the project at the direction of the Minister of Internal Affairs). Some funding also comes from the Problem Gambling Committee (PGC), an organisation with representation from all major sectors of the gaming industry and problem gambling treatment providers. Notwithstanding the sources of funding, the director’s contract is with the Crown through the DIA, and no agency or organisation is empowered to control the research or to exercise editorial control over the publication of the research results.

Other components of the NZGS include:

- Literature review (Abbott & Volberg, 1999)
- Longitudinal Study (Abbott, Williams & Volberg, 1999)
- Female Prison Study (Abbott & McKenna, 2000)
- National Prevalence Survey: Phase Two
The terms of reference for this research programme were developed by the DIA in consultation with a wide variety of statutory, industry and national voluntary sector organisations. The intent of the research is to inform Government policy on gaming and responses to problem gambling and contribute to local and international scientific knowledge concerning aspects of gambling and problem gambling. It is also expected to provide information that has relevance to a variety of other stakeholder and end-user organisations with an interest in gambling and/or problem gambling. The Male and Female Prisons Studies (Abbott & McKenna, 2000) for example, are expected to be of particular interest to the Department of Corrections.

The next section of this report provides contextual information, including an overview of some major findings and issues from previous research that has relevance to the study. It is important to note that the present report is a companion volume to a report on women prisoners, entitled ‘Gambling and Problem Gambling among Recently Sentenced Women Prisoners in New Zealand’ (Abbott & McKenna, 2000). This latter report, among other things, provides a critical review of international literature on gambling and problem gambling in relation to criminal offending and among prisoners. This review is not repeated in the present report, although key issues and findings are briefly summarised. The interested reader is referred to the women's prison study for additional background information. More detailed information on gambling and problem gambling, including historical and cross-cultural matters, conceptual and measurement issues and findings from previous community and special populations surveys is outlined in the first volume in the NZGS series (Abbott & Volberg, 1999).

The contextual chapter is followed by a description of the methodology of the present study, the presentation of the findings and a discussion of the findings in relation to previous research, including the women's prison study (Abbott & McKenna, 2000).
2. BACKGROUND AND CONTEXT

2.1 Gambling

Gambling and gaming (these terms are used interchangeably in this and other NZGS reports) refer to a variety of activities that have in common the placing at risk of something of value in exchange for something of greater value (Thompson, 1997). In addition, gambling activities are typically presented and/or perceived as entertainment or recreation and are widely regarded as forms of gambling within general society. In these ways, gambling and gaming differ from other high risk activities such as starting a new business venture. As mentioned in the preceding section, detailed consideration of definitional issues is provided in Abbott and Volberg (1999).

Although gambling activities have a long history and wide distribution across societies and cultures, some tribal societies including pre-European contact Māori and some other Polynesian societies did not apparently engage in gambling as it is defined above (Abbott & Volberg, 1999; North Health, 1996).

While typically grouped together by researchers, legislators, and members of the wider community, there are many different types of gambling that are undertaken in a variety of settings. Failure to recognise this diversity can be expected to inhibit scientific understanding of gambling and problem gambling. A number of frameworks have been developed to classify different gambling forms. The skill-luck differentiation is one such framework or conceptual model that has particular relevance to problem gambling. Activities can be located along a continuum according to the degree of skill and luck involved in the determination of outcomes (Abbott & Volberg, 1999; Walker, 1992). However, this matter is complicated in that in addition to the actual degree of skill and luck involved in a particular form of gambling, people vary in the extent to which they attribute these characteristics to their own gambling. Gaming machine outcomes, for example, are generally governed by chance alone. Despite this fact, many players believe that they can influence the machine outcomes and this illusion is often fostered by the design of machines (Volberg & Banks, 1994).

There is empirical corroboration for the hypothesis that regular participation in forms of gambling that involve an intermediate mix of skill and luck are more likely to lead to problem gambling than forms that are closer to the luck end of the skill-luck continuum (Walker, 1992; Abbott & Volberg, 1991; 1992; 1996; 2000). For example, in the 1999 New Zealand National Prevalence Survey (Abbott & Volberg, 2000), track betting and casino table games had a strong association with problem gambling. Most of these types of gambling involve an element of skill. Lotteries and related forms of gambling, on the other hand, generally failed to display any association with problem gambling. These types of gambling are located at the luck end of the continuum.

Gambling activities are also often differentiated in terms of event frequency (Abbott & Volberg, 1999). This refers to the number of opportunities to gamble in a specified time period. Some forms, such as gaming machines, involve rapid cycles of stake, play and determination of outcome. Others are much slower. While regarded as a continuum, researchers typically classify gambling activities as being either continuous or non-continuous. Continuous activities, in addition to gaming machines, include most casino games, cards and betting on the outcomes of events that allow
frequent 're-investment' of winnings. Lotteries and raffles, that are drawn relatively infrequently, are the most widely available varieties of non-continuous gambling. Instant or scratch lotteries, however, are classified as continuous forms. In the 1991 and 1999 New Zealand national surveys, and in similar surveys conducted in other countries (Abbott & Volberg, 1999), gaming machine participation was found to be very strongly linked to problem gambling. As mentioned above, so too were betting on horse and dog races and casino table games, forms that are both continuous in nature and involve varying degrees of actual and perceived skill.

### 2.2 Problem Gambling

It has long been recognised that gambling participation can result in a diversity of personal and social problems, including criminal offending (Abbott & McKenna, 2000; Abbott & Volberg, 1999; Wildman, 1998). In more recent years, severe forms of problem gambling have been defined as a distinct psychiatric disorder, referred to as pathological gambling (Abbott & Volberg, 1999; 2000; American Psychiatric Association, 1980; 1987; 1994). Currently, pathological gambling is defined as a continuous or periodic loss of control over gambling; a progression, in gambling frequency and amounts wagered, in the preoccupation with gambling and in obtaining monies with which to gamble; and a continuation of gambling involvement despite adverse consequences (American Psychiatric Association, 1994).

A diagnosis of pathological gambling is determined by a mental health professional on the basis of a clinical interview. Interview information may be augmented by additional information from files and/or from family members and associates of the person being assessed. To make a diagnosis, any five of ten clinical criteria must be met and the clinician is required to rule out the possibility that the signs and symptoms under consideration are not better accounted for by a manic episode. One of the ten criteria refers to criminal activities, namely "has committed illegal acts such as forgery, fraud, theft or embezzlement in order to finance gambling" (American Psychiatric Association, 1994).

In contrast to alcohol dependence and most other mental disorders, in making a diagnosis of pathological gambling there is no requirement that the diagnostic criteria have been met within a specified time period, e.g. during the preceding 12 months. Rather, the diagnosis is made on the basis of the individual's cumulative lifetime experience of gambling-related problems. This reflects an underlying assumption that pathological gambling is a chronic or chronically relapsing disorder.

'Problem gambling' is a broader, less precisely defined term than pathological gambling (Abbott & Volberg, 1999). In this report it refers to all patterns of gambling behaviour that have an adverse effect on one or more of health, personal, family, vocational or wider social activities. Such problems vary in severity and duration and can be regarded as lying on a continuum from minor and transient to serious and of long duration. Pathological gambling, in this context, can be regarded as a sub-category of problem gambling. Problem gambling will also be used in this report to refer to problems that fail to reach DSM diagnostic criteria for pathological gambling, yet which have an adverse impact on one or more spheres of life.
2.3 The Measurement of Gambling Problems

Problem gambling has been measured in a variety of ways for research and clinical purposes (refer to Abbott and Volberg, 1999 and Rönnberg, Volberg and Abbott et al, 1998 for an overview and critique). The South Oaks Gambling Screen (SOGS) (Lesieur & Blume, 1987) and subsequent modifications to it, particularly the SOGS-R (Abbott & Volberg, 1991; 1992; 1996) is the most adequately validated and widely used measure of problem gambling. The SOGS has high internal consistency and test-retest reliability. SOGS assessments have been shown to have a high level of agreement with independently determined psychiatric diagnoses using American Psychiatric Association criteria (Abbott & Volberg, 1999).

Although the SOGS was developed as a screening instrument in clinical settings, shortly after its development it was adapted for use in community surveys. The SOGS-R (Abbott & Volberg, 1991; 1996) was developed for the 1991 New Zealand National Survey of Problem and Probable Pathological Gambling. The main change was the addition of a current (past 6 months) scale to complement the original lifetime measure. This modification was made to bring the assessment of problem gambling into line with the measurement of other mental disorders and enable prevalence for both lifetime and current problem gambling to be derived from epidemiological surveys that use the new measure. Comparison of the lifetime and current prevalence estimates was regarded as providing an indication of recovery from problems over time (Abbott & Volberg, 1991; 1996; 1999).

The SOGS and SOGS-R both involve 20 scored items. The SOGS-R, however, repeats the lifetime items in a past six month’s format. In recent years, the SOGS-R current scale has usually been presented in a past 12 months rather than past six months format. Typically, in general population surveys, both the six and 12 month SOGS-R scales produce prevalence estimates that are approximately a third to a half their lifetime estimates (Abbott & Volberg, 1999; 2000).

People who score five or more on the SOGS or SOGS-R are usually referred to as probable pathological gamblers. The reference to probable pathological gambler distinguishes them from pathological gamblers who are diagnosed on the basis of a clinical interview and related assessment. People who score three or four on the SOGS or SOGS-R are usually referred to as problem gamblers and people who score less than three are referred to as non-problem gamblers (Abbott & Volberg, 1999).

The SOGS and SOGS-R remain the most widely used psychometric measures of problem gambling in clinical and research settings including community and special populations surveys (Abbott & Volberg, 1999; Shaffer, Hall & Vander Bilt, 1997). However, since the advent of the most recent version of the American Psychiatric Association's diagnostic classification framework (American Psychiatric Association, 1994) some new measures have been developed that are based on the revised criteria. It is possible that these or related measures may, in time, replace the SOGS-R. Be this as it may, to date none of these measures has been fully developed as a psychometric instrument and validated in appropriate settings (Abbott & Volberg, 1999). The few studies that have included both the SOGS-R and one of
these new measures have generally obtained high correspondence between performance on them and the SOGS-R (Abbott & Volberg, 1999).

## 2.4 Gambling and Criminal Behaviour

### Introduction

The involvement of problem gamblers in criminal activities is the primary focus of the present study. However, it should be noted that this is but one of many relationships between crime, gambling and problem gambling. Participation in some forms of gambling is, by definition, illegal. Criminals who are not problem gamblers engage in legal and illegal gambling to make money and to launder money obtained from other sources (Abbott & Volberg, 1999; Productivity Commission, 1999; Wildman, 1998).

It was mentioned in the previous section that involvement in illegal activities to finance gambling or gambling debts is one of the diagnostic criteria for pathological gambling. The inclusion of this criterion results from the frequent finding from studies of problem gamblers in self-help groups such as Gamblers Anonymous (GA) and treatment settings, that large numbers report having offended to finance their gambling. Lesieur (1984) maintains that criminal activities typically occur relatively late in the development of pathological gambling as other sources of money become depleted and gambling behaviour and debts escalate.

There is evidence from various sources that problem gamblers have high rates of criminal offending, especially in relation to their gambling problems (Abbott & McKenna, 2000; Abbott & Volberg, 1999; Productivity Commission, 1999). Abbott and McKenna (2000) (p.20) note:

> This aspect of problem gambling is one of the more important in terms of wider social costs and impacts. In addition to the financial cost and various adverse effects on immediate victims of crime and people close to them, there are additional costs to offenders and their families as well as to the state and taxpayer generated by the involvement of the police, courts, corrections and social welfare institutions. A further cost results from higher insurance premiums to cover theft, burglary and insurance fraud and higher prices for retail goods to take account of employee and ‘customer’ theft.

### Problem Gambling Surveys

General population surveys of problem gamblers typically obtain low rates of self-reported gambling-related offending or convictions (Abbott & McKenna, 2000; Abbott & Volberg, 1999). For example, none of the interviewer-determined pathological gamblers interviewed in depth during phase two of the 1991 New Zealand National Survey of Problem and Probable Pathological Gamblers reported that they had appeared in court or been to prison because of crimes related to their gambling (Abbott & Volberg, 1992). However, ten percent said their gambling had led to problems with the police. A similar percentage (11%) of probable pathological gamblers in a recent Australian national survey reported that they had at some time engaged in gambling-related illegal activity. However, only four percent said they had been in trouble with the police because of their gambling and slightly less (3%)
said they had appeared in court on gambling-related charges (Productivity Commission, 1999).

Much higher levels of offending are reported in surveys of GA members and in surveys of problem gamblers in treatment settings. Studies of this type obtain self-reported gambling-related offending rates that range between a third to two-thirds. Rates are higher for problem gamblers with more severe problems (Abbott & McKenna, 2000). The reasons for the large discrepancy between rates obtained for problem gamblers in community surveys and treatment and mutual help groups are not known. However, it is likely that the difference is at least in part a consequence of people in the latter settings having more serious gambling problems. It is also likely that general population survey respondents are more reluctant to fully report criminal activities to interviewers than are people who have disclosed their gambling problems to others and are seeking help to overcome them.

Surveys indicate that the great majority of crimes committed to finance gambling and gambling debts are in the non-violent property category, especially insurance fraud, workplace theft, shoplifting, embezzlement and the misappropriation of money, and the distribution and sale of illicit drugs. Burglary, armed robbery or other violent crimes are rarely reported (Abbott & McKenna, 2000; Abbott & Volberg, 1999). In addition to these offences, taking housekeeping money, forging spouses’ signatures on cheques and selling or pawning personal or household items belonging to other family members are also frequently reported (Productivity Commission, 1999).

The findings of surveys of problem gamblers are generally consistent with the view that most offending outside the problem gambler’s own household occurs relatively late in the development of gambling problems and is a response to a need to maintain habitual gambling patterns or pay mounting debts (Abbott & McKenna, 2000). However, research on this topic has all been cross sectional and based on retrospective accounts of past behaviour. Prospective studies with repeat assessments over time have yet to be conducted.

**Prison and Offender Studies**

A small number of studies have investigated problem gambling in prison and other criminal justice populations. It is important to note that the majority of gambling-related offending goes unreported and that most that is reported probably does not result in a conviction (Abbott & McKenna, 2000). Even less leads to a custodial sentence, although this varies considerably depending on the type of offence (Productivity Commission, 1999). For these, as well as other reasons, problem gamblers in prisons and other corrections settings can be expected to be atypical of problem gamblers in the general population and their gambling-related and other forms of offending are likely to differ appreciably as well (Abbott & McKenna, 2000).

Abbott and McKenna (2000) critically review previous prevalence surveys of prisons and people that have received non-custodial sentences. With the exception of one survey of a male medium security prison in the United States that had a probable pathological gambling prevalence rate of five percent, between a quarter to a third of inmates in the other prisons studied were lifetime probable pathological gamblers. These prevalence rates are very high relative to rates of one to three percent found in post 1995 general population surveys conducted in New Zealand, North America

Some of the studies included in Abbott & McKenna’s (2000) review examined the types of offending undertaken by problem gamblers. As with the community surveys, problem gamblers typically committed non-violent property crimes. While most problem gamblers in criminal justice settings engage in this type of criminal activity to finance their gambling and gambling debts, a significant minority do not report gambling-related offending and are in prison for other types of offence. A further substantial minority of problem gamblers who reported gambling-related offending also committed non-gambling related crimes.

From the foregoing, problem gamblers who have no, or minimal, offending history prior to the development of their gambling problems, and who subsequently offend predominantly or exclusively to finance escalating gambling problems, may be regarded as people who are problem gamblers first and criminals second. Those who offend prior to developing gambling problems may be regarded as criminals first and problem gamblers second. However, problem gamblers in this second category may, following the development of gambling problems, add gambling-related offending to their previous offending pattern or substitute it, in full or part, for their previous pattern.

Little, to date, is known about the developmental history of different types of offending in relation to problem gambling and how both change over time. Similarly, relatively little is known about the factors that differentiate between problem gamblers who do and do not commit gambling-related crimes in response to increasing gambling problems, or that differentiate between those whose offending relates to their gambling and those whose offending is largely independent of their gambling problems.

Antisocial personality disorder is one factor that has received some attention in relation to problem gambling and gambling-related offending. This disorder has a high prevalence in prison populations relative to that of the general adult population. A few studies have found that a minority of problem gamblers meets the diagnostic criteria for this disorder and that, for this group, their offending and problem gambling may both be regarded as expressions of antisocial personality disorder (Abbott & McKenna, 2000; Blaszczynski & McConaghy, 1994).

In addition to having high rates of antisocial personality disorder, prison and other criminal justice populations differ appreciably in other ways from members of the general community. Many of the common attributes of prisoners are independently associated with both problem gambling and criminal offending. Abbott and McKenna (2000, p.25) comment:

Prisons include disproportionate numbers of persons who are known or suspected to be at particularly high risk for problem gambling, for example, young adults, unemployed people, people of low socioeconomic status and people who come from marginalised groups within society. In New Zealand, Māori are over-represented in all of these categories and have high rates of both problem gambling (Abbott & Volberg, 1991; 1996; 2000; Volberg & Abbott, 1994) and incarceration. Prison populations also include significant numbers of people with personality disorders, substance misuse and
dependence disorders, and a variety of other forms of mental disorder that display moderate to high levels of co-morbidity with pathological gambling (Department of Corrections, 1999). While prison studies provide an opportunity to examine relationships between these various risk factors and problem gambling, these factors confound comparisons between prison samples and samples from the general population or other settings (Abbott & Volberg, 1999).

There is very little research on the provision of treatment for problem gamblers in criminal justice populations. The few studies that make reference to this topic indicate that pathological gamblers in these settings infrequently have access to specialised treatment or GA programmes. However, many prisoners with gambling problems apparently express a willingness to seek treatment if services are provided (Abbott & McKenna, 2000; Brown, 1998; Jones, 1990; Walters, 1997).

**Gambling in Prison**

As mentioned in Abbott and McKenna (2000), in addition to providing an opportunity to examine relationships between problem gambling and offending, prison studies are of interest for other reasons. For example, prisons have the potential to contribute to recovery from problem gambling as well as to play a role in the development of problem gambling. However, little is known about gambling in prison or other aspects of imprisonment that may influence gambling problems, either during periods of imprisonment or following release from prison.

Two very small-scale studies of problem gamblers in prison found that gambling is commonplace and that most or all problem gamblers gambled while they were in prison, despite gambling being officially prohibited (Bellringer, 1986; Jones, 1990). Apart from money, tobacco, sweets and cannabis were used as gambling currency.

Abbott and Volberg (1999) and the Australian Productivity Commission (1999) consider functions served by gambling that may be beneficial to participants. Possible benefits include taking thoughts away from problems, relaxation, providing an interesting hobby and socialising. Abbott and McKenna (2000) suggest that these and other possible positive effects of gambling may be particularly important in prison settings.

**2.5 Male Prisoners in New Zealand**

A national census of New Zealand prisons was conducted in November 1997 (Lash, 1998). At that time there were 4,728 sentenced male inmates and 207 sentenced female inmates. The age structure was similar for males and females and, relative to the general population, contained a disproportionate number of young adults. Specifically, in 1997, 33 percent of sentenced males were aged 24 years or younger, 47 percent aged 25 to 39 and 20 percent aged 40 or older. Approximately half (51%) were Māori (the indigenous Polynesian people of New Zealand), over a third (38%) Pakeha (predominantly New Zealanders of mainly European ancestry), ten percent people of Pacific Island cultures and two percent of other ethnicities. Relative to the general population, Māori were greatly over-represented and Pacific Islanders somewhat over-represented.
In 1997, the most serious current conviction for 59 percent of the sentenced men was for a violent offence. For 20 percent, their most serious current conviction was for a property offence. Smaller numbers had traffic convictions (10%), drug offences (7%) and offences against good order or justice (3%) as their most serious current conviction. Sixty percent were classified as minimum security prisoners, 37 percent as medium security and one percent as maximum security. Two percent were not classified.

The Department of Corrections (1999) recently commissioned a national survey of psychiatric disorders in prisons. This study included a sample of 660 sentenced men and 452 men on remand in prison. Somewhat smaller numbers, 592 and 405 respectively, completed all major components of the survey interview, yielding response rates of 72 percent and 75 percent. Prisoner interviews were conducted during 1998, using diagnostic measures for mental disorders and personality disorders. Interviewed male prisoners were similar to the 1997 prison census population with respect to age but differed with respect to their offending profile. The sentenced men in the 1999 study included disproportionately more men who had been convicted for violent offences and fewer with property offences. The interviewed men were also more likely to have medium or maximum security status than the prison census population.

Eighty-nine percent of both women prisoners and sentenced male prisoners were found to have experienced one or more forms of mental disorder at some time in their lives. For men, this reduced to 47 percent when consideration was confined to non-substance use disorders. In the case of women prisoners, 69 percent experienced a mental disorder when substance use disorders were omitted. Fifty-eight percent of the sentenced males and 53 percent of the female prisoners had at least one personality disorder.

Lifetime and past month point prevalence estimates for mental disorders are outlined in Table 1.

Table 1: Lifetime and Past Month Mental Disorder Prevalence Estimates for Sentenced Male Prisoners in the 1999 National Study of Psychiatric Morbidity in Prisons

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Lifetime Percentage</th>
<th>Past Month Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenia and related disorders</td>
<td>6.0</td>
<td>1.9</td>
</tr>
<tr>
<td>Bipolar Affective Disorder</td>
<td>2.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Major Depression</td>
<td>20.6</td>
<td>5.9</td>
</tr>
<tr>
<td>Dysthymic Disorder</td>
<td>3.1</td>
<td>-</td>
</tr>
<tr>
<td>Eating Disorders</td>
<td>0.8</td>
<td>-</td>
</tr>
<tr>
<td>Obsessive Compulsive Disorder</td>
<td>5.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Panic Disorder</td>
<td>1.1</td>
<td>0.6</td>
</tr>
<tr>
<td>Generalised Anxiety Disorder</td>
<td>1.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>0.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Phobic Disorder</td>
<td>13.3</td>
<td>-</td>
</tr>
<tr>
<td>Post Traumatic Stress Disorder</td>
<td>19.2</td>
<td>8.5</td>
</tr>
<tr>
<td>Alcohol Dependence</td>
<td>35.3</td>
<td>0.5</td>
</tr>
<tr>
<td>Alcohol Abuse</td>
<td>40.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Cannabis Dependence</td>
<td>22.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Cannabis Abuse</td>
<td>33.2</td>
<td>4.2</td>
</tr>
<tr>
<td>Other Drug Dependence or Abuse</td>
<td>36.9</td>
<td>1.9</td>
</tr>
</tbody>
</table>

1. Department of Corrections (1999)  
2. Past month rates were not provided for some disorders
Very little research has been conducted to establish the prevalence of mental disorders in the general population of New Zealand (Abbott, 1994). The only relevant community psychiatric epidemiological study findings with which the prison prevalence estimates can be compared was undertaken in Christchurch during the mid-1980s (Wells et al, 1989). Relative to the Christchurch findings, the sentenced male prisoner lifetime rates appear to be very high for alcohol dependence and abuse, cannabis dependence and abuse and other drug dependence or abuse. Other disorders with markedly elevated rates relative to those found in Christchurch during the mid-1980s include schizophrenia, bipolar affective disorder and major depression. Agoraphobia and generalised anxiety had lower prevalence among the sentenced male prisoners than in the Christchurch general adult population.

Post traumatic stress disorder was not assessed in the Christchurch study. However, the rate of this disorder among the sentenced male prisoners was exceedingly high relative to rates found in community surveys in other countries and comparable to prevalence estimates obtained from studies of combat veterans and victims of serious physical and/or mental abuse.

Differences between lifetime and current prevalence estimates are often regarded as providing an index of the degree of recovery over time for particular disorders (Abbott, Williams & Volberg, 1999). Thus, from Table 1, it would appear that obsessive compulsive disorder and, to a somewhat lesser extent most of the other anxiety-related disorders, have relatively high chronicity in this population. In other words, there was little difference between the lifetime and past month rates for these disorders. The drug-related dependencies and problems, on the other hand, appear to display very high rates of remission. However, the authors of the 1999 survey caution that the current (past month) substance dependence and abuse rates are likely to be unreliable and greatly under-estimate the actual current rates and that the lifetime rates probably provide a better indicator of the extent of these problems among the male prisoners.

Very high rates of co-morbidity were found for the major diagnostic categories and substance dependence/misuse. For example, over 90 percent of prisoners who had at some time had an obsessive compulsive disorder, bipolar disorder or post traumatic stress disorder had also experienced one or more forms of alcohol or other substance misuse disorder.

The 1999 prison survey did not include the assessment of pathological gambling, despite indications from studies in other countries that rates could be expected to be high and that pathological gambling compromises other aspects of physical and mental health and contributes to offending in a variety of ways. This omission is unfortunate given the high quality of the study and the opportunity that it presented to examine relationships between pathological gambling and a wide variety of other mental disorders.

Although they experienced very high rates of mental disorder, prior to entering prison less than a third of sentenced male prisoners reported having ever received treatment for a mental health problem. Ten percent had received inpatient treatment for a mental disorder and six percent had obtained assistance from a community mental health centre or out-patient treatment. The remainder had obtained professional help from a general medical practitioner or other health professional working in a primary health care setting.
The 1997 prison census (Lash, 1998) found that 13.5 percent of sentenced men had seen a psychologist or psychiatrist during their time in prison. Somewhat more (21%) of the 1999 survey respondents reported having seen either of these categories of mental health professional. A much larger number of sentenced male prisoners (43%) indicated that they had received treatment in prison at some time for an alcohol or other drug problem. Eight percent reported that they were currently taking prescribed psychiatric medication.

The majority of sentenced male prisoners (58%) in the 1999 prison survey were assessed as having one or more verified personality disorders according to PDQ-4+ criteria (Hyler et al, 1989). Antisocial personality disorder was the most common diagnosis (41%) followed, in descending rank order, by paranoid personality disorder (40%), borderline personality disorder (18%), narcissistic personality disorder (17%) and histrionic personality disorder (8%). These rates are all very high relative to their prevalence in the general male population. The report authors noted that the prevalence of antisocial personality disorder was ten times the rate obtained in the Christchurch psychiatric epidemiology study. They also indicated that it was higher than they had anticipated.