



**Health Promotion  
and Protection**

**2007 Yellow Flag Post-Campaign Evaluation Among Young  
Adults 19-34 in Nova Scotia**

**October 2008**

**Final Report**

**Prepared by Focal Research Consultants**



*Turning Information into Insight*

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## EXECUTIVE SUMMARY

In 2006, Nova Scotia Health Promotion and Protection (NSHPP) developed *Yellow Flag*, an evidence-based social marketing campaign, to prevent and/or reduce risk for gambling problems among young adults (19-34 years) in the province of Nova Scotia. In the 2003 Nova Scotia Gambling Prevalence Study, young adults were found to have the highest level of risk for gambling problems. Approximately one in ten adults under 35 years of age scored at some level of risk using the Canadian Problem Gambling Index (CPGI=1+: 10.7%), with about one-third of these same young adults yielding scores that indicated moderate to severe gambling problems (CPGI=3+: 3.1%). The rates of those scoring at some level of risk were at least twice as high as those noted for older adults in the province (5.6%). Moreover, the evidence suggested that increased risk observed among younger age groups in earlier studies is associated with the development of higher rates of problem gambling over time.

In April 2006, NSHPP implemented a random survey among young adults in Nova Scotia aged 19-34 years (n=400) in order to: identify any changes that had occurred since the prevalence study in 2003; obtain updated information for use in campaign development; and, establish pre-campaign benchmarks for tracking changes following the introduction of any NSHPP initiatives targeting this higher risk population of 19 to 34-year-old adults. The data were compared by age group (19-24 years versus 25-34 years), by risk for gambling problems (At-Risk+: CPGI=1+ versus Non-Problem: CPGI=0) and between measurement period (2003 versus 2006).

NSHPP's *Yellow Flag* campaign was launched in the fall of 2006 and consisted of a series of television, radio, and poster advertisements addressing high-risk gambling in the province. To assess market response towards the campaign as well as obtain input for ongoing policy development, a series of questions were included in the general survey for the 2007 Nova Scotia Adult Gambling Prevalence Study. A supplementary survey was also administered to 240 respondents, aged 19-34 years, in order to obtain more qualitative information on behaviours, recall of advertisements, and attitudes toward particular ads (i.e., Did the respondent like the particular ad). In addition to evaluating the effectiveness of the advertising campaign, the following report profiles and compares 2006 pre- and 2007 post-campaign gambling risk, behaviors, attitudes, and beliefs for young adults (19-34 years; n=430) in Nova Scotia.

A number of significant changes were observed since the pre-campaign benchmarks established in early 2006: fewer young adults gambled in the past year, expenditures dropped among those continuing to gamble, and there was a shift from regular to more casual playing patterns for those scoring at any level of risk for gambling problems. There was also preliminary evidence of a decline in risk, based on CPGI scores and gambler self-reports, with fewer young adults reporting chasing losses, borrowing money or going into debt to gamble, and an increase in those budgeting or limiting their gambling expenditures. Video lottery (VLTs), casino gambling, and daily lotteries continued to be most often associated with self-reported gambling problems although for a minority, Atlantic Lottery Corporation's (ALC) sports lottery and online gambling were a concern. Young adults reported higher awareness and use of problem

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gambling services and responded positively to the *Yellow Flag* campaign with high ad recall, liking, and strong support for public promotion of this type of information.

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## Key Findings

In this report, 'At-Risk+ Gamblers' were defined as those respondents scoring at any level of risk for developing gambling problems using the nine item Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI score=1+).

### Risk for Gambling Problems

- Fewer young adults were gambling one year following the campaign (2007: 90.5% versus 2006: 94.9%) primarily due to a decrease among respondents aged 25-34 years (2007: 91% versus 2006: 95.7%).
- There was a slight decrease in the number of adults, aged 19-34 years, scoring at any level of risk for gambling problems using the CPGI (2007: 10% versus 2006: 13.3%; one tailed test  $p=.07$ ); although the decline was only significant at the 93% level of confidence it occurred in the predicted direction.
- 44.2% of those scoring at any level of risk were identified as experiencing moderate to severe problem levels (CPGI=3+), which was similar to the pre-campaign measure (2006: 41.5%).
- The percentage of respondents who self-reported gambling problems remained constant among those aged 25-34 years (2007: 4.2% versus 2006: 4.4%) but there was a significant decline observed among those in the youngest age group (19-24 years; 2007: 1.4% versus 2006: 6.8%).
- Overall, there were no significant changes in the rates of self-reported problems by type of gambling between the pre-and post-campaign surveys.
- Video lottery terminals continued to be implicated most often in past and present gambling problems, followed by casino gambling, and daily lottery tickets.
- ALC's sport lottery, and online poker were only mentioned by a minority as being associated with gambling problems and no one mentioned scratch 'n win tickets.

### General Gambling Patterns and Expenditures

- Most young adults in the province (90.5%) placed at least one wager within the 12 months prior to the 2007 survey and almost half (47%) engaged in regular monthly play.
- Past-year participation rates decreased significantly for the majority of gambling options available in Nova Scotia, including all lottery-type ticket games (2007: 78.6% versus 2006: 85.5%), casino gambling (24.7% versus 34.4%), video lottery (20.7% versus 26%), charity raffles and draws (43.5% versus 52.6%), 50/50 draws (36.7% versus 50.8%), sports betting (12.3% versus 21.8%), wagering on personal games of skill (2.8% versus

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10.4%), non-casino commercial poker (2.3% versus 5.1%) and internet gambling (1.6% versus 3.9%).

- The decline in past-year participation rates was largely due to a drop in casual gambling among 25-34 year olds (2007: 39.8% versus 2006: 49.3%) suggesting that less involved gamblers in 2006 were most likely to have stopped gambling in 2007.
- Overall, regular monthly gambling involvement did not change (2007: 47% versus 2006: 45.4%) with about one in four (22.6%) respondents self-identified as regular weekly gamblers.
- Consistent with provincial prevention strategies, a decline in regular gambling patterns was observed among those young adults scoring At-Risk+ for gambling problems with about one-third (32.6%) gambling on only a casual basis as compared to 18.2% in the previous year.
- Per capita annual expenditures on gambling among young Nova Scotian (NS) adults, aged 19-34 years, also declined significantly from about \$954 in 2006 (median ≈\$151) to \$448 in 2007 (median ≈ \$96). The drop in gambling expenditures was observed across all segments.
- Expenditures for respondents aged 19-34 years continued to be heavily skewed (92%) towards the 47% of young adults taking part in gambling on a regular basis of once a month or more. On average, each regular gambler spent \$873 (median: \$335) on gambling in 2007, which was significantly lower compared to 2006 (mean ≈\$1,961; median ≈\$463).
- Gambling expenditures were disproportionately skewed towards those scoring At-Risk+ for gambling problems. At-risk gamblers spent over 7 times more than non-problem gamblers in the previous year.
- In total, only 4.2% of young adults typically took part in video lottery play and/or casino gambling each month. Yet this group of regular monthly gamblers continued to report the highest levels of gambling expenditure (mean ≈\$3578; median ≈\$1687), accounting for one-third (33.4%) of the total amount reportedly spent on gambling (i.e., total gambling expenditures) by all 19-34 year olds in Nova Scotia.
- In contrast, respondents who only regularly purchased lottery-type tickets each month made up the largest proportion of regular gamblers aged 19-34 years (28.8% of adults), but, on average, only spent \$363 per year on gambling (median ≈\$232), contributing about 23.4% of total gambling expenditures.
- The remaining regular players (14% of adults), who did not play VLTs or casino games but participated in other forms of gambling each month such as sports betting, bingo, card games outside of a casino, reported spending at rates three times higher than those only purchasing lottery tickets, and collectively generated about 34.7% of expenditures.

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## Type of Gambling by Risk

- As expected, those scoring at any level of risk for gambling problems were significantly more likely than “Non-Problem” gamblers to have taken part in most games of chance.
- **Past year participation rates** for the following types of gambling were at least twice as high for those scoring at any level of risk for gambling problems:
  - *Video lottery* (51.2% versus 19.4%),
  - *Daily lottery tickets* (41.9% versus 12.7%),
  - *Casino Table games* (27.9% versus 9.5%),
  - *Non-Internet sports betting* (23.3% versus 12.4%), including *ALC’s sports lottery* (16.3% versus 8.1%) and *other unregulated sports betting* (11.6% versus 5.2%),
  - *Bingo* (30.2% versus 14.5%),
  - *Commercial poker outside of the casino* (14% versus 1.2%),
  - *Internet gambling* (11.6% versus 0.6%).
- There were a few notable differences in **regular monthly involvement** in gambling activities by risk for gambling problems:
  - *Scratch ‘n win tickets* (34.9% versus 18.5%)
  - *Video lottery* (16.3% versus 2.9%)
  - *Daily lottery* (9.3% versus 2.6%)
  - *Any Casino Gambling* (7% versus 0%);
  - *Poker games outside of a casino venue* (18.6% versus 4%), for both *commercial poker* (9.3% versus 0%) and *social poker with friends or family* (11.6% versus 4%).
  - *Internet Gambling* (7% versus 0%).

## Regulated versus Unregulated Gambling Involvement

- Regulated commercial gambling, including ALC’s products (weekly, daily and instant lottery tickets, sports lottery, VLTs) and the two provincial casinos (Halifax & Sydney), received the largest share of young adults’ gambling expenditures; 81.4% gambled on commercial games accounting for 79.4% of total regulated gambling losses (mean expenditure: \$437 per gambler; \$355 per adult).
- Approximately two-thirds (61.6%) of 19-34 year olds purchased charity raffles and draws or 50/50 fundraising tickets within the past year but spent only 8.6% of total gambling dollars on these not-for-profit gambling activities (mean expenditure: \$63 per gambler; \$38 per adult).
- About 22.1% of respondents engaged in unregulated gambling in the past year 17.2% reported having participated in informal poker with friends and family for money, and 8.1% reported having participated in other unregulated sports betting, informal bets of skill and internet gambling. In total, only 12% of annual gambling expenditures by 19-

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34 year olds were allocated to these gambling activities (mean expenditure: \$244 per gambler; \$54 per adult).

## **Involvement in Poker Gambling**

- Findings from the current study suggest that the high levels of participation in poker gambling observed among young adults in the 12 months prior to the 2006 pre-campaign survey were temporary. However, rates of poker involvement were still significantly higher in 2007 than was the case in the 2003 NS Gambling Prevalence Study.
- One out of every five adults (20.5%), aged 19-34 years, played poker for money in 2007, primarily with friends and family (17.2%). Only about 6% of respondents reported having tried any commercial form of poker during the past 12 months, with 4.7% having played at the casino, and less than 2% having tried games organized at bars or at online poker sites.
- On average, young poker players spent about \$330 on any type of poker game over the last year, while the median estimate was \$40, suggesting that about half of those gambling on poker were spending at levels under \$40 annually.
- One-third of past-year poker players (6% of young adults) took part in at least one commercial poker game, and these games accounted for 70% of the total amount spent on poker by young adults 19 to 34 years.
- On average, those involved in commercial versions of poker play spent about \$760 per year (median: \$110), which was 5 times higher than amounts spent by the remaining two-thirds of players, who only played poker with friends and family last year (mean: \$140; median: \$22).
- 5.1% of young Nova Scotians were identified as regular poker players in 2007, with the vast majority involved in informal games with friends and family (4.4%) each month and less than 1% regularly using any of the commercial versions of poker available in the province (online poker: 0.7%; poker at casinos: 0.2%; poker at bars: 0.2%).
- As is the case for regulated games of chance, expenditures were heavily skewed towards more regular frequent gamblers. Collectively, regular pokers players were responsible for 86.3% of total money spent on poker, reporting an average annual expenditure of \$1,120 (median: \$325).

## **Involvement in Online Gambling**

- 13% of young Nova Scotians, aged 19-34 years, took part in online gambling using play chips or play money during the last year. Over half of these past-year players (7% of 19-34 year olds) engaged in regular play each month, with two-thirds typically participating on a weekly basis (4.4% of 19-34 year olds).

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- Online gambling using ‘play-money’ was skewed towards younger adults (19-24 years: 22% versus 25-34 years: 13.1%) and those scoring At-Risk+ for gambling problems (At-Risk+: 34.9% versus Non-Problem: 14%).
- There was a significant decline in the percentage of young adults involved in online gambling with money (2007: 1.6% versus 2006: 3.9%).
- However, while internet gambling in general dropped it is notable that some young adults engaged in online lottery purchases with PlaySphere, the Atlantic Lottery Corporation’s gaming website introduced in August 2004. Overall, 1.9% of young adults had been members of ALC’s PlaySphere at some time with 1.2% reporting current membership, although only half (0.6%) had actively made lottery purchases online in 2007. At-Risk+ gamblers were more likely to have made a purchase during the last year as compared to Non-Problem gamblers (2.3% versus 0.6%). It is also noteworthy that none of the current PlaySphere members had ever played on any other internet gambling site prior to involvement with ALC’s site.

## Gambling Attitudes

- Fewer young gamblers in Nova Scotia reported having *chased gambling losses* (i.e., tried to win back money lost in previous gambling sessions) (2007: 3.6% versus 2006: 8.1%), especially among 19-24 year olds (2007: 1.6% versus 2006: 14.3%) or those At-Risk+ for problems (2007: 23.3% versus 2006: 39.5%) and more players indicated that *they could stop gambling any time they wanted* (2007: 93.8% versus 2006: 90.2%).
- Young adults (19-34 years old) identified as being at any level of risk for gambling problems (i.e., “At-Risk+) were more likely than Non-Problem gamblers to:
  - *find games of chance to be fun and entertaining* (46.5% versus 27.7%),
  - *consider gambling as a part of socializing with family members* (16.3% versus 4.3%),
  - *depend on gambling to forget troubles or worries* (9.3% versus 0.9%),
  - *believe that gambling is a good way to get extra cash* (11.6% versus 1.7%),
  - *feel odds of winning increase after a string of losses* (7% versus 2.3%),
  - *believe that a certain strategy of play improves change of winning* (14% versus 3.5%),
  - *chase losses while gambling* (23.3% versus 1.2%),
  - *think that gambling is exciting* (48.8% versus 26.3%),
  - *gamble in the hopes of paying off debts or bills* (9.3% versus 1.4%),
  - *lie about their gambling* (4.7% versus 0.3%),
  - *feel guilty about time* (14% versus 0.9%) *and/or the amount of money* (39.5% versus 3.8%) *spent gambling*
  - *have friends or family who worry or complain about their gambling* (4.7% versus 0.6%).

## Behaviours While Gambling

- In 2007 fewer young gamblers aged 19-34 years reported borrowing money from others when gambling (2007: 3.6% versus 2006: 8%), or gambled with money intended for other purposes (3.4% versus 7%).
- Those scoring At-Risk+ for problems continued to be more likely than Non-Problem gamblers to use all the different sources measured in order to obtain more funds to continue gambling, including ATMs (44.2% versus 5.8%), borrowing money from others (18.6% versus 1.7%), used debit/credit cards (14% versus 0.6%), with over one-third having lent money to others to keep gambling (37.3% versus 12.1%).

## Awareness and Use of Problem Gambling Services

- The percentage of young adults reporting personal exposure to people with gambling problems declined from 35.6% in 2006 to 23.5% in 2007 due to fewer mentioning first-hand exposure through close friends (2007: 8.1% versus 2006: 15.8%) or acquaintances (12.8% versus 21.4%).
- Numbers citing exposure in their own household (3.3%), through other family members (9.1%) or among co-workers (3.3%) remained constant from 2006 to 2007.
- Awareness of support services or programs to assist problem gamblers increased since the pre-campaign survey (2007: 72.6% versus 2006: 62.2%).
- Those in the older age group (i.e. 25-34 years) were more likely to spontaneously mention *Addiction Services* than was the case previously (2007: 9.7% versus 2006: 3%).
- Use of any sources of assistance for gambling problems also increased (2007: 5.6% versus 2006: 3.6%).
- Of those who had sought out information or help (n=24), the vast majority (n=20) were motivated by trying to assist someone else with a gambling problem and a similar proportion went to formal (n=18, 4.2% of 19-34 year olds) and informal (n=16, 3.7% of 19-34 year olds) sources of assistance.
- Friends and family members continued to be the most popular source of help for gambling problems compared to any other formal and informal source. In 2007, more young adults went to friends and family for information or help than was the case in the previous year (2007: 4.2% versus 2006: 1.6%).

## General Health and Well-Being

- There was an increase in reports of daily smoking in 2007 (26.5% versus 2006: 20.8%). The increase was largely due to higher daily smoking rates among those scoring At-Risk+ for gambling problems (2007: 48.8% versus 2006: 31.8%).

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- Compared to 2006, there were slight yet significant decreases in the percentage of young adults reporting loneliness and isolation (2007: 10.2% versus 2006: 15%), income loss or job loss (2007: 10.7% versus 2006: 15.1%), work problems (2007: 9.1% versus 2006: 13.4%) and problems with personal alcohol use (1.2% versus 3.1%).
- The youngest group (19-24 years old) had more problems with finances and jobs, relationships, and alcohol and drugs than those aged 25-34 years.
- At-Risk+ gamblers were also more likely to report work related problems (At-Risk+: 23.3% versus Non-Problem: 7.5%) and mental health issues as compared to Non-Problem gamblers (Depression: 27.9% versus 12.4%; Anxiety: 23.3% versus 13.2%).

## Typical Weekly and Monthly Activities

- During a typical month respondents were involved in the following activities:
  - *went out to visit friends* (96.3%)
  - *ate out at restaurants* (91.7%),
  - *rented videos and watched movies at home* (87.9%)
  - *went out to bars*, on average about 3 times per month (60.8%)
  - *went out once per month to the movies at a cinema or theatre* (52.5%)
  - *visited libraries, museums or other educational-type locations* on average, about once a month (32.9%)
  - *attended live sporting events* (27.1%)
  - *attended live entertainment events* (18.8%)
  - *took part in community clubs or organizations* about three times a week (22.5%)
  - *went to a church, synagogue, or place of worship* about four times per month (20.8%)
- The only difference observed for these activities was a tendency among those at risk to be less involved in community clubs or organizations (24.4% non-problem versus 7.4% at-risk).
- In an average week adults 19-34 years of age allocated their time to the following activities:
  - *watched TV* weekly (987.1%), on average, 11.6 hours per week
  - *worked at a job* (81.3%), on average, 40 hours per week
  - *attended school* (21.3%), on average, 25 hours per week
  - *did household chores* (95.4%), on average 18.8 hours per week
  - *involved in physical activity* (70.8%), on average, about 6.1 hours per week
  - *relaxing at home* (89.6%), on average 10.1 hours per week
  - *on the internet* (81.7%), on average 7.6 hours per week

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- played video games (47.1%), on average 3 hours per week
  - played games of chance for money (14.6%), on average 1 hour per week
  - gambled on the internet primarily for play money (5.4%), on average 5 hours per week
- There were few differences observed in association with risk for gambling problems with the exception that those scoring At-Risk+ spent more time watching television (≈14 hours versus 10 hours), spent more time relaxing at home (10 hours versus 8 hours), were more likely to have played games of chance for money (37% versus 11.7%) and more likely to be gambling each week on the internet primarily on free sites (18.5% versus 3.8%).

## Knowledge Levels of Gambling Information

- In general, since the pre-campaign benchmarks in 2006, levels of knowledge about gambling have increased rather dramatically, especially for those areas promoted by NSHPP's *Yellow Flag* social marketing campaign.
- There were strong increases observed for all young adults in the percentage of those who had at least some knowledge of gambling services available to assist gamblers and their families in the province (2007: 76.3% versus 2006: 46.8%).
- Improvements in knowing where gambling information could be obtained (2007: 75.4% versus 2006: 48.5%) also occurred across all categories.
- Increased knowledge of gambling facts and figures were reported more often (2007: 54.6% versus 2006: 32.8%) largely due to improvement in awareness levels among Non-Problem gamblers (55.9% versus 30.7%) and those aged 19-24 years (65.3% versus 31.5%)
- Familiarity with risks associated with the various types of gambling available in the province was also higher following the *Yellow Flag* Campaign (2007: 64.2% versus 2006: 52%).

## Exposure to & Attitudes towards Advertising Media

- Overall, reported exposure to gambling advertisements increased over the past year and was high for both commercial (88%) as well as social marketing (77%) advertising.
- In particular, in 2007, there was higher recall of various commercial print ads promoting gambling activities especially retail signage (47.9% versus 27.7%), billboard ads (50.4% versus 31%), newspaper ads (26.7% versus 19.9%), ads in buses (8.8% versus 3.8%) and in bus shelters (7.9% versus 2.5%).
- Likewise, in 2007, more young adults recalled seeing educational materials in pamphlets (15.8% versus 11.2%), on-site (10.8% versus 3%), on buses (10% versus 4.2%) and on

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billboards (8.8% versus 3.3%). In 2007 there was also an increase in reported exposure to educational advertising on television (65.4% versus 52.2%), the radio (26.7% versus 17.3%) and on the internet (6.3% versus 2.9%) consistent with the social marketing advertising undertaken by NSHPP.

- Young adults were split on attitudes regarding the amount of advertisements that promote gambling in Nova Scotia, with about half rating the amount as just right, especially those who were 19-24 years (61% versus 25-34 year: 47.6%). 42.1% of respondents reported there is too much advertising.
- The vast majority in all segments believed that promotional advertising has at least some influence in promoting underage gambling (89.7%) and that there should be restrictions imposed for gambling advertising that are similar to those in place for alcohol and tobacco (74.6%).
- Despite substantially less support for advertising that promotes commercial gambling, 84.5% of all young adults taking part agreed there should be more information and advertising available on gambling risks and problems.

## Recall of Gambling Advertising

- Unaided recall of the *Yellow Flag* campaign was fairly high with almost one in four adults (23.4%) aged 19-34 years spontaneously mentioning at least one of the ads when asked what social marketing advertising they had recalled seeing or hearing.
- When prompted with a brief description of the *Yellow Flag* campaign, the vast majority remembered at least one of the ads (78.6%); especially television ads (70.2%) followed by radio (25%) and then poster ads (16.7%). Among those who recalled any of the ads, a strong majority found them appealing (74.6% to 85.1%).
- Both the television ad depicting a young man in a casino (Casino Ad) and one depicting a woman in a corner store (Scratch ‘n Win Ad) were recalled by approximately two-thirds of young adults taking part in the study (67.1% and 62.9%). Viewers’ opinions were also high, with 76.2% and 85% of those who recalled the Scratch ‘n Win and Casino ads respectively indicating that the ads were appealing.
- Attitude towards the Casino ad was especially high among 19-24 year olds (93.6% versus 25-34 years: 81.6%).
- When prompted, 27.5% recalled the Houdini radio ad and 17.5% remembered hearing the “Knowing-what-to-do” ad. Total recall (i.e., unaided and aided recall) of the radio ads was higher among Non-Problem gamblers than among At-Risk+ gamblers (48% versus 22%). Given that friends and family were key targets, this result suggests that the ads were effective in reaching the intended audience.
- The majority of those who recalled the radio ads (n=93) liked them with over three-quarters of young adults finding the Houdini ad appealing and almost two-thirds liking

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the ad “Knowing-what-to-do.” The latter appeared to have higher appeal among the younger age group (19-24 yrs: 86.5% versus 25-34 yrs: 51.8%).

- Overall, approximately one in four (25%) young adults recalled seeing at least one of the *Yellow Flag* poster ads with recall for specific posters ranging from a low of 4.2% to a high of 16.7%. This suggests that the posters were targeting different people as there was low overlap among the different versions.
- The Poker Chips poster (12.5%) and the Butt Print poster (12.1%) elicited the highest levels of recall. The Path poster (7.5%), Computer Mouse poster (4.2%) and the Royal Flush poster (3.8%) were recalled less often.
- One-fifth of adults between 19 and 24 recalled the Poker Chips poster compared to only 8.5% of those between 25 and 34 years of age. Likewise, 9.3% of the younger group recalled the Computer Mouse poster and the Royal Flush poster but only 1-2% of the older group did. This likely reflects distribution of the poster in bars and on campus at universities or colleges.
- Judgement was again positive for any of the versions of the posters with 65% to 86% of those who saw the ads rating liking of the posters at ‘4’ or ‘5’ on a 5-point likert scale. Younger adults (19-24 years) found the Computer Mouse (86% versus 66%) and Royal Flush (72% versus 50%) posters more appealing than those aged 25-34 years indicating greater relevance to the key target.

## Yellow Flag Campaign Evaluation

- Overall response toward the campaign was overwhelmingly positive for the key target group.
- In total, 60% of all young adults taking part in the study recalled the campaign and liked the *Yellow Flag* concept with an additional 5.6% finding it at least somewhat appealing. This meant that virtually all but one of those young adults exposed to the *Yellow Flag* campaign liked the concept at least somewhat.
- The ads were considered catchy by half of the target population (54%) with an additional 10.2% finding that they were somewhat effective at cutting through the clutter.
- Among those who were familiar with the campaign, support for this type of advertising was high with 79.6% indicating a preference for providing more ads of this nature and a similar percentage agreeing that such ads are helpful in letting people know about risks when gambling.
- Support for the tagline “Get the facts, stay smart.” was only slightly less enthusiastic among those rating the campaign with 72.2% strongly supportive and an additional 19% liking it only somewhat.

## INTRODUCTION

In 2006, Nova Scotia Health Promotion and Protection (NSHPP) developed the *Yellow Flag* Campaign, an evidence-based social marketing program intended to prevent and/or reduce risk for gambling problems among young adults (19-34 years) in the province.

The results of the 2003 Nova Scotia Gambling Prevalence Study, released October 2004, indicated that young adults had the highest level of risk for gambling problems. Approximately one in ten adults under 35 years of age yielded scores that indicated some level of risk using the Canadian Problem Gambling Index (CPGI=1+: 10.6%), with about one-third of these same young adults classified as having moderate to severe gambling problems (CPGI=3+: 3.1%). These rates were at least twice as high as that noted for older adults (5.6%) especially those over 45 years of age (3.8%). Moreover, based on cohort analysis, it was also found that increased risk observed among the youngest age groups was associated with higher rates of gambling problems over time. To counter this trend, Nova Scotia Health Promotion and Protection initiated research and development of a social marketing campaign.

One of the sources used to inform the initial campaign development process in 2006 was the data from the last gambling prevalence study conducted in 2003. Focal Research was commissioned to re-visit the 2003 Prevalence Study data (n=2800) to profile the key target group of 19-34 year old adults in Nova Scotia (n=684) in terms of differences related to age and risk for gambling problems. The study included a random representative sample of adults, with a response rate of 68%, using extremely rigorous and peer reviewed methodology. However, the data was gathered almost three years ago. Therefore, while the results provided a reliable estimate of the target audience at that particular point in time, the findings did not reflect current gambling profiles or market changes that occurred since the study was conducted.

To address this shortfall, the project team decided to conduct a new random, representative survey among young adults in the province. In April 2006 NSHPP undertook a random survey among young adults in Nova Scotia aged 19-34 years (n=400). The data were segmented and compared by age group (19-24 years versus 25-34 years), by risk for gambling problems (At-Risk+: CPGI=1+ versus Non-Problem: CPGI=0) and between measurement period (2003 versus 2006) in order to: identify any changes that had occurred since the prevalence study in 2003; obtain updated information for use in campaign development; and establish pre-campaign benchmarks for tracking changes following the introduction of any NSHPP initiatives targeting this higher-risk population.

A number of significant changes were observed in the gambling patterns of young adults, primarily related to increased use of relatively newer forms of gambling and a shift away from traditional, less risky options such as weekly lottery draws and charity raffles. It appeared that gambling had become more experimental, more often focused on options that provided quicker outcomes (instant gratification) and included more variety as gambling choices had broadened. Increased gambling accessibility and the corresponding expansion of young adults' gambling

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involvement, was associated with higher per capita gambling expenditures (2006: \$1000 versus 2003: \$575), increased risk (2006: 15.2% versus 2003: 10.7%) and higher rates of gambling problems (2006: 6.9% versus 2003: 3.1%).

NSHPP's *Yellow Flag* social marketing campaign was launched in the fall of 2006 consisting of a series of television, radio, and poster ads to educate and reduce risk for gambling problems, specifically targeting young adults aged 19 to 34 years. To assess market response towards the campaign as well as obtain input for ongoing policy development and prevention a series of questions were included in the general survey for 2007 Nova Scotia Adult Gambling Prevalence Study. A supplementary survey was also administered to selected respondents aged 19-34 years (n=230) in order to obtain more detailed information on behaviors, ad recall, and attitude towards the campaign.

In addition to the evaluation of the social marketing campaign the following report profiles and compares 2006 pre- and 2007 post-campaign gambling risk, behaviors, attitudes, beliefs for young adults (n=430) taking part in the Nova Scotia Adult Gambling Prevalence Study.

For detailed methodology and findings refer to the 2007 Nova Scotia Adult Gambling Prevalence Study Final Report.

### ***Yellow Flag Campaign***

NSHPP introduced the *Yellow Flag* campaign in the fall of 2006 to educate adults, particularly young adults, about gambling risks and problems. Specifically, these ads portrayed “*Yellow Flag* moments” or warning signs during common gambling scenes so that people could more easily self-identify their own risky behaviours. The campaign was developed by Allura Advertising working in cooperation with NSHPP. The situations identified were based on extensive research among the target population and were subject to concept testing<sup>1</sup> prior to ad development as well as testing of the advertising among the population targets prior to release<sup>2</sup>.

The *Yellow Flag* campaign utilized television, newspaper and radio ads as well as brochures and posters to promote “safer gambling” practices.

### **Television Ads**

There were two version of the *Yellow Flag* television ad:

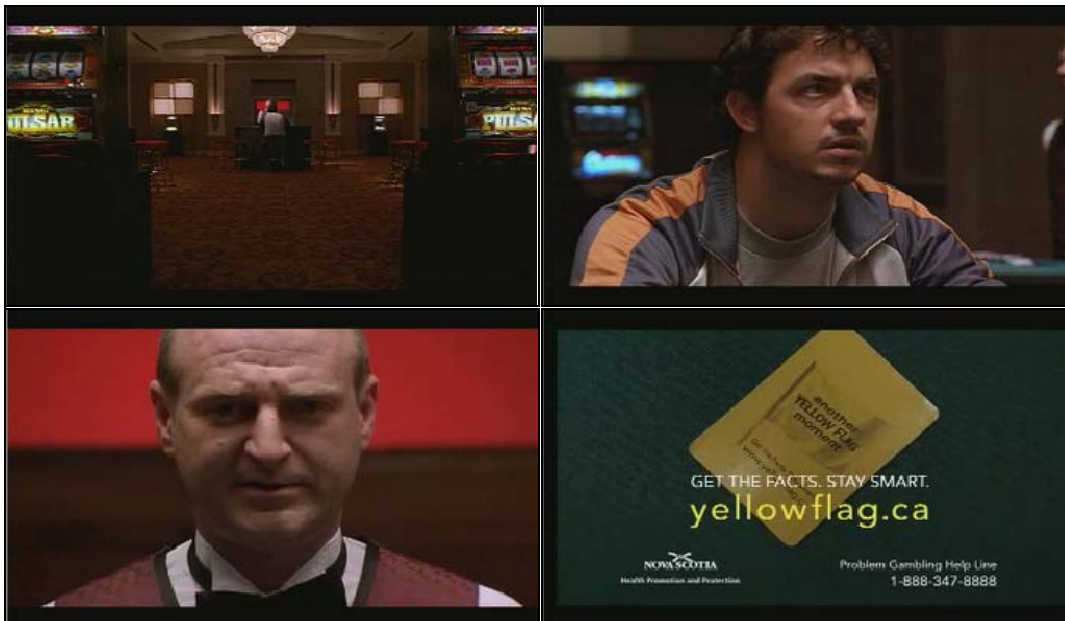
1. The Casino Ad
2. The Scratch ‘n Win Ad

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<sup>1</sup> NSHPP Social Marketing Campaign Development, Allura & Focal Research Consultants, February 2006

<sup>2</sup> NSHPP Yellow Flag Evaluation, Final Report, Focal Research Consultants, June 2006

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**1. Casino Ad:** A young man asking a dealer at the casino to ‘hit’ him. The dealer says “sorry you have spent your budget for the night”, reminding him he has groceries, cable and internet to pay for, and is behind on his car payments.



**2. Scratch ‘n Win Ad:** A woman in a corner store wants to buy Scratch ‘n Win tickets. Male store clerk asks if she is sure and suggests she still has to pay for her magazine, milk and dinner for her blind date.

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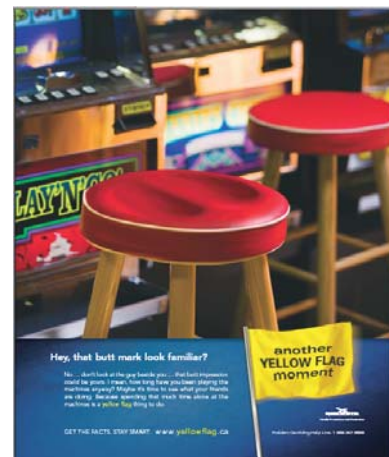
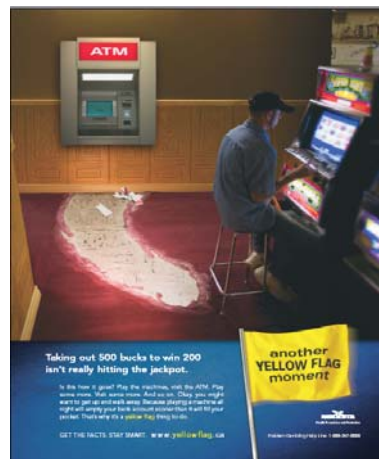
## Radio Ads

There were two radio ads:

**1. Houdini:** Radio Ad asks if you have a “Houdini” – a friend who disappears to the VLTs the second you get in a pub. Tips regarding what to do include “Don’t give them anymore money when they run out” and “Tell them if they disappear, so do you – and mean it”. The ad ends with a male voice telling you to get more tips at [yellowflag.ca](http://yellowflag.ca).

**2. Tips:** Radio Ad says “you know what to do if your love ones have too much to drink, but what do you do if they have been gambling too long, having a yellow flag moment?” A male announcer tells you to “Take away their bank cards” and “Try telling them honestly that they may be gambling too much”. The ad ends with a male voice telling you to get more tips at [yellowflag.ca](http://yellowflag.ca).

## Poster Ads:



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## **Methodology**

The findings were based on a random sub-sample of young adults 19-34 years of age (n=430) obtained during the 2007 Nova Scotia Adult Gambling Prevalence Study. This study involved a telephone survey of adults (n=2,500) living in 1,661 randomly selected households throughout Nova Scotia. Detailed qualitative information was obtained during an additional, supplementary survey administered to 240 of these same respondents.

## **Sampling**

In both 2006 and 2007, a two-stage sampling technique was employed whereby, during Stage 1, a random sample of households was screened to identify all qualified adults living in the household (aged 19 to 34 years). During Stage 2, a survey was conducted with the sample of young adults identified during the household screening process. This approach controlled for a number of sampling errors introduced when only one qualified adult is sampled per household, such as oversampling of single-adult households and underrepresentation of those living in multi-adult households, which tends to be more prevalent among younger adults in Nova Scotia.<sup>3</sup>

## **Pre-Campaign Benchmark**

The Pre-Campaign Benchmark consisted of 400 telephone interviews with a random, representative sample of adults, aged 19-34 years, living in residential households across the province of Nova Scotia. The interviews were conducted April 18 to May 31, 2006 from Focal Research Consultants' centralized facility by supervised, senior level interviewers. The interviews ranged from 26 minutes to 45 minutes in length, with an overall response rate of 65.6%, meaning that a survey was successfully completed with almost two-thirds of all eligible adults randomly identified on the sample frame.

The sampling frame for the Pre-Campaign Benchmark was based on a random sample of households initially compiled during a survey on smoking cessation conducted for NSHPP in December 2004. During this study, a database of 464 randomly selected households, with at

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<sup>3</sup> Based on the results of the household screening process for the 2003 Nova Scotia Gambling Prevalence Study, adults 19-34 of age represented about 39% of the adult residential population yet only resided in approximately 24% of households. This is due to the fact that younger adults are more likely to live in multi-adult households than older adults. Only 4% of adults less than 35 years of age live in single adult households as compared to 22% of those 35 years or older. Moreover, 38% of those aged 19-34 years live in households with three or more adults versus only 20% of older adults in the province. The skew is even more pronounced for those age 19-24 years, with two-thirds living in 3+ adult households and almost half (45%) living with at least one other adult under 34 years of age. Gambling behavior was found to vary by household composition. Therefore, sampling conducted based on selecting one qualified 19-34 year old adult per randomly sampled household will be more expensive due to additional screening required to offset lower household incidence, will over-sample those age 19-34 living in single adult households and will under-represent about one-third of those in this age group who live in households with others in this same age cohort. These findings were confirmed in the 2007 Nova Scotia Adult Gambling Prevalence Study. (See 2007 Nova Scotia Adult Gambling Prevalence Study Final Report Section 1 Methodology for detailed discussion).

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least one resident 15-34 years of age, had been generated with an overall household screening participation rate of 89.8%. Information on age and gender had been gathered for each household member. This prescreened representative sample, obtained approximately 16 months earlier, was used to identify individuals who were aged 19-34 years. In total, 410 households were eligible for re-contact and 398 were successfully screened for a return-to-sample household response rate of 87% ( $398/410 * 89.8\%$ ). In total, 234 households (59%) were found to have at least one person, aged 19-34 years, living in residence. In total, 363 eligible respondents were identified (1.6 adults per eligible household) and 281 adults (77.4%) aged 19-24 completed an interview with an overall response rate of 67.5% ( $77.4\% * 89.8\%$ ).

In order to complete the sample, an additional 119 eligible households were identified through random household screening procedures with a household response rate of 91.1%. There were a total of 177 adults aged 19-34 years identified in the supplemental random household sample, of which, 119 (67.2%) completed a survey for an overall response rate of 61% ( $67.2\% * 91.1\%$ ).

The resulting sample of 400 adults, aged 19-34 years, was considered representative and the results generalizable to this population of adults at large in Nova Scotia with a margin of error of approximately  $\pm 4.9\%$  at the 95% confidence interval<sup>4</sup>.

### **Post-Campaign Survey**

The Post-Campaign survey was conducted as part of the 2007 Nova Scotia Adult Gambling Prevalence Study. Data collection for the project was conducted from October 5, 2007 to December 21, 2007 (n=2500). Final questionnaire length ranged from 13 minutes to 50 minutes with an average length of 24.7 minutes per completed survey and approximately 4.5 minutes per completed household screen. Given the complexity of the design, random quality control checks were conducted throughout the study on 24% of all participant surveys (n=608) to ensure established protocols were effective in obtaining the desired information.

Overall, a total of 2,167 households were randomly contacted with 1,661 households successfully screened for a household response rate of 76.6%. A sampling frame of 3,156 adults was generated from the household screen and the Nova Scotia Adult Gambling Prevalence Study surveys were completed with 2,500 adults, (response rate = 79.2%) for an overall response rate of 60.7% ( $76.6\% * 79.2\%$ ).

430 adults aged 19-34 years took part in the 2007 Nova Scotia Adult Gambling Prevalence Study and this sub-group comprised the sample for the post-campaign evaluation. In January 2008, these same respondents were recontacted to complete a supplementary survey to obtain a more detailed qualitative assessment of the advertising including recall for specific ads, attitudes, preferred forms of gambling and reasons for preference, involvement in other activities and events as well as time spent at work, doing chores, on the internet, socializing at home or outside

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<sup>4</sup> NSHPP Pre-Campaign Gambling Study for Young Adults in Nova Scotia (19-34 years), Focal Research Consultants, 2006 <http://www.gov.ns.ca/hpp/gambling/pg-resources.asp> p. 3

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of the home and watching television. Supplementary surveys were conducted with 240 of those who took part in the original study and this supplemental information was linked to the Nova Scotia Adult Gambling Prevalence Study survey data for analysis and comparison.

## Analysis

To establish pre-campaign benchmarks of gambling behaviours and attitudes, the 2006 data was segmented and compared by age (19-24 years versus 25-34 years) and by risk for gambling problems using the scored items of the Canadian Problem Gambling Index (CPGI) (Non-Problem: CPGI score=0 versus At-Risk+: CPGI score>0). The data for 2007 were also segmented and compared in order to gain insight as to any changes that had occurred since the benchmark and the introduction of the *Yellow Flag* campaign in late 2006 (2007 versus 2006).

In the current report, only descriptive statistics were used to analyze the data including:

- Chi Square tests for distribution comparisons
- Z-tests for proportions (when appropriate adjusted for small sample sizes)
- Z-tests and/or T-tests for mean comparisons (ANOVAs)
- Mann-Whitney U tests for medians

Given that there were differences in sampling between the two measures, the data for 2006 was weighted by age, gender and by Addiction Services Shared Service Area (District Health Authorities) to match the sub-sample characteristics obtained in the 2007 Nova Scotia Adult Gambling Prevalence Study sample. This would minimize the impact of variations in sampling on tracking results (i.e. improve data stability over repeated measures).

Unless otherwise specified, only those differences significant at the 95% confidence level are highlighted for consideration (\* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\*\* =  $p < .001$ ). Significant changes over time, from 2006 to 2007, are denoted using an arrow to signify the direction of the change. due to the exploratory nature of the research there is a need to balance the reduction of Type II error (i.e., *failing to detect a difference when there is one= reduced power*), as well as, reducing Type I error (i.e., *saying there is a difference when there is not=reduced rigor*).<sup>5</sup> Therefore, in some cases, those differences significant at the 80%+ Confidence level ( $p \leq .20$ ) are discussed in the text where relevant.

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<sup>5</sup>For an excellent discussion on balancing the tension between Type I and Type II Error see *Research Methods Knowledge Base*, 2nd Edition by William M. Trochim, Cornell University (at URL: <<http://trochim.human.cornell.edu/kb/index.htm>> Version current as of January 16, 2005) “Increasing alpha (e.g., from .01 to .05 or .10) increases the chances of making a Type I Error (i.e., saying there is a difference when there is not), decreases the chances of making a Type II Error (i.e., saying there is no difference when there is) and decreases the rigor of the test. However, increasing alpha (e.g., from .01 to .05 or .10) increases power because one will be rejecting the null more often (i.e., accepting the alternative) and, consequently, when the alternative is true, there is a greater chance of accepting it (i.e., power)”.

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All statistical analyses were conducted using SPSS version 13.0 or 11.5.

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## SECTION 1: RISK FOR GAMBLING PROBLEMS AMONG ADULTS 19-34 YEARS

This section provides an overview of the current prevalence of gambling problems among young adults aged 19 to 34 years in Nova Scotia, as compared to benchmark findings prior to the *Yellow Flag Social Marketing Campaign* in 2006. Gambling risks for young Nova Scotians were measured using the nine-item Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI). The rates of self-reported problems associated with particular gambling activities were also examined separately by age and risk segment.

**Table 1: CPGI and Self-Reported Gambling Problems by Age and Risk Category**

	Age Category		Risk Category		Total Adults
	19-24 yrs 2006 (n=152) 2007 (n=141)	25-34 yrs 2006 (n=248) 2007 (n=289)	Non-Problem 2006 (n=342) 2007 (n=387)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=400) 2007 (n=430)
<b>Self-Reported Problems with Gambling:</b>					
<i>Ever experienced a problem</i>					
2006	6.8%	4.4%	1.8%	26.7%	5.1%
2007	1.4%↓	4.2%	1.0%	23.3%	3.3%
<i>Currently experiencing problem</i>					
2006	1.1%	1.4%	---	9.6%	1.3%
2007	1.4%	2.4%	0.3%	18.6%	2.1%
<b>CPGI:</b>					
<i>Non-Gamblers</i>					
2006	6.8%	4.3%	5.9%	---	5.1%
2007	10.4%	9.0%↑	10.6%↑	---	9.5%↑
<i>Non-Problem</i>					
2006	77.2%	83.7%	94.1%	---	81.6%
2007	77.3%	82.0%	89.4%↓	---	80.5%
<i>At Risk</i>					
2006	8.1%	7.6%	---	58.5%	7.8%
2007	7.8%	4.5%	---	55.8%	5.6%
<i>Moderate/Severe Problem</i>					
2006	8.0%	4.4%	---	41.5%	5.5%
2007	4.3%	4.5%	---	44.2%	4.4%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ ).

- Compared to the pre-campaign survey, there was a significant increase in the rate of non-gamblers among young adults in Nova Scotia under 35 years of age (2007: 9.5% versus

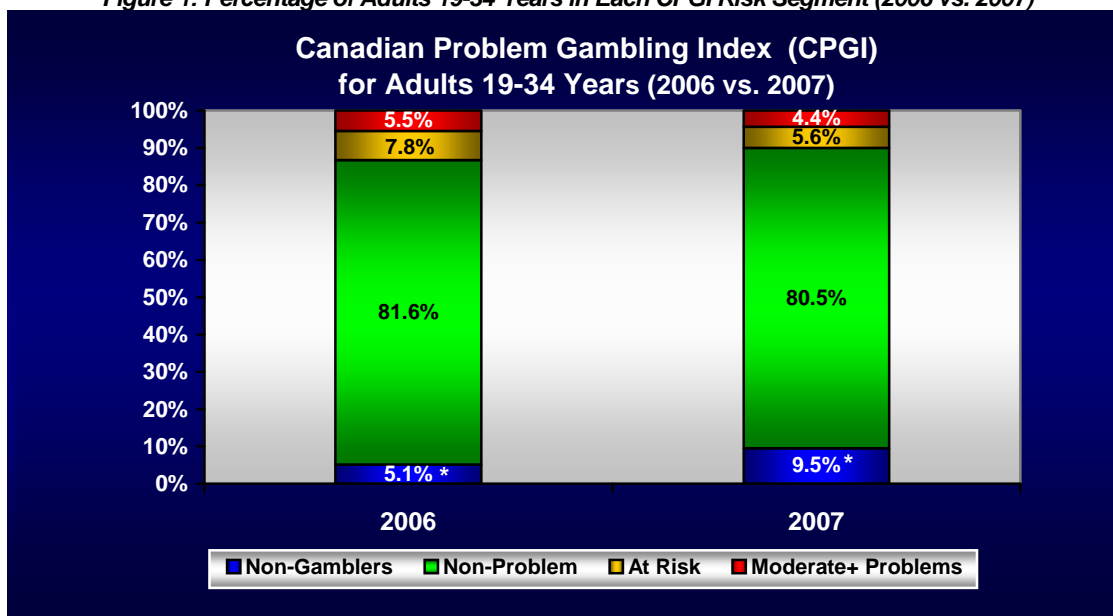
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2006: 5.1%), while the proportions of those identified as At-Risk or Moderate/Severe Problem gamblers remained relatively constant over time.

- It is noted that in the 2007 survey, there were significantly fewer adults in the youngest age group (i.e. 19-24 years old) self-reporting having ever experienced problems with gambling (2007: 1.4% versus 2006: 6.8%), but there was no statistically significant change observed in the overall rate of self-reported gambling problems for all young adults aged 19 to 34 years between the pre- and post- campaign surveys, with 3.3% self-reporting having ever had a problem and 2.1% indicating current problems.

### 1.1 Risk for Gambling Problems (Canadian Problem Gambling Index)

*Figure 1: Percentage of Adults 19-34 Years in Each CPGI Risk Segment (2006 vs. 2007)*



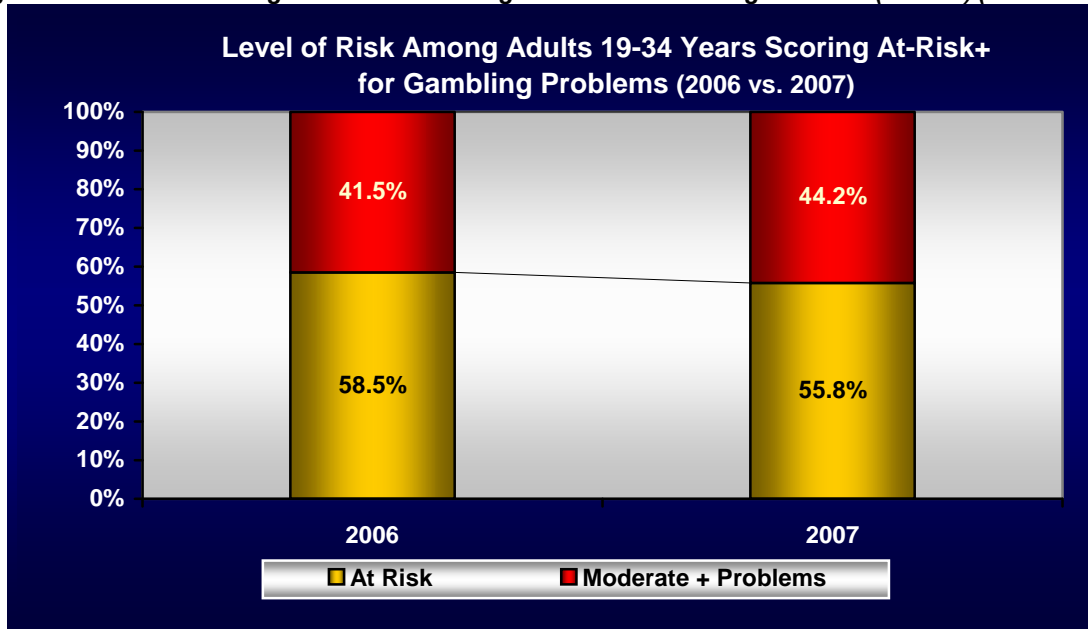
*\* Indicates a statistically significant difference at 95%+ Confidence level (p< .05)*

- In 2007, approximately 80% of Nova Scotians, aged 19 to 34 years were identified as Non-Problem gamblers using the CPGI measure, with one in ten scoring at any level of risk for gambling problems. The percentage of those classified as At-Risk or having Moderate/Severe Problems (CPGI>0) was slightly less than that estimated in 2006 (2007: 10% versus 2006: 13.3%). This decline is not significant at the 95% level of confidence (p=.07; one-tailed test).

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- Significantly more respondents in the post-campaign survey reported that they did not participate in any form of gambling within the past 12 months. The proportion of non-gamblers among young NS adults climbed from 5.1% in 2006 to 9.5% in 2007, largely due to fewer 25-34 year olds taking part in gambling over the past year (2007: 91.0% versus 2006: 95.7%).

**Figure 2: Risk Levels Among Adults 19-34 Scoring At-Risk+ for Gambling Problems (CPGI>0) (2006 vs. 2007)**



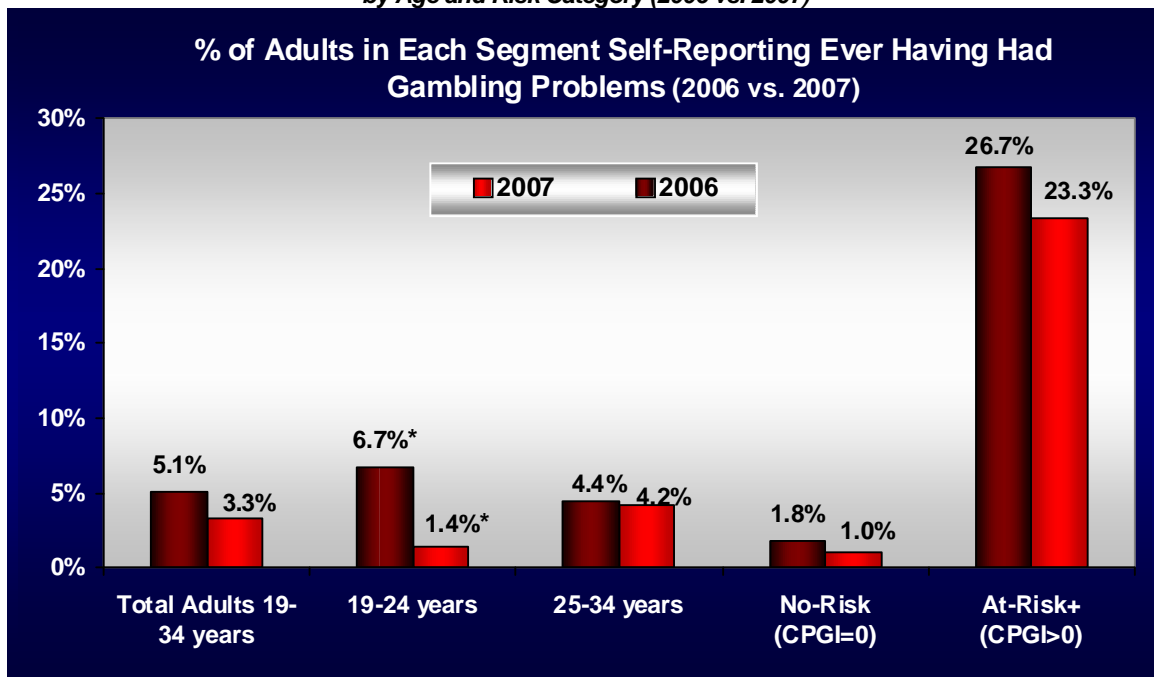
- In the pre-campaign survey, a dramatic shift was identified in the percentage of young gamblers (19-34 years) scoring at problem levels (Moderate + Severe) as compared to the 2003 prevalence study (2006: 41.5% versus 2003: 28.8%). This shift persisted in 2007. 44% of those scoring for *risk* of gambling problems on the CGPI were determined to have a gambling problem (CPGI=3+).
- As was noted in the 2003 prevalence and 2006 pre-campaign surveys, overall risk for gambling problems (CPGI>0) declined with age in the current study. Specifically, for 19-24 year olds, 12.1% scored at any level of risks for gambling problems, and the rate dropped one-third among the older counterparts (25-34 year olds: 9.0%).
- In 2006, it was found that the percentage of respondents identified as problem gamblers was skewed slightly towards the younger age group (19-24 years: 8.0% versus 25-34 years: 4.4%), while the rate of “At-Risk” gamblers was similar in the two age cohorts.

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An inverse relationship was observed from the 2007 survey. Nova Scotians, aged 19-24 years, were more likely to be classified into the “At-Risk+” category according to the CPGI as compared to the 25-34 year olds (7.8% versus 4.5%), while the percentage of those scoring at problem gambling levels was almost the same between the two age groups (4.3% versus 4.5%).

## 1.2 Self-Identified Gambling Problems

*Figure 3: Percentage of Adults Self-Reporting Ever Having Had a Gambling Problem by Age and Risk Category (2006 vs. 2007)*



\* Indicates a statistically significant difference at 95%+ Confidence level ( $p < .05$ )

- The proportion of adults aged 19-24 years who reported ever having gambling problems declined from 6.7% in 2006 to only 1.4% in 2007. Among those aged 25-34 years, there was no change observed in the rate of self-reported gambling problems between the pre- and post- campaign surveys (2007: 4.2% versus 2006: 4.4%).
- Of those scoring at any level of risk, almost one in four (23.3%) self-reported having ever experiencing gambling problems at some point in their lifetime, with about one in five (18.6%) reporting current problems with their gambling. These results were comparable to the pre-campaign benchmarks in early 2006.

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## 1.2.1 Gambling Problems by Type of Gambling Activity (Self-Reported)

Table 2: Self-Reported Ever Having Had Gambling Problems by Age and Risk Category

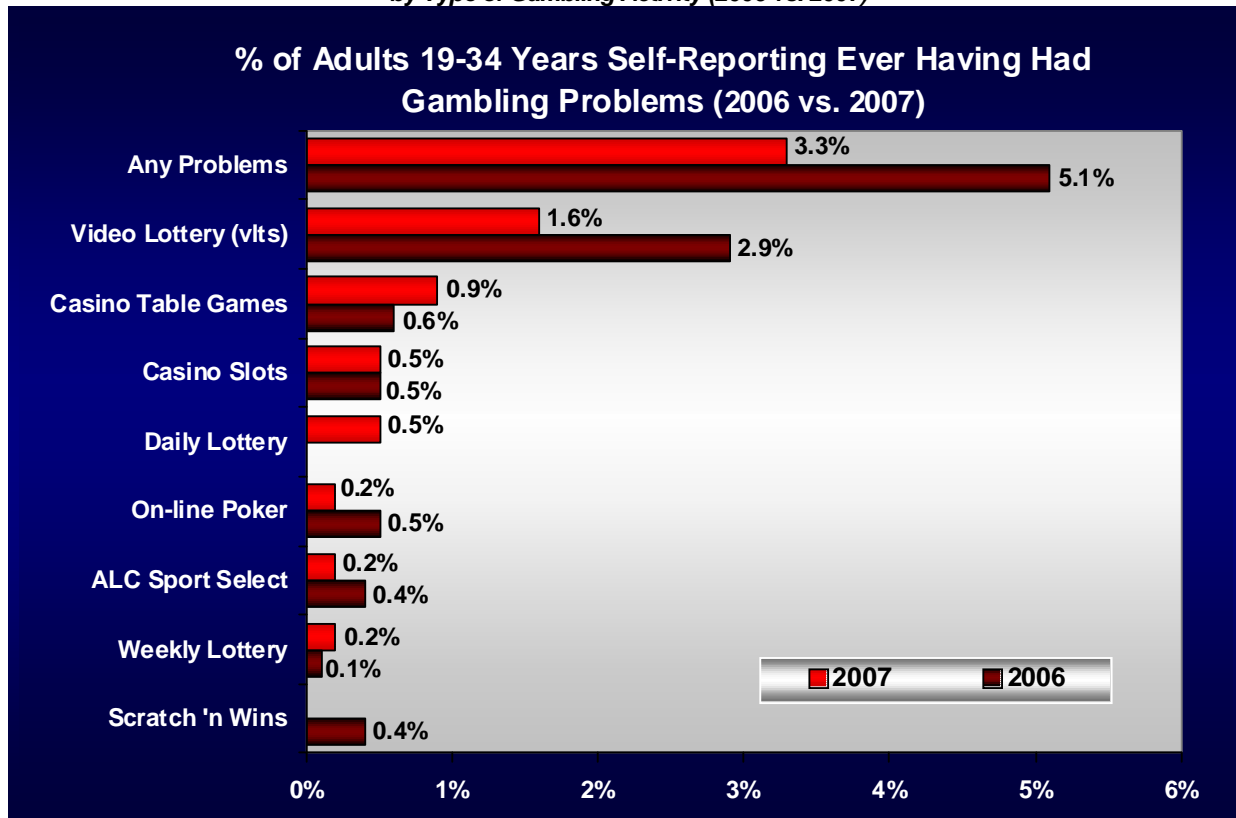
	Age Category		Risk Category		Total Adults 2006 (n=400) 2007 (n=430)
	19-24 yrs 2006 (n=152) 2007 (n=141)	25-34 yrs 2006 (n=248) 2007 (n=289)	Non-Problem 2006 (n=342) 2007 (n=387)	At-Risk+ 2006 (n=58) 2007 (n=43)	
	<b>Any Game of Chance:</b>				
2006	6.7%	4.4%	1.8%	26.7%	5.1%
2007	1.4%↓	4.2%	1.0%	23.3%	3.3%
<b>Daily Lottery</b>					
2006	---	---	---	---	---
2007	---	0.7%	---	4.7%	0.5%
<b>Weekly Lottery</b>					
2006	---	0.2%	---	1.0%	0.1%
2007	---	0.3%	---	2.3%	0.2%
<b>Scratch 'n Win Instant Tickets</b>					
2006	0.3%	0.4%	---	2.9%	0.4%
2007	---	---	---	---	---
<b>ALC Sport Select</b>					
2006	---	0.6%	0.4%	---	0.4%
2007	---	0.3%	---	2.3%	0.2%
<b>Video Lottery</b>					
2006	2.7%	3.1%	0.9%	16.5%	2.9%
2007	0.7%	2.1%	0.3%	14.0%	1.6%
<b>Slot Machines at Casino</b>					
2006	---	0.7%	0.6%	---	0.5%
2007	---	0.7%	0.3%	2.3%	0.5%
<b>Casino Table Games (excluding Poker)</b>					
2006	2.1%	---	---	4.8%	0.6%
2007	---	1.4%	0.5%	4.7%	0.9%
<b>Online Poker</b>					
2006	1.6%	---	---	3.7%	0.5%
2007	0.7%	---	---	2.3%	0.2%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ ).

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Figure 4: Percentage of Adults Self-Reporting Ever Having Had Gambling Problems by Type of Gambling Activity (2006 vs. 2007)



\* Indicates a statistically significant difference at the 95%+ Confidence level ( $p < .05$ )

- For young adults in Nova Scotia, self-identified gambling problems were still highly associated with Video Lottery play. In 2007, 7 of the 14 young adults who self-reported any difficulties with gambling specifically mentioned problematic play of VLTs (1.6% of adults aged 19-34 years).
- Collectively 1.4% (n=6) of the young adult respondents aged 25-34 years specifically mentioned problems with casino gambling, slightly skewed towards problems with table games (0.9%; n=4) and with 0.5% (n=2) noting problems with slot machines.
- In terms of lottery tickets, self-identified problems were most often linked to purchasing daily draw tickets (0.5%; n=2), with no one mentioning scratch 'n win instant tickets compared to 0.4% last year.
- The other two types of gambling, which a minority of young adults mentioned ever having problems with, were ALC sport lottery (2007: 0.2% versus 2006: 0.4%) and

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online poker games (2007: 0.2% versus 2006: 0.5%). As was the case in 2006, online poker was the only unregulated gambling activity mentioned as a source of problems, although the incidence of play remains low.

- In 2007, among those scoring at any risk for problems using the CPGI (n=43), approximately one in seven (14%) reported ever having difficulties with VLTs. About one in twenty (4.7%) mentioned casino table games, and the same ratio was also observed for daily lottery tickets.
- Within the “Non-Problem” category (n=387), a small number of young adults reported having ever experienced problems in association with Video Lottery (0.3%), casino slot machines (0.3%) and table games (0.5%).

**Table 3: Self-Reported Currently Having Gambling Problems by Type of Gambling Activity**

	Age Category		Risk Category		Total Adults
	19-24 yrs 2006 (n=152) 2007 (n=141)	25-34 yrs 2006 (n=248) 2007 (n=289)	Non-Problem 2006 (n=342) 2007 (n=387)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=400) 2007 (n=430)
<b>Any Game of Chance:</b>					
2006	1.1%	1.3%	---	9.5%	<b>1.3%</b>
2007	1.4%	2.4%	0.3%	18.6%	<b>2.1%</b>
<b>Daily Lottery</b>					
2006	---	---	---	---	---
2007	---	0.3%	---	2.3%	<b>0.2%</b>
<b>Weekly Lottery</b>					
2006	---	0.1%	---	1.0%	<b>0.1%</b>
2007	---	0.3%	---	2.3%	<b>0.2%</b>
<b>Scratch 'n Win Instant Tickets</b>					
2006	0.3%	0.4%	---	2.9%	<b>0.4%</b>
2007	---	---	---	---	---
<b>Video Lottery</b>					
2006	---	1.1%	---	6.0%	<b>0.8%</b>
2007	0.7%	1.4%	---	11.6%	<b>1.2%</b>
<b>Slot Machines at Casino</b>					
2006	---	---	---	---	---
2007	---	---	---	---	---
<b>Casino Table Games (excluding Poker)</b>					
2006	0.8%	---	---	1.7%	<b>0.2%</b>
2007	---	0.7%	0.3%	2.3%	<b>0.5%</b>

▒ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval; p <.05).

↕ - Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval; p <.05)

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- Overall, the proportion of young adults in Nova Scotia who reported currently having gambling problems remained comparatively stable over time (2007: 2.1% versus 2006: 1.3%).
- Similar to the findings in 2006, the current problems identified were still more often associated with VLTs (1.2%), casino table games (0.5%) as well as ALC's lottery tickets (Daily Draw: 0.2%; Weekly Draw: 0.2%). It is noteworthy that among those who self-reported ever having had problems with Video Lottery play, only a quarter of them claimed that they had resolved the problems completely.
- Among the young Nova Scotian adults falling into the "At-Risk+" category, nearly one in five (18.6%) reported currently having difficulties with at least one type of gambling activity, and one in nine (11.6%) cited Video Lotteries (VLTs) as a source of current gambling problems. In terms of other types of gambling, the rates of self-identified current problems among "At-Risk+" gamblers were identical for casino table games (2.3%), daily lottery tickets (2.3%) as well as weekly lottery draws (2.3%).

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## SECTION 2: GAMBLING ACTIVITY

### 2.1 Demographic Profile of Key Population Segments

Table 4: Demographic Profile by Age and Risk Category (Adults 19-34 years; 2007)

	Age Category		Risk Category		Total Adults
	19-24 yrs (n=141)	25-34 yrs (n=289)	Non-Problem (n=387)	At-Risk+ (n=43)	19-34 yrs (n=430)
<b>% of Population</b>	<b>32.8%</b>	<b>67.2%</b>	<b>90.0%</b>	<b>10.0%</b>	<b>100%</b>
<b>Area of Residence:</b>					
Urban	53.2%	59.9%	57.9%	55.8%	<b>57.7%</b>
Rural	46.8%	40.1%	42.1%	44.2%	<b>42.3%</b>
Total	100%	100%	100%	100%	<b>100%</b>
<b>Gender:</b>					
				**	
Male	51.8%	43.3%	43.2%	72.1%	<b>46.0%</b>
Female	48.2%	56.7%	56.8%	27.9%	<b>54.0%</b>
Total	100%	100%	100%	100%	<b>100%</b>
<b>Education:</b>					
		**			
Less than Grade 12	17.7%	11.4%	12.4%	23.3%	<b>13.5%</b>
High School Grad	22.7%	20.8%	21.2%	23.3%	<b>21.4%</b>
Some University/College	31.9%	12.5%	18.9%	18.6%	<b>18.8%</b>
University/College Grad	27.0%	49.8%	43.4%	32.6%	<b>42.3%</b>
Post Grad	0.7%	5.5%	4.1%	2.3%	<b>4.0%</b>
Total	100%	100%	100%	100%	<b>100%</b>
<b>Marital Status:</b>					
		**			
Single/Never Married	80.1%	35.6%	49.6%	55.8%	<b>50.2%</b>
Common-Law	16.3%	18.3%	17.3%	20.9%	<b>17.7%</b>
Married	3.5%	45.0%	32.3%	23.3%	<b>31.4%</b>
Separated	---	0.7%	0.5%	---	<b>0.5%</b>
Divorced	---	0.3%	0.3%	---	<b>0.2%</b>
Total	100%	100%	100%	100%	<b>100%</b>
<b>Work Status:</b>					
		**	**		
Full time	48.9%	69.6%	63.0%	60.5%	<b>62.8%</b>
Part time	12.8%	9.7%	11.1%	7.0%	<b>10.7%</b>
Unemployed	7.1%	5.5%	5.7%	9.3%	<b>6.0%</b>
Student	28.4%	6.6%	13.7%	14.0%	<b>13.7%</b>
Homemaker	2.1%	8.3%	6.5%	4.7%	<b>6.3%</b>
Disabled	0.7%	0.3%	---	4.7%	<b>0.5%</b>
Total	100%	100%	100%	100%	<b>100%</b>
<b>Occupation Category:</b>					
		**			
White Collar	9.9%	17.3%	15.5%	9.3%	<b>14.9%</b>
Grey Collar	18.4%	37.7%	32.0%	25.6%	<b>31.4%</b>
Blue Collar	33.3%	24.2%	26.6%	32.6%	<b>27.2%</b>
Income Supported	38.3%	20.8%	25.8%	32.6%	<b>26.5%</b>
Total	100%	100%	100%	100%	<b>100%</b>

\* -indicates significant difference at minimum 95% + confidence interval ( $p < .05$ )

\*\* -indicates significant difference at minimum 99% + confidence interval ( $p < .01$ )

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**Table 5: Household Composition and Income by Age and Risk Category (Adults 19-34 years; 2007)**

	Age Category		Risk Category		Total Adults
	19-24 yrs (n=141)	25-34 yrs (n=289)	Non-Problem (n=387)	At-Risk+ (n=43)	19-34 yrs (n=430)
<b>Number of People in Household:</b> **					
One Person	5.0%	10.0%	8.8%	4.7%	8.4%
Two People	18.4%	34.9%	29.2%	32.6%	29.5%
Three People	27.0%	23.2%	24.0%	27.9%	24.4%
Four People	36.9%	21.1%	25.8%	30.2%	26.3%
Five + People	12.8%	10.7%	12.1%	4.7%	11.4%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Number of Children in Household:</b> **					
No Children	73.0%	53.3%	59.2%	65.1%	59.8%
One or more children	27.0%	46.7%	40.8%	34.9%	40.2%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Household Composition:</b> **					
One adult, no children	5.0%	10.0%	8.8%	4.7%	8.4%
Two adults, no children	17.7%	32.9%	27.6%	30.2%	27.9%
Three+ adults, no children	50.4%	10.4%	22.7%	30.2%	23.5%
One adult, with children	1.4%	5.2%	4.1%	2.3%	4.0%
Two adults, with children	9.2%	37.7%	28.2%	30.2%	28.4%
Three+ adults, with children	16.3%	3.8%	8.5%	2.3%	7.9%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Annual Household Income:</b> **					
<\$30,000 (Low)	15.6%	12.5%	14.5%	4.7%	13.5%
\$30-\$59,999 (Mid)	17.7%	28.0%	23.8%	32.6%	24.7%
\$60,000+ (High)	15.6%	40.8%	33.1%	27.9%	32.6%
Don't Know/Refused	51.1%	18.7%	28.7%	34.9%	29.3%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Number of People Contributing to Household Income:</b> **					
1 Person	7.8%	17.0%	14.5%	9.3%	14.0%
2 People	24.8%	59.5%	48.3%	46.5%	48.1%
3 People	12.1%	3.1%	5.9%	7.0%	6.0%
4+ People	4.3%	1.7%	2.6%	2.3%	2.6%
Don't Know/Refused	51.1%	18.7%	28.7%	34.9%	29.3%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

\* -indicates significant difference at minimum 95% + confidence interval (p <.05)

\*\* -indicates significant difference at minimum 99% + confidence interval (p <.01)

- In general, socio-demographic profiles for 19-24 year olds and 25-34 year olds in Nova Scotia differed strongly, except for area of residence and gender.
- In the youngest age group (19-24 years), 31.9% of respondents had completed some university, college or trade courses, and 28.4% reported “student” as their work status.

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They were more likely to be single (80.1%) and living in households comprised of two or more adults without children (68.1%).

- Approximately two in five (38%) 19 to 24-year-olds reported receiving income support from other sources, and were more likely to be employed in unskilled blue-collar occupations (33.3%) rather than white-collar positions (9.9%).
- For older adults aged 25-34 years, more than half (55.3%) were university graduates or post-secondary diploma holders, with over two-thirds (69.6%) working on a full-time basis. These young adults were more likely to be employed in professional or more skill-based positions, with 17.3% classified as white-collar workers and 37.7% as grey-collar workers.
- The majority of 25-34 year olds were married (45%) or living common-law (18.3%) in predominantly two-adult households (71%), with almost half reporting children under age 19 in the home (46.7%).
- In the current study with the exception of gender and employment status there were few significant demographic differences observed between risk segments for gambling problems, due in part to the small sample size of those comprising the “At-Risk+” segment (n=43).
- Specifically, 72.1% of young gamblers scoring At-Risk+ for problems were comprised of males, while only 27.9% were female. As compared to “Non-Problem” gamblers, those identified as being at any level risk for gambling problems were less likely to be in the workforce, with comparatively higher rates of those unemployed (9.3% versus 5.7%) and disabled (4.7% versus 0%).

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## 2.2 General Gambling Involvement

### 2.2.1 General Participation Rates

Table 6: General Participation in Gambling by Age and Risk Category

	Age Category		Risk Category		Total Adults
	19-24 yrs 2006 (n=152) 2007 (n=141)	25-34 yrs 2006 (n=248) 2007 (n=289)	Non-Problem 2006 (n=342) 2007 (n=387)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=400) 2007 (n=430)
<b>Ever gambled:</b>					
2006	97.1%	97.8%	97.2%	100%	97.6%
2007	95.7%	94.5%↓	94.3%↓	100%	94.9%↓
<b>Gambled In last year:</b>					
2006	93.1%	95.6%	94.1%	100%	94.8%
2007	89.4%	91.0%↓	89.4%↓	100%	90.5%↓
<b>Gambling Status in Past Year:</b>					
<b>Casual Gamblers:</b>					
2006	49.7%	49.3%	54.2%	18.2%	49.4%
2007	51.1%	39.8%↓	44.7%↓	32.6%↑	43.5%↓
<b>Regular Gamblers:</b>					
2006	43.4%	46.3%	39.9%	81.8%	45.4%
2007	38.3%	51.2%	44.7%	67.4%↓	47.0%
<b>Regular Monthly Gamblers (1+ times per month)</b>					
2006	28.7%	19.1%	19.6%	37.6%	22.0%
2007	19.1%↓	27.0%↑	24.5%	23.3%	24.4%
<b>Regular Weekly Gamblers (at least 1+ times per week)</b>					
2006	14.7%	27.2%	20.2%	44.2%	23.4%
2007	19.1%	24.2%	20.2%	44.2%	22.6%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs versus 25-34yrs and Non-Problem versus At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ )

- Gambling continued to be a popular activity for young Nova Scotians aged 19 to 34 years. 94.9% of respondents indicated they had tried at least one game of chance at some point in their lifetime with 90.5% having gambled in the 12 months preceding the survey, and nearly half (47%) characterized as regular gamblers.
- Although the overall regular participation rate in 2007 remained stable as compared to the pre-campaign benchmark, levels of involvement in gambling fell significantly on a trial (2007: 94.9% versus 2006: 97.6%), past year (94.8%) and occasional basis (2007: 43.5% versus 2006: 49.4%). These declines were primarily attributed to the fact that

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fewer 25-34 year olds in 2007 than in 2006 reported having ever gambled in their lifetime (2007: 94.5% versus 2006: 97.8%) and past year (2007: 91.0% versus 2006: 95.6%), or to have engaged in gambling on a casual basis (2007: 49.3% versus 2006: 39.8%).

- Declining gambling rates were also observed among those currently classified as “Non-Problem” gamblers on the CPGI measure, with a trial rate (i.e., # reporting ever having tried the gambling activity) of 94.3% (2006: 97.2%), and a past-year gambling participation rate of 89.4% (2006: 94.1%). However, despite general declines in participation rates there was a shift from casual to more regular playing patterns observed among Non-Problem Gamblers suggesting that the decline in past year participation was due to a decrease in casual gambling (2007: 44.7% versus 2006: 54.2%).
- In 2006, the proportion of casual gamblers was comparable between the two age cohorts in the province. However, the results in 2007 indicated that adults in the youngest age group (19-24 years: 51.1%) were more inclined than those aged 25-34 years (39.8%) to gamble on an occasional, irregular basis.
- It is also important to note that casual gamblers comprised roughly one-third (32.6%) of those scoring at any level of risk for gambling problems (CPGI>0) in 2007 as compared to 18.2% in 2006. This represents a significant decline in regular gambling patterns among “At-Risk+” gamblers over the past year.
- Those in the older age cohort (25-34 years: 51.2%) were more likely to be gambling on a regular basis each month than those 19-24 years (38.3%). However, the percentage involved in regular weekly gambling no longer differed by age group in the post-campaign survey with almost one in four gambling at least once every week (≈22.6%).
- While significantly fewer “At-Risk+” gamblers were playing on a regular basis each month as compared to 2006, the percentage of young adults gambling at least once every week remained higher among “At-Risk+” gamblers (44.2%), as compared to “Non-Problem” gamblers (20.2%).

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## 2.2.2 General Expenditure Levels

Table 7: Average Annual Gambling Expenditures and Number of Gambling Activities by Age and Risk Category

	Age Category				Risk Category				Total Adults	
	19-24 yrs 2006 (n=152) 2007 (n=141)		25-34 yrs 2006 (n=248) 2007 (n=289)		Non-Problem 2006 (n=342) 2007 (n=387)		At-Risk+ 2006 (n=58) 2007 (n=43)		2006 (n=400) 2007 (n=430)	
Average Annual Expenditure:										
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
<b>Total Adults</b>										
2006	\$682	\$126	\$1073	\$165	\$348	\$114	\$4,932	\$685	\$954	\$151
2007	\$352↓	\$65	\$495↓	\$115	\$261↓	\$80	\$2,132↓	\$600	\$448↓	\$96
<b>Total Gamblers (played in last year)</b>										
2006	\$733	\$149	\$1,122	\$171	\$370	\$125	\$4,932	\$685	\$1,006	\$170
2007	\$394↓	\$88	\$544↓	\$142	\$292	\$99	\$2,132↓	\$600	\$495↓	\$120
<b>Casual Gamblers</b>										
2006	\$112	\$43	\$134	\$59	\$117	\$52	\$345	\$188	\$128	\$54
2007	\$75	\$44	\$94	\$36	\$69↓	\$35	\$306	\$213	\$87↓	\$37
<b>Regular Gamblers (play 1+ times per month)</b>										
2006	\$1,443	\$542	\$2,174	\$411	\$713	\$377	\$5,953	\$1,427	\$1,961	\$463
2007	\$818	\$340	\$893↓	\$314	\$514↓	\$297	\$3,013	\$865	\$873↓	\$335
<b>Average Number of Activities Played:</b>										
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
<b>Average number of activities played per year</b>										
2006	4.4	4.0	4.7	5.0	4.3	4.0	6.9	7.0	4.6	4.0
2007	3.5↓	3.0	3.5	3.0	3.2↓	3.0	5.7↓	6.0	3.5↓	3.0
<b>Average number of activities played regularly</b>										
2006	0.9	---	0.9	---	0.8	---	2.0	2.0	0.9	---
2007	0.7	---	1.0	1.0	0.8	---	1.7	1.0	0.9	---

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs versus 25-34yrs and Non-Problem versus At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

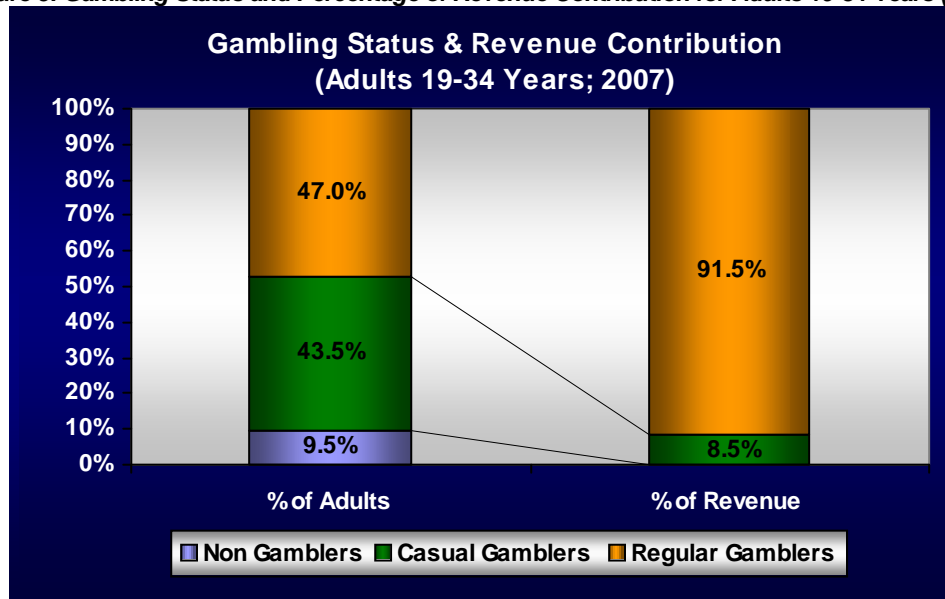
↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ ).

▽ Due to small sample size ( $10 < n < 30$ ) results should be interpreted with caution.

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- With fewer young adults in Nova Scotia participating in gambling over the past year, per capita annual expenditures on gambling among those aged 19-34 years decreased by over 36%, from a median of ≈\$151 in 2006 to ≈\$96 in 2007. This significant decline not only occurred for both 19-24 year olds (2007: \$65 versus 2006: \$126) and 25-34 year olds (2007: \$115 versus 2006: \$165), but also among “Non-Problem” (2007: \$80 versus 2006: \$114) and “At-Risk+” gamblers (2007: \$600 versus 2006: \$685).
- Among past-year gamblers, the amount of annual gambling expenditure per adult differed by age group and level of risk for gambling problems. Those in the older age category (25-34 year olds) tended to spend more on gambling than those aged 19-24 years (median: \$142 versus \$88), while those falling into the “At-Risk+” segment were spending over eight times as much as “Non-Problem” gamblers (median: \$600 versus \$99).
- On average, young adults in Nova Scotia engaged in fewer types of gambling activities in 2007 as compared to rates of involvement in previous year (2007: 3.5 versus 2006: 4.6). 25 to 34-year-old respondents regularly used on average 1.0 gambling-related activity whereas the younger adults (19-24 years) regularly used on average 0.7 gambling-related activities. As compared to “Non-Problem” gamblers, those scoring at any level of risk for gambling problems were significantly more likely to participate in various gambling activities on a regular basis. (Non-Problem: 0.8 versus At-Risk +: 1.7).

**Figure 5: Gambling Status and Percentage of Revenue Contribution for Adults 19-34 Years (2007)**



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- 43.5% of Nova Scotians aged 19-34 years were identified as casual gamblers, and collectively accounted for only 8.5% of total gambling revenues generated by this age group. Compared to 2006 (median: \$54), the median estimate of annual gambling expenditure by casual gamblers declined by over 30%, falling to \$37 in 2007.
- In contrast, 47% of young adults participated in at least one gambling activity on a regular basis every month, contributing 91.5% of total annual gambling expenditures by 19-34 year olds in Nova Scotia. Similar to the results derived from casual gamblers, annual spending on gambling per regular gambler decreased significantly since the pre-campaign study (2007: \$463 versus 2006: \$355), especially among those aged 25-34 years (2007: \$411 versus 2006: \$315) and among those classified as “Non-Problem” gamblers (2007: \$377 versus 2006: \$297).
- As noted in the 2006 survey, gambling expenditures were skewed towards those identified as “At-Risk+” gamblers. In 2007, approximately 48% of gambling expenditures by adults aged 19-34 years were generated by the 10% of young Nova Scotians, who scored at any level of risk for gambling problems on the CPGI.

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## 2.3 Involvement by Type of Gambling Activity

### 2.3.1 Gambling Participation Rates for Adults, 19-34 years of age

Table 8: Gambling Involvement by Type of Gambling Activity for Adults 19-34 Years

2006 (n=400) 2007 (n=430)	Total Adults (19-34 years)		
	Gambled in Last Year	Regular Monthly Gambling	Regular Weekly Gambling
<b>Any Game of Chance:</b>			
2006	94.8%	45.4%	23.4%
2007	90.5%↓	47.0%	22.6%
<b>Lottery Tickets Total:</b>			
2006	85.5%	31.7%	14.3%
2007	78.6%↓	36.0%	13.0%
<i>Daily Lottery</i>			
2006	21.9%	3.7%	1.9%
2007	14.4%↓	3.0%	0.5%↓
<i>Weekly Lottery</i>			
2006	65.9%	21.3%	9.4%
2007	59.8%↓	25.3%	9.8%
<i>Scratch 'n Win</i>			
2006	71.4%	18.5%	5.0%
2007	59.3%↓	18.4%	4.0%
<i>Break-opens</i>			
2006	24.4%	4.7%	1.2%
2007	16.0%↓	3.0%	1.2%
<b>Sports Betting Total:</b>			
2006	21.8%	5.2%	2.7%
2007	12.3%↓	4.2%	3.0%
<i>ALC Sport Select</i>			
2006	12.9%	4.6%	2.7%
2007	8.1%↓	3.5%	2.3%
<i>Other Sports Betting</i>			
2006	14.2%	1.5%	0.1%
2007	5.3%↓	1.2%	0.7%
<i>Online Sports Betting</i>			
2006	0.3%	---	---
2007	0.2%	---	---
<b>Any Casino Gambling:</b>			
2006	34.4%	1.7%	0.5%
2007	24.7%↓	0.7%	0.2%
<i>Slot Machines at Casino</i>			
2006	29.2%	0.7%	0.1%
2007	19.8%↓	0.5%	0.2%
<i>Casino Table Games</i>			
2006	15.5%	1.0%	0.4%
2007	10.5%↓	0.5%	0.2%

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**Table 8: Gambling Involvement by Type of Gambling Activity for Adults 19-34 Years (Continued)**

2006 (n=400) 2007 (n=430)		Total Adults (19-34 years)		
		Gambled in Last Year	Regular Monthly Gambling	Regular Weekly Gambling
<b>Video Lottery</b>				
2006		26.0%	4.2%	2.1%
2007		20.7%↓	4.0%	1.4%
<b>Bingo</b>				
2006		13.7%	1.6%	0.4%
2007		14.7%	3.0%	1.2%
<b>Charity Raffles/Draws</b>				
2006		52.6%	4.4%	1.4%
2007		43.5%↓	4.7%	0.7%
<b>Poker Games (Non-Casino) †</b>				
2006		NA	NA	NA
2007		18.1%	5.1%	1.9%
<i>Commercial Poker Games</i>				
2006		5.1%	1.6%	1.3%
2007		2.3%↓	0.9%	0.7%
<i>Poker Games with Friends/Family †</i>				
2006		NA	NA	NA
2007		17.2%	4.4%	1.2%
<b>Games of Skill</b>				
2006		10.4%	2.2%	0.3%
2007		2.8%↓	0.5%↓	0.2%
<b>50/50 Draws</b>				
2006		50.8%	8.7%	5.0%
2007		36.7%↓	8.4%	3.5%
<b>Horse Racing/Harness Racing</b>				
2006		2.6%	---	---
2007		1.2%	---	---
<b>Internet Betting/Gambling</b>				
2006		3.9%	1.3%	0.9%
2007		1.6%↓	0.7%	0.5%

↑↓ Arrows indicate the direction of significant differences over measurement periods (95% + confidence interval;  $p < .05$ ).

† In 2006 poker participation rates included not-for-money poker games with friends/family, whereas in 2007 only games played for money were included.

- The findings from the 2007 survey suggest that overall gambling involvement for young Nova Scotians (19-34 years) is declining, as significant decreases in past-year gambling participation were observed for most of the individual gambling options available in the province. However, between the pre- and post- campaign surveys, there were few changes in the extent of regular gambling among young adults.
- Daily lottery and informal wagering on games of skill were the only two kinds of gambling activities with significant declines in regular involvement levels. Therefore, although fewer young adults were taking part in gambling activities on an occasional

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basis in 2007, the majority of regular gamblers continued to gamble each month over the two measurement periods.

- Compared to other forms of gambling, the Atlantic Lottery Corporation's (ALC's) **weekly draw tickets** had the highest level of involvement among young NS adults in 2007, with 59.8% having purchased at least one ticket within the past 12 months, and one quarter (25.3%) engaging in regular monthly play. However, play in the past year (2007: 59.8% versus 2006: 65.9%) for weekly draw games had fallen significantly since the pre-campaign survey.
- In 2007, it appeared that young NS adults were less likely to have played ALC scratch 'n win instant lottery ticket games over the past year (2007: 59.3% versus 2006: 71.4%), although the percentage of those purchasing on a regular basis each month remained steady at about 18%.
- Likewise, substantially fewer respondents in the post-campaign survey reported having played ALC's **daily lottery products** such as Keno and Bucko within the past 12 months (2007: 14.4% versus 2006: 21.9%). Regular weekly play for this type of gambling had declined by almost a factor of four (2007: 0.5% versus 2006: 1.9%), suggesting that a high proportion of young gamblers (19-34 years) in Nova Scotia had adopted less frequent play patterns for daily lottery games since the pre-campaign study.
- There was also a significant drop in past-year participation (2007: 16.0% versus 2006: 24.4%) for **break-open ticket games**, although regular purchasing remained stable over the two surveys.
- Although **charity raffles/draws** and **50/50 tickets** were two popular games of chance with over (43.5%) of 19-34 year olds reporting having purchased tickets at least once within the past year, there is evidence that fewer new gamblers from the younger age group were attracted to such not-for-profit ticket games in 2007 than was the case in 2006. Statistical declines in past year participation were observed for both forms of gambling.
- Similar to most other games of chance, past year participation in video lottery (2007: 20.7% versus 2006: 26.0%) and casino gambling (2007: 24.7% to 2006: 34.4%) declined since the pre-campaign.

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- While past-year participation in most games of chance decreased, play of bingo remained constant among adults 19-34 years. This is the only other type of gambling activity, other than weekly lottery draws, for which regular monthly play increased slightly (2007: 3.0% versus 2006: 1.6%).
- Past year play of **sports betting** among young NS adults declined from 21.8% to 12.3%, while regular monthly involvement remained relatively stable over the two measures, suggesting that fewer casual gamblers wagered on sports events in 2007 than in 2006. The findings from the current survey indicate that those regularly involved in sports betting tended to place higher bets, as over 70% of those wagering regularly each month were identified as weekly players in 2007 (regular monthly: 4.2%; regular weekly: 3.0%). This represents an increase of about 20% over the rate reported in the previous year (regular monthly: 5.2%; regular weekly: 2.7%).
- Similar to non-regulated sports betting, informal wagering on **games of skill** (e.g. pool, darts, and golf) dropped dramatically at all levels of involvement, with less than 3% having participated during the past year compared to 10.4% in 2006.
- Participation in **internet gambling** and **commercial poker games outside a casino** declined over 50% (commercial poker games: 5.1% to 2.3%; internet gambling: 3.9% to 1.6%).

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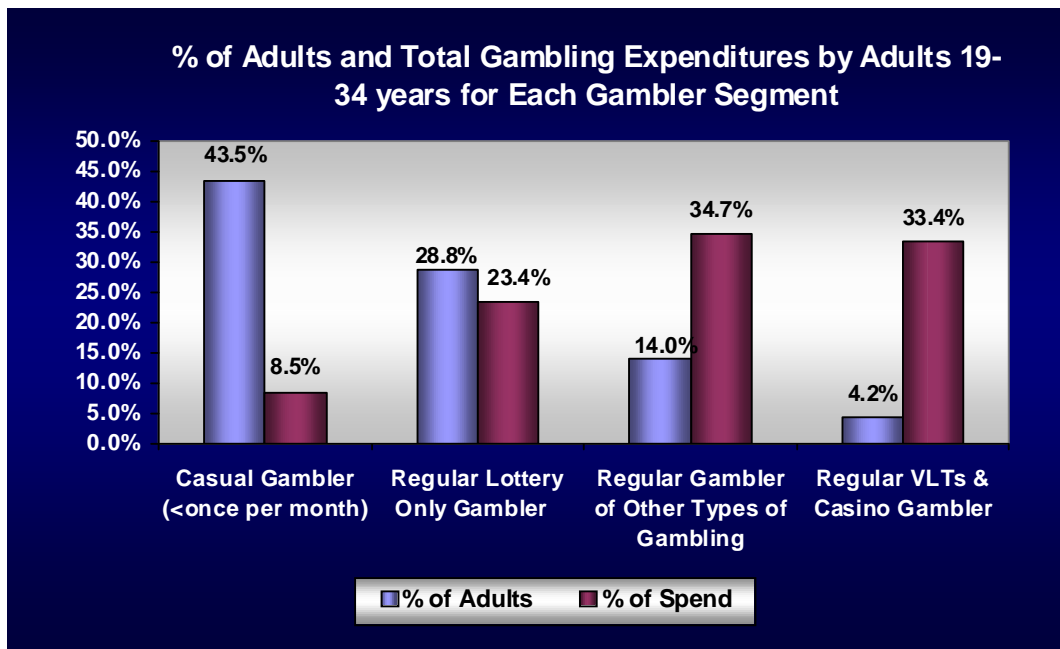
### 2.3.2 Percentage of Expenditures by Type and Frequency of Gambling

*Table 9: Participation Rate, Percentage of Expenditures and Average Expenditures for Past Year, Casual and Regular Gamblers (Adults 19-34 years, 2007)*

Total Adults (19-34 years) 2007 (n=430)	% of Adults 19-34 yrs	% of Expenditures	Average Annual Expenditure	Median Annual Expenditure
<b>Frequency of Gambling in Past Year:</b>				
Gambled in Past Year	90.5%	100%	\$495.01	\$120.00
Casual Gamblers	43.5%	8.5%	\$87.03	\$37.00
Regular Gamblers (1+/month)	47.0%	91.5%	\$872.68	\$335.00
<b>Regular Monthly Gambling in Past Year:</b>				
Lottery Tickets Only	28.8%	23.4%	\$363.45	\$232.00
VLTs & Casino Gambling	4.2%	33.4%	\$3578.06	\$1686.50
Other Gambling (excluding VLTs and Casino)	14.0%	34.7%	\$1113.48	\$562.00

▼ Due to small sample size (10<n<30) results should be interpreted with caution

**Figure 6: Percentage of Adults and Total Gambling Expenditures for Each Segment (2007)**



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- In 2007, nearly 30% of young Nova Scotians regularly gambled on lottery-type ticket games each month, comprising the largest proportion of regular players among 19-34 year olds. On average, **Regular Lottery-Ticket-Only Gamblers** spent \$363 per year (median: \$232) on total gambling purchases and accounted for 23.4% of gross gambling expenditures by adults aged 19-34 years in the province.
- Conversely, while only 4.2% of young adults typically engaged in video lottery play or casino gambling on a monthly basis, this group of regular gamblers contributed one-third (33.4%) of total annual gambling expenditures by 19-34 year olds. Compared with other young regular players in the province, **Regular VLT/Casino Gamblers** had exceedingly higher levels of gambling expenditures. The average annual expenditure was \$3578 per capita among this group and half of these gamblers spent over \$1686.
- **Regular Other Gamblers**, who represented 14% of adults aged 19-34 years, regularly took part in most types of gambling activities except VLTs and casino gambling. This group was primarily made up of those who participated in sports betting, bingo and informal poker games each month, with two-thirds also buying lottery tickets on a regular basis. Collectively, these gamblers accounted for about one-third (34.7%) of total gambling dollars spent by 19-34 year olds in Nova Scotia. Average gambling expenditures for regular gamblers in this group (≈\$1,113) were three times higher than expenditures of those only regularly involved in lottery ticket games (≈\$363) and only one-third of expenditures reported by the VLT/Casino Gamblers (≈\$3,578).

### 2.3.3 Percentage of Expenditures by Regulated versus Unregulated Gambling

*Table 10: Past-Year Participation Rates, Percentage of Expenditures and Average Expenditure for Regulated versus Unregulated Gambling (Adults 19-34 Years, 2007)*

	% of Adults 19-34	% of Expenditures	Average Expenditure Per Gambler	Average Expenditure Per Adult
<b>Regulated Gambling (n=385)</b>	<b>89.5%</b>	<b>88.0%</b>	<b>\$439.97</b>	<b>\$393.93</b>
Commercial Activities (n=350)	81.4%	79.4%	\$436.62	\$355.39
Charity/Fundraising Activities (n=265)	61.6%	8.6%	\$62.54	\$38.54
<b>Unregulated Gambling (n=95)</b>	<b>22.1%</b>	<b>12.0%</b>	<b>\$243.88</b>	<b>\$53.88</b>
Poker with friends/family (n=74)	17.2%	10.5%	\$273.01	\$46.98
Other (Internet, Other bets) (n=35)	8.1%	1.5%	\$84.74	\$6.9

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- In 2007, about 90% of adults aged 19-34 years participated in regulated gambling activities available in Nova Scotia. Average annual spending on government-operated gambling was about \$440 per gambler (\$394 per adult), collectively accounting for about 88% of total gambling dollars spent by these young adults over the past year.
- It should be noted that the vast majority of adults tended to allocate their gambling expenditures to regulated commercial gambling, including ALC's products (weekly, daily and instant lottery tickets, sports lottery, VLTs) and the two provincial casinos (Halifax & Sydney). As a result, nearly 80% of total gambling spending for young Nova Scotians was associated with government-sponsored commercial gambling activities with an average annual expenditure of \$437 per gambler (compared to the base average of \$355 per adult).
- In contrast, almost two-thirds (61.6%) of 19 to 34-year-olds indicated having purchased charity raffles and draws or 50/50 fundraising tickets in 2007, yet these particular gambling-related activities only garnered about 8.6% of total annual gambling spending by young Nova Scotians (mean: \$62 per gambler; \$38 per adult).
- Just under one-quarter (22.1%) of young adults reported having placed a wager outside of regulated commercial or charitable gambling with 17.2% reporting informal poker with friends and family for money and 8.1% reporting other unregulated sports betting and internet gambling. In total, 12% of total gambling expenditures by Nova Scotians 19-34 years of age were allocated to these unregulated gambling activities (average annual expenditure: \$245 per gambler; \$54 per adult).
- Both expenditure and past-year involvement levels for unregulated gambling were skewed towards poker games with friends and family members: 77.8% of those engaged in unregulated gambling played poker with friends or family and about 87.5% of the reported bets on unregulated gambling were spent on informal card games, with each player on average spending about \$273 per year (\$47 per adult).
- As mentioned previously, past-year involvement in unregulated sports betting and wagering on personal games of skill had dropped since 2006, while the regular participation rates for internet gambling and other unregulated betting activity remained consistently low across the two measures. Consequently, only 8.1% of adults aged 19-34 years reported having participated in these gambling activities and the corresponding wagers represented less than 2% (1.5%) of total gambling expenditures.

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### 2.3.4 Gambling Involvement with Various Types of Poker

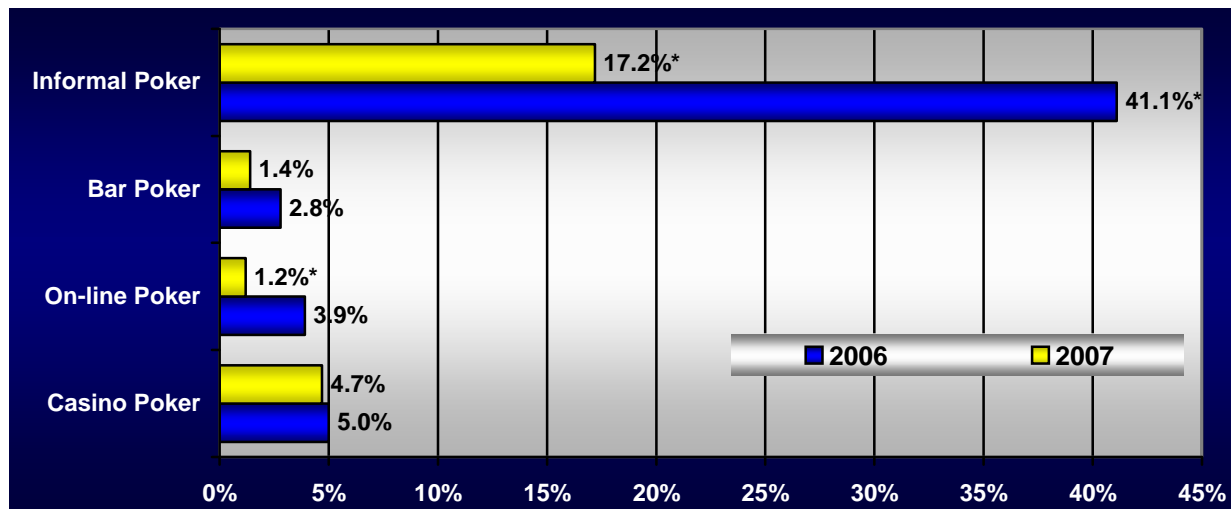
Table 11: Participation in Types of Poker Games by Age and Risk Category (Adults 19-34 years, 2007)

	Age Category		Risk Category		Total Adults
	19-24 yrs (n=141)	25-34 yrs (n=289)	Non-Problem (n=387)	At-Risk+ (n=43)	19-34 yrs (n=430)
<b>Ever Gambled</b>					
<b>Any Poker:</b>	<b>36.2%</b>	<b>28.4%</b>	<b>28.2%</b>	<b>55.8%</b>	<b>30.9%</b>
Poker (Casino)	7.8%	5.5%	4.7%	20.9%	6.3%
Online Poker	4.3%	2.4%	1.8%	14.0%	3.0%
Poker at Bars	1.4%	1.7%	1.3%	4.7%	1.6%
Poker with Friends/Family	31.2%	24.9%	25.1%	44.2%	27.0%
<b>Gambled in Past Year</b>					
<b>Any Poker:</b>	<b>22.0%</b>	<b>19.7%</b>	<b>17.3%</b>	<b>48.8%</b>	<b>20.5%</b>
Poker (Casino)	5.7%	4.2%	3.1%	18.6%	4.7%
Online Poker	2.1%	0.7%	0.3%	9.3%	1.2%
Poker at Bars	1.4%	1.4%	1.0%	4.7%	1.4%
Poker with Friends/Family	19.1%	16.3%	15.0%	37.2%	17.2%
<b>Regular Monthly Gambling</b>					
<b>Any Poker:</b>	<b>7.1%</b>	<b>4.2%</b>	<b>3.6%</b>	<b>18.6%</b>	<b>5.1%</b>
Poker (Casino)	0.7%	---	---	2.3%	0.2%
Online Poker	1.4%	0.3%	---	7.0%	0.7%
Poker at Bars	---	0.3%	---	2.3%	0.2%
Poker with Friends/Family	6.4%	3.5%	3.6%	11.6%	4.4%
<b>Regular Weekly Gambling</b>					
<b>Any Poker:</b>	<b>3.5%</b>	<b>1.0%</b>	<b>0.8%</b>	<b>11.6%</b>	<b>1.9%</b>
Poker (Casino)	---	---	---	---	---
Online Poker	1.4%	---	---	4.7%	0.5%
Poker at Bars	---	0.3%	---	2.3%	0.2%
Poker with Friends/Family	2.1%	0.7%	0.8%	4.7%	1.2%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs versus 25-34yrs and Non-Problem versus At-Risk+) within each measurement period (95% + confidence interval; p <.05)

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Figure 7: Comparison of Past Year Participation in Poker among Young Adults Aged 19-34 (2006 versus 2007)



\* Indicates a significant difference at the 95% Confidence Interval ( $p < .05$ )

As noted in the pre-campaign survey, the market expansion of poker around the province was associated with increased participation in commercial and informal social poker among young adults in Nova Scotia. However, findings from the current study suggest that the high levels of involvement noted in 2006 were temporary and have since dropped dramatically over the past year, especially for involvement in informal poker games with friends or family.

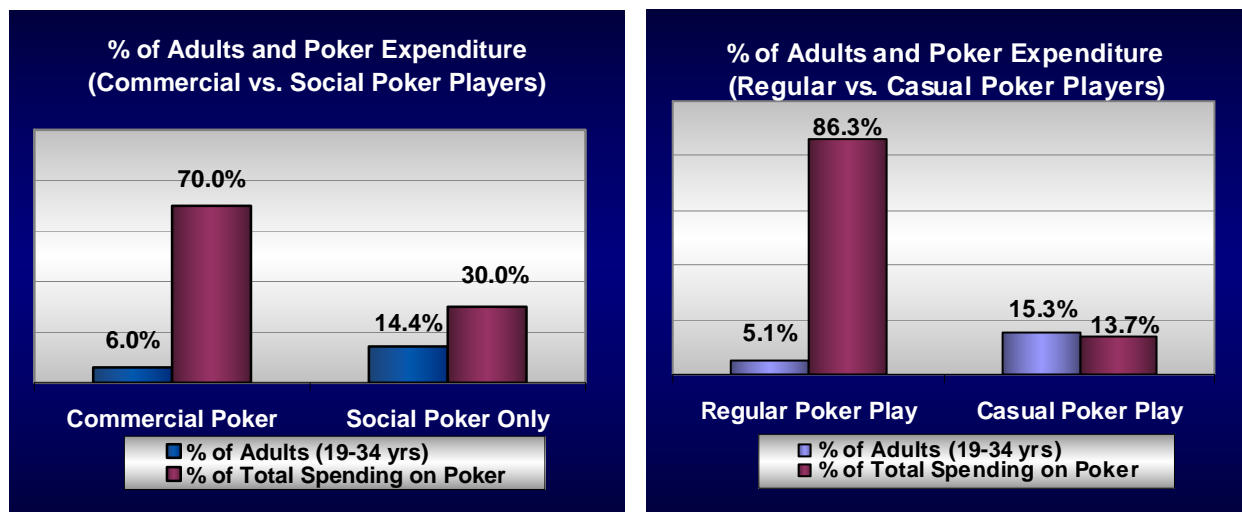
It should be noted that respondents from the 2006 survey were not specifically asked to limit their reported involvement in poker to those games played with friends and family for money. Therefore, some of the observed differences may be due to this difference in questionnaire design. In any case, it appears that although many young adults were initially attracted to the various forms of poker, most of them did not continue to play or only engaged in occasional play over time.

- One out of every five young adults (20.5%), aged 19-34 years, played poker for money during the past 12 months, primarily with friends or family (17.2%).
- Past-year participation in commercial versions of poker was relatively low (7.3%), with less than 5% (4.7%) having played at the casino and less than 2% mentioning online poker (1.2%) or poker at bars (1.4%).
- The percentage of young adults playing poker at the casino or at a bar did not change over the past year although reported online gambling dropped significantly from 3.9% to 1.2% in 2007.

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- On average, respondents wagered about \$330 on any type of poker game over the past year. The median expenditure fell to \$40, which suggested that about half were spending at low levels of under \$40 per year, while the remaining players tended to have a higher annual expenditure far above the median estimate.

**Figure 8: Poker Expenditures by Player Segment (2007)**



- About 6% of 19 to 34-year-olds took part in commercial versions of poker (e.g., casino, in bars or online) available in Nova Scotia. With an average annual expenditure of \$760 related to poker play (median: \$110), this group contributed 70% of total poker expenditures but represented one-third of past-year poker players.
- In 2007, 5.1% of young Nova Scotians played poker games on a regular monthly basis. Similar to past-year participation, regular play of poker was heavily skewed towards informal games with friends and family (4.4%) with less than 1% regularly gambling at online poker sites (0.7%), casino venues (0.2%) or bars (0.2%). Although only one-quarter of the past-year poker players engaged in regular play patterns each month, they accounted for the vast majority (86.3%) of total expenditures on poker, reporting an average annual expenditure of \$1,120 (median: \$325).

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## 2.4 Current Gambling Profiles – Past-Year Gamblers

### 2.4.1 Past-Year Participation Rates (Past-Year Gamblers Only)

Table 12: Gambled on Activity in the Last Year (Past-Year Gamblers Only) by Age and Risk Category

	Age Category		Risk Category		Total Gamblers
	19-24 yrs 2006 (n=142) 2007 (n=126)	25-34 yrs 2006 (n=238) 2007 (n=263)	Non-Problem 2006 (n=322) 2007 (n=346)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=380) 2007 (n=389)
<b>Any Game of Chance:</b>					
2006	100%	100%	100%	100%	100%
2007	100%	100%	100%	100%	100%
<b>Lottery Tickets Total:</b>					
2006	86.8%	91.6%	90.1%	90.7%	90.2%
2007	81.0%	89.7%	85.8%	95.3%	86.9%
<b>Daily Lottery</b>					
2006	20.4%	24.2%	21.8%	31.0%	23.1%
2007	18.3%	14.8%↓	12.7%↓	41.9%	15.9%↓
<b>Weekly Lottery</b>					
2006	47.6%	78.8%	69.4%	70.2%	69.5%
2007	49.2%	74.1%	65.6%	69.8%	66.1%
<b>Scratch 'n Win</b>					
2006	77.6%	74.3%	73.5%	86.4%	75.3%
2007	64.3%↓	66.2%↓	64.2%↓	76.7%	65.6%↓
<b>Break-opens</b>					
2006	28.9%	24.4%	23.4%	39.9%	25.7%
2007	21.4%	16.0%↓	16.2%↓	30.2%	17.7%↓
<b>Sports Betting Total:</b>					
2006	25.4%	21.9%	19.2%	46.1%	23.0%
2007	11.9%↓	14.4%↓	12.4%↓	23.3%↓	13.6%↓
<b>ALC Sport Select</b>					
2006	18.2%	11.6%	10.5%	32.8%	13.6%
2007	8.7%↓	9.1%	8.1%	16.3%↓	9.0%↓
<b>Other Sports Betting</b>					
2006	14.5%	15.2%	12.8%	28.3%	15.0%
2007	4.8%↓	6.5%↓	5.2%↓	11.6%↓	5.9%↓
<b>Online Sports Betting</b>					
2006	---	0.4%	0.3%	---	0.3%
2007	---	0.4%	0.3%	---	0.3%
<b>Any Casino Gambling</b>					
2006	36.5%	36.1%	32.0%	62.6%	36.2%
2007	39.7%	21.3%↓	25.4%↓	41.9%↓	27.2%↓
<b>Slot Machines at Casino</b>					
2006	29.6%	31.2%	28.0%	47.5%	30.8%
2007	33.3%	16.3%↓	20.5%↓	32.6%	21.9%↓
<b>Casino Table Games</b>					
2006	22.5%	13.8%	11.7%	45.2%	16.4%
2007	15.1%	9.9%	9.5%	27.9%↓	11.6%↓

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs versus 25-34yrs and Non-Problem versus At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ ).

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**Table 12: Gambled on Activity in the Last Year (Past-Year Gamblers Only) by Age and Risk Category (Continued)**

	Age Category		Risk Category		Total Gamblers
	19-24 yrs 2006 (n=142) 2007 (n=126)	25-34 yrs 2006 (n=238) 2007 (n=263)	Non-Problem 2006 (n=322) 2007 (n=346)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=380) 2007 (n=389)
<b>Video Lottery</b>					
2006	28.8%	26.9%	23.0%	55.2%	27.5%
2007	25.4%	21.7%	19.4%	51.2%	22.9%
<b>Bingo</b>					
2006	13.3%	15.0%	14.0%	17.2%	14.5%
2007	13.5%	17.5%	14.5%	30.2%	16.2%
<b>Charity Raffles/Draws</b>					
2006	44.2%	60.3%	55.4%	55.6%	55.5%
2007	41.3%	51.3%↓	48.6%↓	44.2%	48.1%↓
<b>Poker Games (Non-Casino)</b>					
2006	49.7%	40.1%	40.3%	59.9%	43.0%
2007	22.2%↓	19.0%↓	17.3%↓	41.9%↓	20.1%↓
<b>Commercial Poker Games</b>					
2006	7.7%	4.4%	2.8%	21.7%	5.4%
2007	3.2%	2.3%	1.2%	14.0%	2.6%↓
<b>Poker with friends/family†</b>					
2006	48.8%	38.6%	39.9%	52.3%	41.7%
2007	21.4%↓	17.9%↓	16.8%↓	37.2%	19.0%↓
<b>Games of Skill</b>					
2006	15.8%	8.9%	8.1%	28.9%	11.0%
2007	3.2%↓	3.0%↓	2.9%↓	4.7%↓	3.1%↓
<b>50/50 Draws</b>					
2006	47.7%	56.0%	54.1%	50.2%	53.5%
2007	37.3%↓	42.2%↓	40.8%↓	39.5%	40.6%↓
<b>Horse Racing/Harness Racing</b>					
2006	1.4%	3.4%	2.6%	4.1%	2.8%
2007	2.4%	0.8%↓	1.2%	2.3%	1.3%
<b>Internet Betting/Gambling</b>					
2006	6.1%	3.3%	1.8%	18.6%	4.1%
2007	3.2%	1.1%↓	0.6%	11.6%	1.8%↓

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs versus 25-34yrs and Non-Problem versus At-Risk+) within each measurement period (95% + confidence interval; p <.05).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval; p <.05).

† The results from 2006 include not-for-money pokers games with friends, which cannot be compared to the findings in the post-campaign survey.

- Due to the high percentage of young adults engaged in gambling during the past year (90.5%), play patterns identified that adults were highly similar when examined only among past-year gamblers.
- Not surprisingly, “At-Risk+” gamblers were significantly more likely than Non-Problem gamblers to have taken part in most games of chance within the past 12 months, with the

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exception of *weekly lottery draws, scratch ‘n win tickets, charity raffles and draws, 50/50 draws, games of skill and harness racing*. The most substantial differences in past year participation rates between “at-risk” and non-problem gamblers were observed for the following gambling options (involvement among “At-Risk+” gamblers was at least twice as high as for non-problem gamblers):

- *Video lottery (51.2% vs. 19.4%),*
  - *Daily lottery tickets (41.9% vs. 12.7%),*
  - *Casino table games (27.9% vs. 9.5%),*
  - *Non-Internet sports betting, for both ALC’s sports lottery (16.3% vs. 8.1%) and other unregulated sports betting (11.6% vs. 5.2%),*
  - *Bingo (30.2% vs. 14.5%),*
  - *Commercial poker games outside of the casino (14% vs. 1.2%),*
  - *Internet gambling (11.6% vs. 0.6%).*
- For most gambling activities, declines in past-year participation were skewed towards Non-Problem gamblers, although there were fewer “At-Risk+” gamblers in 2007 than in 2006 taking part in *casino table games (27.9% versus 45.2%), wagering on games of skill (2007: 4.7% versus 2006: 28.9%), or involved in non-Internet sports betting (ALC’s sports lottery: 16.3% versus 32.8%; unregulated (other) sports betting: 11.6% versus 28.3%).*
  - During the past 12 months, 19-24 year olds were significantly less likely than their older counterparts (25-34 years) to have purchased *weekly lottery tickets (49.2% versus 74.1%) and charity raffles and draws (41.3% versus 51.3%),* but were more inclined to have played *casino slot machines (33.3% versus 16.3%).*
  - Compared to 2006, both age cohorts were significantly less likely to have wagered on *scratch ‘n win tickets, 50/50 draws, unregulated sports betting and games of skill.* Moreover, fewer gamblers in the youngest age group reported playing *ALC’s sports lottery* in the past year (2007: 18.2% versus 2006: 8.7%), while 25-34 year olds were less inclined to have engaged in most other games of chance, except *weekly lottery draws, casino table games, video lottery, bingo and non-casino commercial poker.*

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## 2.4.2 Regular Monthly Participation Rates (Past-Year Gamblers)

Table 13: Regular Monthly Participation Rates (Past-Year Gamblers Only) by Age and Risk Category

	Age Category		Risk Category		Total Gamblers
	19-24 yrs 2006 (n=142) 2007 (n=126)	25-34 yrs 2006 (n=238) 2007 (n=263)	Non-Problem 2006 (n=322) 2007 (n=346)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=380) 2007 (n=389)
<b>Any Game of Chance:</b>					
2006	43.4%	46.3%	39.9%	81.8%	45.4%
2007	42.9%	56.3%↑	50.0%↑	67.4%↓	51.9%↑
<b>Lottery Tickets Total:</b>					
2006	25.9%	34.3%	28.9%	50.0%	31.7%
2007	27.8%	45.6%↑	39.3%↑	44.2%	39.8%↑
<b>Daily Lottery</b>					
2006	4.3%	3.4%	3.1%	7.6%	3.7%
2007	2.4%	3.8%	2.6%	9.3%	3.3%
<b>Weekly Lottery Draws</b>					
2006	9.3%	26.6%	20.0%	29.8%	21.3%
2007	15.1%	34.2%↑	27.2%	34.9%	28.0%↑
<b>Scratch 'n Win</b>					
2006	24.1%	16.1%	15.6%	38.0%	18.5%
2007	19.0%	20.9%	18.5%	34.9%	20.3%
<b>Break-opens</b>					
2006	5.6%	4.3%	3.5%	12.4%	4.7%
2007	4.0%	3.0%	3.2%	4.7%	3.3%
<b>Sports Betting Total:</b>					
2006	4.6%	5.5%	3.0%	19.6%	5.2%
2007	4.0%	4.9%	4.0%	9.3%	4.6%
<b>ALC Sport Select</b>					
2006	4.0%	4.8%	2.4%	18.8%	4.6%
2007	3.2%	4.2%	3.5%	7.0%↓	3.9%
<b>Other Sports Betting</b>					
2006	0.6%	2.0%	1.2%	3.7%	1.5%
2007	0.8%	1.5%	1.2%	2.3%	1.3%
<b>Online Sports Betting</b>					
2006	---	---	---	---	---
2007	---	---	---	---	---
<b>Any Casino Gambling</b>					
2006	2.8%	1.3%	0.3%	11.2%	1.7%
2007	1.6%	0.4%	---	7.0%	0.8%
<b>Slot Machines at Casino</b>					
2006	0.8%	0.7%	0.3%	3.7%	0.7%
2007	0.8%	0.4%	---	4.7%	0.5%
<b>Casino Table Games</b>					
2006	2.0%	0.6%	---	7.6%	1.0%
2007	0.8%	0.4%	---	4.7%	0.5%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs versus 25-34yrs and Non-Problem versus At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ )

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**Table 13: Regular Monthly Participation Rates (Past-Year Gamblers Only) by Age and Risk Category (Continued)**

	Age Category		Risk Category		Total Gamblers
	19-24 yrs 2006 (n=142) 2007 (n=126)	25-34 yrs 2006 (n=238) 2007 (n=263)	Non-Problem 2006 (n=322) 2007 (n=346)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=380) 2007 (n=389)
<b>Video Lottery</b>					
2006	6.2%	3.2%	1.9%	18.6%	4.2%
2007	4.8%	4.2%	2.9%	16.3%	4.4%
<b>Bingo</b>					
2006	1.4%	1.7%	1.3%	3.7%	1.6%
2007	---	4.9%↑	3.5%↑	2.3%	3.3%
<b>Charity Raffles/Draws</b>					
2006	2.4%	5.3%	4.7%	2.7%	4.4%
2007	2.4%	6.5%	5.2%	4.7%	5.1%
<b>Poker Games (Non-Casino)</b>					
2006	19.9%	10.8%	11.2%	29.1%	13.6%
2007	7.9%↓	4.6%↓	4.0%↓	18.6%	5.7%↓
<b>Commercial Poker Games (e.g., bars and clubs)</b>					
2006	7.7%	4.4%	2.8%	21.7%	5.4%
2007	1.6%↓	0.8%↓	--- ↓	9.3%↓	1.0%↓
<b>Poker with friends/family†</b>					
2006	21.4%	9.9%	11.9%	22.3%	13.4%
2007	7.1%↓	3.8%↓	4.0%↓	11.6%↓	4.9%↓
<b>Games of Skill</b>					
2006	0.5%	2.9%	2.1%	2.9%	2.2%
2007	0.8%	0.4%↓	0.6%↓	---	0.5%↓
<b>50/50 Draws</b>					
2006	8.3%	8.9%	8.5%	9.9%	8.7%
2007	8.7%	9.5%	8.7%	14.0%	9.3%
<b>Horse Racing/Harness Racing</b>					
2006	---	---	---	---	---
2007	---	---	---	---	---
<b>Internet Betting/Gambling</b>					
2006	2.1%	1.0%	0.3%	8.1%	1.3%
2007	1.6%	0.4%	---	7.0%	0.8%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs versus 25-34yrs and Non-Problem versus At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ ).

† The results from 2006 include not-for-money pokers games with friends, which cannot be compared to the findings in the post-campaign survey.

- For most gambling options available in Nova Scotia, regular involvement by past-year gamblers aged 19-34 years remained stable between the pre- and post- campaign surveys with a few noteworthy exceptions:
- There were significantly more 19 to 34-year-old players in 2007 regularly purchasing weekly lottery draw tickets each month (2007: 28% versus 2006: 21.3%), which likely

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contributed to the expansion of the overall regular player base among young adults in the province (51.9% versus 45.4%).

- Compared to 2006, past-year gamblers were less likely to play *commercial poker games* outside of the casino (e.g., bars and clubs) (5.4% versus 1%) or wager on *games of skill* (2.2% versus 0.5%) on a regular monthly basis.
- The principle difference in regular gambling behaviours between the two age groups was that past-year gamblers in the 19-24 age group were less inclined than those aged 25-34 years to regularly purchase *weekly lottery draw tickets* (19-24 year: 15.1% versus 25-34 year: 34.2%) or *charity raffles and draws* each month (2.4% versus 6.5%).
- In 2007, gamblers aged 25-34 years were more likely to have adopted regular play patterns for *weekly lottery draws* (2007: 34.2% versus 2006: 26.6%) and *bingo* (2007: 4.9% versus 2006:1.7%), but less likely to bet on *games of skill* (2007: 0.4% versus 2006: 2.9%) each month.
- In 2007, among those scoring At-Risk+ for gambling problems on the CPGI, regular participation rates were noticeably higher than for Non-Problem gamblers for the following gambling activities:
  - *Scratch 'n Wins* (34.9% vs.18.5%),
  - *Daily lottery tickets* (9.3% vs. 2.6%)
  - *Video Lottery* (16.3% vs. 2.9%),
  - *Any Casino Gambling* (7% vs. .08%); (Slots: 2.3% vs. .03%; Table Games: 4.7% vs. .05%),
  - ***Any poker game out side of the casino (18.6% vs. 4%); (Commercial Poker: 11.6% vs. 0%; Poker with friends/family: 11.6% vs. 4%),***
  - ***Internet Gambling (7% vs. 0%).***
- The results of the study indicated that the increase in the regular player base since 2006 was primarily due to increased levels of regular involvement among Non-Problem gamblers in wagering on *lottery ticket games* (2007: 39.3% vs. 2006: 28.9%) and *bingo* (3.5% vs. 1.3%).

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## 2.5 Online Gambling Participation

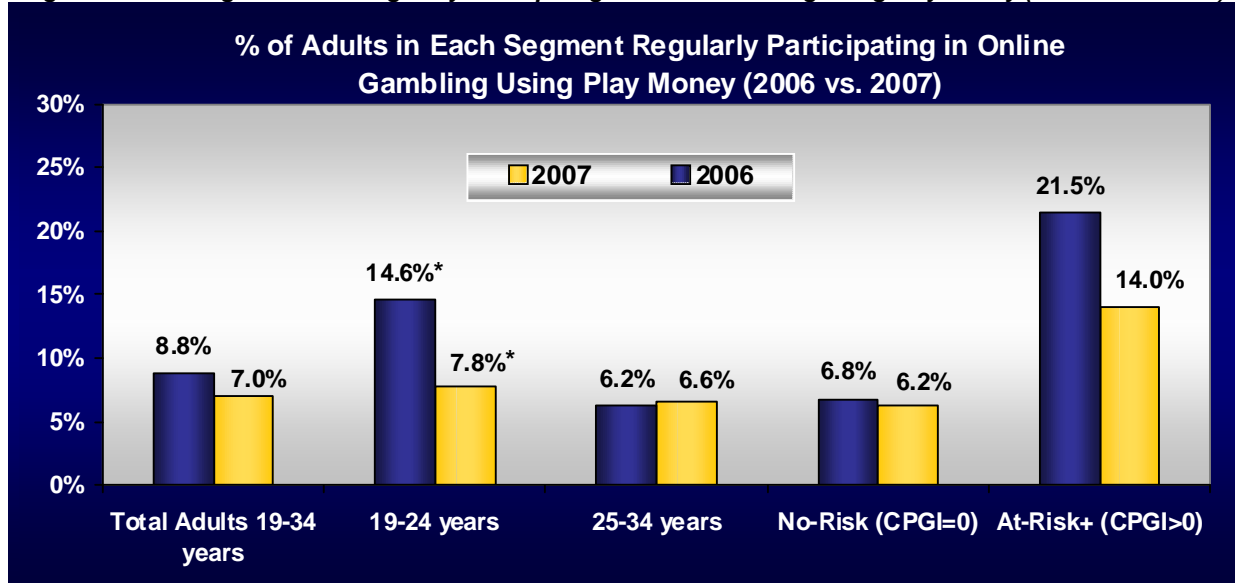
### 2.5.1 Online Gambling Participation (Free)

Table 14: Participation in Online Gambling (Free) by Age and Risk Category (Total Adults 19-34 years; 2007)

	Age Category		Risk Category		Total Adults
	19-24 yrs (n=141)	25-34 yrs (n=289)	Non-Problem (n=387)	At-Risk+ (n=43)	19-34 yrs (n=430)
<b>Ever Tried Online Gambling using play chips or play money:</b>	22.0%	13.1%	14.0%	34.9%	16.0%
<b>Status in Past Year:</b>					
<b>Played In Past Year:</b>	16.3%	11.4%	11.9%	23.3%	13.0%
<b>Casual Gamblers</b> (Occasionally/Rarely)	8.5%	4.9%	5.7%	9.3%	6.1%
<b>Regular Gamblers:</b>	7.8%	6.6%	6.2%	14.0%	7.0%
Regular Monthly Gamblers (at least 1+ times per month)	3.5%	2.1%	2.3%	4.7%	2.6%
Regular Weekly Gamblers (at least 1+ times per week)	4.3%	4.5%	3.9%	9.3%	4.4%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs versus 25-34yrs and Non-Problem versus At-Risk+) (95% + confidence interval;  $p < .05$ ).

Figure 9: Percentage of Adults Regularly Participating in Online Gambling Using Play Money (2006 versus 2007)



\* Indicates a statistically significant difference at the 95%+ Confidence level ( $p < .05$ )

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- 16% of Nova Scotians, aged 19-34 years, reported having tried online gambling using play chips or play money at some time in the past, with the vast majority (13%) having played over the past 12 months. Just over half of past-year gamblers (7% of 19-34 year olds) took part on a regular basis of once a month or more, while almost two-thirds (4.4% of 19-34 year olds) of these past-year regular gamblers reported weekly play patterns.
- Rates of trial (i.e., prior gambling activities) were significantly higher among 19-24 year olds (22% versus 25-34 years: 13.1%) and those scoring at any level of risk for gambling problems (34.9% versus Non-Problem: 14%). However, rates of regular involvement for 19 to 24-year-olds declined significantly since the pre-campaign measure (2007: 7.8% versus 2006: 14.6%).
- Regular involvement in online gambling for play money differed by risk for gambling problems, with more than twice as many “At-Risk+” gamblers having played regularly each month (14% versus Non-Problem: 6.2%).

## 2.5.2 Online Purchasing of Lottery Tickets

**Table 15: Purchase of Online Lottery Tickets (ALC) by Age and Risk Category (Total Adults 19-34 years; 2007)**

	Age Category		Risk Category		Total Adults
	19-24 yrs (n=141)	25-34 yrs (n=289)	Non-Problem (n=387)	At-Risk+ (n=43)	19-34 yrs (n=430)
<b>ALC PlaySphere Member:</b>					
Past Member	---	1.0%	0.8%	---	0.7%
Current Member	0.7%	1.4%	0.8%	4.7%	1.2%
<b>Purchased in Last Year:</b>					
	---	0.9%	0.6%	2.3%	0.6%
<b>Frequency of Purchase:</b>					
Rarely	---	---	---	---	---
Occasionally	---	0.3%	0.3%	---	0.2%
Regularly	---	0.6%	0.3%	2.3%	0.4%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs versus 25-34yrs and Non-Problem versus At-Risk+) (95% + confidence interval;  $p < .05$ )

- Very few young adults (1.2%) in Nova Scotia reported having registered on ALC’s gambling site (PlaySphere) and purchased (0.6% of adults 19-34 years) lottery products on the website during the past year.
- Although the sample was too small to provide an accurate profile of young PlaySphere online gamblers, those who engaged in regular purchasing of online lottery tickets were

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exclusively from the older age group (0.6%) and skewed towards “At-Risk+” gamblers (2.3% versus Non-Problem: 0.3%).

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## 2.6 Preferred Type of Gambling

Table 16: Preferred Type of Gambling by Age and Risk Category

	Age Category		Risk Category		Total Adults 2007 (n=240)
	19-24 yrs 2007 (n=75)	25-34 yrs 2007 (n=165)	Non-Problem 2007 (n=213)	At-Risk+ ▼ 2007 (n=27)	
<b>Lottery Tickets</b>					
Weekly Lottery	14.7%	22.4%	22.1%	3.7%	20.0%
Scratch 'n Win	18.7%	23.0%	20.7%	29.6%	21.7%
Breakopens	4.0%	1.2%	2.3%	---	2.1%
<b>Sports Betting</b>					
ALC Sport Select	5.3%	1.8%	2.3%	7.4%	2.9%
Other Sports Betting	1.3%	---	---	3.7%	0.4%
<b>Casino Gambling</b>					
Slots	1.3%	1.8%	0.9%	7.4%	1.7%
Table Games	4.0%	2.4%	2.3%	7.4%	2.9%
Poker Games	---	1.2%	0.9%	---	0.8%
<b>Poker Games (Non-Casino)</b>					
Online Poker	1.3%	0.6%	0.5%	3.7%	0.8%
Poker with Friends/Family	20.0%	10.9%	13.6%	14.8%	13.8%
<b>Machine Gambling (VLTS)</b>					
Video Lottery	1.3%	3.6%	1.9%	11.1%	2.9%
<b>Charitable Gambling</b>					
Charity Raffles/Draws	---	0.6%	0.5%	---	0.4%
50/50 Draws	---	1.2%	0.5%	3.7%	0.8%
Bingo	2.7%	3.6%	3.3%	3.7%	3.3%
<b>Other</b>					
Horse Racing	1.3%	0.6%	0.9%	---	0.8%
Internet Wagering/Betting	---	0.6%	---	3.7%	0.4%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

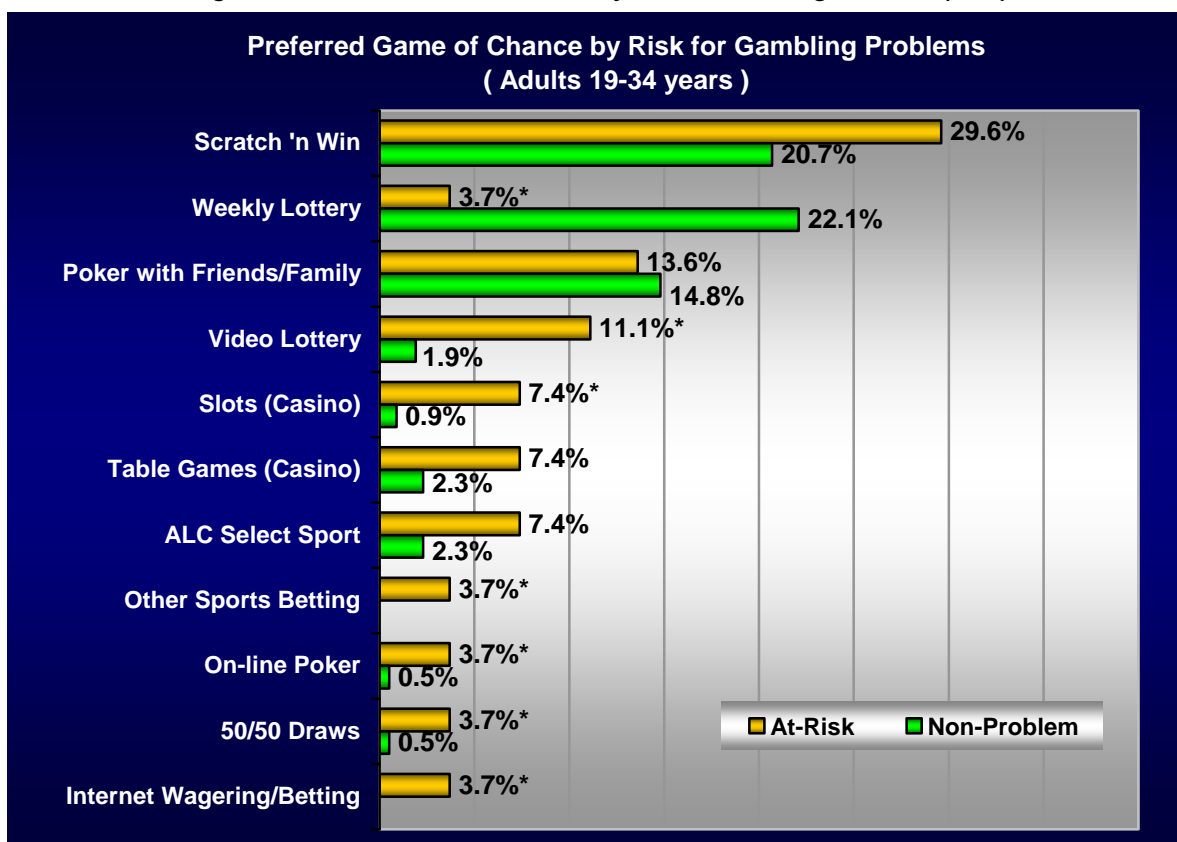
▼ - Due to small sample sizes ( $10 < n < 30$ ), results should be interpreted with caution.

- Overall, *scratch 'n win tickets* emerged as the most popular game of chance among young Nova Scotians aged 19-34 years old, with 21.7% of respondents indicating that these ALC instant games were a preferred gambling choice.
- *Weekly lottery draws* (20.0%) and *poker games with friends/family* (13.8%) were the other top two responses to the question of favorite gambling activity, followed by *bingo* (3.3%), *ALC's sport lottery* (2.9%), *video lottery* (2.9%) and *casino table games* (2.9%).

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- There were few differences between the age groups in terms of gambling preferences, with the exception that one in five (20%) 19-24 year olds reported social poker games with friends and family as their favorite gambling activity as compared to only about 10.9% among 25-34 year olds. In fact, informal poker games were the most preferred gambling option for the younger cohort.
- Gambling preferences differed strongly between Non-Problem and “At-Risk+” gamblers. Those scoring at any level of risk for gambling problems were more inclined to prefer VLTs, casino slots and table games, ALC’s sports lottery, and to a lesser extent, scratch ‘n win tickets. In sharp contrast, Non-Problem gamblers tended to choose traditional weekly lottery draws and poker with friends/family as their favorite games of chance.

**Figure 10: Preferred Game of Chance by Risk for Gambling Problems (2007)**



\* Indicates a statistically significant difference at the 95%+ Confidence level ( $p < .05$ )

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**Table 17: Top 10 Reasons for Preferred Game of Chance by Age and Risk Category**

	Age Category		Risk Category		Total Adults
	19-24 yrs 2007 (n=75)	25-34 yrs 2007 (n=165)	Non-Problem 2007 (n=213)	At-Risk+ ▼ 2007 (n=27)	2007 (n=240)
Like the Prizes/Chance to be Rich	10.7%	22.4%	20.2%	7.4%	18.8%
Enjoy Playing (fun)	20.0%	17.6%	16.9%	29.6%	18.3%
Social Aspect	17.3%	10.3%	12.7%	11.1%	12.5%
Cheap/Affordable	12.0%	11.5%	11.3%	14.8%	11.7%
Entertainment	9.3%	10.9%	10.8%	7.4%	10.4%
Easy/Convenient	9.3%	9.7%	9.9%	7.4%	9.6%
Instant Results	6.7%	9.1%	8.0%	11.1%	8.3%
Take Knowledge/Skill to Play	4.0%	3.6%	3.3%	7.4%	3.8%
Good/Better Odds of Winning	5.3%	2.4%	1.9%	14.8%	3.3%
No Skill to Play	6.7%	1.8%	2.8%	7.4%	3.3%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

▼ - Due to small sample sizes ( $10 < n < 30$ ), results should be interpreted with caution.

- The appeal of the prizes (**chances to win money or good prize: 18.8%**) and the **fun and enjoyment of playing (18.3%)** were both cited as the primary motivations for young adults’ preferred gambling options, and 10.4% specifically noted the **entertainment value** of the activity as a motivation for engaging in games of chance.
- **Socializing with others (12.5%)** and the fact that the **cost of taking part is relatively cheap or affordable (11.7%)** were also mentioned as important reasons for engaging in gambling activities.
- **Ease of playing and convenience** were reported as factors for one in 10 adults aged 19-34 years (9.6%) as well as the strong appeal of those types of gambling that provide **instant results (8.3%)** rather than having to wait to find out if you might be a winner.
- A minority of young adults included the appeal of **skill based gambling options (3.8%)** and **non-skill based games (3.3%)** as additional motivating factors.
- In terms of risk for gambling problems the only significant difference found was that “At-Risk+” gamblers were more likely to mention the role of **game odds** and **better chances of winning** as driving gambling preferences. This provides support for a possible association between risk and games with higher pay-outs or higher odds of winning.

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## 2.7 Gambling Attitudes

Table 18: Percentage Agreement with Attitudinal Statements by Age and Risk Category

	Age Category		Risk Category		Total Gamblers
	19-24 yrs 2006 (n=142) 2007 (n=126)	25-34 yrs 2006 (n=238) 2007 (n=263)	Non-Problem 2006 (n=322) 2007 (n=346)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=380) 2007 (n=389)
<b>Gambling Motivation</b>					
<i>I find gambling/games of chance to be fun and entertaining</i>					
2006	40.3%	30.8%	29.2%	60.9%	33.6%
2007	32.5%	28.5%	27.7%	46.5%	29.8%
<i>Gambling is part of going out or socializing with friends</i>					
2006	22.9%	8.8%	10.0%	31.8%	13.0%
2007	15.9%	11.8%	12.7%	16.3%↓	13.1%
<i>Gambling is part of going out or socializing with family members</i>					
2006	12.6%	5.1%	5.4%	19.2%	7.4%
2007	5.6%↓	5.7%	4.3%	16.3%	5.7%
<i>I gamble to forget my troubles or worries</i>					
2006	1.7%	1.2%	0.3%	8.1%	1.4%
2007	---	2.7%	0.9%	9.3%	1.8%
<i>Gambling is a good way to get extra cash</i>					
2006	2.6%	1.4%	1.7%	2.1%	1.8%
2007	2.4%	3.0%	1.7%	11.6%↑	2.8%
<b>Beliefs towards Gambling</b>					
<i>After a string of losses while gambling, I feel I am more likely to win</i>					
2006	3.4%	1.9%	2.4%	1.9%	2.4%
2007	2.4%	3.0%	2.3%	7.0%	2.8%
<i>I consider myself to be knowledgeable about how to gamble or play games of chance</i>					
2006	37.7%	33.5%	33.5%	42.4%	34.8%
2007	36.5%	30.0%	31.2%	39.5%	32.1%
<i>You can win more when gambling if you use a certain system or strategy</i>					
2006	11.2%	8.6%	7.0%	24.4%	9.4%
2007	5.6%	4.2%↓	3.5%↓	14.0%	4.6%↓
<i>I could stop gambling any time I wanted</i>					
2006	84.5%	92.7%	93.2%	71.9%	90.2%
2007	97.6%↑	92.0%	96.2%↑	74.4%	93.8%↑
<b>Gambling is exciting</b>					
2006	28.4%	25.3%	21.3%	56.4%	26.2%
2007	32.5%	27.0%	26.3%	48.8%	28.8%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs versus 25-34yrs and Non-Problem versus At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ ).

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**Table 18: Percentage Agreement with Attitudinal Statements by Age and Risk Category (Continued)**

	Age Category		Risk Category		Total Gamblers
	19-24 yrs	25-34 yrs	Non-Problem	At-Risk+	2006 (n=380)
	2006 (n=142) 2007 (n=126)	2006 (n=238) 2007 (n=263)	2006 (n=322) 2007 (n=346)	2006 (n=58) 2007 (n=43)	2007 (n=389)
<b>Gambling Behaviours</b>					
<b>After losing money gambling, I have tried to win my money back again</b>					
2006	14.3%	5.5%	3.0%	39.5%	8.1%
2007	1.6%↓	4.6%	1.2%	23.3%↓	3.6%↓
<b>I sometimes gamble in the hopes of paying off debts or bills</b>					
2006	2.1%	3.7%	2.2%	9.5%	3.2%
2007	2.4%	2.3%	1.4%	9.3%	2.3%
<b>I have lied about my gambling</b>					
2006	1.7%	1.9%	0.3%	11.6%	1.9%
2007	---	1.1%	0.3%	4.7%	0.8%
<b>I often find myself thinking about gambling or ways to find money to gamble</b>					
2006	1.7%	1.4%	0.6%	7.0%	1.5%
2007	1.6%	0.8%	0.9%	2.3%	1.0%
<b>I usually set a budget or decide how much I am going to spend before I start to gamble</b>					
2006	77.9%	78.9%	78.9%	76.7%	78.6%
2007	74.6%	76.4%	76.9%	67.4%	75.8%
<b>Gambling Consequences</b>					
<b>I sometimes feel guilty about how much time I have spent gambling</b>					
2006	2.3%	2.6%	0.6%	14.1%	2.5%
2007	1.6%	2.7%	0.9%	14.0%	2.3%
<b>I have friends or family who worry or complain about my gambling</b>					
2006	2.5%	0.8%	0.3%	7.9%	1.4%
2007	1.6%	0.8%	0.6%	4.7%	1.0%
<b>I sometimes feel guilty about how much money I have spent gambling</b>					
2006	13.5%	9.1%	5.0%	43.8%	10.4%
2007	3.2%↓	9.9%	3.8%	39.5%	7.7%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs versus 25-34yrs and Non-Problem versus At-Risk+) within each measurement period (95% + confidence interval; p <.05).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval; p <.05).

- There was a decrease in the proportion of young gamblers who believe *they can win more when gambling by using a certain system or strategy* (2007: 4.6% versus 2006: 9.4%), primarily due to substantially fewer 25-34 year olds (4.2% versus 8.6%) and Non-Problem gamblers (3.5% versus 7%) with this belief.

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- More young gamblers in the current study indicated that they *could stop gambling any time they wanted* (2007: 93.8% versus 2006: 90.2%). The increase was largely attributed to those in the youngest age group (97.6% versus 84.5%) and those identified as “Non-Problem” gamblers by the CPGI (96.2% versus 93.2%).
- Compared to 2006, 19 to 34-year-olds were less likely to *chase losses while gambling* (2007: 3.6% versus 2006: 8.1%). It is noteworthy that the proportion of 19-24 year olds reporting chasing behaviours (i.e., trying to recover losses by engaging in further gambling activities) dramatically dropped from 14.3% in 2006 to 1.6% in 2007, and the rate for those scoring at any level of risk for gambling problems also declined over one-third (23.3% versus 39.5%).
- In 2007, fewer gamblers in the youngest age group (19-24 years) regarded *gambling as a social activity with family members* (2007: 5.6% versus 2006: 12.6%), and expressed *guilt about the amount of money spent on gambling* (3.2% versus 13.5%).
- “At-Risk+” gamblers were less likely to agree that *gambling is a normal part of socializing with friends* (2007: 16.3% versus 2006: 31.8%), but more likely to consider *gambling as a good way to get extra cash* (11.6% versus 2.1%).
- Those young gamblers (19-34 years) who scored at any level of risk for developing gambling problems were more likely than Non-Problem gamblers to:
  - *find games of chance to be fun and entertaining* (46.5% vs. 27.7%),
  - *consider gambling as a part of socializing with family members* (16.3% vs. 4.3%),
  - *depend on gambling to forget troubles or worries* (9.3% vs. 0.9%),
  - *believe that gambling is a good way to get extra cash* (11.6% vs. 1.7%),
  - *feel odds of winning increase after a string of losses* (7% vs. 2.3%),
  - *believe that a certain strategy of play improves change of winning* (14% vs. 3.5%),
  - *chase losses while gambling* (23.3% vs. 1.2%),
  - *think that gambling is exciting* (48.8% vs. 26.3%),
  - *gamble in the hopes of paying off debts or bills* (9.3% vs. 1.4%),
  - *lie about their gambling* (4.7% vs. 0.3%),
  - *feel guilty about time* (14% vs. 0.9%) *and monetary costs of gambling* (39.5% vs. 3.8%),
  - *have friends or family who worry or complain about their gambling* (4.7% vs. 0.6%).

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## 2.8 Behaviours While Gambling

Table 19: Frequency of Related Behaviours While Gambling by Age and Risk Category (2007)

	Age Category		Risk Category		Total Gamblers (n=389)
	19-24 yrs (n=126)	25-34 yrs (n=263)	Non-Problem (n=346)	At-Risk+ (n=43)	
<b>Used ATM/Bank machine or bank card to get additional money while gambling</b>					
				**	
Never	88.1%	90.9%	94.2%	55.8%	90.0%
Rarely	7.9%	6.1%	4.6%	23.3%	6.7%
Occasionally	3.2%	1.9%	1.2%	11.6%	2.3%
Frequently	---	0.4%	---	2.3%	0.3%
Almost Always	---	0.4%	---	2.3%	0.3%
Always	0.8%	0.4%	---	4.7%	0.5%
<b>Borrowed money from someone else to continue gambling</b>					
				**	
Never	96.8%	96.2%	98.3%	81.4%	96.4%
Rarely	3.2%	3.4%	1.7%	16.3%	3.3%
Occasionally	---	0.4%	---	2.3%	0.3%
Frequently	---	---	---	---	---
Almost Always	---	---	---	---	---
Always	---	---	---	---	---
<b>Used debit or credit cards to get money for gambling</b>					
				**	
Never	99.2%	97.3%	99.4%	86.0%	97.9%
Rarely	0.8%	0.8%	0.3%	4.7%	0.8%
Occasionally	---	0.8%	---	4.7%	0.5%
Frequently	---	0.4%	---	2.3%	0.3%
Almost Always	---	0.4%	0.3%	---	0.3%
Always	---	0.4%	---	2.3%	0.3%
<b>Gambled with money intended for another purpose</b>					
				**	
Never	97.6%	96.2%	98.8%	79.1%	96.7%
Rarely	1.6%	2.7%	0.9%	14.0%	2.3%
Occasionally	0.8%	0.4%	0.3%	2.3%	0.5%
Frequently	---	---	---	---	---
Almost Always	---	0.4%	---	2.3%	0.3%
Always	---	0.4%	---	2.3%	0.3%
<b>Lent money to someone else to continue gambling</b>					
				**	
Never	83.3%	85.9%	87.9%	62.8%	85.1%
Rarely	15.1%	10.6%	10.7%	23.3%	12.1%
Occasionally	1.6%	3.4%	1.4%	14.0%	2.8%
Frequently	---	---	---	---	---
Almost Always	---	---	---	---	---
Always	---	---	---	---	---

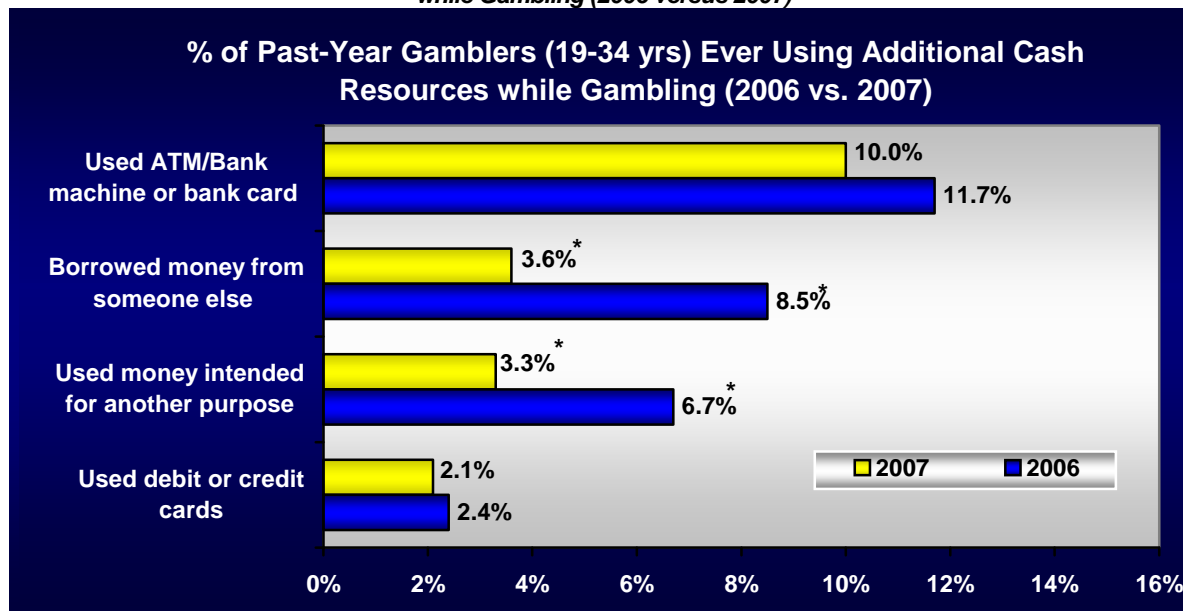
■ - Shading indicates significant differences between population segments (i.e. 19-24yrs versus 25-34yrs and Non-Problem versus At-Risk+) (95% + confidence interval;  $p < .05$ ).

\* - indicates significant difference at minimum 95% confidence interval ( $p < .05$ )

\*\* - indicates significant difference at minimum 99% confidence interval ( $p < .01$ )

Prepared by Focal Research Consultants Ltd.

Figure 11: Percentage of Past-Year Gamblers (19-34 yrs) Ever Using Additional Cash Resources while Gambling (2006 versus 2007)



\* Indicates a statistically significant difference at the 95%+ Confidence level ( $p < .05$ )

- As compared with the results from the pre-campaign survey, young gamblers 19-34 years old were significantly less likely to have borrowed money from others in the course of gambling (2007: 3.6% versus 2006: 8.5%), or gamble using money intended for another purpose (3.3% versus 6.7%).
- Similar to 2006, approximately one in 12 young gamblers reported having used ATM/bank machines to get additional money during the play, while 2.1% withdrew money via debit or credit cards in order to continue gambling
- Although only 3.6% of past-year gamblers borrowed money for gambling, 14.9% indicated that they had lent money to at least one other person for gambling purposes.
- All gambling-related behaviours differed strongly between the two risk segments for gambling problems. More specifically, those gamblers identified as being at any risk level for gambling problems were more likely than Non-Problem gamblers to have employed all available means to get more money for gambling, including *ATMs* (44.2% vs. 5.8%), *debit/credit cards* (14% vs. 0.6%) and *borrowed money from others* (18.6% vs. 1.7%). In addition, 37.3% of “At-Risk+” gamblers reported having lent money to others for gambling purposes compared to only 12.1% of “Non-Problem” gamblers.

## SECTION 3: AWARENESS AND USE OF PROBLEM GAMBLING SUPPORT SERVICES

### 3.1 Awareness of Problem Gambling Support Services

**Table 20: Unaided Awareness of Problem Gambling Support Services by Age and Risk Category**

	Age Category		Risk Category		Total Adults
	19-24 yrs 2006 (n=152) 2007 (n=141)	25-34 yrs 2006 (n=248) 2007 (n=289)	Non-Problem 2006 (n=342) 2007 (n=387)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=400) 2007 (n=430)
<b>Awareness of Any Assistance Program/Service:</b>					
2006	46.9%	68.9%	60.3%	74.4%	62.2%
2007	67.4%↑	75.1%↑	71.8%↑	79.1%	72.6%↑
<b>For Problem Gamblers</b>					
2006	46.9%	68.9%	60.3%	74.4%	62.2%
2007	66.7%↑	74.7%	71.6%↑	76.7%	72.1%↑
<b>For Family of Problem Gamblers</b>					
2006	40.9%	61.5%	53.5%	66.5%	55.2%
2007	46.8%	53.6%↓	51.2%	53.5%	51.4%
<b>Awareness of Specific Programs:</b>					
<b>Addiction Services (including Detox, Community Programs):</b>					
2006	6.3%	3.0%	4.2%	2.9%	4.0%
2007	4.3%	9.7%↑	8.0%↑	7.0%	7.9%↑
<b>Problem Gambling Help Line (1-800 number):</b>					
2006	14.6%	31.2%	24.9%	34.1%	26.1%
2007	20.6%	23.9%↓	22.7%	23.3%	22.8%

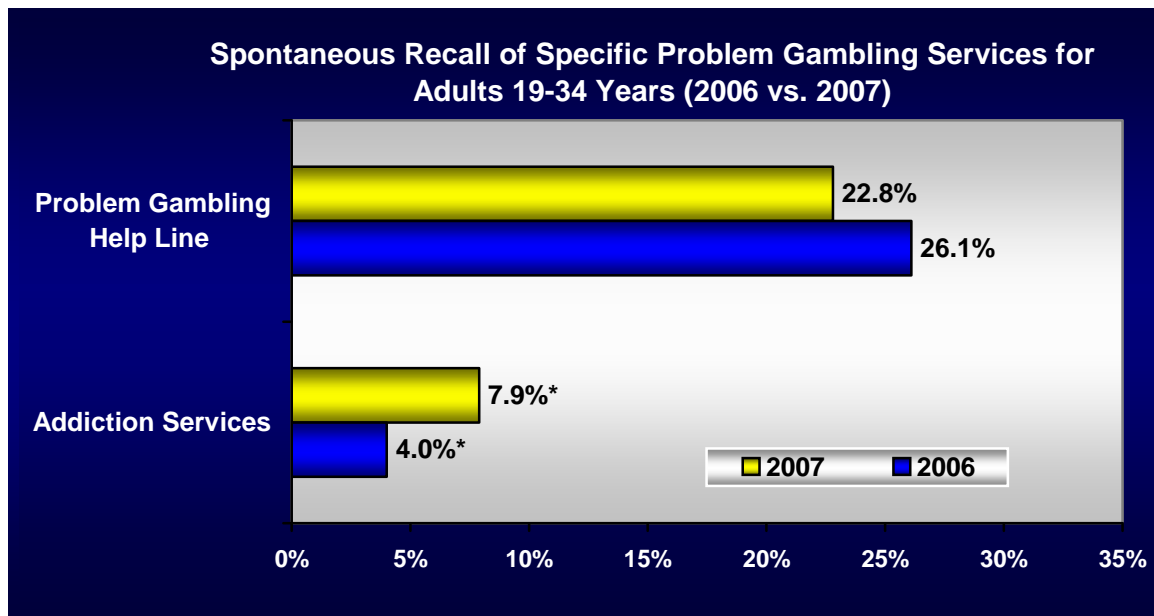
■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ ).

- General awareness of support services or programs for gambling problems improved significantly among young adults in Nova Scotia aged 19-34 years (2007: 72.6% versus 2006: 62.2%).
- Increases were primarily due to more respondents reporting awareness of services specifically designed for problem gamblers in 2007 (72.1% versus 62.2%), particularly among 19-24 year olds (2007: 66.7% versus 2006: 46.9%) and among Non-Problem gamblers (2007: 71.6% versus 2006: 60.3%).

- Just over half (51.4%) of those aged 19-34 years were knowledgeable of programs specifically designed to assist family members impacted by gambling problems.
- Although 25-34 year olds continued to have higher awareness of assistance programs for problem gamblers than the younger cohort (19-24 years: 66.7% versus 74.7%), significantly fewer adults in the older age group reported being aware of services for family members as compared to 2006 (2007: 53.6% versus 2006: 61.5%).
- There were no differences in awareness levels of services for problem gamblers and family members between Non-Problem and At-Risk+ gamblers.

*Figure 12: Spontaneous Recall of Specific Problem Gambling Services for Adults 19-34 Years (2006 vs. 2007)*



\* Indicates a statistically significant difference at the 95%+ Confidence level ( $p < .05$ )

- Although top-of-mind awareness for **Addiction Services** was still lower compared to the Problem Gambling Help Line, the unaided recall rate was almost twice as high in 2007 than that reported in 2006 (2007: 7.9% versus 2006: 4.0%).
- Improved unaided recall for Addiction Services occurred in the older age group (9.7% versus 3%) and among Non-Problem gamblers (8% versus 4.2%).
- There were few changes observed regarding unaided recall of the **Problem Gambling Help Line** between the two surveys, with the exception of a slight yet significant drop in

top-of-mind awareness observed among 25-34 year olds (2007: 23.9% versus 2006: 31.2%).

## 3.2 Exposure to Problem Gambling

**Table 21: Level of Exposure to Problem Gambling by Age and Risk Category**

	Age Category		Risk Category		Total Adults
	19-24 yrs 2006 (n=152) 2007 (n=141)	25-34 yrs 2006 (n=248) 2007 (n=289)	Non-Problem 2006 (n=342) 2007 (n=387)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=400) 2007 (n=430)
<b>Personal Awareness of anyone in Nova Scotia with a current gambling problem:</b>					
2006	31.6%	37.4%	34.6%	42.6%	35.6%
2007	20.6%↓	24.9%↓	21.4%↓	41.9%	23.5%↓
<b>In own Household</b>					
2006	2.0%	1.8%	1.7%	2.9%	1.9%
2007	3.5%	3.1%	1.0%	23.3%↑	3.3%
<b>Family living outside of household</b>					
2006	5.8%	11.2%	9.6%	9.5%	9.6%
2007	9.2%	9.0%	7.8%	20.9%	9.1%
<b>Close friends</b>					
2006	18.8%	14.5%	15.2%	20.0%	15.8%
2007	9.9%↓	7.3%↓	8.5%↓	4.7%↓	8.1%↓
<b>Co-workers</b>					
2006	1.9%	4.3%	3.2%	6.0%	3.6%
2007	3.5%	3.1%	2.8%	7.0%	3.3%
<b>Acquaintances</b>					
2006	16.4%	23.5%	20.1%	29.7%	21.4%
2007	12.8%	12.8%↓	11.9%↓	20.9%	12.8%↓

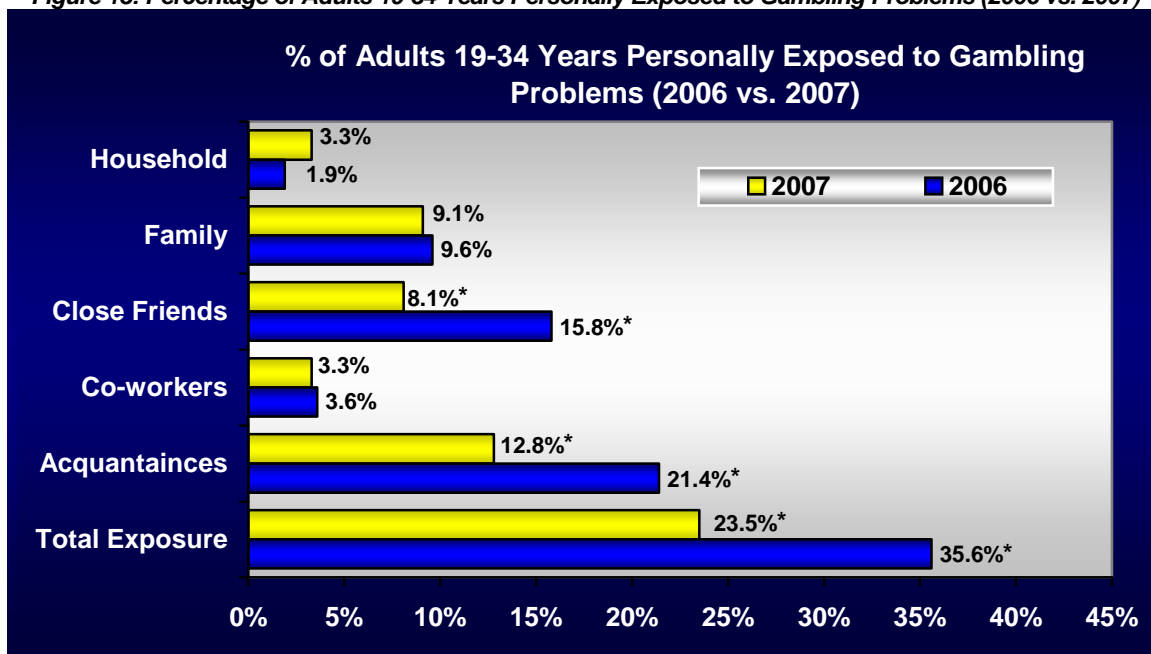
▒ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ ).

- In total, approximately one in four (23.5%) adults 19-34 years of age reported personally knowing at least one problem gambler in 2007.
- Compared to the pre-campaign study, the rate of exposure to others' gambling problems had declined by one-third (2007: 23.5% versus 2006: 35.6%), with significant decreases being observed in both age groups (19-24 years: 20.6% versus 31.6%, 25-34 years:

24.9% versus 37.4%) as well as for those identified as Non-Problem gamblers (21.4% versus 34.6%).

**Figure 13: Percentage of Adults 19-34 Years Personally Exposed to Gambling Problems (2006 vs. 2007)**



\* Indicates a statistically significant difference at the 95% Confidence level ( $p < .05$ )

- In 2007, significantly fewer young adults indicated having personal knowledge of close friends (8.1% versus 15.8%) or acquaintances (12.8% versus 21.4%) who were currently having difficulties with gambling. In contrast the number reporting exposure to gambling-related difficulties and issues in their own household (3.3%), through family members (9.1%), or among co-workers (3.3%) remained relatively constant over the two surveys.
- Having some association with a person with a gambling problem were similar in the two age groups, but differed between Non-Problem (21%) and “At-Risk+” gamblers (41.9%).
- Those scoring at any level of risk for gambling problems were more likely to cite exposure to gambling through direct or indirect family members, as well as by acquaintances (own household: 23.3% versus 1%; family member: 20.9% versus 7.8%; acquaintances: 20.9% versus 11.9%).

### 3.3 Use of Problem Gambling Services

Table 22: Use of Information and Services By Those Exposed To Gambling Problems by Age and Risk Category

	Age Category		Risk Category		Total Adults
	19-24 yrs 2006 (n=152) 2007 (n=141)	25-34 yrs 2006 (n=248) 2007 (n=289)	Non-Problem 2006 (n=342) 2007 (n=387)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=400) 2007 (n=430)
<b>Accessing Any Informal or Formal Services:</b>					
2006	0.8%	4.8%	3.7%	2.9%	3.6%
2007	5.7%↑	5.5%	4.9%	11.6%↑	5.6%↑
<b>Accessing Informal Services:</b>					
2006	0.8%	3.7%	2.8%	2.9%	2.8%
2007	4.3%↑	4.2%	3.4%	11.6%↑	4.2%
<b>Family Members or Friends</b>					
2006	0.3%	2.1%	1.5%	2.1%	1.6%
2007	4.3%↑	4.2%	3.4%↑	11.6%↑	4.2%↑
<b>Other Informal Services</b>					
2006	N/A	N/A	N/A	N/A	N/A
2007	1.4%	0.3%	0.3%	4.7%	0.7%
<b>Accessing Formal Services:</b>					
2006	0.5%	4.1%	3.3%	0.8%	3.0%
2007	3.5%↑	3.8%	3.1%	9.3%↑	3.7%
<b>Gamblers Anonymous (GA)</b>					
2006	---	1.8%	1.4%	---	1.2%
2007	2.1%↑	1.4%	1.3%	4.7%↑	1.6%
<b>Problem Gambling Help Line</b>					
2006	---	0.6%	0.3%	0.8%	0.4%
2007	1.4%	0.7%	0.8%	2.3%	0.9%
<b>Addiction Services</b>					
2006	----	----	----	----	----
2007	----	0.7%	0.5%	----	0.5%
<b>Family Doctor/Physician</b>					
2006	---	0.1%	---	0.8%	0.1%
2007	0.7%	1.7%↑	1.3%↑	2.3%	1.4%↑
<b>Other (various)</b>					
2006	0.5%	---	0.2%	---	0.2%
2007	2.0%	0.7%	0.8%	5.0%↑	1.2%↑

▒ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ ).

- The percentage of young adults who reported having sought out assistance related to gambling problems increased significantly in the post-campaign survey (2007: 5.6% versus 2006: 3.6%). Most of this increase occurred among 19-24 year olds (5.7% versus 0.8%) and among those scoring at any level of risk for gambling problems on the CPGI (11.6% versus 2.9%).
- Of those who had tried to obtain help or information (n=24), the vast majority (n=20) were motivated to do so by trying to assist someone else with a gambling problem. The proportions of those citing use of formal and informal sources were similar in the current study (formal: 4.2%; informal 3.7%).
- Compared to 2006, more young adults reported having sought assistance for gambling problems from friends and family members (2007: 4.2% versus 2006: 1.6%), which was the most common source of help accessed. Only a small number mentioned having approached a co-worker (0.5%) or a religious group (0.2%) for assistance.
- In terms of formal sources for problem gambling support, adults 19-24 years were more likely to contact *Gamblers Anonymous* (2.1%), while 25-34 year olds tended to rely upon their *family doctors* (1.7%).
- Those scoring at any risk for gambling problems were significantly more likely to have accessed both formal (2007: 11.6% versus 2006: 2.9%) and informal sources of assistance (2007: 9.3% versus 2006: 0.8%) compared to last year.
- Overall, At-Risk+ gamblers were over twice as likely as Non-Problem gamblers to be seeking out assistance or information about gambling problems, through either formal (At-Risk+: 9.3% versus Non-Problem: 3.1%) or informal sources (11.6% versus 3.4%).

Prepared by Focal Research Consultants Ltd.

## SECTION 4: GENERAL HEALTH AND WELL-BEING

### 4.1 Tobacco Use

**Table 23: Tobacco Use by Age and Risk Category**

	Age Category		Risk Category		Total Adults
	19-24 yrs	25-34 yrs	Non-Problem	At-Risk+	
	2006 (n=152) 2007 (n=141)	2006 (n=248) 2007 (n=289)	2006 (n=342) 2007 (n=387)	2006 (n=58) 2007 (n=43)	2006 (n=400) 2007 (n=430)
<b>Ever Smoked in lifetime</b>					
2006	57.5%	65.1%	60.8%	76.0%	62.8%
2007	56.7%	60.9%	57.1%	81.4%	59.5%
<b>Former Daily Smoker</b>					
2006	17.2%	27.7%	23.8%	28.9%	24.5%
2007	N/A	N/A	N/A	N/A	N/A
<b>Current Daily Smoker</b>					
2006	22.3%	20.1%	19.1%	31.8%	20.8%
2007	28.4%	25.6%	24.0%	48.8%↑	26.5%↑
<b>Current Occasional Smoker</b>					
2006	9.0%	7.7%	6.7%	17.4%	8.1%
2007	10.6%	9.0%	9.8%	7.0%	9.5%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ )

- According to the above table, just over half of the respondents (59.5%) had smoked at some point in their lifetime, and about 26.5% of young adults smoke daily. For the most part these rates are consistent with declining smoking trends noted in other provincial statistics.<sup>6</sup>
- There was an increase in daily smoking in 2007 (26.5% versus 2006: 20.8%). The increase was largely due to higher daily smoking rates among those scoring “At-Risk+” for gambling problems (2007: 48.8% versus 2006: 31.8%).
- “At-Risk+” gamblers were twice as likely as Non-Problem gamblers to be daily smokers (48.8% versus 24.0%). There were no differences observed between the age categories.

<sup>6</sup> Smoking in Nova Scotia (2003). Canadian Community Health Survey. Online: [http://www.gov.ns.ca/health/downloads/cchs\\_smoking\\_2003.pdf](http://www.gov.ns.ca/health/downloads/cchs_smoking_2003.pdf)

Prepared by Focal Research Consultants Ltd.

## 4.2 Comparative Health Status

Table 24: Comparative State of General Health by Age and Risk Category

	Age Category		Risk Category		Total Adults
	19-24 yrs 2006 (n=152) 2007 (n=141)	25-34 yrs 2006 (n=248) 2007 (n=289)	Non-Problem 2006 (n=342) 2007 (n=387)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=400) 2007 (n=430)
<b>State of Health Compared to Others Your Own Age:</b>					
<b>Excellent</b>					
2006	18.9%	18.6%	19.4%	14.1%	<b>18.7%</b>
2007	19.1%	17.3%	18.1%	16.3%	<b>17.9%</b>
<b>Very Good</b>					
2006	48.7%	46.8%	49.2%	35.9%	<b>47.4%</b>
2007	52.5%	46.4%	50.6%	27.9%	<b>48.4%</b>
<b>Good</b>					
2006	22.5%	26.4%	23.8%	34.9%	<b>25.2%</b>
2007	18.4%	26.0%	22.0%	37.2%	<b>23.5%</b>
<b>Fair</b>					
2006	9.8%	7.6%	7.2%	15.1%	<b>8.3%</b>
2007	8.5%	9.7%	8.8%	14.0%	<b>9.3%</b>
<b>Poor</b>					
2006	---	0.6%	0.5%	---	<b>0.4%</b>
2007	1.4%	0.7%	0.5%	4.7%↑	<b>0.9%</b>

■ -Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ ).

- When asked to compare their current health to that of their peers, about two-thirds of young adults (66.3%) reported their current health status as *very good* to *excellent*.
- Young adults' perceptions of comparative health status have not changed much since 2006 with the exception that a small yet significant increase in the proportion of "At-Risk+" gamblers reported their health as *poor* in 2007 (4.7%).
- Adults aged 25 to 34 years of age (26.0%) were more likely than younger adults (18.4%) to rate their comparative health as *good*., No other age differences were observed.
- As was the case in 2006, "At-Risk+" gamblers generally rated their health lower than did Non-Problem gamblers, although the majority in both segments rated their health as *good* to *excellent*.

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### 4.3 General Problems Experienced in Past Year

Table 25: General Problems Experienced in the Past Year by Age and Risk Category

	Age Category		Risk Category		Total Adults
	19-24 yrs 2006 (n=152) 2007 (n=141)	25-34 yrs 2006 (n=248) 2007 (n=289)	Non-Problem 2006 (n=342) 2007 (n=387)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=400) 2007 (n=430)
<b>Income Loss/Job Loss:</b>					
2006	15.7%	14.9%	14.6%	18.8%	15.1%
2007	15.6%	8.3%↓	10.3%↓	14.0%	10.7%↓
<b>Debt or Financial Problems:</b>					
2006	18.7%	21.3%	19.7%	26.2%	20.5%
2007	13.5%	19.7%	16.8%	25.6%	17.7%
<b>Relationship Problems:</b>					
2006	33.0%	14.0%	18.5%	28.3%	19.8%
2007	22.7%↓	13.1%	15.8%	20.9%	16.3%
<b>Health Problems:</b>					
2006	18.8%	11.8%	12.1%	26.4%	14.0%
2007	9.2%↓	12.5%	11.1%	14.0%	11.4%
<b>Work Problems:</b>					
2006	12.5%	13.8%	11.7%	24.2%	13.4%
2007	12.8%	7.3%↓	7.5%↓	23.3%	9.1%↓
<b>Loneliness/Increased Isolation:</b>					
2006	18.1%	13.6%	12.3%	32.2%	15.0%
2007	11.3%	9.7%	9.6%	16.3%↓	10.2%↓
<b>Depression:</b>					
2006	17.0%	13.8%	13.9%	20.5%	14.8%
2007	14.9%	13.5%	12.4%	27.9%	14.0%
<b>Difficulty in Finding a Job:</b>					
2006	21.6%	8.9%	12.0%	17.6%	12.8%
2007	19.1%	8.3%	11.6%	14.0%	11.9%
<b>Death of a Significant Person:</b>					
2006	18.5%	16.3%	15.4%	27.1%	17.0%
2007	19.9%	18.3%	18.9%	18.6%	18.8%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval; p <.05).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval; p <.05).

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**Table 25 Continued: General Problems Experienced in the Past Year**

	Age Category		Risk Category		Total Adults
	19-24 yrs 2006 (n=152) 2007 (n=141)	25-34 yrs 2006 (n=248) 2007 (n=289)	Non-Problem 2006 (n=342) 2007 (n=387)	At-Risk+ 2006 (n=58) 2007 (n=43)	2006 (n=400) 2007 (n=430)
<b>Problems with Own Alcohol Use:</b>					
2006	5.6%	1.9%	2.2%	8.9%	3.1%
2007	2.8%	0.3%↓	1.0%	2.3%	1.2%↓
<b>Experienced any Problems as a Result of Someone Else's Alcohol Use:</b>					
2006	18.1%	6.5%	9.2%	15.1%	10.0%
2007	13.5%	7.3%	9.3%	9.3%	9.3%
<b>Problems with Own Drug Use:</b>					
2006	4.0%	1.1%	1.4%	5.6%	1.9%
2007	3.5%	1.0%	1.8%	2.3%	1.9%
<b>Experienced any Problems as a Result of Someone Else's Drug Use:</b>					
2006	15.0%	5.4%	7.0%	17.1%	8.3%
2007	12.1%	5.5%	7.5%	9.3%	7.7%
<b>Anxiety Attacks:</b>					
2006	15.5%	18.2%	16.7%	22.1%	17.4%
2007	14.9%	13.8%	13.2%	23.3%	14.2%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ )

- The respondents reported having experienced a broad range of health and well-being measures included in the survey. The most commonly reported issues for young adults in 2007 were: the *death of a significant person* (18.8%), *financial problems and debt* (17.7%), *relationship problems* (16.3%), *anxiety attacks* (14.2%), and *depression* (14.8%).
- Improvements were observed between 2006 and 2007 in the following life areas:
  - a decrease in rates of *loneliness and isolation* (2007: 10.2% versus 2006: 15%), mostly due to a drop among “At-Risk+” gamblers (32.2% versus 16.3%),
  - a decrease in *income loss or job loss* (2007: 10.7% versus 2006: 15.1%), which occurred primarily in the older age segment and among Non-Problem gamblers,

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- a decrease in *work problems* (2007: 9.1% versus 2006: 13.4%), based mostly on those 25-34 years of age (7.3% versus 13.8%),
  - a lower rate of *problems with personal alcohol use* (2007: 1.2% versus 2006: 3.1%), largely due to a decrease among the older age group (2007: 0.3% versus 2006: 1.9%).
- There were many significant differences between the two age groups on the problems measured. In general, younger adults (i.e., aged 19-24 years) were more likely to have financial and work-related problems than the older group. Specifically, more 19 to 24-year-olds had experienced *income or job loss*, *work problems* and *difficulty in finding a job* than 25 to 34 year olds (19-24 years: 19.1% versus 25-34: 7-8%). The younger group also had higher rates of relationship problems than the older group (19-24 years: 22.7% versus 25-34: 13.1%). Finally, adults aged 19 to 24 years were more likely than adults aged 25 to 34 years to report having personal problems with alcohol (19-24 years: 2.8% versus 25-34: 0.3%) and drugs (19-24 years: 3.5% versus 25-34: 1.0%). They also experienced more problems with someone else in their lives using alcohol (19-24 years: 13.5% versus 25-34: 7.3%) or drugs (19-24 years: 12.1% versus 25-34: 5.5%).
  - Those scoring “At-Risk+” for gambling problems were almost three times more likely than Non-Problem gamblers to have *work problems* (7.5% for Non-Problem versus 23.3% for At Risk). “At-Risk+” gamblers also reported more mental health issues with double the rates of depression (12.4% for Non-Problem versus 27.9% for “At-Risk+”) and more than double the rates of anxiety (13.2% for Non-Problem versus 23.3% for “At-Risk+”).

## SECTION 5: POST-CAMPAIGN (YELLOW FLAG) PROFILE, LEISURE ACTIVITIES, KNOWLEDGE LEVELS AND EXPOSURE TO ADVERTISING

In addition to the information from the 2007 Nova Scotia Adult Gambling Prevalence Study survey, young adults 19-34 years were recontacted to complete a supplementary survey. This included information about activities that the respondents engaged in during an average month, how they used their time on a weekly basis, awareness, exposure and recall of gambling advertisements, specifically regarding the *Yellow Flag* Social Marketing Campaign. In total 240 of 430 eligible participants took part in the supplementary survey. The profiles of those who took part versus those who did not were compared and did not differ significantly on any of the key socio-demographic variables or by involvement in gambling.

### 5.1 Average Monthly Participation by Activity

Table 26: Average Monthly Participation in Each Activity by Age and Risk Category (2007)

	Age Category		Risk Category		Total Adults 2007 (n=240)
	19-24 yrs 2007 (n=75)	25-34 yrs 2007 (n=165)	Non-Problem 2007 (n=213)	At-Risk+ ▼ 2007 (n=27)	
<b>Going Out to Bar/Club</b>					
% Participating	68.0%	57.6%	60.6%	63.0%	<b>60.8%</b>
Mean	3.06	2.35	2.64	---	<b>2.60</b>
Median	2.00	2.00	2.00	---	<b>2.00</b>
<b>Going Out to Visit Friends</b>					
% Participating	93.3%	97.6%	96.2%	96.3%	<b>96.3%</b>
Mean	11.70	7.10	8.29	8.96	<b>8.36</b>
Median	10.00	5.00	6.00	6.00 ▼	<b>6.00</b>
<b>Eat Out at Restaurants</b>					
% Participating	90.7%	92.1%	92.0%	88.9%	<b>91.7%</b>
Mean	5.35	4.62	4.85	4.79 ▼	<b>4.85</b>
Median	4.00	3.00	3.50	2.50 ▼	<b>3.00</b>
<b>Going to Church/Synagogue/Place of Worship</b>					
% Participating	12.0%	24.8%	21.6%	14.8%	<b>20.8%</b>
Mean	---	3.83	3.74	---	<b>3.80</b>
Median	---	4.00	4.00	---	<b>4.00</b>
<b>Renting/Watching Movies</b>					
% Participating	92.0%	86.1%	88.3%	85.2%	<b>87.9%</b>
Mean	5.71	4.55	4.95	4.74 ▼	<b>4.93</b>
Median	3.00	3.50	3.00	4.00 ▼	<b>3.00</b>
<b>Going out to the Movies/Theater</b>					
% Participating	62.7%	47.9%	52.1%	55.6%	<b>52.5%</b>
Mean	1.60	1.34	1.47	---	<b>1.44</b>
Median	1.00	1.00	1.00	---	<b>1.00</b>

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

▼ - Due to small sample sizes ( $10 < n < 30$ ), results should be interpreted with caution.

--- Results suppressed due to small sample size ( $n < 20$ )

**Table 26 Continued : Average Monthly Participation in Each Activity by Age and Risk Category (2007)**

	Age Category		Risk Category		Total Adults
	19-24 yrs 2007 (n=75)	25-34 yrs 2007 (n=165)	Non-Problem 2007 (n=213)	At-Risk+ ▼ 2007 (n=27)	2007 (n=240)
<b>Attending Live Sports Events</b>					
% Participating	41.3%	20.6%	25.8%	37.0%	27.1%
Mean	2.87	3.41	3.22	---	3.15
Median	1.00	2.00	2.00	---	1.00
<b>Attending Live Entertainment</b>					
% Participating	21.3%	17.6%	18.3%	22.2%	18.8%
Mean	---	1.72 ▼	1.97	---	1.93
Median	---	1.00 ▼	1.00	---	1.00
<b>Going to the Library/Museum/Zoo</b>					
% Participating	30.7% ▼	33.9%	34.3%	22.2%	32.9%
Mean	4.30 ▼	2.68	3.26	---	3.15
Median	1.00 ▼	1.00	1.00	---	1.00
<b>Being Involved in Community Clubs/Organizations</b>					
% Participating	17.3%	24.8%	24.4%	7.4%	22.5%
Mean	---	4.59	4.15	---	4.15
Median	---	4.00	3.00	---	3.00

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

▼ - Due to small sample sizes ( $10 < n < 30$ ), results should be interpreted with caution.

--- Results suppressed due to small sample size ( $n < 20$ )

- In an average month the vast majority of adults, aged 19-34 years, typically went out to visit friends (96.3%), ate out at restaurants (91.7%), and rented videos (87.9%).
- 60.8% of respondents went out to bars on average about 2 times per month, and about 52.5% usually went out once per month to watch movies at the theatre.
- Monthly visits to libraries, museums or other “educational” locations were also common (32.9%).
- Just over one in four respondents (27.1%) reported attendance at live sporting events each month, and almost one in five regularly watched live entertainment (18.8%).
- Almost one in four adults aged 19-34 years took part in community clubs or organizations (22.5%) three times per month and one-fifth attended a church, synagogue, or place of worship (20.8%) about once a week.
- 19-24 year olds were more likely to attend live sporting events (41.3% versus 20.6%) and go to movies or theatres (62.7% versus 47.9%). Moreover, 19-24 year olds were less likely to attend church, the synagogue or other places of worship (12% versus 24.8%).
- The only difference associated with risk was a decreased tendency for “At-Risk+” gamblers to be involved in community clubs and organizations compared to Non-Problem gamblers (24.4% versus 7.4%).

## 5.2 Use of Time Each Week<sup>7</sup>

**Table 27: Amount of Time Spent in an Average Week Completing Each Activity by Age and Risk Category (2007)**

	Age Category		Risk Category		Total Adults
	19-24 yrs 2007 (n=75)	25-34 yrs 2007 (n=165)	Non-Problem 2007 (n=213)	At-Risk+ ▼ 2007 (n=27)	2007 (n=240)
<b>Working at a Job:</b>					
% Participating	76.0%	83.6%	82.6%	70.4%	<b>81.3%</b>
Mean # of Hours	38.3	41.0	40.2	---	<b>40.2</b>
Median # of Hours	40.0	40.0	40.0	---	<b>40.0</b>
<b>Going to School/Doing School Work:</b>					
% Participating	34.7%	15.2%	21.6%	18.5%	<b>21.3%</b>
Mean # of Hours	26.9 ▼	23.1 ▼	24.5	---	<b>25.0</b>
Median # of Hours	30.0 ▼	15.0 ▼	27.5	---	<b>30.0</b>
<b>Doing Household Chores/Caring for Dependents :</b>					
% Participating	96.0%	95.2%	95.8%	92.6%	<b>95.4%</b>
Mean # of Hours	15.6	20.2	19.0	16.5 ▼	<b>18.8</b>
Median # of Hours	8.0	12.0	10.0	10.0 ▼	<b>10.0</b>
<b>Watching TV:</b>					
% Participating	94.7%	98.2%	96.7%	100%	<b>97.1%</b>
Mean # of Hours	9.8	12.4	11.1	15.0 ▼	<b>11.6</b>
Median # of Hours	7.0	10.0	10.0	14.0 ▼	<b>10.0</b>
<b>Relaxing at Home:</b>					
% Participating	90.7%	89.1%	91.1%	77.8%	<b>89.6%</b>
Mean # of Hours	11.5	9.4	9.9	11.8 ▼	<b>10.1</b>
Median # of Hours	10.0	8.0	8.0	10.0 ▼	<b>8.0</b>
<b>Doing Physical Activities (Sports, Gym, Exercising):</b>					
% Participating	73.3%	69.7%	70.0%	77.8%	<b>70.8%</b>
Mean # of Hours	7.8	5.3	6.1	6.2 ▼	<b>6.1</b>
Median # of Hours	6.0	5.0	5.0	5.0 ▼	<b>5.0</b>

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval; p <.05).

▼ - Due to small sample sizes (10<n<30), results should be interpreted with caution.

--- Results suppressed due to small sample size (n<20)

<sup>7</sup> The time duration per activity is reported in hours, while significance tests were conducted based upon the number of minutes spent on each activity.

**Table 27 Continued: Amount of Time Spent in an Average Week Completing Each Activity by Age and Risk Category (2007)**

	Age Category		Risk Category		Total Adults
	19-24 yrs 2007 (n=75)	25-34 yrs 2007 (n=165)	Non-Problem 2007 (n=213)	At-Risk+ ▼ 2007 (n=27)	2007 (n=240)
<b>Playing Games/Video Games (Not for money):</b>					
% Participating	64.0%	39.4%	45.5%	59.3%	47.1%
Mean # of Hours	5.6	5.4	5.1	---	5.5
Median # of Hours	3.5	3.0	3.0	---	3.0
<b>Gambling or Playing Games for money at home/friend's home/bar:</b>					
% Participating	16.0%	13.9%	11.7%	37.0%	14.6%
Mean # of Hours	2.4 ▼	2.8 ▼	1.7 ▼	---	2.6
Median # of Hours	1.5 ▼	1.0 ▼	1.0 ▼	---	1.0
<b>Gambling on the Internet (Real Money/Free):</b>					
% Participating	4.0%	6.1%	3.8%	18.5%	5.4%
Mean # of Hours	---	---	---	---	---
Median # of Hours	---	---	---	---	---
<b>Spending Time on the Internet (Surfing, Web Blogs, Chatting):</b>					
% Participating	82.7%	81.2%	83.1%	70.4%	81.7%
Mean # of Hours	7.9	7.5	7.8	---	7.6
Median # of Hours	5.5	5.0	5.0	---	5.0

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

▼ - Due to small sample sizes ( $10 < n < 30$ ), results should be interpreted with caution.

--- Results suppressed due to small sample size ( $n < 20$ )

- Almost all adults 19-34 years of age (97.1%) watched, on average, about 12 hours per week in front of the television set. Those scoring at any level of risk for gambling problems spent more time watching television (14 hours) compared to Non-Problem gamblers (10 hours). Also, on average, adults aged 25 to 34 years watched more TV (10 hours) than those aged 19 to 24 years (7 hours).
- The vast majority (81.3%) of adults in all segments worked, on average, 40 hours per week, while 21.3% reported going to school and spending about 25 hours a week on educational pursuits.
- Household chores typically take up 10 hours a week for 95.4% of adults under 35 years of age. Those in the older age segment (25-34 years) spent more hours on housework than those under 25 years of age (20.2 hours versus 15.6 hours/week).

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- There was a high level of physical activity reported by adults in this age group, with 70.8% taking part in some type of exercise and spending, on average, about 6 hours per week being physically active. Younger adults tended to be slightly more active than those over 25 years of age (6 hours versus 5 hours/week).
  - 89.6% of respondents allocated about 10 hours per week to relaxing at home, which was higher for “At-Risk+” gamblers than those with no problems (11.8 hours versus 9.9 hours).
  - 81.7% of adults across all groups used the internet for 7.6 hours per week. In contrast, just under half of adults reported playing games or video games on a weekly basis (47.1%) and this was similar in all segments with these adults allocating about 5.5 hours per week to game play.
  - In terms of gambling, 14.6% indicated taking part in games of chance played for money at a friend’s home or in a bar on a regular weekly basis, spending about 2.6 hours gambling each week. About three times more “At-Risk+” gamblers regularly engaged in this activity than Non-Problem gamblers (37% versus 11.7%).
  - Similarly, about 5.4% of adults, aged 19-34 years, gambled on the internet with reported participation rates almost five time higher among “At-Risk+” gamblers (18.5% versus 3.8%).

## 5.3 Knowledge Levels of Gambling Information

Table 28: Knowledge levels of Gambling Information by Age and Risk Category

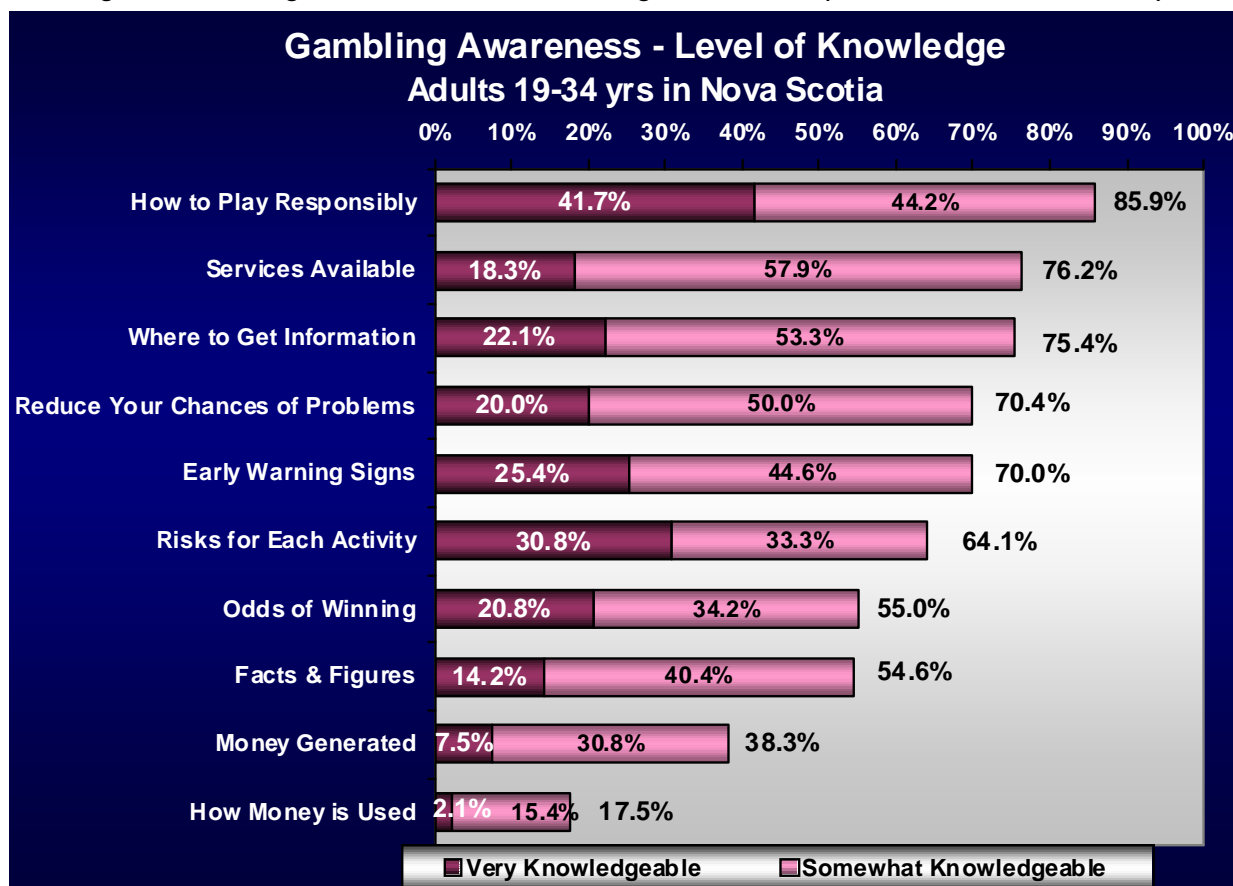
	Age Category		Risk Category		Total Adults
	19-24 yrs 2006 (n=152) 2007 (n=75)	25-34 yrs 2006 (n=248) 2007 (n=165)	Non-Problem 2006 (n=342) 2007 (n=213)	At-Risk+ 2006 (n=58) 2007 (n=27) ▽	2006 (n=400) 2007 (n=240)
<b>Odds of winning:</b>					
2006	48.9%	43.9%	42.2%	66.3%	45.4%
2007	62.7%	51.5%	54.5%↑	59.3%	55.0%↑
<b>Risks for each type of gambling activity:</b>					
2006	59.9%	48.6%	49.6%	68.0%	52.0%
2007	70.7%	61.2%↑	66.2%↑	48.1%↓	64.2%↑
<b>Facts and figures:</b>					
2006	31.5%	33.4%	30.7%	46.3%	32.8%
2007	65.3%↑	49.7%↑	55.9%↑	44.4%	54.6%↑
<b>Early warning signs:</b>					
2006	72.1%	65.3%	66.2%	75.2%	67.4%
2007	77.3%	66.7%	70.0%	70.4%	70.0%
<b>Amount of money generated by gambling:</b>					
2006	39.6%	34.1%	34.1%	47.3%	35.8%
2007	48.0%	33.9%	39.0%	33.3%	38.3%
<b>How the money from gambling is used:</b>					
2006	13.0%	17.7%	14.7%	26.7%	16.3%
2007	21.3%	15.8%	16.9%	22.2%	17.5%
<b>How to reduce the chances of having gambling problems:</b>					
2006	68.0%	62.1%	63.9%	64.0%	63.9%
2007	80.0%↑	65.5%	68.5%	81.5%	70.0%
<b>Where to get information on gambling:</b>					
2006	45.5%	49.8%	46.0%	64.5%	48.5%
2007	81.3%↑	72.7%↑	74.6%↑	81.5%	75.4%↑
<b>How to play responsibly:</b>					
2006	72.4%	69.6%	69.7%	75.2%	70.4%
2007	88.0%↑	84.8%↑	85.4%↑	88.9%	85.8%↑
<b>Services available to help gamblers and their families:</b>					
2006	41.7%	49.0%	45.3%	56.4%	46.8%
2007	82.7%↑	73.3%↑	75.6%↑	81.5%↑	76.3%↑

▭ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ )

▽ - Due to small sample sizes ( $10 < n < 30$ ), results should be interpreted with caution.

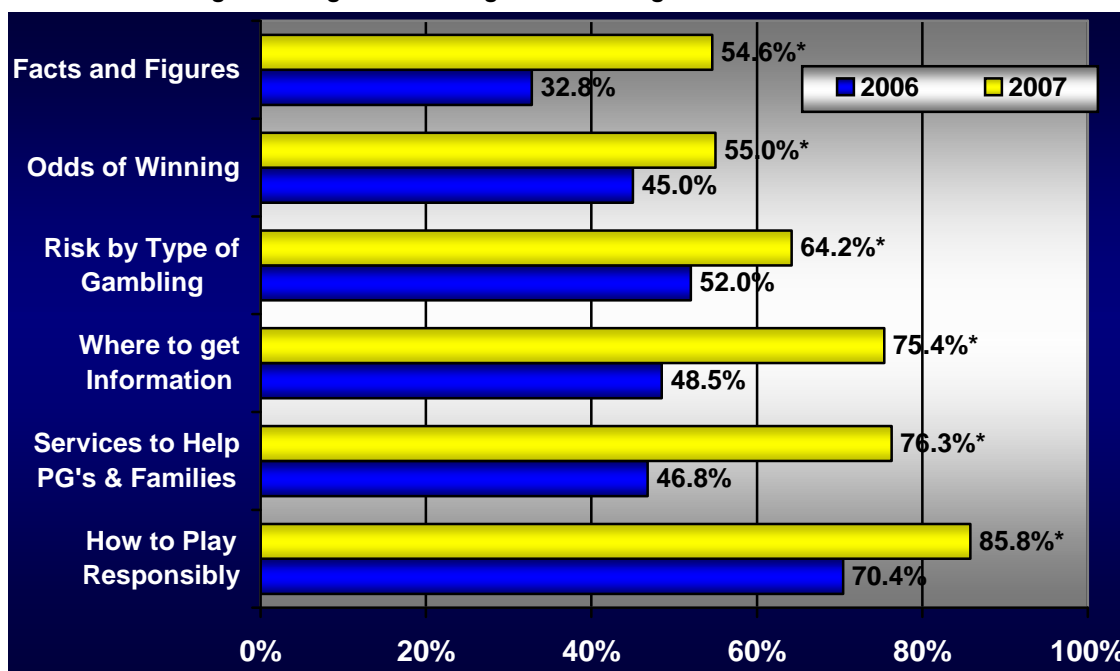
Figure 14: Gambling Awareness – Level of Knowledge for Each Area (Total Adults 19-34 Years; 2007)



- For eight of the ten measured dimensions of gambling awareness, only 25% or fewer of the participants felt that they were *very knowledgeable*.
- Knowledge about gambling was lowest for information related to gambling revenue with only 17.5% having any knowledge about *how the money from gambling is used* and 38.3% knowing *how much money is generated by gambling*.
- Knowledge levels were more moderate for *facts and figures about gambling* (54.6%), *odds of winning* (55%) and *risks for each activity* (64.2%).
- Respondents felt most informed on facts helpful in preventing gambling problems. That is, the majority have at least some knowledge of *early warning signs* of problem gambling (70%) and *how to reduce your chances of problems* when gambling (70%). Likewise, the vast majority of young adults believe they know *how to play responsibly* (85.9%).

- Most respondents indicated a high level of awareness of support services associated with gambling with about three-quarters having at least some knowledge about *what services are available to help gamblers and their families* (76.3%) and *where to get information on gambling* (75.4%).
- Generally, younger adults (aged 19 to 24 years old) in the sample perceived themselves as more knowledgeable about gambling than the older adults (25 to 34 years). However, only for awareness of problem prevention (reducing the chances of problems, early warning signs) and gambling revenue information (how much money is generated and how it is used) did the differences reach significance.
- The only significant difference noted by CPGI category was that those scoring at any level of risk for gambling problems (CPGI score>0) were less likely to report that they were knowledgeable about *risks associated with each activity* (Non-Problem: 66.2% versus “At-Risk+”: 48.1%). It is noteworthy that compared to the pre-campaign benchmark in 2006, a significant shift occurred: Non-Problem: ≈50% versus “At-Risk+”: 68%. This suggests that following the *Yellow Flag* Campaign, improved knowledge levels were associated with declines in risk (i.e. those most likely to have migrated to the Non-Problem category in 2007 were those who had reported higher levels of knowledge about risk for gambling problems in 2006).

Figure 15: Significant Changes in Knowledge Levels 2007 versus 2006



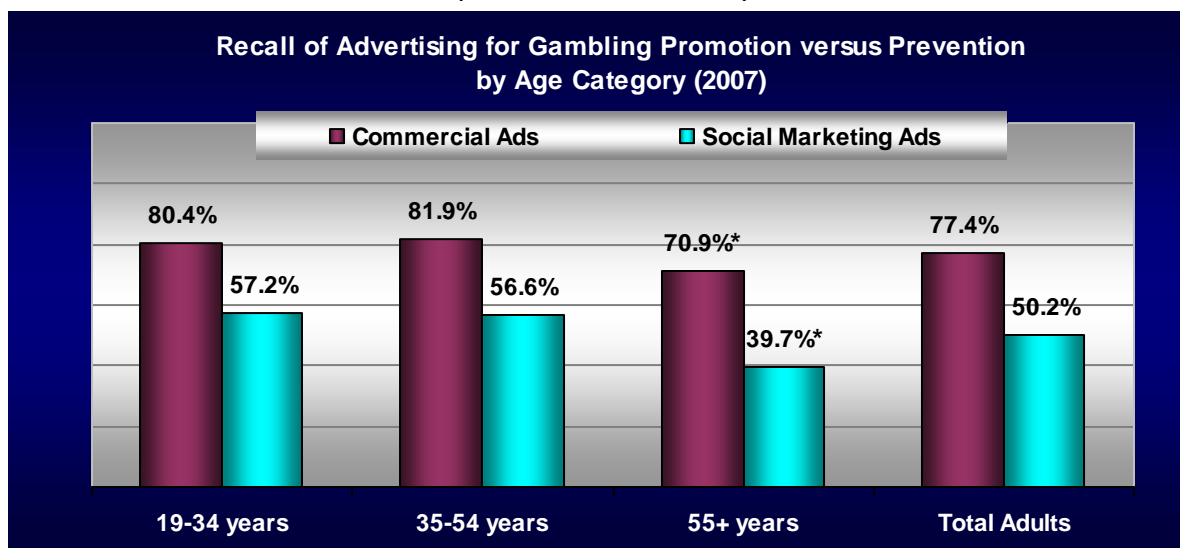
\* Indicates a statistically significant difference at the 95%+ Confidence level (p< .05)

- 
- In general, since the pre-campaign benchmark in 2006, levels of knowledge about gambling increased rather dramatically, especially for those areas promoted by NSHPP's social marketing campaign.
  - There were strong increases for all young adults in the percentage that had at least some knowledge of gambling services available to assist gamblers and their families in the province (2007: 76.3% versus 2006: 46.8%).
  - Improvements in knowing where gambling information could be obtained (2007: 75.4% versus 2006: 48.5%) were also observed across all categories.
  - Increased knowledge of gambling facts and figures were reported more often (2007: 54.6% versus 2006: 32.8%) largely due to improvement in awareness levels among Non-Problem gamblers (55.9% versus 30.7%) and those age 19-24 years (65.3% versus 31.5%)
  - Familiarity with risks associated with the various types of gambling available in the province was also higher following the *Yellow Flag* Campaign (2007: 64.2% versus 2006: 52%).
  - In addition to improved knowledge associated with prevention and problem gambling assistance, increases were observed in the percentage reporting they were at least somewhat knowledgeable about playing responsibly and the odds of winning.
  - It is noteworthy that there were no changes observed for those items that were not promoted between the two measurement periods including, how the money from gambling is used ( $\approx 17\%$ ) and how much money is generated by gambling in Nova Scotia ( $\approx 38\%$ ).

## 5.4 General Exposure and Attitudes towards Gambling Advertising

All adults taking part in the 2007 Nova Scotia Adult Gambling Prevalence Study were asked about their exposure to advertisements that promote gambling (i.e. commercial advertising) as well as recall for social marketing advertising communicating the risks associated with gambling (i.e. social marketing advertising). As previously mentioned, NSHPP had specifically undertaken social marketing efforts to target high-risk gambling behaviours among young adults. To assess findings for young adults 19-34 years within the context of all adults living in Nova Scotia, advertising exposure rates were examined and compared for those age 35-54 years and those 55 years or older to see if the advertising was preferentially targeting younger people in the province.

**Figure 16: Recall of Advertising for Gambling Promotion versus Prevention by Age Category (2007: Total Adults n=2500)**



\* Indicates a statistically significant difference at 95% Confidence level ( $p < .05$ )

- Overall, 77.4% of all adults were exposed to some type of advertisement promoting gambling while about half of all adults reported exposure to some type of social marketing advertising designed to reduce high risk behaviour within six months of taking part in the survey.
- There were no differences in ad recall for those under age 55 years. However, seniors were significantly less likely to report exposure to either type of advertising. The gap between older and younger adults was even larger for recall of educational or social marketing advertising suggesting these ads were more likely to be noticed by those under 54 years of age.

### 5.4.1 Support for Gambling Advertising

As part of a split sample design a series of questions to assess support for gambling advertising in the province were randomly administered to 1,449 respondents of which 252 were aged 19-34 years.

**Table 29: Perception of Gambling Advertising & Risk by Age and Risk Category (n=252)**

	Age Category		Risk Category		Total Adults 2007 (n=252)
	19-24 yrs 2007 (n=82)	25-34 yrs 2007 (n=170)	Non-Problem 2007 (n=226)	At-Risk+ ▼ 2007 (n=26)	
<b>How do you feel about the amount of advertising promoting gambling in NS?</b>					
Not Enough	4.9%	5.3%	4.9%	7.7%	5.2%
Just Right	61.0%	47.6%	52.7%	46.2%	52.0%
Too Much	34.1%	45.9%	41.6%	46.2%	42.1%
<b>Similar to alcohol and tobacco advertising, do you feel there should be restrictions on advertising for gambling and games of chance or not?</b>					
Agree	69.5%	77.1%	76.1%	61.5%	74.6%
Disagree	24.4%	17.6%	18.6%	30.8%	19.8%
Don't Know/Unsure	6.1%	5.3%	5.3%	7.7%	5.6%
<b>How much influence do you think gambling advertising has on promoting underage gambling?</b>					
No Influence	9.8%	10.6%	10.6%	7.7%	10.3%
Some Influence	64.6%	62.4%	62.8%	65.4%	63.1%
Strong Influence	25.6%	27.1%	26.5%	26.9%	26.6%
<b>Do you think there needs to be more information available on gambling risks and problems or not?</b>					
Agree	85.4%	84.1%	84.5%	84.6%	84.5%
Disagree	13.4%	11.2%	12.4%	7.7%	11.9%
Don't Know/Unsure	1.2%	4.7%	3.1%	7.7%	3.6%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

▼ - Due to small sample sizes ( $10 < n < 30$ ), results should be interpreted with caution.

- Young adults were split on whether or not there are too many advertisements that promote gambling in Nova Scotia, with about half thinking the amount is just right, especially the 19 to 24-year-olds (61%), and 42.1% responding “too much.”
- The vast majority in all segments believed that promotional advertising has at least some influence in promoting underage gambling (89.7%) and that there should be restrictions imposed that are similar to those in place for alcohol and tobacco (74.6%).
- Despite little support for advertisements that promote commercial gambling, 84.5% of all respondents agreed there should be more information available on gambling risks and problems.

## 5.5 Exposure to Advertising Media

Table 30: Exposure to Media for Commercial Advertising about Gambling Products (Unaided Recall)  
 by Age and Risk Category

		Age Category		Risk Category		Total Adults
		19-24 yrs 2006 (n=152) 2007 (n=75)	25-34 yrs 2006 (n=248) 2007 (n=165)	Non-Problem 2006 (n=342) 2007 (n=213)	At-Risk+ 2006 (n=58) 2007 (n=27) ▽	2006 (n=400) 2007 (n=240)
<b>Any Recall</b>						
	2006	81.8%	80.8%	80.3%	86.2%	<b>81.1%</b>
	2007	92.0%↑	86.7%	89.2%↑	81.5%	<b>88.3%↑</b>
<b>Television</b>						
	2006	66.6%	67.6%	66.9%	70.0%	<b>67.3%</b>
	2007	62.7%	77.0%↑	73.7%↑	63.0%	<b>72.5%</b>
<b>Radio</b>						
	2006	16.7%	25.5%	22.5%	24.8%	<b>22.8%</b>
	2007	26.7%↑	27.9%	29.1%↑	14.8%	<b>27.5%</b>
<b>Newspaper</b>						
	2006	15.0%	22.1%	20.4%	17.2%	<b>19.9%</b>
	2007	24.0%↑	27.9%	27.7%↑	18.5%	<b>26.7%↑</b>
<b>Billboards/Outside Advertising</b>						
	2006	27.6%	32.4%	29.9%	38.2%	<b>31.0%</b>
	2007	49.3%↑	50.9%↑	51.6%↑	40.7%	<b>50.4%↑</b>
<b>Internet</b>						
	2006	40.8%	32.4%	34.4%	38.8%	<b>34.9%</b>
	2007	46.7%	33.9%	37.1%	44.4%	<b>37.9%</b>
<b>Transit Advertising (On the Bus)</b>						
	2006	4.7%	3.4%	3.6%	4.8%	<b>3.8%</b>
	2007	13.3%↑	6.7%↑	8.9%↑	7.4%	<b>8.8%↑</b>
<b>Bus Shelters</b>						
	2006	2.9%	2.3%	2.4%	2.7%	<b>2.5%</b>
	2007	10.7%↑	6.7%↑	8.5%↑	3.7%	<b>7.9%↑</b>
<b>On-Site (Bathrooms, Restaurants)</b>						
	2006	8.7%	9.3%	7.7%	18.8%	<b>9.1%</b>
	2007	12.0%	7.9%	9.9%	3.7%↓	<b>9.2%</b>
<b>Signage at Retail Locations</b>						
	2006	20.4%	30.9%	26.5%	36.0%	<b>27.7%</b>
	2007	45.3%↑	49.1%↑	48.4%↑	44.4%	<b>47.9%↑</b>
<b>Pamphlets</b>						
	2006	11.3%	8.3%	7.4%	21.3%	<b>9.2%</b>
	2007	14.7%	9.1%	9.9%	18.5%	<b>10.8%</b>
<b>Other (Hospital, School, Magazines)</b>						
	2006	2.5%	2.4%	2.4%	3.1%	<b>2.5%</b>
	2007	5.3%	1.2%	2.8%	---	<b>2.5%</b>

▭ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ )

▽ - Due to small sample sizes ( $10 < n < 30$ ), results should be interpreted with caution.

**Table 31: Exposure to Media for Social Marketing Advertising about Gambling (Unaided Recall) by Age and Risk Category**

	Age Category		Risk Category		Total Adults
	19-24 yrs 2006 (n=152) 2007 (n=75)	25-34 yrs 2006 (n=248) 2007 (n=165)	Non-Problem 2006 (n=342) 2007 (n=213)	At-Risk+ 2006 (n=58) 2007 (n=27) ▽	2006 (n=400) 2007 (n=240)
<b>Any Recall</b>					
2006	67.3%	63.4%	64.6%	64.5%	<b>64.6%</b>
2007	77.3%	77.0%↑	77.9%↑	70.4%	<b>77.1%↑</b>
<b>Television</b>					
2006	53.7%	51.5%	51.1%	59.3%	<b>52.2%</b>
2007	62.7%	66.7%↑	65.7%↑	63.0%	<b>65.4%↑</b>
<b>Radio</b>					
2006	15.3%	18.1%	17.9%	13.4%	<b>17.3%</b>
2007	37.3%↑	21.8%	27.7%↑	18.5%	<b>26.7%↑</b>
<b>Newspaper</b>					
2006	7.4%	8.0%	8.1%	6.0%	<b>7.8%</b>
2007	5.3%	10.9%	10.3%	---	<b>9.2%</b>
<b>Billboards/Outside Advertising</b>					
2006	4.9%	2.6%	2.6%	8.1%	<b>3.3%</b>
2007	9.3%	8.5%↑	9.4%↑	3.7%	<b>8.8%↑</b>
<b>Internet</b>					
2006	3.6%	2.6%	2.9%	3.3%	<b>2.9%</b>
2007	10.7%↑	4.2%	6.6%↑	3.7%	<b>6.3%↑</b>
<b>Transit Advertising (On the Bus)</b>					
2006	7.6%	2.7%	4.5%	2.1%	<b>4.2%</b>
2007	13.3%	8.5%↑	10.8%↑	3.7%	<b>10.0%↑</b>
<b>Bus Shelters</b>					
2006	8.1%	2.7%	5.0%	---	<b>4.4%</b>
2007	5.3%	4.8%	5.6%	---	<b>5.0%</b>
<b>On-Site (Bathrooms, Restaurants)</b>					
2006	4.0%	2.5%	2.9%	3.7%	<b>3.0%</b>
2007	10.7%↑	10.9%↑	11.3%↑	7.4%	<b>10.8%↑</b>
<b>Signage at Retail Locations</b>					
2006	3.9%	6.4%	5.2%	8.7%	<b>5.6%</b>
2007	9.3%↑	7.9%	8.5%	7.4%	<b>8.3%</b>
<b>Pamphlets</b>					
2006	10.7%	11.4%	10.3%	16.7%	<b>11.2%</b>
2007	20.0%↑	13.9%	16.4%↑	11.1%	<b>15.8%↑</b>
<b>Other (Hospital, School, Magazines)</b>					
2006	6.7%	0.6%	2.0%	5.4%	<b>2.4%</b>
2007	4.0%	---	0.9%	3.7%	<b>1.3%</b>

▭ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

↑↓ Arrows indicate the direction of significant differences over measurement periods within each age or risk segment (95% + confidence interval;  $p < .05$ )

▽ - Due to small sample sizes ( $10 < n < 30$ ), results should be interpreted with caution.

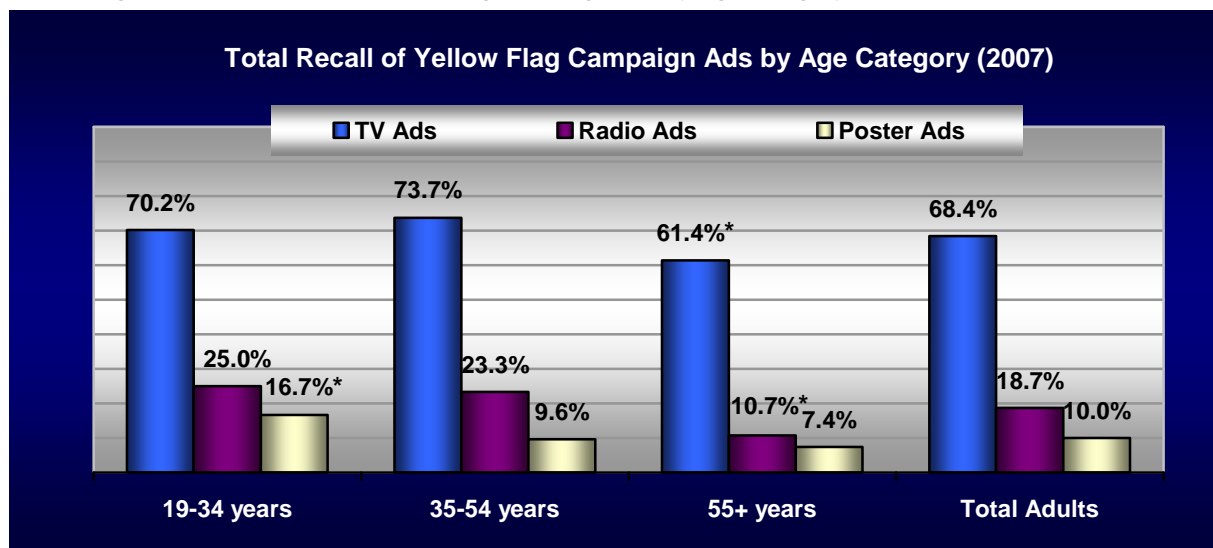
Detailed exposure to gambling advertising was examined in the qualitative supplementary survey (n=240) and used for comparison to pre-campaign benchmarks obtained in early 2006.

- Exposure to both commercial advertising (2007: 88.3% versus 2006: 81.1%) and social marketing advertising (2007: 77.1% versus 2006: 64.6%) increased significantly since 2006 among young adults in Nova Scotia.
- Although the percent recalling educational or social marketing advertising (77.1%) continued to fall below the rate of exposure for commercial gambling advertising (88.3%), the gap between the two narrowed compared to 2006 (64.6% versus 81.1%).
- **Television** was the dominant source cited for top-of-mind exposure to both promotional (72.5%) and educational messaging (65.4%). While other media were commonly cited as sources for promotional material, the same was not true for educational where fewer than 20% recalled any other sources of ads except for television and radio. In fact, adults were equally likely to cite **radio** as a source for promotional (27.5%) or social marketing (26.7%) advertising.
- **Billboards** (50.4% versus 8.8%), **retail signage** (47.9% versus 8.3%) and the **internet** (37.9% versus 6.3%) were all heavily skewed towards promotion of commercial gambling. To a lesser extent, exposure to **newspapers** (26.7% versus 9.2%) was almost three times as high for promotional gambling purposes than for educational purposes.
- In contrast **pamphlets and brochures** (Educational: 15.8% versus Promotional: 10.8%) were slightly more likely to be cited as a source for educational advertising compared to promotional purposes as were **on-site** ads (10.8% versus 9.2%) and **transit advertising (on the bus)** (10% versus 8.8%).
- There were only a few appreciable differences in exposure rates between the two age segments. Compared to those age 25-34 years, the youngest adults were more likely to be exposed to commercial gambling via the internet (46.7% versus 33.9%) and transit advertising (13.3% versus 6.7%) but less likely via the television (62.7% versus 77%). The internet was also more likely to be the source of educational information about gambling for the younger group compared to the older group (10.7% versus 4.2%). Educational radio ads were more likely to be heard by adults aged 19 to 24 years than those aged 25 to 34 (37.3% versus 21.8%).
- There were no differences in the media sources for either promotional or educational advertisements as a function of risk of gambling problems.

- In general, there appears to be more exposure to both promotional and social marketing gambling ads in 2007 compared to 2006.
- In particular, there was more recall of printed ads such as posters and signs. Specifically, in 2007, more retail signage (47.9% versus 27.7%), billboard ads (50.4% versus 31%), newspaper ads (26.7% versus 19.9%), ads in buses (8.8% versus 3.8%) and in bus shelters (7.9% versus 2.5%) were recalled for materials promoting gambling activities.
- Likewise, in 2007 more young adults recalled seeing educational materials in pamphlets (15.8% versus 11.2%), on-site (10.8% versus 3%), on buses (10% versus 4.2%) and on billboards (8.8% versus 3.3%). As well, with educational advertising, there was an increase in exposure in 2007 to ads on the television (65.4% versus 52.2%), on the radio (26.7% versus 17.3%) and on the internet (6.3% versus 2.9%) consistent with the social marketing efforts undertaken by NSHPP.

## 5.6 Recall of Yellow Flag Campaign

Figure 17: Total Recall of Yellow Flag Campaign Ads by Age Category (2007: Total Adults n=1473)



\* Indicates a statistically significant difference at 95%+ Confidence level ( $p < .05$ )

- Overall recall of any of the three components of NSHPP’s *Yellow Flag* social marketing campaign was high among all adults especially for the television ads with the majority (68.4%) of respondents remembering at least one of the two TV executions and about one in five recalling any of the radio ads.

- The *Yellow Flag* television commercials were most memorable for those under 55 years. 19-24 years were significantly more likely to have seen the posters than older adults in the province (17% versus 7%).

**Table 32: Recall of Yellow Flag Campaign by Age and Risk Category**

	Age Category		Risk Category		Total Adults 2007 (n=252)
	19-24 yrs 2007 (n=82)	25-34 yrs 2007 (n=170)	Non-Problem 2007 (n=226)	At-Risk+ ▼ 2007 (n=26)	
<b>Recall of Any Advertising of Yellow Flag Campaign</b>					
<b>Any Recall</b>	<b>79.3%</b>	<b>78.2%</b>	<b>80.1%</b>	<b>65.4%</b>	<b>78.6%</b>
Unaided (Top-of-Mind)	18.3%	25.9%	24.8%	11.5%	23.4%
Aided (Prompted)	61.0%	52.4%	55.3%	53.8%	55.2%
<b>Television Ads</b>					
<b>Any Recall</b>	<b>68.3%</b>	<b>71.2%</b>	<b>70.8%</b>	<b>65.4%</b>	<b>70.2%</b>
Unaided (Top-of-Mind)	11.0%	18.8%	17.3%	7.7%	16.3%
Aided (Prompted)	57.3%	52.4%	53.5%	57.7%	54.0%
<b>Radio Ads</b>					
<b>Any Recall</b>	<b>30.5%</b>	<b>22.4%</b>	<b>25.2%</b>	<b>23.1%</b>	<b>25.0%</b>
Unaided (Top-of-Mind)	4.9%	5.9%	6.2%	---	5.6%
Aided (Prompted)	25.6%	16.5%	19.0%	23.1%	19.4%
<b>Poster Ads</b>					
<b>Any Recall</b>	<b>20.7%</b>	<b>14.7%</b>	<b>15.5%</b>	<b>26.9%</b>	<b>16.7%</b>
Unaided (Top-of-Mind)	4.9%	1.8%	2.2%	7.7%	2.8%
Aided (Prompted)	15.9%	12.9%	13.3%	19.2%	13.9%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval; p < .05).

▼ - Due to small sample sizes (10 < n < 30), results should be interpreted with caution.

- Top-of-mind awareness of the campaign was fairly high with almost one in four adults aged 19-34 years (23.4%) spontaneously mentioning at least one of the ads for the campaign when asked what social marketing advertising they had recalled seeing or hearing.
- When prompted with a brief description of the campaign, average recall increased to 78.6%.
- Overall, 70.2% reporting seeing the TV commercials, one quarter remembered hearing the radio ads and 16.7% recalled seeing at least one of the posters comprising the campaign.

## 5.7 Aided Recall and Opinions of Specific Yellow Flag Ads

Table 33: Aided Recall of Specific Gambling Advertisements by Age and Risk Category (2007)

	Age Category		Risk Category		Total Adults
	19-24 yrs 2007 (n=75)	25-34 yrs 2007 (n=165)	Non-Problem 2007 (n=213)	At-Risk+ ▼ 2007 (n=27)	2007 (n=240)
<b>Television Ads:</b>					
<b>Casino Ad: A young man asking a dealer at the casino to 'hit' him. The dealer say's "sorry you have spent your budget for the night" – reminding him he has groceries, cable and internet to pay for, and is behind on his car payments.</b>					
Recall	62.7%	69.1%	66.7%	70.4%	67.1%
Liking (4/5 out of 5)	58.7%	56.4%	56.3%	63.0%	57.1%
<b>Scratch 'n Win Ad: A woman in a corner store who wants to buy Scratch 'n Win tickets. Male store clerk asks if she is sure and suggests she still has to pay for her magazine, milk and dinner for her blind date.</b>					
Recall	57.3%	65.5%	63.4%	59.3%	62.9%
Liking (4/5 out of 5)	44.0%	49.7%	47.4%	51.9%	47.9%
<b>Fictitious Ad: A woman at a race track with her friends. The man at the betting window asks her if she's sure she wants to place that many bets, or maybe its time to go home.</b>					
Recall	12.0%	4.2%	6.1%	11.1%	6.7%
Liking (4/5 out of 5)	9.3%	1.8%	3.3%	11.1%	4.2%
<b>Radio Ads:</b>					
<b>The Ad asks if you have a "Houdini"- a friend who disappears to the VLT's the minute you get to a pub. Tips regarding what to do include "Don't give them any more money when they run out" and tell them "If you disappear, so do I - and mean it"</b>					
Recall	28.0%	27.3%	29.1%	14.8%	27.5%
Liking (4/5 out of 5)	24.0%	20.6%	23.0%	11.1%	21.7%
<b>The Ad says "you know what to do if someone has had too much drink, but what do you do if they have been gambling and are having a yellow flag moment?" Male announcer tells you to "take away their bank card and to try telling them honestly that they may be gambling too much".</b>					
Recall	20.0%	16.4%	18.8%	7.4%	17.5%
Liking (4/5 out of 5)	17.3%	8.5%	11.7%	7.4%	11.3%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

▼ - Due to small sample sizes ( $10 < n < 30$ ), results should be interpreted with caution.

**Table 33 Continued: Aided Recall of Specific Gambling Advertisements by Age and Risk Category (2007)**

	Age Category		Risk Category		Total Adults 2007 (n=240)
	19-24 yrs 2007 (n=75)	25-34 yrs 2007 (n=165)	Non-Problem 2007 (n=213)	At-Risk+ 2007 (n=27)	
<b>Poster Ads:</b>					
<b>A butt print on bar stool with the line "how long have you been playing the machines anyway?"</b>					
Recall	13.3%	11.5%	11.7%	14.8%	12.1%
Liking (4/5 out of 5)	8.0%	7.9%	7.5%	11.1%	7.9%
<b>A guy sitting at VLT with a path worn to the ATM machine with the line "taking out 500 bucks to win 200 isn't really hitting the jackpot"</b>					
Recall	8.0%	7.3%	8.0%	3.7%	7.5%
Liking (4/5 out of 5)	8.0%	5.5%	6.6%	3.7%	6.3%
<b>Poker chips with rent, tuition and food printed on them, with the line "did you really come to university to major in poker"</b>					
Recall	21.3%	8.5%	12.7%	11.1%	12.5%
Liking (4/5 out of 5)	18.7%	7.3%	10.8%	11.1%	10.8%
<b>A computer mouse with a credit card swiping through it with the line "at the end of the month you're going to have to ante up"</b>					
Recall	9.3%	1.8%	3.8%	7.4%	4.2%
Liking (4/5 out of 5)	8.0%	1.2%	2.8%	7.4%	3.3%
<b>A royal flush poker hand with the line "the only flush that's a sure thing is the one you make when you're finished here"</b>					
Recall	9.3%	1.2%	4.2%	---	3.8%
Liking (4/5 out of 5)	6.7%	0.6%	2.8%	---	2.5%

■ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

▼ - Due to small sample sizes ( $10 < n < 30$ ), results should be interpreted with caution.

- Both the television ad depicting a *young man in a casino* and the one depicting a *woman in a corner store* were recalled by approximately two-thirds of the young adults taking part in the study (67.1% and 62.9%). Attitude toward the television ads was generally positive with 76.1% of those exposed to the *corner store* ad and 85% exposed to the

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*casino* ad liking them. A higher percentage of adults aged 19 to 24 years liked the *casino* ad (93.6%) compared with those aged 25 to 34 years (81.6%)<sup>8</sup>.

- In contrast recall for the fictional *race track* TV ad was low at 6.7%. Despite the similarity in story lines between the real *Yellow Flag* ads and the planted *race track* ad, only 16 individuals said they recalled viewing this commercial versus 151 who reported seeing the actual ads.
- The *Yellow Flag* radio ads were recalled at lower rates than the television ads. Overall, when prompted, 27.5% specifically recalled the *Houdini* ad and 17.5% the “*Knowing what to do*” ad. Recall of the radio ads was higher among Non-Problem gamblers than among “At-Risk+” gamblers. Given that friends and family were key targets this result suggests that the ads were effective at selectively reaching such an audience. There were no differences in recall across age groups.
- The majority of those who recalled the radio ads (n=93) also liked them with over three-quarter of the adults liking the *Houdini* ad and almost two-thirds liking the “*Knowing-what-to-do*” ad. The latter appeared to be more appealing to the younger age group (86.5% versus 51.8%).
- One in four (25%) young adults recalled seeing at least one of the *Yellow Flag* poster ads with recall for specific posters ranging from a low of 3.8% to a high of 12.5%. This suggests that the posters were targeting different people as there was low overlap among the different versions.
- The *poker chips* poster (12.5%) and the *butt print* poster (12.1%) elicited the highest levels of recall. The *path* poster (7.5%), *computer mouse* poster (4.2%) and the *royal flush* poster (3.8%) were recalled less often.
- In general, exposure to the posters was higher amongst the younger-aged adults taking part in the study. One-fifth of adults between 19 and 24 recalled the *poker chips* poster compared to only 8.5% of those between 25 and 34 years of age. Likewise, 9.3% of the younger group recalled the *computer mouse* poster and the *royal flush* poster but only 1-2% of the older group did. This likely reflects distribution of the poster on campus at universities or colleges, and bars.

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<sup>8</sup> All of the figures for recall and positive ratings were derived by dividing the rating by the recall and multiplying by 100. For example the 93.6% for positive ratings for the casinos among those 19 to 24 was computed by liking (58.7%) divided by recall (62.7%) and multiplied by 100, which equals 93.6%.

- 65% to 86% of those who saw any of the versions of the posters rated them as 4 or 5 on a 5 point likert scale. Younger adults (19-24 years) found the *computer mouse* (86% versus 66.7%) and *royal flush* (72% versus 50%) posters more appealing than those aged 25-34 years) indicating greater relevance to the key target.

## 5.8 Evaluation of Yellow Flag Campaign

In the main 2007 Nova Scotia Adult Gambling Prevalence Study survey, all those who recalled the *Yellow Flag* Campaign were asked a series of questions evaluating key components of this social advertising program. Overall, 66% of young adults aged 19-34 years had sufficient awareness of the *Yellow Flag* concept to take part in the campaign assessment.

**Table 34: Agreement with statements about Yellow Flag Campaign by Age and Risk Category**

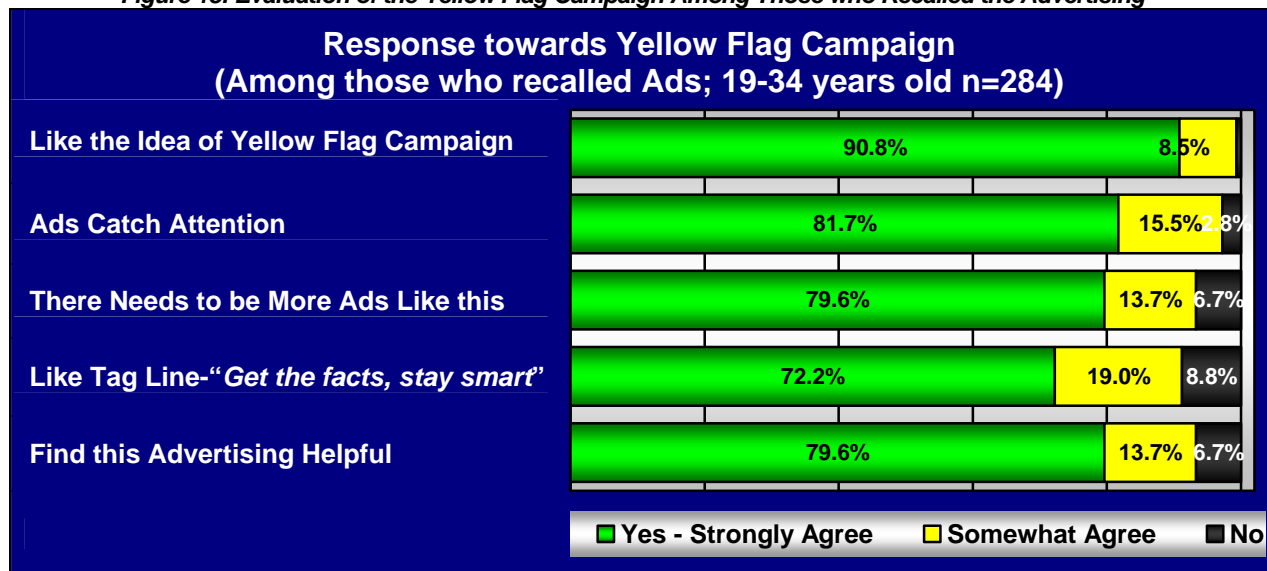
	Age Category		Risk Category		Total Adults 2007 (n=430)
	19-24 yrs 2007 (n=141)	25-34 yrs 2007 (n=289)	Non-Problem 2007 (n=387)	At-Risk+ 2007 (n=43)	
<b>Did you like the idea of the Yellow Flag ad Campaign?</b>					
Yes	63.8%	58.1%	60.2%	58.1%	60.0%
Somewhat	5.0%	5.9%	4.9%	11.6%	5.6%
No	---	0.7%	0.5%	---	0.5%
Did not recall the ads	31.2%	35.3%	34.4%	30.2%	34.0%
<b>Did these ads catch your attention?</b>					
Yes	51.8%	55.0%	54.0%	53.5%	54.0%
Somewhat	15.6%	7.6%	9.6%	16.3%	10.2%
No	1.4%	2.1%	2.1%	---	1.9%
Did not recall the ads	31.2%	35.3%	34.4%	30.2%	34.0%
<b>Do you think there needs to be more advertising like this?</b>					
Yes	56.7%	50.5%	52.2%	55.8%	52.6%
Somewhat	9.9%	8.7%	9.0%	9.3%	9.1%
No	2.1%	5.5%	4.4%	4.7%	4.4%
Did not recall the ads	31.2%	35.3%	34.4%	30.2%	34.0%
<b>Did you like the tag line "Get the facts, stay smart"?</b>					
Yes	46.8%	48.1%	47.5%	48.8%	47.7%
Somewhat	16.3%	10.7%	11.9%	18.6%	12.6%
No	5.7%	5.9%	6.2%	2.3%	5.8%
Did not recall the ads	31.2%	35.3%	34.4%	30.2%	34.0%
<b>Did you find this advertising helpful in telling you about risks when gambling?</b>					
Yes	56.7%	50.5%	52.2%	55.8%	52.6%
Somewhat	9.9%	8.7%	9.0%	9.3%	9.1%
No	2.1%	5.5%	4.4%	4.7%	4.4%

Did not recall the ads	31.2%	35.3%	34.4%	30.2%	34.0%
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☐ - Shading indicates significant differences between population segments (i.e. 19-24yrs vs. 25-34yrs and Non-Problem vs. At-Risk+) within each measurement period (95% + confidence interval;  $p < .05$ ).

- Overall response toward the campaign was overwhelmingly positive among the key target group.
- In total, 60% of all young adults taking part in the study recalled the campaign and liked the *Yellow Flag* concept with an additional 5.6% finding it at least somewhat appealing. This meant that virtually all but one of those young adults exposed to the *Yellow Flag* campaign liked the concept at least somewhat.
- The ads were considered catchy by about half of the target population (54%) with an additional 10.2% reporting that they were somewhat effective gaining their attention.
- Among those who were familiar with the campaign, support for this type of advertising was high with 79.6% indicating a preference for providing more ads of this nature and a similar percentage agreeing that such ads are helpful in letting people know about risks when gambling.
- Support for the tagline “Get the facts, stay smart.” was only slightly less enthusiastic among those rating the campaign with 72.2% strongly supportive and an additional 19% liking it only somewhat.

**Figure 18: Evaluation of the Yellow Flag Campaign Among Those who Recalled the Advertising**



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## CONCLUSIONS

In a province-wide prevalence study in 2003, young adults aged 19 – 34 were identified at increased risk compared with other adult Nova Scotians for developing gambling problems. As part of the *NS Provincial Gaming Strategy*, NSHPP responded in 2006 with an evidence-based social marketing campaign entitled *Yellow Flag*. The campaign offered several television, radio, and print advertisement in the hopes of meeting three goals: 1) increase awareness of problem gambling and available assistance; 2) reduce and/or prevent at risk young adults from developing a gambling problem; and, 3) encourage problem gamblers to seek help. Prior to the campaign launch, NSHPP contracted Focal Research to conduct a survey of 400 randomly selected young adults from across Nova Scotia. NSHPP used the results to identify changes in risk for developing gambling problems from 2003 to 2006, to contribute to campaign design, and to provide a benchmark for outcome evaluation. NSHPP then launched the *Yellow Flag* campaign in the fall of 2006. This report is based on a compilation of findings from a subsample of young adults from the *2007 Nova Scotia Gambling Prevalence Study* and a supplementary survey designed to obtain further information on behaviours, advertisement recall, and attitude toward campaign ads. Evidence suggests the *Yellow Flag* advertisements were positively received, and the campaign was mostly successful in reaching its goals.

### ***Exposure to Commercial and Social Marketing (i.e., Yellow Flag Campaign) Campaigns***

Recall of commercial and social marketing gambling-related advertisements increased from 2006 to 2007, and the effectiveness of the *Yellow Flag* advertisements was especially clear - although a slightly higher proportion of respondents recalled commercial ads over social marketing ads, *the overall increase in recall was higher for the Yellow Flag advertisements* (12% versus 7%). Nevertheless, ads promoting participation in gambling are still quite pervasive as evidenced by an 88% recall. In fact, 42% of respondents felt that commercial advertising was too prevalent, and a clear majority thought it encouraged underage gambling and consequently requires restrictions similar to alcohol and tobacco. These findings indicate a need for ongoing advertising campaigns about the risks associated with gambling in order to offset promotional campaigns by gambling providers.

Reported recall of the *Yellow Flag* campaign was impressive with 23% reporting unprompted recall and 79% prompted recall. *Yellow Flag* television ads had the highest reported recall (70%), followed by radio (25%) and then print mediums (17%). 60% of respondents were able to connect the ads to the *Yellow Flag* campaign, and appreciated and supported the concept of targeted communications for reducing problem gambling.

### ***Building Awareness and Knowledge of Problem Gambling***

Building awareness and knowledge about problem gambling generally precedes a changing of attitudes and behaviors related to problem gambling. The *Yellow Flag* campaign appeared to increase knowledge of gambling, primarily among non-problem gamblers, in the following

categories: awareness of the odds of winning, risks for each gambling activity, ways to gamble responsibly, where to get information on gambling, facts and figures, and services to help gamblers and their families. This increased awareness may help prevent non-problem gamblers from continuing along the risk continuum. Nevertheless, few changes were observed among those classified as at-risk+ for experiencing gambling-related problems. Only knowledge of where to seek out assistance increased in this group. In addition, familiarity with the risks of each gambling activity decreased among this particular segment. The findings suggest that attitudes toward gambling changed between the two periods; however, due to small subsamples and hence low power most of the results did not reach statistical significance at a 95% confidence level by age or risk segments.

Belief in a strategy or system to win while gambling declined by almost 50%; however, these findings only reached statistical significance for non-problem gamblers. Not surprisingly, considerable differences were found between the non-problem and at-risk+ gamblers. The latter were significantly more likely to view gambling as exciting, entertaining, and as part of socializing with family. However, the at-risk group also gambled to forget their troubles, to believe gambling is a good way to obtain money and pay off debts, to believe that gambling strategies work, and that the odds of winning will increase after a string of losses. With respect to the *non-problem gamblers*, it appears that the *Yellow Flag* campaign most likely contributed to the building of knowledge and (although less so) in altering attitudes about the risks and possible harms associated with gambling. In summary, it is plausible that the campaign did somewhat influence young adult's opinions and beliefs about gambling; however, the low sample size failed to yield conclusive observations.

#### *Reducing and/or Preventing Young Adults from Developing a Gambling Problem*

Evidence derived from the survey suggests that the *Yellow Flag* campaign was moderately successful in reducing and/or preventing at-risk young adults from developing a gambling problem. Following the campaign, more young adults reported having set a budget and/or limiting their gambling expenditures. There was also a shift from regular to casual play, and a decline in participation in high risk gambling activities<sup>9</sup> and expenditures.

Regarding at-risk gamblers, a decline in the number who reported *ever* having experienced a problem was observed. On the other hand, there was an increase in at-risk players self-reporting a *current* gambling problem. The *Yellow Flag* campaign may have led some of these gamblers to recognize their problem, which in turn may have led to the contemplation stage of change. Additionally, these young adults were less likely to report chasing losses, borrowing money or going in debt to gamble; 18% to 33% of these gamblers also moved from regular to casual play with an associated decline in spending.

#### *Building Awareness of Available Assistance and Encouraging Problem Gamblers to Seek Help*

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<sup>9</sup> For example, slot machines, video lotteries, casino, and poker games.

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The *Yellow Flag* campaign led to an increase in the proportion of at-risk and problem gamblers seeking information and help for their gambling problems. Awareness of support services and programs increased from 62% in 2006 to 72% in 2007, and 2% of all young adults indicated that they had sought assistance from a formal or informal source following the campaign. In addition, the proportion of *at-risk gamblers* seeking assistance from a formal source rose from 0.8% to 9.3%, and 11.6% of respondents sought help from family and friends compared to 2.1% in the previous year.

### *Summary*

For the most part, NSHPPs *Yellow Flag* campaign has been successful in creating awareness, reducing risks, and encouraging young adults to seek help for gambling-related problems. There is also strong evidence that NSHPP planned and launched the campaign in a manner that had strong resonance with young adults aged 19 to 34 years. The fact the campaign outperformed commercial and promotional gambling communications is particularly impressive.

As with any other social marketing campaign, the first and major step is to build awareness and knowledge, which, in turn, should lead to a changing of beliefs and then behaviours. The findings show that the *Yellow Flag* campaign failed to significantly alter many attitudes and beliefs toward gambling; however, it would be unrealistic to expect a major change in such a short timeframe. The campaign served to increase knowledge of the key concepts among non-problem gamblers, but not among the at-risk group. Still, participation in high-risk gambling activities declined and more young adults sought out information or help from formal and/or informal sources. This suggests the communications had an overall impact, and highlights the need for ongoing campaigns like *Yellow Flag* to educate young adults about the risks of gambling-related harm and to encourage those experiencing problems to seek help.