

Summary Report



Adolescent Gambling and Problem Gambling in Alberta

prepared for

Alberta Alcohol and
Drug Abuse Commission

prepared by

Wynne Resources Ltd.
Edmonton, Alberta

MAY, 1996

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**ADOLESCENT GAMBLING
AND PROBLEM GAMBLING
IN ALBERTA**

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Alberta Alcohol and Drug Abuse Commission by
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TABLE OF CONTENTS

I.	INTRODUCTION	6
II.	RESEARCH DESIGN	7
III.	RESULTS AND CONCLUSIONS	8
A.	Comparison of Prevalence Rates	8
B.	Characteristics of Adolescent Gamblers	9
1.	Demographic Characteristics	9
2.	Housing and Co-Habitation	10
3.	Religious Preference	10
4.	Employment	11
5.	Recreational Activities of Adolescent Gamblers	11
6.	Gaming Activities of Adolescent Gamblers	12
7.	Frequency and Duration of Play	14
8.	Activities with Friends and Problems with the Police	14
9.	Confiding in Friends	15
10.	School Experiences and Future Career Plans	15
11.	Family Life	16
C.	The Behaviour of Adolescent Gamblers	17
1.	Factors That May Influence Adolescent Gambling Behaviour	17
1.1	Age of First Gambling Experience	17
1.2	Parental Gambling Behaviour	18
1.3	Legal Concerns and Underage Gambling	18
2.	Motivating Reasons for Gambling	19
3.	Gambling Co-Participants	19
4.	Personal Effects of Gambling Behaviour	20
5.	Financial Impacts of Gambling	21
D.	Adolescent Gamblers' General Health and Substance Use	22
1.	General Health	22
1.1	Physical Health	22
1.2	Mental Health	22
2.	Tobacco, Alcohol, and Drug Use	23
2.1	Combining Substance Use with Gambling	25
2.2	Negative Consequences of Substance Use	26
2.3	Seeking Help	26
2.4	Future Substance Use and Gambling Plans	27

E.	A Summary of Factors That Differentiate Adolescent Problem and Non-Problem Gamblers	28
1.	Demographic Characteristics	28
2.	Gambling Activities and Frequency of Play	28
3.	Deviant Behaviour, Interpersonal Relationships, Family Life, and School/Career	29
4.	Age of First Gambling Experience and Parental Gambling Behaviour	29
5.	Personal Effects of Gambling	29
6.	Financial Impacts of Gambling	30
7.	Mental Health	30
8.	Tobacco, Alcohol, and Drug Use	30
IV.	CURRENT INITIATIVES AND RECOMMENDATIONS	31
A.	Current Initiatives	31
B.	Recommendations	32

TABLES

TABLE 1 -	Comparison of Adolescent Gambling Prevalence Rates in Canada (Those Who Have Gambled in the Past 12 Months)	8
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The *Adolescent Gambling and Problem Gambling in Alberta* study was conducted for the Alberta Alcohol and Drug Abuse Commission by the Edmonton-based research firm of Wynne Resources Ltd. The research team included Dr. Harold Wynne, Edmonton; Dr. Garry Smith, University of Alberta, Edmonton; and Dr. Durand Jacobs, Diplomate in Clinical Psychology, Redlands, California. Dr. Phil Kreisel of Edmonton-based Matrix Research Inc. conducted the telephone survey. Research assistants Monica Bokenfohr and Michael Ahearne conducted many of the field interviews with adolescents throughout the province.

The research team had the benefit of advice from an interdepartmental steering committee comprised of representatives from the Alberta Alcohol and Drug Abuse Commission (AADAC) and the Alberta Gaming and Liquor Commission (AGLC). Steering committee members included the following people:

Coordinator: Terry Lind, Research Officer, Policy and Service Monitoring, AADAC
Members: Edward Sawka, Manager, Policy and Service Monitoring, AADAC
Tom Wispinski, Manager, Program Consultation and Library Services, AADAC
Marcy Dibbs, Program Consultant, Problem Gambling, AADAC
Larry Austman, Director, Planning and Development, AGLC
Jody Korchinski, Communications Coordinator, AGLC

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Introductory remarks and the interpretation of study data, in particular the final report sections dealing with implications and recommendations, are the opinions of the researchers and, as such, these comments do not necessarily represent the views of steering committee members or their respective departments.

Wynne Resources Research Team:

Harold J. Wynne, PhD
Garry J. Smith, PhD
Durand F. Jacobs, PhD

I. INTRODUCTION

Licensed gambling is a very popular pastime in Alberta. In a study of the adult population in 1994, Wynne, Smith, and Volberg determined that 93% of adults have engaged in some form of gambling over their lifetime.

Most adult Albertans who gamble do so for recreation and entertainment while experiencing little or no adverse effects from this pastime. The 1994 Alberta study found that 93% of adult Albertans have gambled in their lifetime and, of all adults who gamble, 94% do so in a controlled manner without suffering any **harmful** consequences to themselves, their families, friends, or co-workers. However in contrast, the researchers also estimated that 1.4% of all adult Albertans have experienced severe problems associated with their gambling in the previous 12 months. In response to this research, the Government of Alberta provided a mandate and funding to the Alberta Alcohol and Drug Abuse **Commission** (AADAC) to establish prevention, education, treatment, and research programs to ameliorate problem gambling.

While the 1994 Alberta study ascertained the prevalence of gambling and problem gambling in the adult population, no similar baseline data existed for the provincial adolescent population. To remedy this paucity of data and to assist in the development of responsive programs, AADAC commissioned Wynne Resources Ltd. to conduct research to determine the prevalence of gambling and problem gambling in the adolescent population in Alberta.

Summary report. The research team of Dr. Harold Wynne, Dr. Garry Smith, and Dr. Durand Jacobs conducted the *Adolescent Gambling and Problem Gambling in Alberta* study in 1995 and this report constitutes a summary of their findings and observations. For a more detailed account of this research, readers are referred to the comprehensive final report which is a separate companion document to this summary report.

II. RESEARCH DESIGN

The purpose of this study is to **identify** and analyse types and extent of gambling and problem gambling prevalence and behaviour within the adolescent population in Alberta, with a view to providing **useful** information that will assist AADAC in designing prevention, education, and treatment programs for this special population. To guide the study, seven major and nine supplemental research questions are posed and data needed to address these were collected in two phases. In phase one, a telephone survey was conducted with a sample of 972 adolescent Albertans between the ages of 12 and 17 years. The sample is stratified along geographic lines to ensure representation from Edmonton, Calgary, Northern Alberta, and Southern Alberta proportionate to the population in these regions. The margin of error for the sample is $\pm 1.6\%$ at a 95% confidence level. The survey questionnaire includes 21 items **from** the South Oaks Gambling Screen (SOGS) and the scoring of these items is used to categorize adolescent gamblers as follows:

Adolescent non-problem gambler	(SOGS=0,1, or 2)
Adolescent at-risk gambler	(SOGS=3, 4)
Adolescent problem gambler	(SOGS \geq 5)

The survey questionnaire includes other items as well, notably questions designed to probe for alcohol, drug, and tobacco use amongst adolescents.

In phase two of the study, in-depth field interviews were conducted with 56 adolescents selected from the 972 respondents surveyed by telephone. In an effort to compare the most divergent gambler groups, 29 non-problem adolescent gamblers (**i.e.** those who gambled and scored 0 on SOGS) and 27 adolescent problem gamblers (**i.e.** those who gambled and scored ≥ 5 on SOGS) were interviewed. A separate set of open-ended questions were utilized to guide these **semi-**structured interviews.

Throughout the report, most comparisons drawn are those that have been found between the two most divergent cohorts of adolescents who gambled, namely, the non-problem gamblers and the problem gamblers. Unless otherwise noted, the “**at-risk**” gambler cohort can be assumed to occupy an intermediate position between these two divergent groups of adolescent gamblers.

III. RESULTS AND CONCLUSIONS

A. Comparison of Prevalence Rates

A major objective of this study is to identify the prevalence of gambling and problem gambling within the 12 to 17-year-old population in Alberta. Table 1 compares the Alberta adolescent prevalence rate with those from other Canadian jurisdictions, specifically Ontario, Nova Scotia, and the recently completed study of gambling within the Alberta Aboriginal adolescent population.

TABLE 1
Comparison of Adolescent Gambling Prevalence Rates in Canada
(Those Who Have Gambled in the Past 12 Months)

Jurisdiction (n)	Adolescent Non-Gamblers	Adolescent Gamblers	Adolescent Non-Problem Gamblers (SOGS=0,1,2)	Adolescent At-Risk Gamblers (SOGS=3,4)	Adolescent Problem Gamblers (SOGS=5+)
1995 Alberta (n=972)	33%	67%	44%	15%	8%
1995 Alberta Aboriginal- Nechi (n=961) ¹	11%	89%	61%	15%	13%
1994 Ontario (n=400) ²	35%	65%	51%	10%	4%
1993 Nova Scotia ³ (n=300)	40%	60%	48%	9%	3%

¹ The Nechi Institute (1995) study of Alberta Aboriginal adolescents (10- to 19-year-olds in Grades 5-12) uses the SOGS-RA instrument (12 items) and additional criteria suggested by Winters, Stinchfield, and Fulkerson (1993b, 1993c) to categorize non-problem, at-risk, and problem gamblers, whereas, the present study uses the SOGS-R (20 items) and no additional criteria to do so. Consequently, the present study gambling prevalence percentages and those from the Nechi study are not statistically comparable and *any comparisons should be interpreted with caution*, as the researchers note earlier in the discussion of SOGS limitations.

² In the Ontario adolescent gambling study of 12- to 19-year-olds, the SOGS-R (20 item) instrument is used, but gambler classifications based on scores are different from the present study (i.e. SOGS 0=no problem; SOGS 1-4=some gambling problem; SOGS ≥5=probable pathological). To render them more directly comparable with the present study percentages, the above Ontario percentages have been recalculated from raw study data provided to Dr. Jacobs. Furthermore, as the Ontario study included 18- and 19-year-olds, these percentages may be exaggerated estimates of adolescent problem gambling when compared with the Alberta adolescent cohort, which included only 12- to 17-year-olds.

- ³ The Nova Scotia study examined sub-samples of adults (n=810) and adolescents (n=300), with the adolescent group including young people from 13 to 17 years of age. The researchers used the original SOGS, scoring all twenty items to classify gamblers as "no-problem" (0-2), "possible problem" (3-4), and "probable pathological" (≥5), respectively. No additional criteria were used in the classification of gambler types.

In the present study, adolescent gamblers are categorized as follows based on South Oaks Gambling Screen scoring: "non-problem gamblers" (SOGS=0,1,2); "at-risk gamblers (SOGS=3,4); and "problem gamblers" (SOGS=≥5). Non-gambling adolescents are, of course, considered to be "non-problem gamblers." These gambler labels were chosen as they are consistent with the most recent categorizations of adolescent problem gamblers in prevalence studies using the SOGS.

The reader is cautioned against making direct, statistical comparisons of prevalence rates in the above or any other adolescent gambling studies as the methodology (notably SOGS scoring) utilized in each may vary significantly. Nevertheless, it may be concluded that prevalence rates for "at risk" and "problem" gambling found for adolescents in Alberta are among the highest revealed from a series of similar studies in Canada and the United States. A recent meta-study, based on a number of adolescent prevalence surveys in the United States, estimated the range of adolescent "problem gambling" (i.e. SOGS score equivalents of 25) to be between 4 and 7 percent of the adolescent population (Shaffer, in press). As seen in Table 1, Alberta's adolescent "problem gambling" cohort at 8% extends beyond this range.

Conclusion. While two out of every three adolescents gamble, it must be noted that 77% of the adolescents surveyed (i.e. gamblers and non-gamblers) do not have any gambling problems. Furthermore, although 15% may be at risk for developing a problem, it is unclear what proportion of this group, if any, will become future problem gamblers. Eight percent score as already having a serious gambling problem and this rate is one of the highest found in adolescent gambling research to date.

B. Characteristics of Adolescent Gamblers

As well as determining the prevalence of adolescent gambling and problem gambling, a major study objective is to identify and compare characteristics of non-problem and problem gamblers, notably in terms of the following variables: demographics, housing and co-habitation, religious preference, employment, recreational activities, gaming activities, frequency and duration of play, other activities with friends, confiding in friends, school experiences and future career plans, and family life. Findings and conclusions in each of these areas are briefly presented in this section of the summary.

1. Demographic Characteristics

Demographic results from the telephone survey show that:

- Adolescent gamblers are somewhat more likely to be male than female (54% vs. 45%).
- Adolescent problem gamblers are significantly more likely to be male than female (62% vs. 38%).

- There is no apparent difference between adolescent **gamblers/non-gamblers** or **non-problem/problem** gamblers on the basis of age or grade level.
- Aboriginal adolescents are more likely than other ethnic groups to score as problem gamblers when compared with their representation in the study sample.

Conclusion. From the telephone survey data, it is apparent that adolescent gamblers, and notably problem gamblers, are more likely to be male. While there appears to be little difference between these gambler cohorts on the basis of age or grade level, it is evident that, in terms of ethnicity, adolescent problem gamblers are disproportionately more likely to be Aboriginal.

2. **Housing and Co-Habitation**

Housing and co-habitation results **from** the telephone survey indicate that:

- Adolescent non-problem, at-risk, and problem gamblers are most likely to live in a single detached house.
- Three-quarters of adolescent gamblers in each cohort live with both parents. Of those living with one parent, that parent is most likely to be the mother. More than half do not have adults other than parents living with them; however, problem gamblers are more likely to have one or more other adults living with them. More than 70% of adolescents in each gambler cohort have one or more other persons under 18 years of age living with them.

Related results **from** the field interviews indicate that:

- There is no difference between adolescent non-problem and problem gamblers on the basis of co-habitation--two-thirds are in family units with their birth mothers and fathers; 15% are in single-parent families; 20% live with one original parent and a **step-parent/partner**; and more than two-thirds have siblings.

Conclusion. It is evident that there is very little to differentiate adolescent non-problem and problem gamblers on the basis of housing and co-habitation patterns. Interestingly, problem gamblers are somewhat more likely to have more adults living with them, which leads to the speculation that their gambling proclivity may be affected by having more adult influencers in their lives.

3. **Religious Preference**

Results **from** the telephone survey relative to religious preference indicated that:

- Over 60% of the adolescents non-problem, at-risk, and problem gamblers are Catholic or Protestant; problem gamblers are more likely than either of the other two cohorts to be Catholic; one-quarter of the adolescents in each cohort report no religious preference.
- More than one-half of the adolescents in each of the three cohorts indicate that religion is important in their life.

Conclusion. Three out of four adolescent gamblers report a religious affiliation and, furthermore, the majority attest that religion is important in their life. Differences in religious persuasion are likely reflective of the normal distribution of religious type across the Alberta adolescent population, however, census data are not available to confirm this. Catholic adolescents are more likely to score as problem gamblers than are Protestants or those from any other religious grouping. A similar trend has been noted among adult problem gamblers (Jacobs, 1984).

4. **Envlovment**

Telephone survey findings indicate that:

- About one-half of the adolescent non-problem, at-risk, and problem gamblers worked during the month prior to the survey. There is little difference amongst the three cohorts relative to number of hours/week worked.

Furthermore, findings from field interviews indicate that:

- About one-half of the adolescents in the non-problem and problem gambler groups are employed part-time in a variety of jobs. Only a few respondents earn more than \$500/month and they generally work 20-30 hours/week.
- Attitudes towards money vary considerably between the two gambler cohorts. Problem gamblers are more likely to spend their money as soon as they get it; non-problem gamblers usually save some portion of their funds. Both groups spend their money on a range of similar items, with gambling generally not being mentioned. Problem gamblers spend slightly more on average gambling per month than do non-problem gamblers.

Conclusion. One-half of the adolescents in the study work at least part time and there is no apparent difference between problem and non-problem gamblers on the basis of their employment. Those young people who work naturally have larger disposable monthly incomes and, for those employed adolescents who are problem gamblers, there is more money to finance gambling.

5. **Recreational Activities of Adolescent Gamblers**

It is evident that adolescents in Alberta engage in a wide variety of recreational pursuits, with gambling not being a significant leisure-time activity for most young people. Telephone survey results show that:

- Participation in organized sport is the most frequently-mentioned recreational activity for non-problem, at-risk, and problem gamblers; in contrast, gambling for money is one of the least-cited recreational activities for each.
- The vast majority of adolescents in each of the three cohorts do not consider gambling to be an important activity; however, problem gamblers are more likely to list gambling as being important.

- Social activities (e.g. hanging out with friends, casual sports, going to movies) are more **frequently** cited than solitary pursuits (e.g. reading, watching TV, listening to music) as recreational activities by each cohort.
- A minority of adolescents cite "partying" where drugs and alcohol are present. Problem gamblers are 2% times more likely than non-problem gamblers to mention "partying" as a recreational activity.
- Few adolescents mention thrill-seeking adventure sports as a recreational activity.

Findings from field interviews further show that:

- About two-thirds of both adolescent non-problem and problem gamblers mention participation in various sports as a preferred recreational activity, with males slightly more likely to do so than females.
- More than half the adolescents in each cohort play video games on home computers or special terminals (e.g. SEGA, Nintendo); this practice is more common in younger adolescents (i.e. 12 to 13-year-olds).
- Problem gamblers are more likely than non-problem gamblers to frequent video arcades (70% vs. 30%).
- Few adolescents mention thrill-seeking recreational activities, however, virtually all the problem gamblers versus one-third of non-problem gamblers say they would like to try these activities.
- Three-quarters of the non-problem gamblers report gambling is an inconsequential activity in their lives. Those who derive pleasure from it focus more on the context of the activity rather than on the game itself.
- Problem gamblers recognize that gambling occupies a considerable portion of their free time. However, interestingly, they claim to have an ambivalent attitude toward the activity.

Conclusion. Both adolescent non-problem and problem gamblers engage in a wide variety of recreational activities, with participation in sports being the most popular pastime for the majority of these young people. In the context of these recreational pursuits, gambling is not seen to be an especially important pastime. Although adolescent problem gamblers are more likely to participate in gambling as a leisure-time activity, they have a curious ambivalence towards this form of recreation--they leave the impression that they can "take it, or leave it."

6. Gaming Activities of Adolescent Gamblers

A major focus of the study is to **identify** the gaming activities of adolescent gamblers and results from the telephone survey indicate that:

- Adolescent non-problem, at-risk, and problem gamblers are most likely to engage in the "ticket trade" (i.e. purchase of raffle, fundraising, and instant-win tickets). Non-problem gamblers are somewhat more likely than problem gamblers to list this as a favoured activity.
- Playing cards or board games for money with family or friends is the next most popular pursuit for each of the three groups; problem gamblers are 2 times more likely to do this than are non-problem gamblers.

- Wagering with friends and family on the outcome of sports events is also popular and problem and at-risk gamblers are somewhat more likely than non-problem gamblers to do so. Problem gamblers are over 2 times more likely than non-problem gamblers to list this as a favoured activity.
- About half the problem gamblers bet on games of personal skill and they are 2% times more likely than non-problem gamblers to do so.
- Except for the "ticket trade," problem gamblers are more likely than non-problem gamblers to participate in virtually all types of gaming. Moreover, some of the differences are significant as problem gamblers are: 4 times more likely to bet on flipping coins; 3% times more likely to participate in house poker parties; 3 times more likely to gamble in local casinos; 3 times more likely to play arcade or video games for money; and 2% times more likely to wager on Sport Select.

In conducting the field interviews, it was also discovered that:

- Adolescent problem gamblers are more likely than non-problem gamblers to prefer and participate in virtually all types of gaming activity.
- Problem gamblers prefer card games, sports betting, and pool. These games have several common features: there is a definite skill element, they are predominantly male activities, and, except for Sport Select, there is no restricted age limit to play.
- Games of pure luck (i.e. raffles, lottery and scratch tickets, bingo) appeal more to young female players in both gambler groups.
- Few adolescents attempt to "slip by security" to play the VLTs, casino games, or horse races, however, most problem gamblers express an interest in gambling on these continuous-play games in the future.

Conclusion. Adolescent gamblers engage in a wide range of gambling activities. Non-problem gamblers are most likely to prefer the "ticket trade" (i.e. the purchase of raffle, fund-raising, lottery, and instant-win tickets), followed closely by gambling with family or friends on card/board games, outcomes of sports events, and games of skill (e.g. pool, golf). Adolescent problem gamblers simply gamble more than non-problem gamblers on all types of activities. While these problem gamblers also participate in the "ticket trade," they show a preference for gambling with family or friends on card/board games and games of skill. Sports betting and wagering on games of skill are largely male pursuits, whereas, games of pure chance (e.g. lottery tickets, bingo) have more appeal for young female gamblers.

The study shows a link between wagering on video arcade games and problem gambling, as adolescent problem gamblers are much more likely than non-problem gamblers to do this.

7. **Frequency and Duration of Play**

As well as the type of gambling activity, frequency and duration of play are important variables and, from the telephone survey results, it is evident that:

- Most adolescents do not gamble weekly, however, problem gamblers are more likely to do so than are non-problem or at-risk gamblers for all types of games, and some of the differences are significant. For instance problem gamblers are: 13% times more likely to bet weekly on games of skill; 7 times on Sport Select; 6 times on cards and board games for money with **family/friends**; and 5 times on arcade or video games for money.
- Problem gamblers, and to a lesser extent at-risk gamblers, spend more time per session gambling than do non-problem gamblers. For instance, problem gamblers are 4 times more likely than non-problem gamblers to spend **from 3 to 5 hours** gambling at a session.

Conclusion. Most adolescents are not frequent gamblers nor do they spend inordinate amounts of time gambling at any given session. However, just as adolescent problem gamblers are more likely than non-problem gamblers to participate in all types of gambling activities, so too are they more likely to gamble weekly and spend more time gambling per session.

8. **Activities with Friends and Problems with the Police**

Telephone survey results indicate that:

- Adolescent problem gamblers are almost 2½ times more likely than non-problem gamblers to have had problems with the police.

From the field interviews, it is further noted that:

- Problem and non-problem gamblers are alike in that almost all report having a friend and belonging to a larger group of friends.
- Both groups report participation in the same activities. Problem gamblers, however, mention their gambling activities, whereas, non-problem gamblers do not mention gambling.
- There is a sharp contrast between non-problem and problem gamblers relative to their participation in unlawful activities. Two-thirds of non-problem gamblers say they never do this and, if they do, it is generally underage drinking and fighting. In contrast, three-quarters of the problem gamblers have been in trouble for delinquent acts and over half the group have been in police custody for various offenses.

Conclusion. Virtually all the adolescents in the study have one or more friends with whom they engage in a variety of social, recreational, and school activities. Not surprisingly, problem gamblers are more likely than non-problem gamblers to mention that these pursuits often include gambling for money on different types of gaming activities. More seriously, problem gamblers are much more likely to admit that they have been in trouble with the police for a variety of offenses.

9. Confiding in Friends

During the field interviews, adolescents were queried about the extent to which they confide in their friends, and responses show that:

- The majority of problem and non-problem gamblers say they have a person they can confide in when they have problems of a personal nature.
- Non-problem gamblers are more likely than problem gamblers to confide in their parents, teachers, school counsellors, and ministers.

Conclusion. A possible explanation for this latter finding is that the uneasiness in communicating with parents and/or other helping professionals might be a reason why the problem gamblers generally get into more trouble in the first place. This may be compounded by the fact that the predicaments these young people do get into are generally more serious, which makes it even harder to discuss matters with a parent or counsellor.

10. School Experiences and Future Career Plans

In the field interviews, adolescents were also asked about their school experiences and future career plans and it was determined that:

- There is a marked difference between problem and non-problem gamblers in their attitudes toward school.
 - For non-problem gamblers, 60% like school, 30% say school is just OK, and 10% dislike school. For problem gamblers, the breakdown is about 33% for each group.
 - Non-problem gamblers are more likely than problem gamblers to like school because of certain academic subjects that interest them.
- Students in both gambler cohorts generally feel safe from personal harm in their school environment, although they are aware of potential dangers.
- Problem gamblers generally report a lower grade point average (65% vs. 80%) and have more modest and less concrete career aspirations than do non-problem gamblers.
- The majority of both problem and non-problem gamblers anticipate that, at age 40, they will be earning more and be in better financial shape than their parents are now.

Conclusion. Adolescent problem gamblers do not appear to enjoy school as much, nor do they achieve as highly, as non-problem gamblers. While problem gamblers tend to have somewhat less ambitious career plans than non-problem gamblers, adolescents from both groups anticipate that they will be better off financially than their parents are now.

11. **Family Life**

Field interview findings

- a Minimal differences exist between adolescent non-problem and problem gamblers relative to the number of times their families have moved or whether they suffered a parental loss.
- With few exceptions, the two adolescent gambler groups report that both parents work. Parents of problem gamblers are more likely to hold blue-collar and clerical jobs versus the managerial and professional occupations which are more common amongst the parents of non-problem gamblers.
- Adolescent problem gamblers are more likely than non-problem gamblers to report not participating in any family recreational pursuits. Further, families of problem gamblers are more likely to pursue passive activities (e.g. watching TV, playing board games, going to movies) than are those of non-problem gamblers, who report more family outings (e.g. camping, hiking, skiing).
- Problem and non-problem gamblers differ relative to how they view their home life:
 - Problem gamblers are more likely to report being under considerable stress at home frequently caused by bickering, feeling ignored or rejected, and not being able to confide in parents.
 - a Problem gamblers are less likely to tell their parents who their friends are, where they are going, and what they are doing when they go out.
 - Non-problem gamblers are more likely to report having relatively contented family lives wherein they generally feel loved and accepted by other family members.
 - a Several non-problem gamblers are in unhealthy family situations (i.e. where there's fighting, alcoholism, no support) and they are using drugs and alcohol.

Conclusion. There are no apparent differences between adolescent problem and non-problem gamblers on the basis of transience, parental loss, and/or parental employment. In contrast, problem gamblers appear less likely than non-problem gamblers to participate in family recreational pursuits, especially active family outings. Problem gamblers also tend to characterise their family life differently than non-problem gamblers. For instance, problem gamblers are more likely to report being stressed because of family bickering and/or being ignored or rejected. Furthermore, problem gamblers are less likely to confide in their parents and, not surprisingly, they are less likely to tell their parents who their friends are and what they are doing when they "go out."

C. The Behaviour of Adolescent Gamblers

The study endeavoured to examine the behaviour of adolescent gamblers. In this section of the summary, findings and conclusions relative to the following factors are presented: factors that may influence adolescent gambling behaviour; motivating reasons for gambling; gambling co-participants; personal effects of gambling behaviour; and financial impacts of gambling.

1. Factors That May Influence Adolescent Gambling Behaviour

Three factors that have been found to influence adolescent gambling behaviour are the age of first gambling experience, parental gambling behaviour, and age restrictions imposed on various forms of gambling. Each of these factors are examined in this study.

1.1 Age of First Gambling Experience

Telephone survey findings indicate that:

- While most adolescents were between 11 and 15 years old when they first experienced gambling, a significant number of non-problem, at-risk, and problem gamblers experienced gambling by the time they were 10 years old. Problem gamblers (48%) are significantly more likely than either non-problem (29%) or at-risk (34%) gamblers to have experienced gambling before age 10.
- Gamblers in each of the three cohorts recall playing cards or board games for money and betting on the outcome of sports, hockey drafts, or other events with family or friends as being their first gambling experience.

Results from the field interviews show that:

- Many adolescent problem gamblers started gambling at a very young age, usually before 10 years, and often with a parent (the oldest age at which any problem gambler first started was 12 years old). The non-problem gamblers typically had their first gambling experience at age 13.
- Problem gambler early gambling ventures included flipping coins, attending bingo with a relative, sports bets with friends, and getting scratch tickets as gifts for birthdays and Christmas; non-problem gamblers recall raffle tickets and midway games at the summer fair.
- A few problem gamblers had memorable wins early, whereas, none of the non-problem gamblers did.

Conclusion. Adolescent problem gamblers are more likely to have had their first gambling experience at a younger age (often before 10 years old) than are non-problem gamblers. This first gambling experience was most often in the company of a parent, family member, or significant other and, for some (notably problem gamblers), the memory of an early "win" is recalled.

1.2 Parental Gambling Behaviour

Telephone survey results show that:

- In the majority of non-problem, at-risk, and problem gamblers' families, either one or both parents are likely to gamble for money. However, problem gamblers (68%) are significantly more likely than non-problem gamblers (51%) to report that either or both parents gamble.
The majority of adolescent gamblers do not identify a significant other as having a gambling problem, however, problem gamblers are more likely than non-problem gamblers to do so.

From the field interviews, it is further evident that:

- Either one or both parents of all the problem gamblers are regular gamblers. Their favourite games are reportedly lottery and instant scratch tickets, but a sizable number also gamble on continuous-play games such as bingo, VLTs, and blackjack. Many parents in this group also occasionally travel to Nevada to gamble.
- About half the parents of non-problem gamblers do not gamble at all. The parents who do, prefer lotto-type games, although some reportedly gamble on horse racing, sporting events, and casino games during occasional trips to Nevada.

Conclusion. Clearly, gambling is a more conspicuous activity in the home-life of the adolescent problem gambler. Moreover, these adolescents are more cognizant of the gambling behaviour of their parents and significant others and, in these families, there is a relatively high level of acceptance of gambling as a form of entertainment. Problem gamblers are more likely than non-problem gamblers to identify that a parent, relative, or significant other has a gambling problem and this finding is consistent with other studies which have also shown that parental problem gambling may be a soft sign for future gambling problems among their children (Jacobs, 1989a).

1.3 Legal Concerns and Underage Gambling

With respect to age restrictions and their influence on gambling, field interview results show that:

- Adolescents are unsure about the "legal age" for gambling, however, 4 out of 5 peg the age at 18. This is accurate for some types of gaming (VLTs, casino, lottery tickets) but incorrect for others (bingo and horse race track betting).
- Only a few older male problem gamblers report playing VLTs or casino games as underage players.
- Some adolescent non-problem and problem gamblers regularly flout age limit regulations to purchase lottery tickets because (1) there is no stigma attached, (2) lottery products are widely accessible, and (3) there is no risk of identification and rejection since little or no verification of age is done.

Conclusion. Adolescents are blasé about age restrictions that apply to gambling. While almost every adolescent is aware of the legal age for drinking (i.e. 18 years), they are unsure about age restrictions that apply to various forms of gaming. Minors are very aware that they cannot enter the licensed establishments to play VLTs, however, they have no compunction about attempting to purchase lottery tickets, instant-win tickets, Sport Select, or other age-restricted lottery products as there is virtually no risk in doing so.

2. Motivating Reasons for Gambling

During the telephone survey, adolescent respondents were asked to explicate the reasons that motivated them to gamble and results show that:

- For adolescent non-problem, at-risk, and problem gamblers, the primary reasons for gambling are (1) for entertainment or fun, (2) for excitement or as a challenge, and (3) to win money.
- Problem gamblers and at-risk gamblers are more likely to cite these three and virtually all other reasons for gambling than are non-problem gamblers, with the exception of "to support worthy causes" which is a reason more likely to be cited by non-problem gamblers.
- In comparison with non-problem gamblers, problem gamblers are: 5 times more likely to gamble to distract themselves from everyday problems; 3 times more likely to gamble as a hobby; and 2½ times more likely to gamble because they are good at it.

Conclusion. Adolescent gamblers cite various reasons for gambling--for fun, entertainment, a challenge, and to win money top the list. Problem gamblers offer some different reasons than non-problem gamblers for participating, notably because they think they're good at it, as a hobby, or to distract themselves from everyday problems. It is interesting to note that adolescent gamblers, especially those experiencing problems, claim to gamble in order to do things with their friends. This is in keeping with the earlier observation that socialization with peers, not gambling, is the paramount activity; it just so happens that, within some peer groups, adolescents engage in recreational activities that are gambling-related.

3. Gambling Co-Participants

Telephone survey results show that:

- Adolescent non-problem, at-risk, and problem gamblers are significantly more likely to gamble in the company of others (friends, co-workers, family members) than alone.

Conclusion. This finding supports the conclusions posited earlier that peer group socialization rather than gambling, per se, is the main attraction.

4. Personal Effects of Gambling Behaviour

In examining the personal effects of gambling on adolescents' behaviour, telephone survey results indicate that:

- Adolescent problem and at-risk gamblers are significantly more likely than non-problem gamblers to experience the types of gambling problems enumerated in the SOGS.
- Three-quarters of the problem and half the at-risk gamblers "chase" their losses and spend more time or money gambling than intended; non-problem gamblers are much less likely to report these behaviours.
- Problem gamblers are more likely than the other two cohorts to be deceptive in that (1) they will sometimes lie and tell others they won when they did not, and (2) they will hide signs of betting or gambling from parents, friends, and others.
- While some problem and at-risk gamblers have felt badly about the way they gamble or what happens to them when they gamble, only two at-risk gamblers and none of the problem gamblers from the entire sample report ever having sought help to stop gambling.
- At-risk and problem gamblers are significantly more likely than non-problem gamblers to experience each of Jacobs' 5 dissociative states. The most likely experience is to lose track of time while gambling and three-quarters of the problem gamblers report having done so.

Results from field interviews further show that:

- Adolescent non-problem gamblers report experiencing only mild fluctuations in their emotional state when gambling. They tend to play non-continuous games (e.g. ticket trade) or for small stakes under controlled circumstances and do not get overly aroused by the activity. None report experiencing a dissociative state.
- Problem gamblers are more likely to favour continuous-play games that require some skill (e.g. pool, poker, sports betting) and some do report experiencing mood alterations when gambling on these activities. Some have experienced a dissociative state, notably being in a trance, having a memory blackout, or seeing themselves as a different person.
- A major difference between the two groups is that almost all the problem gamblers say they often lose track of time when gambling, while none of the non-problem gamblers make this comment.
- None of the problem gamblers admit to having a problem nor do their friends or relatives suggest that they might be gambling excessively.

Conclusion. Not surprisingly, adolescent problem gamblers score higher than non-problem gamblers on virtually all SOGS items. Problem gambling behaviour has personal implications for most young problem gamblers--they spend more time and money gambling than intended, frequently "chase" their losses, lie to family and friends about their gambling, and sometimes experience psychological states of "dissociation." While some problem gamblers feel badly about what happens when they cannot control their gambling, most do not feel they have a gambling problem nor have they sought help for this condition.

5. Financial Impacts of Gambling

As well as examining the personal effects of gambling on adolescents, the study sought to identify any financial impacts that were evident. Telephone survey results show that:

- Adolescent problem gamblers and, to a lesser extent, at-risk gamblers spend more money on average monthly on virtually all types of gambling activities.
- For the following gaming activities most preferred by adolescent gamblers, problem gamblers spend significantly more on average monthly than do non-problem gamblers: games of skill (\$11.17 vs. \$1.08); the outcome of sports events (\$6.36 vs. \$0.87); cards or board games with family or friends (\$4.84 vs. \$0.75); instant-win tickets (\$4.21 vs. \$0.50); and raffles or fundraising tickets (\$3.24 vs. \$1.40).
- Problem gamblers are significantly more likely than non-problem gamblers to have wagered a larger amount in a day of gambling.
- In terms of borrowing to finance gambling or to pay gambling debts, problem and at-risk gamblers are more likely to secure finances from each of the SOGS borrowing items listed than are non-problem gamblers.
- Problem gamblers are significantly more likely than the other two cohorts to engage in extreme measures to finance gambling, notably selling personal or family property (21%) or stealing something to pay for gambling (9%).

Field interview results further indicate that:

- Both problem and non-problem gamblers say they get their money from two primary sources--jobs and allowances.
- None of the field respondents admit to having committed a criminal act (e.g. shoplifting, breaking and entering, fencing stolen property) to get money to finance gambling.
- Expenditures on gambling are relatively low for both non-problem and problem gamblers.
- Non-problem gamblers play infrequently and generally do not wager more than they can afford to lose. Younger male and female problem gamblers play for lower stakes than do older adolescent male problem gamblers. Male problem gamblers in their late teens are the heaviest bettors.

Conclusion. Adolescents do not generally spend large amounts of money gambling. However, problem gamblers spend significantly more than non-problem gamblers on all forms of gambling and they are more likely to make a large-stakes wager. Adolescents report that they get their money from two main sources--allowances and jobs--and these young people do not set aside special pots of money for gambling; rather, gambling is essentially viewed as another entertainment expenditure to be financed from weekly revenues. Problem gamblers are far more likely than non-problem gamblers to borrow money, notably from family and friends, to finance their play. Similarly, problem gamblers are more likely to engage in extreme measures to finance gambling (e.g. stealing and selling personal property).

D. Adolescent Gamblers' General Health and Substance Use

The focus of the study was on the gambling proclivities of adolescent Albertans between the ages of 12 and 17 years. However, the study also examined the adolescent respondents' general state of physical and mental health as well as the extent to which they use substances including alcohol, drugs, and tobacco products. In this section, results and conclusions relative to adolescents' general health; tobacco, alcohol, and drug use; combined substance use; and help-seeking efforts are summarized.

1. General Health

1.1 Physical Health

During the field interviews, adolescents were asked to elaborate on their physical health and, from this disclosure, it is evident that:

- Adolescent gamblers generally describe themselves as being in good or excellent health.
- There is no difference between problem and non-problem gamblers relative to being overweight or having an eating disorder, with three-quarters of the respondents in each group reporting they have never had a weight problem.
- Three-quarters of those who do report a weight problem are female.

Conclusion. The adolescents interviewed in this study are generally in good physical health and most do not have a weight problem or eating disorder.

1.2 Mental Health

With respect to mental health, both telephone respondents and field interviewees were asked a number of questions. From the telephone survey results, it is evident that:

- The majority of adolescent non-problem, at-risk, and problem gamblers are happy with life, however, problem gamblers are almost 3 times more likely than non-problem gamblers to report they are unhappy.
- More than half the problem gamblers reveal they have felt anxious, worried, upset, or depressed most or some of the time; conversely, nearly two-thirds of the non-problem gamblers report they feel this way only a little or none of the time.

From the field interviews, it was found that:

- Both problem and non-problem gamblers describe themselves as being happy with life in general.
- Despite generally being happy, both non-problem and problem gamblers used a variety of descriptors to describe their emotional state. These states can vary considerably over a short time span and are often precipitated by an event, such as breaking up with a boyfriend or girlfriend.

- a **Three-quarters** of non-problem and problem gamblers claim to get depressed at least some of the time and, as with described emotional states, this depression is usually short-lived and traceable to an event such as fights with friends.
- a All female problem gamblers report being depressed at least some of the time, whereas, only half the female non-problem gamblers report this.
- a Self-described depression is generally relatively mild, however, some gamblers in each group (5 of 27 non-problem and 7 of 29 problem gamblers) have contemplated suicide, with only one female non-problem gambler actually making an attempt. Two-thirds of those who have contemplated or attempted suicide are female, although there is no difference between problem and non-problem female gambler cohorts.
- There is a difference between problem and non-problem gamblers relative to whether they ever sought or received help for any mental problems, such as depression or suicidal thoughts. One-third of the problem gamblers have received professional counselling versus only one non-problem gambler; male and female problem gamblers are equally as likely to have done so. None of this counselling is related directly to gambling, alcohol, or drug use problems.

Conclusion. Most adolescents in the study maintain that, overall, they are happy with life, although problem gamblers are far more likely than non-problem gamblers to claim they are at least somewhat unhappy. Despite this generally happy state, most adolescents also get depressed relatively frequently and, generally, this depression is related to a particular incident (e.g. a fight with a friend) and is of short duration. For some, this depression has lead to suicidal thoughts, however, only one female interviewee admitted to ever attempting suicide.

As well as a tendency to be more unhappy than non-problem gamblers, adolescent problem gamblers are more likely to admit to feelings of anxiousness, depression, and being worried or upset, at least some of the time. Interestingly, one in three problem gamblers interviewed divulged that they have received professional counselling at some time in their life, usually to help them deal with depression, behavioural problems, or to cope with trauma such as family breakdown.

2. Tobacco, Alcohol, and Drug Use

In both the telephone and field interview stages of the study, adolescent respondents were questioned about their tobacco, alcohol, and drug use. From the telephone survey, the following results are reported:

- Tobacco use
 - a Problem gamblers are more likely to be smokers. 54% of problem gamblers smoke compared with **36%** of at-risk and 29% of non-problem gamblers who do likewise. Problem gamblers are 2 times more likely than non-problem gamblers to be daily smokers.
- Alcohol use
 - More than two-thirds of adolescent non-problem and at-risk gamblers and **three-quarters** of problem gamblers have consumed alcohol at least once in the past 12 months.

- Problem gamblers are more frequent drinkers. More than half the problem gamblers report consuming alcohol frequently (i.e 2-3 **times/month**, 1 **time/week**, or daily), whereas, only one-quarter of non-problem gamblers report this.
 - Problem gamblers are heavier drinkers. 34% of problem gamblers report consuming 5 or more **drinks/session** compared with 14% of non-problem gamblers who do likewise.
- Drug use
- The vast majority of non-problem, at-risk, and problem gamblers claim they do not smoke marijuana. However, problem gamblers are 2% times more likely than **non-problem** gamblers to do so.
 - The overwhelming majority of adolescents do not use other illicit drugs, however, there is some evidence to indicate that at-risk and problem gamblers are more likely than non-problem gamblers to do so.

The following results are reported from the field interviews:

Tobacco use

- Two-thirds of problem and non-problem gamblers do not smoke. Daily smokers tend to be somewhat older adolescents (15 years), however, many first experimented as early as 8 or 10 years old.
- Most adolescents who smoke daily are light to moderate smokers in **terms** of consumption.
- Most adolescents claim to smoke to enhance their image--to fit in with their friends and "to be cool."

Alcohol use

- Two-thirds of the non-problem and problem gamblers drink alcohol with some frequency and there is virtually no difference in consumption patterns between problem and non-problem gamblers.
- As with smoking, adolescents who drink with the most frequency tend to be somewhat older (15-17 years). However, their first social drinking experience with their peer group was at an earlier age (12-13 years).
- The type and amount of alcohol adolescents consume varies from individual to individual with no discernable patterns evident for type of gambler (i.e. problem vs. non-problem), gender, or age. Most adolescents drink beer and this is likely because of the lower **cost/volume**.
- Generally, older adolescent males in both gambler groups consume the largest amount of alcohol, with many admitting "drinking to get drunk."
- Acquiring alcohol is not a problem for adolescents as older friends, siblings, **brothers/sisters**, and even parents are willing to purchase alcohol for the minor.
- Adolescents drink in many venues (schools, parks, homes, dances), however, most drink indoors in private houses when no parent or adult authority figure is present.
- As with smoking, adolescents claim to drink to enhance their image--"everyone does it." However, some do drink because they like the feeling of being tipsy or drunk.

Drug use

- One in four adolescents admit taking illicit drugs and there is no difference between problem and non-problem gamblers for this behaviour.
- The preferred drug for all adolescent users is marijuana. Pot smokers tend to be older adolescents (16-17 years), however, they report their first experience at an earlier age (14 years). Of those who smoke pot, most do so regularly, usually weekly or when they can "score some weed." The amount consumed varies from "a few hoots" from time to time to a few joints per day.
- None of the respondents report using other drugs such as cocaine, heroin, PCP, or designer drugs.
- Pot smokers and other respondents report that drugs are readily available in the schools and communities from friends and dealers "known to all."
- Adolescents smoke marijuana at the same venues as they drink alcohol (e.g. private houses, school property, parks).
- Adolescents smoke marijuana to fit in with friends and for the physical feeling produced by the drug.

Conclusion. The telephone survey shows that, compared with adolescent non-problem gamblers, problem gamblers are more likely to be smokers, frequent alcohol drinkers (i.e. daily, weekly, or monthly), heavier drinkers (i.e. 5 or more drinks/session), and users of illicit drugs, notably marijuana. Elaboration of these findings is provided through the field interviews. For instance, young smokers claim they puff away "to be cool" and enhance their image with their friends. Similar reasons are given for drinking alcohol and smoking pot, however, some claim they also like the "high" these substances provide. Many adolescents recall an early experience with substances--notably 8-10 years for smoking, 12-13 years for social drinking, and around 14 years for smoking marijuana. The age of this early experience tends to coincide with the availability of the substance to the youngster, with cigarettes being more accessible than either alcohol or marijuana.

Adolescent interviewees report that alcohol and marijuana are readily available through school and community contacts. Those who indulge most frequently procure these substances on a regular basis and use them in the company of a few indulging friends or in a party setting with a larger crowd of peers. In terms of heavy alcohol consumption, older adolescent males (both problem and non-problem gamblers) are more likely to engage in this extreme behaviour than are females or younger males.

2.1 Combining Substance Use with Gambling

The study sought to examine the prevalence of combining substance use with gambling and, based on the field interviews with adolescent gamblers, it is noted that:

- Adolescents who indulge at all, frequently combine smoking tobacco, alcohol consumption, and smoking marijuana when the opportunity presents itself (e.g. at a house party).
- At typical teen parties, gambling is not present, therefore most do not combine substance use with gambling.

Conclusion. Some adolescents combine smoking tobacco, drinking alcohol, and smoking marijuana in one session, however, there are no apparent differences between problem and non-problem gamblers for doing so. Furthermore, gambling while indulging in the use of these substances appears to be a coincidental activity, if it happens at all.

2.2 Negative Consequences of Substance Use

Adolescents were asked to enumerate any negative consequences arising from substance use and results from the telephone survey indicate that:

- The large majority of adolescent non-problem, at-risk, and problem gamblers have not gotten into **difficulty** with family or friends because of alcohol or drug use nor have they operated a motor vehicle while impaired. However, at-risk and especially problem gamblers are significantly more likely to have done so than non-problem gamblers.

Field interview results show that:

- Few adolescents in either the non-problem or problem gambling group have been in trouble because of their alcohol or drug use (only 2 females and 6 males of 56 respondents).

Conclusion. Most young people who indulge in alcohol or drug use have not been chastised by family or friends for their behaviour nor have they been in trouble with the police as a result of their consumption.

2.3 Seeking Help

Adolescents were asked whether they had ever sought help for a substance abuse problem and results **from** the telephone survey indicate that:

- The vast majority of adolescent non-problem, at-risk, and problem gamblers have never wanted help to stop drinking alcohol or doing drugs, nor have they ever tried to get help. However, problem gamblers, and to a lesser extent at-risk gamblers, are more likely than non-problem gamblers to have felt they needed help and some have actually tried to get help.

Results **from** the field interviews show that:

- Generally, both non-problem and problem gamblers do not feel they have substance abuse problems; the notable exception is for smoking where 8 of 19 adolescents who smoke feel they may be addicted.
- In all but 4 homes, at least one parent, sibling, or relative smokes (**31** of 56 homes) **and/or** drinks, at least socially (40 of 56 homes). Furthermore, in 7 homes, a sibling is known to use illicit drugs.

- Despite this relatively wide-spread use of tobacco and alcohol, only 16 respondents are concerned that a family member may have an abuse problem. The most widely perceived problem is alcohol abuse (12 homes) which is attributed to the father in 10 homes. There are no differences in this perception between problem and non-problem adolescent gamblers.

Conclusion. Most adolescents who smoke tobacco, drink alcohol, and smoke marijuana do not think they have a substance abuse problem and, consequently, few have ever sought help. The one exception is for smoking tobacco, as a substantial number of adolescent smokers interviewed felt they might be "addicted" to cigarettes and would like to quit. This response, however, is suspect as it is conceivable that young people think it is the socially acceptable thing to say--after all, everyone is supposed to want to quit smoking. Finally, while smoking tobacco products and drinking alcohol are common indulgences of parents and other adults in the home, most adolescents do not perceive that their father, mother, or other family members have substance abuse problems.

2.4 Future Substance Use and Gambling Plans

The final question posed to adolescents during the field interviews probed their intentions to use substances and gamble in the future. From the field interview responses, it is evident that:

- Most adolescents who indulge (45 of 56) intend to smoke, drink, or do drugs in the future and there is no apparent difference between problem and non-problem gamblers for doing so.
- There is a marked difference between adolescent problem and non-problem gamblers relative to their future gambling plans. One-half of the non-problem gamblers don't plan to gamble in the future, whereas, virtually all of the problem gamblers interviewed plan to escalate their gambling to adult levels, notably on VLTs, casino games, sporting events, and on future trips to Las Vegas.

Conclusion. Most adolescents who indulge in tobacco, alcohol, or illicit drug use and/or who gamble with some frequency do not perceive they have a problem with either substance abuse or gambling, and it is not surprising, therefore, to find that they plan to continue this behaviour in the future. There is, however, a difference in the future gambling plans of adolescent problem and non-problem gamblers. Virtually all of the problem gamblers interviewed plan to continue gambling in the future and many are very interested in trying out VLTs and casino games such as blackjack and roulette when they come of age. In contrast, only half the non-problem gamblers express any future plans to gamble, and this involvement is essentially a continuation of their present low level of gaming activity (e.g. purchasing the occasional lottery and raffle tickets).

E. A Summary of Factors That Differentiate Adolescent Problem and Non-Problem Gamblers

An analysis of the results and conclusions presented in the preceding sections indicates that there are some factors which differentiate Alberta adolescent problem gamblers from those young people who gamble without experiencing any apparent negative consequences. Further research is needed to examine in more depth the extent to which the following factors are at play in predisposing some young people to have a serious gambling problem.

1. Demographic Characteristics

Alberta adolescent gamblers are somewhat more likely to be male than female (54% vs 45%). However, adolescent problem gamblers are significantly more likely to be male than female (62% vs 38%). This finding is consistent with recent results from other adolescent gambling studies (Insight Canada, 1994; Rupcich, Govoni, and Frisch, 1996 in press; Volberg, 1993; Wallich, 1993; Winters, Stinchfield, and Fulkerson, 1993).

In terms of ethnicity, there is a higher proportion of Aboriginal adolescents in the problem gambling group than one would expect based on population distribution. Again, this finding is consistent with those in other studies of gambling amongst First Nations adolescents (Elia and Jacobs, 1993; Volberg, 1993b; Jacobs, 1993; Zitzow, 1993; Nechi Institute, 1995).

2. Gambling Activities and Frequency of Play

Adolescents who have a gambling problem wager on more types of games, events, and activities than do their peers. They are more likely to engage in all types of gambling as a "recreational activity" frequently shared with a small group of friends. Young male problem gamblers are especially attracted to wagering on sporting events and games of personal skill. There is preliminary evidence in the study of a link between wagering on video arcade games and problem gambling. This relationship is **currently** the subject of much research interest in the United Kingdom and North America (Brown and Robertson, 1990; Fisher, 1994; Griffiths, 1993; Derevensky and Gupta, 1995).

Adolescent problem gamblers also gamble more frequently (i.e. weekly) and for longer periods of time per session than do non-problem gamblers. This finding is also evident in the **Alberta** adult gambling study which reports that adult problem gamblers likewise gamble with much greater frequency and for longer periods of time than do non-problem gamblers (Wynne, Smith, Volberg, 1994).

3. Deviant Behaviour, Interpersonal Relationships, Family Life, and School/Career

Adolescent problem gamblers are more likely to have been in trouble with the police for a variety of offenses (e.g. shoplifting, drinking and driving, fighting). Furthermore, these young problem gamblers claim that, while they can confide in friends, they are less likely to be able to confide in their parents, teachers, school counsellors, and ministers when they have a problem. In terms of their family life, adolescent problem gamblers are more likely to report being stressed, ignored, or rejected by parents, siblings, or relatives.

This finding appears to support Rosenthal's (1990) contention that one predisposing factor for developing a gambling problem is growing up in a family with an extremely critical, rejecting, or emotionally unavailable parent. However, further qualitative research is needed to examine the extent to which deviant behaviour, problem gambling, limited interpersonal communications skills, and a stressful family life are interrelated in the adolescent milieu.

A related finding is that adolescent problem gamblers do not appear to have as positive a school experience as their non-gambling peers. The problem gamblers interviewed do not enjoy school as much nor do they achieve as highly as their peers. This observation also needs to be confirmed through further research.

4. Age of First Gambling Experience and Parental Gambling Behaviour

Adolescent problem gamblers are more likely than their non-problem gambling peers to have had their first gambling experience at a younger age, often before 10-years-old. Moreover, this first gambling experience was usually in the company of a parent, family member, or significant other. Furthermore, this study found that gambling is a conspicuous activity in the home-life of the adolescent problem gambler. In these families, gambling is an acceptable form of entertainment and the young problem gambler is very aware of the gambling behaviour of his or her parents, siblings, relatives, and significant others.

These findings are well-supported in the literature, as early age of the child's first gambling experience and parental influence have been frequently cited as predisposing factors in developing a gambling problem (Jacobs, 1989a; Rosenthal, 1990; Fisher, 1993; Huxley and Carroll, 1992; Ide-Smith and Lea, 1988; Rupcich, Govoni, and Frisch, 1996 in press).

5. Personal Effects of Gambling

The South Oaks Gambling Screen (SOGS) illuminates factors which predispose adolescents to have a gambling problem. In this study, adolescent problem gamblers scored higher than non-problem gamblers on virtually all SOGS items. Adolescent problem gamblers are especially more predisposed than non-problem gamblers to:

- spending more time and money gambling than intended;
- frequently "chasing" their losses; and
- deceiving family and friends about their gambling.

The study also found evidence that adolescent problem gamblers are more predisposed to experiencing dissociative states including: (1) losing track of time, (2) feeling like a different person, (3) having an out-of-body experience, (4) being in a trance, and (5) experiencing a memory blackout. This finding supports the work of Jacobs (1989b) in this vein and is consistent with findings from the recent Ontario adolescent gambling study (Insight Canada, 1994).

6. Financial Impacts of Gambling

Adolescent problem gamblers are predisposed to wagering significantly larger amounts than non-problem gamblers on all forms of gambling. Furthermore, SOGS scores indicate that these young problem gamblers are also more likely to borrow money from all sources to finance their gambling or to pay gambling debts, and they are likewise more apt to engage in extreme measures to finance gambling (i.e. stealing or selling personal property).

7. Mental Health

Adolescent problem gamblers are far more likely than non-problem gamblers to claim that they are at least somewhat unhappy with their life--many indicate that they often feel anxious, worried, upset, or depressed. This finding is consistent with results from research done on teenage gambling by Jacobs (1988, 1989a) and his colleagues.

8. Tobacco, Alcohol, and Drug Use

Adolescent problem gamblers are more likely than non-problem gamblers to be smokers, frequent alcohol drinkers (i.e. daily, weekly, or monthly), heavier drinkers (i.e. 5 or more drinks/session), and users of illicit drugs, notably marijuana. This finding raises the prospect of the early onset of "multiple addictions" which is a topic of growing interest in gambling research (Lesieur and Klein, 1987; Jacobs, 1989a; Wynne, 1993b).

IV. CURRENT INITIATIVES AND RECOMMENDATIONS

A. Current Initiatives

Subsequent to the 1994 study of gambling and problem gambling in Alberta (Wynne, Smith, Volberg, 1994), AADAC has mounted an impressive array of prevention, education, treatment, and research programs to respond to the challenge of problem gambling. These initiatives include the following: ("*" denotes projects under development)

1. Education/Prevention

- provide problem gambling information to Albertans (e.g. pamphlets, self-screening cards, materials **translated into** Mandarin and Cantonese).
- place posters in gaming venues, including advertising the 1-800 Gambling Help Line number.
- provide server intervention training and materials* to gaming venue staff.
- fund community projects (i.e. for local agencies and groups to conduct research and engage in education/prevention activities designed to meet locally-identified needs).
- advertise problem gambling services (i.e. through display ads in newspapers).
- materials for youth (e.g. revisions to Grade 4-6 *Sense & Nonsense* resource;* classroom discussion guide for junior high schools;* classroom presentation kit for high school Career and Life Management (CALM) classes;* TV show and 15 minute video on adolescent gambling;* community presentation kit).

2. Treatment

- 1-800 Gambling Help Line (24 hour crisis line that handles 200-225 calls per month).
- out-patient counselling (i.e. through trained addictions counsellors in all AADAC offices and out-patient treatment centres across the province).
- promotion of Gamblers Anonymous and Gam-Anon groups.
- develop counselling resources (e.g. treatment video and client handbook; Problem Gambling counselling package).
- an intensive day treatment program* and in-patient counselling.

3. Training

- AADAC conferences on problem gambling.
- training and ongoing development of AADAC and **funded** agency staff.
- training for the Native population (i.e. funding Nechi Institute to pilot problem gambling training modules for counsellors working in Native communities).
- Program of Studies (i.e. 48 hours of comprehensive problem gambling training delivered by AADAC and targeted to allied professionals).
- certificate program at the University of Alberta (i.e. a problem gambling elective which is being delivered as part of the Addictions Studies program at the University of Alberta).

4. Research

- **funding** of community-based research undertaken by local agencies and groups (i.e. in 1994/95, AADAC **funded** 8 community-based gambling prevalence surveys--three were adult and five were adolescent studies).
- the present *Adolescent Gambling and Problem Gambling in Alberta* prevalence study.
- major research initiatives planned for 1996/97 include a replication of the original adult gambling prevalence study and a study of **gambling/problem** gambling and video lottery terminal (VLT) play.

B. Recommendations

The researchers acknowledge the progress made to date by AADAC in meeting the challenge of problem gambling in Alberta. Based on the adolescent study findings and conclusions and a discussion of the implications of these results (refer to the adolescent study **Final Report** for a detailed discussion), the researchers offer the following recommendations for **future** consideration.

1. Prevention and Public Awareness

Recommendation. The Alberta Alcohol and Drug Abuse Commission should continue to plan and implement elements of a comprehensive, province-wide program to address problem gambling generally and adolescent gambling specifically.

Recommendation. A provincial public awareness campaign should be mounted to educate parents, and other key influencers of youth, about the potential harmful effects of adolescent gambling.

2. Outreach and Intervention

Recommendation. Community agencies should develop initiatives to identify and intervene in problem gambling behaviours among adolescents. Special attention should be given to young Aboriginal gamblers.

3. Treatment and Aftercare

Recommendation. As part of the initial assessment process, counsellors and other treatment specialists should screen adolescent clients to determine if the addictive behaviour being presented (i.e. alcohol or drug abuse) has a "fellow traveller"--problem gambling.

Recommendation. During initial assessment, treatment specialists should probe for evidence that the adolescent is (1) using gambling as a stress-reducing escape mechanism, **and/or** (2) experiencing one or more of the five dissociative states associated with problem gambling. This will help determine the magnitude of the young client's gambling problem and, subsequently, develop an action plan that takes manifestations of these two conditions into account as part of the treatment plan.

Recommendation. Treatment specialists, when counselling adolescent problem gamblers, should examine with the client the **preferred** recreational and social activities of **his/her** primary peer group (1) to ascertain whether gambling is a preferred recreational group activity, (2) to possibly involve primary peer group members in the client's recovery process, and (3) to explore with the client, and perhaps other group members, the prospect of substituting other recreational pursuits for gambling as a group social activity.

4. Regulation and Enforcement

Recommendation. There should be one minimum age for all forms of licensed gambling in Alberta and this age should be 18 years. Violators should be treated the same as for alcohol-related offenses--strong punishments for the vendor (**i.e.** loss of license and heavy fine) and the adolescent player **and/or** parent (**i.e.** fine). Bingo is especially in need of regulation, as some halls presently allow players as young as 8 years old to play. This age restriction should also apply to volunteers in bingo halls, as now, many are adolescents under the age of 18 years. Finally, regulations prohibiting the payment of prizes to underage gamblers should be well advertised to the public and strictly enforced.

5. Research

Recommendation. Research into gender differences relative to motivators for gambling, gaming preferences, playing styles, gambling problems, dissociation, and other similar factors should be undertaken to determine whether approaches to prevention, education, and treatment should be **similar/different** for adolescent males and females. Special attention should be given to young female problem gamblers.

Recommendation. Research should be conducted to confirm the presence of small adolescent "problem gambler social groups" and, if these are found to exist, the characteristics of and socialization patterns within these groups should be explored.

Recommendation. Although the South Oaks Gambling Screen has been used extensively in studies estimating the prevalence of problem gambling in a population, some limitations relative to the use of the SOGS have been noted in this report. Research should continue to develop a more refined, clinically-based, and consistently-applied screening **instrument(s)** that may be utilized in prevalence studies to effectively classify both adolescent and adult problem gamblers.

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