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Evaluating the Impact of the "My-Play" System in Nova Scotia

Phase 1: Regular VL Player Benchmark Survey

Technical Report

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Executive Summary

In 2010 the province of Nova Scotia introduced a new province-wide card-based player tracking system for video lottery terminals (VLTs). "My-Play", formerly called the Informed Player Choice System (IPCS), was developed by Techlink Entertainment and allows video lottery players to use a player card on the VLT to access various responsible gaming (RG) features to manage and monitor their video lottery gambling including: account summary information detailing the amounts spent per day, per month, per year; live action summarizing wins losses for the current play session; options to set time and money limits; and, the ability to self-exclude or limit access to play. Following a pilot of the program in Sydney Nova Scotia in late 2009 the Nova Scotia Gaming Corporation (NSGC; the 'Corporation') in cooperation with other industry stakeholders in the province completed installation of the system on all machines in the province by August 2010. During the first year of the provincial program (≈August 2010 to August 2011), use of the player card is voluntary; players can choose to use a player card in order to access the RG features or continue to play normally without a card, thus, bypassing the system. The 'Corporation' commissioned evaluative research of the system through the Responsible Gaming Council to assess the impact of the system for players and the VLT business line. The Nova Scotia Gaming Foundation (NSGF; the 'Foundation'), a not-for-profit, arms-length government organization funded Focal Research to conduct the current independent study examining the impact of the new "My-Play" responsible gaming system with specific emphasis on high risk and problem VL gamblers in Nova Scotia.

Research Design

A multi-phased approach was adopted including evaluation of impacts for both treatment and non-treatment player populations. Evaluation of the system for treatment clients, who typically comprise about 10-15% of those identified as problem gamblers in Nova Scotia (Schrans, Schellinck & MacDonald, 2008), will be conducted separately in cooperation with treatment and related service providers throughout the province.

In order to determine the impact of the "My-Play" system in the non-treatment population, a three-phase approach was proposed:

a. **Generation of a Panel of Regular VL Players (n=1039)**: Recruitment of a non probability sample representative of regular VL players across Nova Scotia;

b. **Benchmark Survey (n=500):** To gather baseline measures before launch of the "My-Play" system (Pre-Trial);

c. **Follow-up Surveys:** Ongoing measurement for comparison to baseline following launch of "My-Play" system (Post-Trial),

    i. **Return-to-Sample:** Follow-up with those regular VL Players completing the Benchmark Survey in order to assess within-subject changes post trial,

    ii. **Random Sample:** Survey with a random representative sample (i.e., probability sample) of regular VL Players to project results to players at large and supplement the research panel over time (e.g., replace players lost due to attrition).

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Rationale for Research Design

According to the gambling prevalence research in Nova Scotia high risk and problem VL gamblers comprise only 1%-2% of the population making it very labour intensive and expensive to obtain a large-scale random sample. Therefore, to assist in assessing system impacts among the non-treatment population (which can be expected to include the majority of high risk and problem gamblers), Focal generated a research panel representative of regular VL players throughout the province. Regular VL players in Nova Scotia have consistently been found to account for 90%+ of VL revenues, with players moving in and out of risk over time; about one in every four self-report problems in managing their VL play at some time; and, about 42% score at some level of risk using the Canadian Problem Gambling Index (PGSI Score 1+) making this a key target group for assessment of system impacts (Schrans, Schellinck & MacDonald, 2008; Schellinck & Schrans, 2007; Schellinck & Schrans 2004c; Schellinck & Schrans, 2002b; NSDOH & Focal Research, 1998).

While the panel of regular VL players was recruited in a non-random manner such non-probability samples are suitable for assessing within-subject changes over time. Using a return-to-sample design it is possible to detect and evaluate significant differences in player responses between Time 1 (Pre-Trial) and Time 2 (Post-Trial). Testing effects can occur with use of repeated measures (e.g., taking part in the study causes participants to behave differently. Therefore, to control for any testing effects, during follow-up a limited random sample (n=200) will also be conducted to assess VL player response (e.g., awareness, feature use) that is generalizable to all players. The random sample can also be used to supplement the research panel (e.g., replace those who drop-out over time).

Given how the "My-Play" system is being implemented it is not possible to use the player tracking system to obtain pre-trial benchmark data; use of the system is voluntary so not all play behaviour will be captured by the system and the system will not be collecting baseline information for players before the RG features are activated. Therefore, the research design for the current study utilized self-reported survey data specifically designed for generating reliable pre-trial benchmark measures for post-trial comparison; neither observation nor intercept methods were suitable for generating the information required.

Keeping in mind limitations associated with use of self-reported behavioural data, the pre survey and baseline measures were designed using methods found to be effective in previous research examining the impact of responsible gaming devices in Nova Scotia (Schrans, Schellinck & MacDonald, 2008; Schellinck & Schrans, 2007; Schellinck & Schrans 2004c; Schellinck & Schrans, 2002b; NSDOH & Focal Research, 1998) as well as recommendations and insights gained from research in other jurisdictions in Canada (Williams & Woods, 2004, 2007) and abroad (Schottler Consulting Pty Ltd., 2009a, 2009b; Nisbett 2005b, 2006; McDonnell-Phillips Pty. Ltd., 2006; Haworth, 2005; Caraniche Pty Ltd., 2005). A pseudo diary approach was used to minimize telescoping and enhance the accuracy of the self-reported data. Ideally, post-trial comparisons will be supplemented by access to actual player data tracked by the new system. Focal's team is fully experienced in using and analysing player tracking data and looks forward to putting this experience to work in assessing the impact of "My-Play" for players in Nova Scotia.

The research was subject to independent ethics review by the Institutional Review Board Services (IRBS) and the study was conducted in accordance with Canadian Tri-council Ethics and compliance with

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national and provincial privacy requirements. The Technical and Highlight Reports were subject to independent peer review conducted by the Foundation. Based on feedback from the reviewers (3) changes were incorporated. The Peer Reviews and Focal's response are available from the Foundation upon request.

Method for Panel Recruitment and Benchmark Survey

Due to the low incidence (3-4%) of regular VL players in the population at large (Schrans et al 2003, 2008) non-random convenience sampling techniques (e.g., on-site recruitment, snowball and referral recruitment) were used to gather names and contact information for over 1,000 regular VL players across the province from November 2009 to March 2010.

Prior to the provincial rollout of the new system, panel members were re-contacted and screened by telephone from May 26 to June 30, 2010 to determine current play status and obtain informed consent for participating in the research study. Overall 61.5% of original panel members were successfully re-contacted to take part in the study and 500 surveys completed with those eligible players identified.

The Phase 1 2010 Regular VL Players Benchmark Survey consisted of 500 in-depth telephone interviews with those panel members identified as regular VL players (i.e. those playing once a month or more over the past year) in order to establish benchmark pre-trial measures. On average the survey was 25-30 minutes in length and was administered by trained professional interviewers from Focal's secure centralized facility located in Halifax, Nova Scotia. The sample for the Benchmark Survey was almost evenly divided between males (48%) and females (52%) and those living in urban (53%) versus rural (47%) areas of the province.

Identification of Risk and Problem Gambling

Two measures were used in the current study to determine player risk among regular VL gamblers taking part in the study; the **P**roblem **G**ambling **S**everity **I**ndex (**PGSI**) of the **C**anadian **P**roblem **G**ambling **I**ndex (**CPG**I) that assigns players to one of 4 levels of severity for gambling problems ('non-problem', 'low risk', 'moderate risk' and 'problem gambling') (Ferris and Wynne, 2001); and the **F**oca**L** **A**dult **G**ambling **S**creen (**FLAGS**), a new instrument that identifies problem gambling and four levels of pre-harm risk, that is risk before the gambler has experienced negative consequences or problems (Schellinck, Schrans, Bliemel & Schellinck, 2010, in press).

FLAGS-EGM is comprised of a comprehensive set of 10 multi-item indictors that are sequentially related to escalating risk and harm for electronic gambling machines including video lottery. Collectively the instrument is used to identify player risk assigning respondents to one of five risk and harm categories ('no detectable risk', 'early risk', 'intermediate risk', 'advanced risk', and 'problem gambling') based on summing their responses to each of the indicators   However, each of the 10 components comprising *FLAGS* also represents a distinct area of risk or harm for players ranging from early risk indicators (e.g., risky beliefs and motivations) through to advanced risk indicators (e.g., preoccupation, impaired control, risky practices) and finally indicators of problem gambling (e.g., persistence, negative consequences). Therefore, *FLAGS* can also be used to assess impacts at a component level to determine how specific strategies and interventions impact the various factors contributing to risk and the development of problem gambling. This functionality means that FLAGS moves beyond traditional identification of problem gambling prevalence by providing information for use in informing, monitoring and evaluating

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gambling related prevention, harm reduction, social and public health policy. In summary, FLAGS not only enables users to identify 'who' is at risk but, more importantly, 'why'.

Summary of Key findings:

While the information gathered in the Phase 1 Benchmark survey is primarily intended to act a baseline for post-trial comparison it also provides valuable insight about regular playing patterns and differences between lower and higher risk play that can be used by various stakeholders in supporting other harm and risk reduction initiatives for video lottery in Nova Scotia.

The findings of the Phase 1 Benchmark Survey were promising. The player management tools appeared to have relevance and potential among high risk and problem VL players. While lower risk players make up a larger proportion of the player base, those at higher risk contribute a disproportionate amount of revenue as well as negative impacts at an individual, family and community level making this an important target group for assistance.

❖ *Similar to the 2007 Nova Scotia Gambling Prevalence study 42% of regular players taking part in the survey scored at some level of risk using the Canadian Problem Gambling Index (CPGI-PGSI) with 26% scoring at higher risk levels; 14% falling at moderate risk levels and 12% identified as severe problem gamblers;*

❖ *Using the new FocaL Adult Gambling Screen (FLAGS-EGM) at least one in five regular players taking part in the study (20%-21%) was found to exhibit symptoms of impaired control, 18% were engaging in risky gambling practices, and 14% were continuing to play despite suffering negative consequences (i.e., persistence);*

❖ *On average those scoring at higher risk have been playing longer than lower risk players; most problem VL gamblers were long-term players with 76% having played the machines for 10 or more years;*

❖ *Higher risk players were more inclined to report playing VLTs regularly each month at three or more VL locations suggesting about 25% or one in four higher risk players would benefit from a system that tracks play over all sites and permits play decisions to be linked and enforced over locations;*

❖ *Use of strategies to manage expenditure were widespread among players; most (87%) regular VL players set a money budget before arriving at the venue, 60% brought limited amounts of money to prevent overspending or cashed out frequently while playing in order to keep track of time and/or money, and 57% planned to stop if they reached a certain amount of losses;*

❖ *The vast majority of those experiencing difficulties have tried various strategies to control their VL play without success including budgeting, setting limits, avoiding play and enlisting the help of friends and family;*

❖ *The key difference between players success in using personal play strategies was found to be related to enforcement (i.e., willpower); lower risk players were better able to set and enforce play limits whereas those who were at high risk or having problems were not;*

❖ *Most regular VL players reported occasionally spending beyond desired limits while playing the machines but for those at higher risk overspending happened most times they played;*

❖ *Most players scoring at any level of risk (CPGI-PGSI score =1+), especially those at higher risk (76%-92%), find it difficult to keep track of gambling expenditures over time with 66% of problem VL gamblers reporting difficulty in keeping track of monthly expenditures on VLTs;*

❖ *A minority of problem VL players (3%) have ever sought out formal assistance in dealing with their VL gambling with most preferring to pursue self-help options;*

❖ *The majority of players in all risk groups did not believe VLTs are a safe form of gambling (65%) and supported greater restrictions for video lottery access within the province (60%). Among participating problem VL gamblers, 90% had concerns with product safety, 92% supported greater restrictions for VLTs and 85% supported implementation of a total VLT ban in the province;*

❖ *Overall, half (51%) of regular VL players taking part in the survey were in favour of the "My-Play" player management features being available on machines in Nova Scotia, especially problem VL gamblers (68%), 31% of all players expressed any degree of opposition to the program and, the remainder were neutral or undecided;*

❖ *Intent to use the player management tools was also highest among the higher risk players with 47% of problem VL gamblers expressing interest in getting a player card and the majority at least somewhat likely to try any one of the "My-Play" features offered;*

❖ *Overall 29% of participating players have either already registered for a card (8%) or reported that they intend to get one (21%);*

❖ *Primary barriers to use largely centered on perceptions that the features are not relevant for most players* (I don't need to use it; I can control my gambling on my own and don't need any help) *privacy* concerns (I don't think it is the [government's] business to know how much I am playing; I don't want anyone else to know my business)*, and lack of understanding about how the card/feature works and the potential benefits of use(*Don't know enough about it, what it can do for me*);*

❖ *There was also evidence that players may link card use with having a gambling problem and there may be some stigma associated with use in so far as it may identify a user as someone who has a problem with their gambling ("I don't have a problem so don't need a card").*

❖ *While most players felt that use of the specific RG features should be voluntary, evidence suggests that use of a player card or other tracking device should be mandatory so all players choosing to use any RG feature will receive accurate, complete information and/or services thereby supporting and normalizing use of the system for players in general.*

Section 1: Introduction & Methodology

In 2010 the province of Nova Scotia launched a new card-based player tracking system for video lottery terminals (VLTs). As of August 2010 all VLTs in Nova Scotia have been modified to allow players to voluntarily use a player card to access various responsible gaming (RG) features to manage and monitor their video lottery gambling.

In Nova Scotia the Gaming Corporation (NSGC; the 'Corporation') is the government body responsible for the business management and operation of gambling in the province under the 2003 Nova Scotia Gaming Act. According to NSGC (the Corporation), the system currently referred to as "My-Play" is intended to support responsible gaming primarily among those scoring at low to moderate risk for gambling problems using the Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI) (Ferris & Wynne, 2001).

As an arm's length organization, the Nova Scotia Gaming Foundation (the Foundation) has a mandate to support problem gambling research in the province of Nova Scotia and is committed to monitoring gambling harm at an individual, family and community level. NSGF awarded funding to Focal Research a local company with unique expertise in video lottery research, to design and conduct the first stage of a multi-phased independent study evaluating the impact of the new "My-Play" responsible gaming system for high risk and problem VL gamblers in Nova Scotia.

The overall research plan for the project includes assessment of the "My-Play" system among two primary player populations:

1. Those currently receiving treatment for a gambling problem (e.g., clients of Addiction Services and other related services; and,

2. Those high risk and problem VL gamblers outside of treatment in the general population.

The assessment of the system for treatment clients will be conducted following introduction of the "My-Play" system and in cooperation with other treatment stakeholders in the province. However, only a minority (≈15%) of those at high risk or experiencing problems with VLTs actively seek out professional assistance with most looking to self-help solutions. In the 2007 Nova Scotia Gambling Prevalence Study commissioned by Nova Scotia Health Promotion and Protection approximately 85% of those scoring as problem VL gamblers using the Canadian Problem Gambling Index (CPGI-PGSI) did not seek out formal assistance (Schrans, Schellinck & MacDonald, 2008). Therefore, to assess system impacts for the majority of high risk and problem VL gamblers in Nova Scotia it was necessary to conduct research among regular VL players throughout the province; about one in four of whom can be expected to fall at high risk to problem levels at any given time.

From November 2009 to March 2010 Focal generated a player research panel gathering names and contact information for 1,039 regular VL players using a proprietary random in-house player database

(n=413) and on-site recruiting at approximately 100 VL retail sites throughout the province (n=626). Respondents were screened and 500 in-depth benchmark surveys were completed with regular VL players from May 26 to June 30, 2010. The Phase I survey was used to gather baseline information for player behaviours, attitudes, and opinions before the new system was introduced (pre-trial benchmarks). During Phase 2 of the study a follow-up survey will be conducted with these same players and ideally a control group. For the experimental group the results will be compared to the baseline measures to evaluate any changes associated with feature use and the "My-Play" system and then compared to the findings for the control group.

The following report provides detailed findings of the Phase 1 Regular VL Players Benchmark Survey.

1.1 Background

1.1.1. "My-Play" System

"My-Play" currently has five player information tools (Source: NSGC January 2010):

— *Access to historical information on the total money spent and time played for a period of a day, week, month, and year.*

— *Access to in-progress play activity information, including the amount of money put in and the amount cashed out in the current play session.*

— *Ability to set a spending limit for a day, week, month or year.*

— *Ability to set a time limit for play from a set amount of hours per day, week, month or year.*

The new "My-Play" card-based system introduced in Nova Scotia was developed by Techlink Entertainment, a local gaming technology company.

"My-Play", formerly called the Informed Player Choice System (IPCS), allows players to use a personal player card to access various features to manage and monitor their video lottery gambling including: account summary information detailing the amounts spent per day, per month, per year; live action summarizing wins losses for the current play session; options to set time and money limits; and, the ability to self-exclude or limit access to play.

The concept was originally evaluated and field tested by the Nova Scotia Gaming Corporation (NSGC; the 'Corporation') from 2005 to 2007.[1] A pilot of the current program was conducted by NSGC in Sydney Cape Breton from July 2009 to October 2009. In January 2010 the program was re-branded as "My-Play" and installation throughout the province was completed August 2010.[2]

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[1] There were three research studies assessing various components of the original player card system tested during the Nova Scotia Windsor Trial: Bernard, Lucas & Jang, 2006; Omnifacts Research, 2007; Schellinck, Schrans, & Focal Research, 2007). All reports can be access at NSGC's website (http://www.nsgc.ca/reDevice.php).

[2] NSGC, 2010; http://www.nsgc.ca/videoLottery.php

During the first year of the program, use of the player card is voluntary; players can choose to use a player card in order to access the features or continue to play normally without a card, thus, bypassing the system.

Player information is only stored on the system when the player uses a card. The player must insert an ID card into the VLT before starting to play then the "My-Play" system records and stores the play activity for the session also giving players the option to use the various RG features; if the card is not used then activity for that play session (e.g., amount of time or money spent) is not recorded nor can the player use any of the RG features.

This means that the data captured by the system during the first year of the program will likely be incomplete and, on its own, not suitable for reliable post-trial comparison of system impacts. At this time the system also does not gather any play behaviour before the RG features are activated which means the system will not be able to provide a baseline dataset for comparison following feature activation and use.

1.1.2. Evaluative Research

The Nova Scotia Gaming Corporation (NSGC; the 'Corporation') in cooperation with the Atlantic Lottery Corporation (ALC) has commissioned research through the Responsible Gaming Council of Ontario to assess the impact of the system for the VLT business line and for responsible gaming (RG) purposes especially among those identified by the 'Corporation' as the key target group for the new RG system; primarily those at low to moderate risk for gambling problems. However, an opportunity also existed to assess system impacts (positive and negative) for problem VL gamblers and those at high risk for experiencing gambling problems in the province.

The Nova Scotia Gaming Foundation (NSGF; the 'Foundation') has a mandate is to support problem gambling research in the province of Nova Scotia. As an arm's length government organization, the 'Foundation' undertook to fund independent research examining the impact of the "My-Play" video lottery program for high risk and problem VL gamblers in the province.

To that end, a phased study design was developed consisting of an evaluation of "My-Play" impact for two critical population groups in Nova Scotia:

A. Those Nova Scotians adversely affected by video lottery gambling in the province and who are actively seeking assistance through Addictions Services and/or other treatment providers (e.g., Problem VL gamblers and their families); and,

B. Those Nova Scotians in the general population that do not necessarily seek out treatment but who are at high-risk or are experiencing problems associated with video lottery gambling.

Evaluation of treatment clients will be conducted separately in cooperation with other provincial health organizations following activation of the system.

In order to determine the impact of the "My-Play" system in the non-treatment population, a three-phase approach was proposed:

d. **Generation of a Panel of Regular VL Players (n=1039)**: Recruitment of a non probability sample representative of regular VL players across Nova Scotia;

e. **Benchmark Phase:** Survey to gather baseline measures before launch of the "My-Play" system (Pre-Trial; n=500);

f. **Follow-up Phase:** Ongoing measurement for comparison to baseline following launch of "My-Play" system (Post-Trial),

  i. **Return-to-Sample:** Follow-up with those regular VL Players completing the Benchmark Survey at Time 1 (T1; n=500) approximately 12 months (T2; n≈400) and 24 months (T3; n≈400) in order to assess within-subject changes post trial,

  ii. **Random Sample:** Survey with a random representative sample (i.e., probability sample) of regular VL Players at Time 2 (n=200) and Time 3 (n=200) to project results to players at large and supplement the research panel (e.g., replace players lost due to attrition).

Focal Research was awarded funding by the 'Foundation' to conduct the multi-phased staged research study for assessing impacts among the non-treatment player population consisting of a Phase 1 pre-trial survey to establish benchmark behaviours, attitudes, opinions and reactions to the concept prior to introduction of the "My-Play" system. This information can then be used for comparison with findings for post-trial follow-up surveys in order to assess the impact of the system for high risk and problem video lottery gamblers as compared to those at low or no risk.

1.1.3. Regular Video Lottery (VL) Players

Regular involvement in video lottery gambling tends to be tied to a player's access to resources and ability to 'pay for the activity' (NSDOH & Focal Research, 1998). Therefore, regular VL players were defined as those adults who played VLTs, on average, at least once a month or more over the past 12 months. For most adults the lowest common unit for receipt of income or financial resources occurs on a monthly basis; most people receive regular income at least once a month or more and, in cases such as government cheques, amounts are only disbursed once a month. Some high risk and problem VL gamblers have been found to play only once a month using up available funds in a single extended play session (NSDOH & Focal, 2000, 1998). Although these players typically comprise a minority of all those scoring at high risk for gambling problems it is important that criterion for regular play captures this behaviour and, hence, the reason for defining regular players as those gambling on the machines at least once a month or more. Measurement of play behaviour on a monthly basis also coincides with the recording and tracking of revenue figures in Nova Scotia which occurs monthly.

In the most recent gambling prevalence study regular VL players (i.e., those gambling on VLTs at least once a month or more) were found to only make up about 3-4% of the population yet collectively this group of players tends to account for 90% or more of annual revenues for video lottery (Schellinck &

Schrans, 2007, 2002b, NSDOH & Focal 1998) similar to findings for overall gambling in both the 2003 and 2007 NS Gambling Prevalence Studies (2007 Adult Gambling Prevalence Study, p. 68-69).

Evidence also suggests revenues tend to be skewed towards those regular players experiencing problems with VLTs. Problem VL gamblers typically represent 1-2% of adults in the population at large yet because of how they play expenditures by problem gamblers account for a disproportionate amount of gaming revenues ranging from low estimates of 30% to 40% (Williams & Wood, 2007, 2004; Schrans & Schellinck 2003, 2008; Productivity Commission 1999) to highs of 40% to 50% found in the 1998 Nova Scotia Regular Video Lottery Players Study.

Therefore, it is important to assess the impact of the "My-Play" system for high risk and problem VL gamblers knowing that this group of players will comprise a rare population.

1.1.4. Risk for Problem Gambling Among Regular Players

It is also accepted and well documented that there is a higher rate of risk and problem gambling among regular machine gamblers (GRA 2008; NSHPP & Focal 2003, 2007; Productivity Commission 1999). Typically almost one in every two regular VLT gamblers (42% to 45%) is found to score at some level of risk (score 1+) using the Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI). About one in every five who have ever played the machines on a regular monthly basis (past or present) self-report experiencing problems associated with this form of gambling at some time, with about 13% to 16% of current players scoring at problem levels at any given time (Schellinck & Schrans 2007; Schrans, Schellinck et al 2003, 2008; Caraniche Pty Ltd, 2005; NSDOH & Focal Research, 2000, 1998; Productivity Commission, 1999).

In contrast to other traditional forms of gambling, problems with gaming machines such as video lottery tend to develop very quickly (Breen & Zimmerman, 2002). In Nova Scotia, half of those reporting problems with video lottery developed problems within six months of taking up regular playing patterns (NSHPP & Focal, 2000; Schellinck & Schrans, 2004a) and in other jurisdictions individuals went "from being a novice to a pathological gambler almost overnight" (Pike & Quinn, 1997).[3] Frank Quinn, Director of the South Carolina Centre for Gambling Studies noted that in South Carolina where 36,000 gaming machines were introduced and then subsequently removed that it was not "unusual to find elderly women who have never gambled before…who met at least five of the DSM IV criteria [scoring for problem gambling] less than a month after they began gambling [on the machines]." (Quinn 2001; p.134).

Dr. Mark Dickerson has argued control issues (i.e., impaired control) are not exclusive to problem gamblers (Dickerson 2003). Over-spending or losing track of time or money occurs for the majority of regular players with 70% or more reporting they at least sometimes lose track of the amount spent while gambling and on occasion will spend more time or money gambling on the machines then intended (Schellinck & Schrans 2002b, 2004c; NSDOH & Focal Research, 1998, 2000). This finding is

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[3] As cited by Frank Quinn in "First Do No Harm: What could be done by casinos to limit pathological gambling" Managerial and Decision Economics 22: 133 142 (2001), p. 134

consistent with results in Australia where only 29% of EGM gamblers reported that they "never" lose track of their EGM expenditure (McDonnell-Phillips 2006). Regardless of risk, a significant proportion of players (44%) report "irresistible urges" to continue gambling once they are involved in play (O'Connor & Dickerson, 2001) suggesting loss of control while playing the machines is not an unusual experience nor is it exclusive to problem gamblers.

In longitudinal studies investigators have found that players tend to move in and out of problems while gambling (Kerr, Kinsella, Truly, Legard, McNaughton Nichols & Barnard, 2009; Haworth, 2005; Wiebe, Single & Falkowski-Ham, 2003; Nova Scotia Department of Health & Focal Research, 2000). While the general pattern of gambling risk in the overall population is stable and does not appear to change much over time, as Barry Haworth lead investigator for the 2005 Longitudinal Gambling Study in Queensland observed "there is a high degree of change in the gambling status of individuals"(p.135).4

In the case of machine gambling this consumer churn is especially strong with approximately 25% of the regular player base either stopping or starting play at any given time often in attempts to control spending or recoup losses or alternatively in response to other outside factors interrupting play such as changes in work status, travel, health or financial issues (Schellinck & Schrans 2004c; Schellinck & Schrans 2002b; NSDOH & Focal Research, 1998, 2000).

This makes regular gamblers an important group for monitoring changes over time in risk and harm for video lottery as well as changes in risk status as measured by the Canadian Problem Gambling Index (CPGI) and a new measure the *FocaL Adult Gambling Screen* (*FLAGS*) (See Section 3 for detailed discussion of both instruments).

1.2 Methodology for the Panel and Benchmark Study

The primary research objectives for the Benchmark Survey were four-fold:

❖ *To generate an appropriate research panel of players for ongoing tracking of program impacts;*

❖ *To establish reliable and reasonable baseline measures of current play behaviour, attitudes and perceptions in order to use this information for post-trial comparison and detecting changes related to system and feature use;*

❖ *To ensure that system impacts can be tracked, evaluated and compared by risk for problem gambling;*

❖ *To conduct the study as cost-effectively as possible within the specified timelines (prior to the activation of the "My-Play" system)*

There were a number of issues identified impacting the methodological approach and research design for the study:

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[4] Barry Haworth, 2005 Longitudinal Gambling Study Office of Economic & Statistical Research Queensland Government p. 135

- High risk and problem VL gamblers comprise a rare population (1%-2% of adults) making it difficult and cost-prohibitive to obtain a large random sample;

- Regular players have been found to move in and out of problems with video lottery depending upon other dispositional and situational factors and, thus, individual player risk status could change over the course of the study unrelated to system use/impacts;

- Use of the player card during the first year will be voluntary, therefore, it is uncertain what if any reliable player data will be tracked and recorded by the system during this period;

- The system will not gather baseline play behaviours before the RG features are activated meaning that the system data cannot easily be used to detect changes in play behaviours associated with feature use;

With these issues in mind, there were two components comprising the Phase 1 Benchmark Study designed to meet the study objectives;

1. Generation of a research panel of regular VL players; and,

2. Execution of a baseline survey prior to the introduction of the "My-Play" system in Nova Scotia.

Refer to Appendix A for data management/data collection ethics and security protocols.

1.2.1. Generation of a Panel of Regular Video Lottery Players (n≈1,000)

As it was not feasible to generate a random representative sample of regular VL gamblers, a research panel approach was proposed for establishing benchmarks and tracking associated changes over time.

Participation was restricted to current regular VL players to facilitate comparative evaluation between player risk categories (e.g., higher versus lower risk players) as well as control for player churn or movement between categories (e.g., the possibility some player's risk status could change over the course of the evaluation).

From November 2009 to March 2010, Focal collected a total of 1,039 names of regular VL Players throughout Nova Scotia who had voluntarily agreed to be re-contacted to join an ongoing research panel. The panel was generated in a non-random manner and constitutes a convenience sample although controls were instituted to ensure representation throughout the province and appropriate gender and urban/rural splits.

There were two primary sources used for panel recruitment and referral; Focal's proprietary in-house player database and on-site recruitment at VL retail locations throughout the province.

Participants were not offered payment for taking part, the study was not advertised, and those in treatment for a gambling related problem were excluded from participation. A project Fact Sheet was prepared and distributed to retailers or those seeking information on the project (See Appendix B).

All those joining the player panel were entered in a draw to win one of ten $50 gift certificates for a service or product of their choice (e.g., gas card, movie card, grocery card). Under a "do-no-harm" policy the gift certificates were not redeemable for cash.

Focal's In-house Player Database

Approximately 40% of the panel (n=413) was recruited using various in-house databases developed and maintained by Focal. Focal's VL Player database was compiled during other research projects involving video lottery including large scale random surveys with video lottery gamblers in Nova Scotia and/or through the Nova Scotia provincial gambling prevalence surveys.[5] When conducting such surveys those who played VLTs were asked if they were willing to join a confidential player panel whereby they may be periodically re-contacted over time to take part in relevant or on-going research related to gambling and/or VLTs specifically. Aside from provincial prevalence surveys most studies involving regular VL players were skewed toward the Halifax Regional Municipality (HRM); approximately 40% of the population lives in this area and 39% of the machines are deployed in HRM.[6] Participation on the panel is voluntary and panel members are free to withdraw at anytime when re-contacted. There were approximately 1800 eligible database members that had played video lottery at some time in the past. Among these potential players 17% (n=413) were found to be have current phone numbers, were regular players playing the machines at least once a month or more and were willing and able to take part in the survey. The majority (86%) of those recruited from Focal's VL player database resided in Halifax Regional Municipality (HRM).

On-site Player Recruitment

In order to obtain the remaining panel members it was necessary to go on-site to find and invite regular VL players to take part in the study. Specifically, efforts for recruiting were focused outside of HRM.

Trained professional recruiters from Focal pre-screened and gathered player names on-site at 100 retail VL locations throughout the province including the Annapolis Valley Area (17 sites), South Shore Nova Scotia (19 sites), Northeast Nova Scotia (16 sites), Truro Area (8 sites), New Glasgow/Pictou Area (6 sites), and Cape Breton (34 sites). The Nova Scotia Gaming Corporation and the Atlantic Lottery Corporation were briefed and informed about the project. Permission was obtained from participating VL site-holders in advance of recruiting. Retailers were provided with project background, contact information for Focal Research and the project manager including a toll-free number and website as well as contact information and credentials for on-site recruitment personnel. To ensure privacy and information confidentiality as well as minimizing inconvenience for patrons and location staff, only the names and contact information for interested and consenting players were gathered on-site. Thank you

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[5]In addition to Focal's VLT Player Database (n≈1175 had ever played VLTs at some time) Nova Scotia Health Promotion and Protection (NSHPP) gave the Gaming Foundation (NSGF) and Focal permission to access Focal's 2007 Prevalence Player Research Panel for recruiting purposes. The panel had been compiled during the random survey for the 2007 Nova Scotia Adult Gambling Prevalence Study conducted by Focal on behalf of NSHPP. Participants had voluntarily joined the panel and agreed to be re-contacted by Focal Research for further gambling research and approximately 625 indicated they had ever played VLTs.

[6] Information provided by C. Gotell from the Nova Scotia Gaming Foundation.

letters were provided to all those retailers taking part in the study and follow-up was conducted to assess the impact for retailers as well as the performance of Focal staff while on-site. There were no concerns or complaints reported from players or retailers in association with the on-site recruitment.

In total 626 names were gathered through on-site recruitment throughout the province during February and March 2010: Truro/Stellarton/New Glasgow (n=126); Annapolis Valley (n=122); South Shore (n=116); Cape Breton (n=149); and, Amherst/Cumberland County (n=113).

From November 2009 to March 2010 a total of 1039 regular VL players were recruited to join the player research panel.

1.2.2. Baseline Survey of Regular Video Lottery Players (Pre-Survey; n=500)

The Phase I Benchmark Survey was used to gather baseline information for player behaviours, attitudes, and opinions before the new system was introduced (pre-trial benchmarks).

Questionnaire Design

In the current study observation methods are inappropriate and inefficient; behavioral information was required that is not easily observable (e.g. reasons for trial), has a low base rate (e.g., ever used a particular strategy) and occur over time (e.g., number of times in a VLT location in past month). As noted earlier, the data gathered by the 'My-Play" system during Phase 1 of the study will not be accurate nor can it be used to gather contextual information or feedback on past behaviour (e.g., highest amounts ever won/lost; use of bank cards; budgeting; motivations for play; stopping strategies etc) . This leaves player self-reports which includes journal and pseudo-journal techniques.

Focal has extensive experience in using self-reported survey data for impact analysis. The pre survey and baseline measures were designed using methods found to be effective in previous gambling research in Nova Scotia including those examining the impact of responsible gaming devices (Schrans, Schellinck & MacDonald, 2008; Schellinck & Schrans, 2007; Schellinck & Schrans 2004c; Schellinck & Schrans, 2002b; NSDOH & Focal Research, 1998) as well as recommendations and insights gained from research in other jurisdictions in Canada and abroad (Williams & Woods, 2004, 2007; Schottler Consulting Pty Ltd., 2009a, 2009b; Nisbett 2005b, 2006; McDonnell-Phillips Pty. Ltd., 2006; Haworth, 2005; Caraniche Pty Ltd., 2005). A pseudo diary approach was used to minimize telescoping and enhance the accuracy of the self-reported data. (See Appendix C – Survey Instrument)

Estimating Gambling Expenditure

In calculating monthly expenditure we don't ask players how much they spent in the last month which is very easy for infrequent players who only play once or twice to recall and harder for more regular, frequent patrons. This is the equivalent of asking someone how much they have spent on grapes in the past year. If you like grapes and buy this product often it will be more difficult to estimate annual expenditure than if you only purchase grapes once or twice a year. However, for the frequent buyer you

can ask them how much they spent on grapes the last time they purchased and then find out how often they typically buy grapes. Using this information you can derive a fairly accurate annual estimate.

In calculating gambling expenditure we ask players how much they spent "out-of-pocket" (e.g., his/her own money) the last time they played (and/or each time they played). We then ask them how often they have played based on their behaviour over the previous three months (e.g., weekly/monthly). We then ask how often they were in a location that had VLTs in the last month/week, (whichever is the lowest common denominator for them). How many times were they in the location to play VLTs? How many times were they there for other reasons but ended up playing? We then calculate the number of times played in last month/week and multiple it by per time expenditure to calculate either per month or per week spend amounts. If per week, we then multiply the amount by 4 to get a monthly estimate. At an individual level the results may or may not be accurate when projected over an extended period (e.g., year); sometimes people play more or less than usual in a given time period. However, when these estimates are used at a group or aggregate level the estimates are highly accurate and reliable. We use this approach with many of the self-reported questions, avoiding those questions people cannot or will not answer accurately or honestly and instead find different ways of obtaining and confirming play behaviour (e.g., using triangulation methods such as gathering the same information using different sources; using a pseudo diary approach by gathering play behaviour for a particular event (e.g., last big win, last time played)).

Pseudo-Diary Approach

The Focal team has used journal approaches and modified journals. Notwithstanding problems inherent in how players fill in and maintain such records and the cost of implementing methods to offset these potential biases, there are occasions when a diary approach can produce accurate information if kept simple and easy but there are also occasions when the process is too cumbersome and inappropriate; only those most highly motivated to take part actually produce accurate records with the majority of players again providing summary data or worse dropping out. Initially a diary approach was considered to supplement the data gathered in the survey but this was modified to a pseudo-diary approach instead due to a concerns regarding the drop-out rate (e.g., players will get tired of taking part due to the burden of participation and will withdraw from the panel), confidentiality (e.g., information recorded by the player could be seen by others), and accuracy of the information (e.g., due to lack of confidentiality, social desirability etc., players will alter information recorded). Non-threatening questions posed by a skilled interviewer were thought to produce more accurate and consistent play information suitable for use in the context of this particular study.

Pre-test and Final Survey

From January 7, 2010 to April 30, 2010 the survey was subject to a series of pre-tests and reviews. The instrument was originally tested for comprehension in 9 in-depth one-on-one interviews with regular players falling at various degrees of risk using the CPGI. A formal pre-test was conducted (n=25) and the revised survey was reviewed by the project team and associates at the 'Foundation".

The final instrument was subject to independent ethics review by the Institutional Review Board Services (IRBS) prior to going to field.

There were six versions of the survey to control for order bias. Interviewers also rotated order for response categories during administration of the survey.

Data Collection

The Benchmark Survey was intended to be administered immediately prior to the activation of the new system to ensure the baseline measures would be current for the period preceding the system launch However, due to delays the installation process was not completed until August 2010. As a result, data collection using the player panel did not commence until the end of May. In some cases, this meant a player on the research panel could have been recruited six to seven months early.

From May 26 to June 30, 2010 recruited players originally agreeing to take part in the study were re-contacted and screened by telephone (n=1039). At follow-up, 10% of those on the panel did not have a working number (118 numbers were non-working or 'not-in-service), 6% (n=59) refused or withdrew participation and 21.5% (n=224) could not be reached during the data collection period after repeated call backs (7+ attempts to complete). There were 638 panel members successfully screened for participation representing an overall response rate of approximately 61.5% of all panel members originally recruited and 69% when non-working numbers were excluded. Of these 638 cooperative players 22% (n=138) were disqualified as they were no longer playing on a regular monthly basis (124) or were non-permanent residents (14). A total of 500 in-depth benchmark surveys were completed with eligible regular VL players identified; 220 (44%) originating from Focal's database and 280 (56%) originating from on-site recruitment.

On average the baseline interview was 26 minutes in length ranging from 22 minutes to 56 minutes depending upon respondent's answers. The surveys were conducted at the convenience of the respondent with full disclosure and in compliance with Canadian Tri-council Ethics and national and international survey standards and codes of conduct (see Ethics below).

All surveys were conducted in English although an option for translating and administering the survey in French was available. According to the most recent 2006 Statistics Canada census data 92.5% of Nova Scotia residents are Anglophones; 3.6% are Francophone and 3.6% list another language as their 'mother tongue'.[7] In the current study 96% of panel members listed English as one of their mother tongues with 4% citing other languages.

All surveys were conducted by specially trained interviewers calling from Focal's quantitative facility on a secure private telephone line. Each survey was 100% edited and a random quality control check was performed by supervisory personnel on 15% of all completed surveys whereby 78 respondents were randomly selected and re-contacted to ensure data accuracy and that the respondent was comfortable taking part in the study.

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[7] http://www40.statcan.ca/l01/cst01/demo11a-eng.htm

Those who have ever received treatment for gambling or a related problem were excluded from participation and at completion of the survey all respondents were provided contact information for the Problem Gambling Help Line and local Addiction Service support.

The data was entered into a proprietary data entry program and subject to random quality control checks (15%). Prior to analysis the data were cleaned using logic checks as well as testing for outliers and out-of-range values. The data is stored and managed in compliance with the Personal Information Protection and Electronic Documents Act of Canada (PIPEDA, 2004) and the Personal Information International Disclosure Protection Act (PIIDPA).

1.3 Analysis Approach

The survey results presented in the current report are based on the baseline responses of 500 regular VL players residing in the province of Nova Scotia. During follow-up this data will be used for various multivariate analyses undertaken to isolate the impact of the RG features and "My-Play" system including GLM Analysis for repeated measures (General Linear Modeling), logistic regression analysis and predictive modeling.

In the current report only descriptive analysis was used for profiling and comparing player segments. The primary segmentation analysis undertaken to compare the survey data used the nine-item Problem Gambling Severity Index (PGSI) of the Canadian Problem Gambling Index (CPGI) to classify players into one of four segments (i.e., no risk gambler n=293; low risk gamblers n=79; moderate risk gamblers n=69; and problem VL gamblers n=59).

The following descriptive statistics were used in the analysis:

- Chi Square tests for distribution comparisons

- Z-tests for proportions (when appropriate adjusted for small sample sizes)

- T-tests for mean comparisons (ANOVAs)

A single star '*' in this report indicates difference among risk segments at 90% confidence interval (p< .10) while a double star '**' denotes difference at 95% (p< .05) confidence level[8].

A full set of data tables for all survey questions including means, median and standard deviation where appropriate was prepared and presented in Appendix E.

Note for the purposes of the current study those scoring at moderate risk (score 3-7) to severe problem gambling levels (score 8+) using the CPGI-PGSI were considered to represent higher risk video lottery gamblers. (See Section 3.1.1 for detailed risk profile using the CPGI-PGSI).

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[8] The probability that the difference occurs between risk segments by chance is less than 10% or 5% (i.e. p< .1 or p< .05). In other words, there is 90% or 95% confidence level that the differences found from risk groups were statistically significant.

1.4 Data Security and Ethics

Focal Research adheres to the Canadian Tri-Council Ethics requirements for surveys and research with human subjects. Focal also complies with International Social Research Codes of Conduct (ISO/ESOMAR) and follows national guidelines set by the Marketing Research Intelligence Association of Canada (MRIA) for conducting social and marketing surveys having corporate "gold seal" status certification. In addition to Canadian Tri-Council Ethics, all levels of data collection, management, and analysis are subject to compliance with the Personal Information Protection and Electronic Documents Act of Canada (PIPEDA, 2004) and the Personal Information International Disclosure Protection Act (PIIDPA).

The research plan and survey materials were subject to independent ethics review undertaken by the Nova Scotia Gaming Foundation through the Institutional Review Board Services (IRBS).9

In addition the report was subject to a rigorous peer review process designed and administered by the Nova Scotia Gaming Foundation

1.5 Limitations

The sample consists of a large panel representative of regular VL players throughout Nova Scotia. This sample is suitable for profiling and comparing responses between higher and lower risk players and tracking changes over time (i.e. within-subject longitudinal study). However, it is not a true random sample and caution should be exercised in generalizing results to the regular player base at large.

It is also recognized that the survey data is based on self-reported behaviour. Focal is experienced in using self-reported data for generating highly accurate play estimates, in particular for video lottery. For example, using self-reported data we are able to consistently achieve expenditure estimates that fall within ± 3% of actual revenue figures (NSDOH & Focal Research, 1998). Essentially behavioural questions are broken into component parts that are easy and clear for respondents to understand and report. Triangulation methods are used to collect and cross-verify key measures using multiple questions and a pseudo diary approach focusing on recent play behaviour that is most likely to be in memory for respondents. Care has been taken to enhance the quality of the survey data, minimize telescoping and other sources of bias associated with collection of both self-reported and observation data (e.g., halo effect, Hawthorn effect and Fundamental Attribution Error). The survey was designed using appropriate survey techniques and wording found to be effective in previous research studies including gambling prevalence studies for Nova Scotia and New Brunswick, RG impact evaluations for video lottery including the Nova Scotia Video Lottery Responsible Gaming Features Research (Schellinck & Schrans 2002b) and Nova Scotia Product Enhancement Study (Schellinck & Schrans 2004c). Specific techniques used are thoroughly presented and discussed in the 1998 Nova Scotia Regular Video Lottery Players Study, a seminal work used to inform other research such as the 1999 Australian Productivity

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[9] IRB Services (Institutional Review Board Services) is an independent Canadian review board committed to excellence in human research participant protection and oversight, located at 372 Hollandview Trail, Suite 300, Aurora, Ontario, Canada L4G 0A5
http://www.irbservices.com/irbservices/Home.html

Commission's Report on Gambling (See Appendix F of the Productivity Commission's Report as well as the 2003 Nova Scotia Gambling Prevalence Study and the 1998 Nova Scotia Regular VL Players Survey) (See Appendix C for Questionnaire Design).

1.6 Reporting

The Benchmark Technical Report provides detailed figures and tables establishing baseline information that will be used for comparison following introduction of the new "My-Play" system. The data is segmented and compared using the Canadian Problem Gambling Index – Problem Gambling Severity Index and a descriptive analysis was conducted to establish benchmarks for ongoing tracking during subsequent phases of the study.

A Highlight Report was also produced summarizing key findings emerging from the Benchmark Survey including a focus on the practical implications of such findings. The Highlight Report is provided under separate cover and is intended as a broad overview for general stakeholder use including the public at large. Readers are asked to refer to the Technical Report, Appendices and Data Tables for detailed baseline findings.

1.7 Funding Disclosure

The project was solely funded by the Nova Scotia Gaming Foundation.

The Nova Scotia Gaming Foundation is a not-for-profit, arms-length government organization. The Foundation operates through a volunteer Board of Directors that is appointed by, and accountable to, the Minister of the Department of Health Promotion and Protection.

The Nova Scotia Gaming Foundation is guided by three strategic priorities:

– Building Capacity to Make a Difference

– Informing Balanced Dialogue on Gambling Problems

– Mitigating or Reducing the Undesirable Effects of Gambling

NSGF encourages and supports independent response to problem gambling in Nova Scotia. This is accomplished, in part, through funding to community groups and researchers to help address problem gambling. Eligible projects are those developed to support problem gambling prevention, education, treatment, remedial intervention, and research across the province. In addition to providing funding, NSGF is also committed to developing resources and commissioning research to assist community stakeholders in addressing problem gambling at a primary, secondary, and tertiary level.

1.8 Conflict of Interest

Focal Research is an independent private full service research company owned and operated by the principals (T. Schellinck and T. Schrans). The 'Foundation' and Focal Research are unaware of any real or

perceived conflict of interest or impediments to objectivity that would affect the ability of Focal staff or key investigators to perform the duties associated with this project.

Focal Research is currently pre-qualified to conduct research through the Nova Scotia Government's Standing Offer process. Focal Research has internationally recognized expertise in the area of video lottery gambling research and works cooperatively in this area with varied gambling stakeholders in the province of Nova Scotia including Health Promotion and Protection (NSHPP), Nova Scotia Alcohol and Gaming Authority (NSAGA), Nova Scotia Gaming Corporation (NSGC), Atlantic Lottery Corporation (ALC), Addiction Services, and District Health Authorities (DHAs). Over the course of conducting numerous video lottery and other gambling studies in the province of Nova Scotia, including the 2003 and 2007 NS Gambling Prevalence Studies, Focal has developed an extensive in-house database of pre-screened video lottery candidates that have varying degrees of risk for gambling problems. Focal was able to access this proprietary database to facilitate timely and cost-effective recruitment of a representative research panel. Moreover, Focal was able to use internal experience and proprietary VL measures for the development of the pre-trial survey suitable for comparison with past and ongoing video lottery research in the province. The principals at Focal also have direct experience in analyzing player tracking data generally and Techlink system data specifically and have used such data to develop predictive models to assess system impacts by risk for problem gambling, a skill of particular interest and value to the 'Foundation' in the current study.

Given Focal's research and expertise in the area of gambling, Tracy Schrans, a Principal and President of the company was appointed to the volunteer Board of the Nova Scotia Gaming Foundation from July 2005-07 and then reappointed July 2008-10. In 2009 the Foundation started to develop a self-directed research agenda in order to actively solicit and fund research to address issues of specific relevance to Nova Scotia and the Foundation. Given her professional and fiduciary responsibility to Focal Research Ms. Schrans recused herself from all discussions and decisions regarding any independent research under consideration by Foundation. In July 2009, in order to avoid any real or perceived conflict of interest, she tendered her early resignation to the Board Chair of the Foundation and was granted a temporary leave of absence to be reviewed in six months time. March 6, 2010 the temporary leave was made permanent retroactive to July 2009.

In the interest of transparency Focal has provided independent research, analysis and/or consulting services for various gambling operators in Canada and abroad in the area of player tracking and identification of risk and gambling harms including but not limited to, the Nova Scotia Gaming Corporation, iView Systems, Saskatchewan Gaming Corporation, Skycity Entertainment Group, Techlink Entertainment Group, Australasian Gaming Council, Crown Casino Melbourne, Casino De Montreux Switzerland, NZ Harness Racing Association and others. In addition the principals at Focal have also consulted with various government organizations, regulators and non-government organizations (NGO's) in this area of inquiry including New Zealand Problem Gambling Foundation, NZ Department of Internal Affairs, SA Responsible Gaming Working Committee, Victoria Department of Justice, Responsible Gaming Council of Ontario, Ontario Problem Gambling Research Centre, Nova Scotia Health Promotion

and Protection, New Brunswick Department of Health and Wellness, UK Casino Scoping Study Committee, UK Gambling Commission and UK Gambling Trust (RIGT) as well as others.

1.9 Acknowledgements

As with any study of this magnitude and complexity there are many people and organizations that were critical to its success. Specifically, we wish to acknowledge and thank the regular VL players who voluntarily and anonymously contributed their time and experience and, without whom this project would not be possible. We also extend special thanks to the VL retailers throughout Nova Scotia who permitted us to go on-site to recruit a representative sample of players across the province. We have had exceptional support from the staff at the Nova Scotia Gaming Foundation in continuing to move this project forward and, in particular, appreciate the vision, leadership and perseverance of the Executive Director, Celeste Gotell, Board Chair, Jim MacCormack, and the other volunteer Board Members at the Foundation in supporting this project.

Lastly, the Principal Investigators at Focal Research extend sincere appreciation to each of three anonymous independent reviewers for their thorough and thoughtful evaluation of the Highlight and Technical Report for the Phase 1 Evaluation of the 'My-Play" System: Regular VL Player Benchmark Survey. The feedback from the peer review process was extremely helpful and used to improve the content and presentation of the report. Specifically, the authors wish to acknowledge the role of the reviewers in contributing to the clarity of the report. We believe the criticism received was highly constructive and has served to enhance the final product. Any remaining errors or omissions are our own.

Section 2: Overview of the Nova Scotia Video Lottery Market

An overview of the Nova Scotia video lottery market was undertaken to provide contextual information about VL gambling in the province. The figures reported are based on secondary data from government sources and offer background information about the availability of the machines, expenditures and product revenues as well as government reliance on video lottery revenues.

Table 2.1: VLT Gambling Wagering and Expenditure in Nova Scotia (2005–2010) [$ thousands] [10]

	2005/06	2006/07	2007/08	2008/09	2009/10
Total Wagered	$819,962	$717,153	$673,048	$708,447	$688,477
Prizes	$637,757,	$565,849	$532,310	$561,410	$543,399
Gross Revenue	$182,205	$151,304	$140,738	$147,037	$145,078
Operating Expenses	$28,330	$24,704	$16,880	$16,367	$17,318
Commercial Revenue	$30,706	$25,401	$23,066	$23,925	$22,603
Charitable Revenue	$5,777	$5,496	$5,857	$6,078	$5,676
Provincial Net Revenue	$117,392	$95,703	$94,935	$100,667	$99,481

- There are 2,234 government operated VLTs located in 354 liquor-licensed retail locations throughout the province of Nova Scotia including 216 private organizations, 41 'community-minded groups' or clubs and 97 Royal Canadian Legions.[11]

- In addition, approximately 584 VLTs are located in First Nation gaming sites.[12]

- In 2009/10 approximately $688.5 million dollars was wagered on government VLTs in Nova Scotia, almost half (48%) of all money wagered on any government operated gaming in the province. Amount wagered refers to the total amount of money put in to video lottery machines during a specific time period (e.g., fiscal 2009/10)

- Video Lottery has one of the highest pay-out rates of all forms of gambling in Nova Scotia; on average, about 93% to 95% of the amounts bet by players are paid back to players as 'winnings'. However, since many VL gamblers use winnings to keep playing, especially small wins (NSDOH &

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[10] Nova Scotia Annual Gaming Reports 2009-2010, 2008-2009, 2007-2008 and 2006-2007. Nova Scotia Environment and Labor, Alcohol and Gaming Authority, Provincial Gaming Activity. Retrieved at http://www.gov.ns.ca/lwd/agd/pubs.asp on September 9, 2010.

[11] Nova Scotia Gaming Corporation Stats & Facts. Retrieved at http://ww.nsgc.ca/vltStats.php on September 9,2010.

[12] Nova Scotia Office of Aboriginal Affairs-First Nation Gaming. Retrieved at
http://www.gov.ns.ca/abor/resources/firstnationsgaming on September 20, 2010.

Focal, 1998), only 79% of the total money bet on VLTs in 2009/10 was actually cashed out of the machines by players as winnings (e.g., $543,399 Total Prizes (i.e. coin-out) divided by $688,477 Total Wagers (i.e. coin-in)).

- According to the most recent 2007 Nova Scotia Gambling Prevalence Study only 3% to 4% of adults 19 years or older (≈26,000) play VLTs on a regular basis each month and these regular VL players were found to account for most (90%-95%) of the revenues for video lottery.[13]

- Overall, total losses for VL players in 2009/10 were $145 million or, on average, approximately $5,000 per regular player. Total losses refer to the total amounts wagered less the total amounts cashed out in prizes; this is usually referred to "coin-in minus coin-out" or, in this case, $688,477 (total wagered) - $543,399 (total prizes) = $145,078 (Gross Revenue or Total Lost).

- After expenses were paid, VLTs generated $99.5 million in net profit for the government last year, $22.6 million for commercial retail operators and $5.7 million in charitable revenues for total net profits of approximately $128.8 million.

- Losses from VL players continued to account for the majority (61%) of net revenues from all forms of gambling in the province in 2010.

- Currently, VL retailers give 1% of their commissions from video lottery (2009/10: $315,473)[14] to the Nova Scotia Gaming Foundation (NSGF). This amount is then matched by the Gaming Corporation (NSGC) resulting in total funding of $630,946 to the 'Foundation' last year to support its work in addressing problem gambling and gambling impacts for individuals, families and communities. This represents half of 1% (.5%) of total net profits for VL gambling in Nova Scotia.

- Since 2005 there have been a number of initiatives undertaken to try to address risk associated with VLTs including reducing hours of operation and eliminating play after midnight, slowing the speed of the games by 30%, disabling the "stop" button feature and removing 1,000 VLTs from retail locations across the province. [15]

- In Nova Scotia, about 1 in every 4 to 5 regular VL players typically self-report problems with their VL gambling at some time and 42%-45% tend to score at some level of risk (CPGI-PGSI score of 1+).

- Less than 1% of adults are identified as problem VL gamblers yet this group has been found to account from one-third to one-half of total VLT losses (Williams & Wood, 2007, 2004; Schrans & Schellinck 2003, 2007; Productivity Commission 1999; NSDOH & Focal, 1998).

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[13] Refer to the 2007 Nova Scotia Gaming Corporation Report Schellinck, T., Schrans, T., & Focal Research Consultants Limited. (2007). Assessment of the behavioral impact of responsible gaming device features: Analysis of Nova Scotia player-card data – Windsor trial. Halifax, Nova Scotia. Nova Scotia Gaming Corporation. http://www.nsgc.ca/pdf/Focal%20Research%20Report%20_2_.pdf

[14] Communications with NSGF Communication with the Executive Director of the Nova Scotia Gaming Foundation (C. Gotell), September 15, 2010.

[15] Nova Scotia Gaming Corporation Video Lottery Fact Sheets. Retrieved at http://www.nsgc.ca/videoLottery.php on September 9, 2010.

Section 3: Profile of Participating Regular VL Player

There have been questions raised by gambling stakeholders about the value of player management tools and responsible gaming features for high risk and problem VL gamblers.

Specifically, gaming operators have tended to be cautious in promoting systems like "My-Play" for higher risk gamblers and instead have positioned the product primarily as a preventative tool intended for those in the lower risk groups. As a result, most responsible gaming (RG) evaluation tends to focus on the impact of the system for non-problem gamblers.

There are a number of reasons this approach has been adopted largely related to speculation that certain high-risk player characteristics may serve to interfere with or over-ride the effectiveness of "My-Play" or other similar systems; For example, preoccupation with video lottery gambling (e.g., obsession or strong urges to play), inappropriate motivations for playing (e.g., to pay bills or escape problems) or impaired control (e.g., an inability to resist going to play the machines or to stop once you are playing).

Most problem VL gamblers have many of these characteristics which mean that the "My-Play" tools and features may be less helpful for these players if such factors are found to impede successful use of the system. However, to-date there is no evidence or research specifically examining the interaction between any of these characteristics and the effectiveness of the RG features and tools in assisting players in managing their play.

High risk gamblers have some of these characteristics as well but may be better able to take advantage of the "My-Play" features to reduce their risky practices and, ultimately, their risk of experiencing ongoing negative consequences.

Therefore, an important outcome of the current tracking study will be to determine how use of the "My-Play" system impacts the key factors associated with gambling risk and harm for VLTS and whether or not there are benefits for those most likely to be negatively impacted by VL gambling (e.g., high risk & problem VL gamblers).

3.1 Risk Profiles

Two measures were used in the current study to determine player risk among regular VL gamblers taking part in the study; the **P**roblem **G**ambling **S**everity **I**ndex (**PGSI**) of the **C**anadian **P**roblem **G**ambling **I**ndex (**CPG**I) that assigns players to one of 4 levels of severity for gambling problems ('non-problem', 'low risk', 'moderate risk' and 'problem gambling') (Ferris and Wynne, 2001); and the *F*oca*L A*dult *G*ambling *S*creen (***FLAGS***), a new instrument that identifies problem gambling and four levels of pre-harm risk, that is risk before the gambler has experienced negative consequences or problems.

The *FLAGS* instrument is designed to identify 'no-detectable risk', 'early risk', 'intermediate risk', 'advanced risk' and 'problem gambling' specifically among machine gamblers, producing outcomes suitable for prevention applications and public health surveillance (Schellinck, Schrans, Bliemel & Schellinck, OPGRC, in press). In the current study the new *FLAGS* measure will be used for assessing

changes over time; it is designed to be more sensitive in detecting differences yielding actionable information for evaluation purposes.

At this time provincial stakeholders are more familiar with the CPGI-PGSI which has been used for previous gambling studies in Nova Scotia. Therefore, to facilitate comparison the CPGI is the primary risk segmentation used for reporting the findings of the Phase 1 Benchmark Survey.

3.1.1. Canadian Problem Gambling Index (CPGI-PGSI)

The CPGI-PGSI instrument stemmed from a collaborative effort between the Canadian Provinces to validate and put into practice a standard instrument for measuring problem gambling in the Canadian general population. The Problem Gambling Severity Index (PGSI) comprised of the nine scored items of the CPGI has become the predominant scale used over the past few years, primarily because it facilitates comparisons between prevalence rates across jurisdictions both nationally and internationally. Including the PGSI in the current survey provides an opportunity to test and compare results to other studies using the measure.

In the current study the PGSI was modified to refer specifically to play of video lottery.

Table 3.1.1.1: CPGI-PGSI Questions

#	Thinking about your play of Video Lottery machines over the last 12 months......
1	You bet more on the VLTs than you could really afford to lose?
2	You needed to gamble on the VLTs with larger amounts of money to get the same feeling of excitement?
3	When you gambled on the VLTs, you went back another day to try and win back the money you lost?
4	You borrowed money or sold anything to get money to gamble on the VLTs?
5	You felt that you might have a problem with gambling on the VLTs?
6	People have criticized your betting or told you that you had a gambling problem with VLTs, regardless of whether or not you thought it was true?
7	You have felt guilty about the way you gamble, or what happens when you gamble on the VLTs?
8	You bet more on the VLTs than you could really afford to lose?
9	You needed to gamble on the VLTs with larger amounts of money to get the same feeling of excitement?

Each question has four response options including *never* (scored as 0), *sometimes* (scored as 1), *most of the time* (scored as 2), and *almost always* (scored as 3). To score the CPGI-PGSI the nine items are summed to arrive at a total score ranging from 0 to 27, and interpreted using the following risk continuum:

Table 3.1.1.2: CPGI Risk Continuum

CPGI Score	Risk Categories

0	No Risk
1-2	Low Risk
3-7	Moderate Risk
8+	Problem Gambling

Figure 3.1.1: Risk and Problem Gambler Profile of Regular VLT Gamblers by CPGI

CPGI Categories	% Regular VLT Gamblers in Sample (n=500)
No Risk	58.6%
Low Risk	15.8%
Moderate Risk	13.8%
Problem Gambling	11.8%
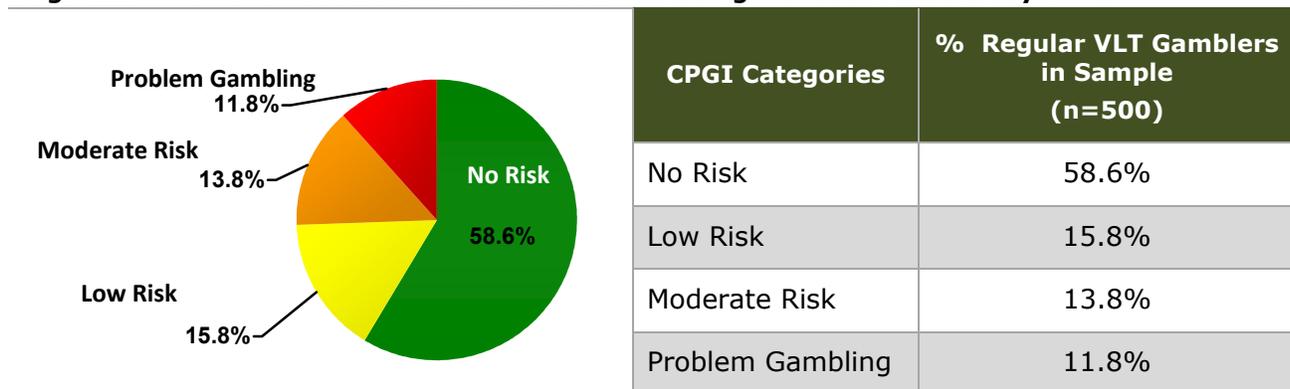
- Although the panel was not randomly generated the resulting CPGI risk profile for participating panel members was highly similar to results from other research for regular VL players in Nova Scotia and in other Canadian jurisdictions (Schrans, Schellinck, & MacDonald 2008).

- According to the Problem Gambling Severity Index (CPGI-PSGI) ≈41%-42% of regular players on the panel were scoring at some level of risk for problem gambling (CPGI score 1+); ≈16% were identified as being at low risk (CPGI score=1-2), 14% were at moderate risk (CPGI score=3-7), and ≈12% were classified as severe problem gamblers (CPGI score=8+).

- This is almost identical to the 2007 NS Gambling Prevalence Study that found 45% of regular VL players scored at some level of risk for problems; 17% were at low risk, 12% at moderate risk and 17% scored as severe problem gamblers.

- When only considering those at higher risk for gambling problems it can be estimated that 26% or just over one in every four players was either at high risk or experiencing problems (CPGI-PSGI score 3+= 26%).

3.1.2. Focal Adult Gambling Screen (FLAGS)

FLAGS is the next generation of measurement (Schellinck, Schrans, Bliemel & Schellinck, 2010, in press) for gambling risk and harm specifically designed for public health surveillance as defined by the World Health Organization in 2010;   *An ongoing, systematic collection, analysis and interpretation of health-related data essential to the planning, implementation, and evaluation of public health practice* (WHO, March 2010).

Most gambling screens such as the CPGI-PSGI are comprised of a brief set of statements (≈8-10 items) designed to identify problem VL gamblers. In contrast, *FLAGS* is comprised of a comprehensive set of 10 multi-item indictors that are sequentially related to escalating risk and harm. Collectively the instrument

is used to identify player risk assigning respondents to one of five risk and problem gambling categories based on summing their responses to each of the indicators.

Each of the 10 components comprising *FLAGS* also represents a distinct area of risk or harm for players ranging from early risk indicators (e.g., *risky beliefs and motivations*) through to advanced risk indicators (e.g*., preoccupation, impaired control, risky practices*) and finally indicators of problem gambling (e.g., *persistence, negative consequences*). Therefore, *FLAGS* can also be used to assess impacts at a component level to determine how specific strategies and interventions impact the various factors contributing to risk and the development of problem gambling. This functionality means that *FLAGS* moves beyond traditional identification of problem gambling prevalence by providing information for use in informing, monitoring and evaluating gambling related prevention, harm reduction, social and public health policy. In summary, *FLAGS* not only enables users to identify 'who' is at risk but, more importantly, 'why'.

In the current study the new *FLAGS* measure uses the 10 key indicators (e.g., constructs) described below to generate important pre-measures for tracking the impact of the "My-Play" system on these specific components associated with risk and harm for machine gambling; it allows users to assess 'what' elements of risk and harm are being targeted by the RG tools and links evaluation to relevant player behaviours and practices (e.g., value of setting limits for those with impaired control).

Table 3.1.2.1: FLAGS -EGM Indicators

FLAGS-EGM Indicators	Description
Persistence:	Over an extended period, continues to gamble in a risky manner that leads to harms.
Negative Consequences	Negative impacts in at least 3 of 14 different areas of life including financial, personal, family, work, health, social.
Preoccupation: Obsession	Excessive preoccupation, constantly thinking about VL gambling or finding ways to gamble on VLTs.
Impaired Control: Begin	Inability to resist or stop oneself from going to play VLTs.
Risky Practices: Later	More extreme or harmful types of risky practices (e.g. using credit to finance play).
Impaired Control: Continue	Inability to stop playing VLTS once started.
Risky Practices: Earlier	Less extreme types of risky practices that usually precede more harmful practices (e.g. using bank card to get more money to play).
Risky Cognitions: Motives	Risky reasons for gambling (e.g., to pay off bills, to escape problems, for self-esteem or status).
Preoccupation: Desire	Strong drive to play the machines as much as possible.
Risky Cognitions: Beliefs	Irrational or inaccurate beliefs about VL gambling.

Figure 3.1.2: Risk and Problem Gambler Profile of Regular VLT Gamblers by FLAGS

FLAGS Risk Categories	% Regular VLT Gamblers in Sample (n=500)
No Risk	64.0%
Early Risk	8.8%
Intermediate Risk	5.4%
Advanced Risk	10.0%
Problem Gamblers	11.8%
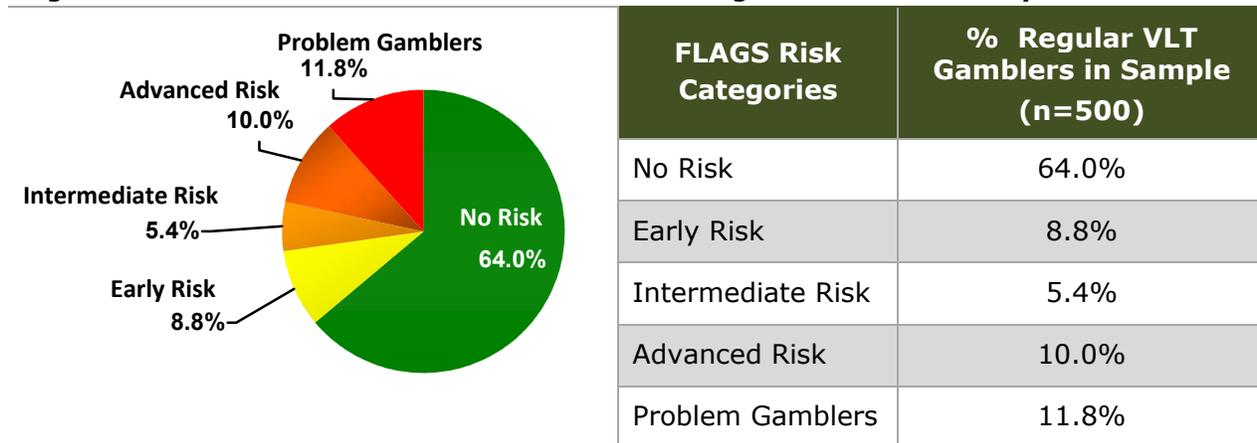
- Using the new FLAGS instrument the percent of panel members identified as problem VL gamblers was identical to the CPGI-PGSI (12%); 9% were found to score for early risk, 5% were at intermediate risk and 10% were at advanced risk for developing problems.

Table 3.1.2.2: FLAGS Indicators (Constructs)

FLAGS Key Indicators (Constructs)	No Risk	Early Risk	Intermediate Risk	Advanced Risk	Problem Gamblers	Total
	(n=320)	(n=44)	(n=27)	(n=50)	(n=59)	(n=500)
Persistence	---	---	---	20.0%	100.0%	13.8%
Negative Consequences	---	---	---	26.0%	100.0%	14.4%
Preoccupation: Obsession	---	---	---	6.0%	55.9%	7.2%
Impaired Control: Begin	---	---	---	40.0%	94.9%	15.2%
Risky Practices: Later	---	---	---	58.0%	93.2%	16.8%
Impaired Control: Continue	---	---	77.8%	52.0%	98.3%	21.0%
Risky Practices: Earlier	---	---	48.1%	44.0%	89.8%	17.6%
Risky Cognitions: Motives	---	12.2%	14.8%	36.0%	91.5%	16.2%
Preoccupation: Desire	---	14.6%	22.2%	22.0%	61.0%	11.8%
Risky Cognitions: Beliefs	---	86.4%	29.6%	36.0%	59.3%	17.6%

Each of the *FLAGS* risk groups were profiled by the key constructs or indicators comprising the *FLAGS* measure:

- Problem VL gamblers tended to trigger on more indicators than any other type of player although it is noteworthy that only a slight majority actually scored on *Preoccupation: Obsession* (55.9%), and *Preoccupation: Desire* (61.0%). This suggested that although most players with these characteristics will be problem VL gamblers not all problem VL gamblers will have these specific characteristics.

- In comparison, almost all problem VL gamblers scored on *Impaired Control*, *Risky Practices*, and *Risky Motives*.

- In sharp contrast to results when using other problem gambling screens there was only one indicator that was found to increase with risk, *Risky Cognitions Motives*; as player risk goes up so too does the likelihood the player will have high-risk reasons for gambling (e.g., risky motivations).

- Those at intermediate risk appear to differ from the other risk groups and, in particular, are characterized as having difficulty stopping once they have engaged in play (i.e., *Impaired Control: Continue* 77.8%) suggesting members of this group may benefit from RG features that assist them in managing play.

- While those scoring for intermediate and advanced risk were just as likely to be engaging in *Risky Practices* (≈44% -48%) and about one in five triggered for *Preoccupation: Desire* (≈22%), intermediate players were less likely to cite *Risky Motives* for gambling compared to those at advanced risk (14.8% versus 36%) again indicating that different strategies are required for risk reduction depending upon which factors are contributing most strongly to an individual's risk status.

- For those scoring at early risk the vast majority (86%) were only exhibiting *Risky Cognitions: Beliefs* suggesting this is a key group for tracking impacts for education or information initiatives. In fact, early risk VL gamblers were more likely than problem VL gamblers (59%) to trigger on *Risky Cognitions: Beliefs* suggesting that 'erroneous cognitions' are more characteristic of risk than problem VL gambling.

- Intermediate and early risk players may never go on to develop problems with their VL gambling; they are not yet experiencing negative consequences in relation to their VL gambling and, thus, are positioned for prevention strategies and monitoring.

- It is noteworthy that while just over half of problem VL gamblers triggered for *Preoccupation: Obsession*, with a few exceptions (e.g., 6% of those at advanced risk) anyone who has this indication is likely to be identified as a problem VL gambler.

- Only those at advanced risk or already experiencing problems have any indications of *Persistence.* By definition *Persistence* means that the player is continuing to play the machines although they are experiencing difficulties due to their gambling.

3.1.3. Profile of CPGI Categories by Key FLAGS Indicators

Regular VL players falling in each of the problem gambling categories measured by the Canadian Problem Gambling Index (CPGI-PGSI) were also profiled on the *FLAGS* indicators to determine benchmark measures for each of the key factors associated with risk and harm for VL gambling. This specific baseline information will be used to track and compare findings following the introduction of the "My-Play" system to determine which components of risk and harm are being impacted by use of the system.

A very different pattern emerges when profiling the key components of risk and harm using the CPGI-PGSI. Overall, it appears that the CPGI-PGSI and *FLAGS* performed similarly in identifying problem VL gamblers. However, the key differences were related to risk where *FLAGS* appears to be more sensitive and accurate in identifying and distinguishing risk.

Table 3.1.3: Percent in Each CPGI Risk Segment Triggering on FLAGS Indicators

Percent of Players in each CPGI Risk Category Triggering on FLAGS Indicators	Total (n=500)	No Risk 58.6%	Low Risk 15.8%	High Risk 13.8%	Problem 11.8%
Persistence:	13.8%	0.7%	1.3%	15.9%	93.2%
Negative Consequences	14.4%	0.3%	2.5%	21.7%	91.5%
Preoccupation: Obsession	7.2%	0.0%	2.5%	1.4%	55.9%
Impaired Control: Begin Play	15.2%	0.3%	1.3%	26.1%	94.9%
Risky Practices: Later	16.8%	1.7%	7.6%	30.4%	88.1%
Impaired Control: Continue Play	21.0%	2.0%	11.4%	52.2%	91.5%
Risky Practices: Earlier	17.6%	1.0%	3.8%	42.0%	89.8%
Risky Cognitions: Motives	16.2%	1.0%	7.6%	31.9%	84.7%
Preoccupation: Desire	11.8%	1.7%	5.1%	24.6%	55.9%
Risky Cognitions: Beliefs	19.8%	9.2%	15.2%	40.6%	54.2%

- The "My-Play" system and features would be expected to have the greatest value for those having an indication of *Impaired Control* whether it was related to difficulties in stopping (i.e., *Impaired Control: Continue to Play*) or difficulties in resisting the urge to go and play (*Impaired Control: Begin to Play*).

- Approximately half of high risk players and 91.5% of problem VL gamblers identified by the CPGI-PGSI triggered for indications of *Impaired Control: Continue to Play* suggesting features that permit them to set play limits may be potentially helpful to a large proportion of these higher risk gamblers. In comparison, a relatively small proportion of no risk (2.0%) and low risk (11.4%) players exhibited these indications suggesting lower risk players will have less need and/or motivation to use such RG features.

- Similarly most problem VL gamblers (94.9%) triggered for *Impaired Control: Begin to Play* as did a quarter (26.1%) of those scoring at high risk. Almost none of the no and low risk VL gamblers were found to have any problems in resisting urges to go and play (i.e., *Impaired Control: Begin)* and, thus, are less likely to be in need of features that help them self-exclude or manage such urges.

- Players scoring on the *Persistence* indicator were those continuing to gamble even though they know they are experiencing negative consequences as a result of their VL gambling. These are the players likely to derive the strongest immediate benefit through use of the RG features. Again, problem VL gamblers especially (93.2%) and to a lesser extent high risk gamblers (15.9%) had the highest rates of *Persistence*.

- Factors that may impede the effectiveness of the "My-Play" are indications of *Preoccupation: Obsession*, *Preoccupation: Desire*, *Risky Cognitions: Motives*, *Risky Cognitions: Beliefs* as well as *Impaired Control: Begin and Continue*. It could be argued such characteristics may override the value of the RG features insofar as those players who really want to keep playing the machines will find ways to get around the features (e.g., once they have reached their limits they will use someone else's card or play on illegal machines). Most problem VL gamblers have many of these indications which would suggest the "My-Play" system may have less impact for them; (e.g., because they are obsessed with playing the machine, wish they could play more often, play to escape problems or for money to pay bills and have low control over their urges to play problem VL gamblers are unlikely to use or benefit from the system features). However, at this time there is no evidence to support such hypotheses and we cannot predict which of these factors the "My-Play" system may help overcome, thereby providing assistance to problem VL gamblers.

- High risk VL gamblers have some of these indicators as well but may be better able to take advantage of the "My-Play" features to reduce their risky practices and, thus, their risk for experiencing negative consequences.

- Therefore, a key outcome of the tracking will be to determine if the "My-Play" system can affect some of these indicators reducing risk and harm for higher risk VL gamblers.

3.2 Demographic Profiles

There were few demographic differences found between regular players in each of the different risk categories.

- Overall, regular players were almost evenly divided between males (48%) and females (52%) and those living in urban (53%) versus rural (47%) areas of the province.

- The average age of regular VL players taking part in the study was 55 years old with VL gamblers scoring at moderate risk skewed slightly younger.

- The majority of regular players taking part in the survey were married or living in common-law relationship (63%), with 16% single/never married.

- English was the mother tongue for almost all participating regular players (96%).

- Only 1 in 5 reported children less than 19 years of age living in the same household (19%), although low risk VL gamblers were slightly more likely to have children living in the same household (29%).

- Just over half (54%) reported high school educations or lower with 29% having a degree from a college or trade schools and 17% having attended university.

- Most (60%) regular VL players were working either full-time (51%) or part-time (9%) at the point of taking part in the survey.

- About 1 in 4 were retired (27%), 6% disabled, 2% were homemakers and the unemployment rate was 4%.

- About half (47%) of regular VL players were earning less than $50,000, a third were making $50,000 to $90,000, while 1 in ten (12%) were earning over $90,000 annually.

Table 3.2.1: General Demographic Profile

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
Gender					
Male	47%	51%	45%	51%	48%
Female	53%	49%	55%	49%	52%
Age Category					
18-24 yrs	2%	1%	3%	0%	2%
25-34 yrs	4%	8%	9%	3%	5%
35- 44 yrs	10%	9%	7%	14%	10%
** 45- 54 yrs	29%	23%	43%	31%	30%
55 - 64 yrs	33%	37%	22%	39%	33%
65-100 yrs	22%	23%	16%	14%	20%
Mean	**55 yrs**	**55 yrs**	**52 yrs**	**55 yrs**	**55 yrs**
Median	**55 yrs**	**57 yrs**	**52 yrs**	**56 yrs**	**55 yrs**
Marital Status					
Single	13%	19%	20%	20%	16%
Married/Common-law	66%	63%	57%	54%	63%
Separated	2%	1%	3%	5%	2%
Divorced	13%	9%	13%	12%	12%
Widowed	6%	8%	7%	8%	7%
Mother Tongue					
English	96%	99%	94%	97%	96%
French	3%	1%	4%	2%	3%
Other	1%	0%	1%	2%	1%
Area of Residence**					
Urban	50%	48%	70%	51%	53%
Rural	50%	52%	30%	49%	47%
Household Composition**					
	(n=275)	(n=75)	(n=65)	(n=58)	(n=473)
With Children	17%	29%	18%	17%	19%
Without Children	83%	71%	82%	83%	81%

* denotes significant differences among risk segments at p<.10 level; ** denotes significant differences among risk segments at p< .05 level.

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
Highest Education Completed					
Elementary (Grade 6 or less)	1%	3%	---	5%	1%
Jr. High (Grade 7 - 9)	11%	8%	10%	10%	10%
Some High School (Grade 10-13)	17%	16%	19%	22%	18%
Graduated High School	26%	29%	22%	17%	25%
Some College/Trade School	5%	4%	4%	8%	5%
Completed College/Trade School	24%	25%	29%	20%	24%
Some University	5%	6%	9%	5%	6%
Completed University	10%	9%	7%	10%	10%
Post Grad (Masters, PhD)	1%	---	---	2%	1 %
Refused	---	---	---	---	---
Work Profile					
Working full-time	53%	37%	57%	58%	51%
Working part-time	9%	14%	9%	5%	9%
Unemployed	3%	5%	3%	8%	4%
Student	---	---	1%	---	---
Homemaker	2%	4%	4%	---	2%
Retired	27%	37%	22%	22%	27%
Disabled	6%	4%	4%	7%	6%
Annual Household Income					
$50,000 or Less	46%	56%	45%	42%	47%
$50,001-$90,000	30%	23%	35%	36%	30%
$90,001or more	12%	6%	14%	12%	12%
Refused/DK	12%	15%	6%	10%	11%
# of People Contributing to the Income					
Mean	2	2	2	2	2
Median	2	2	2	2	2

Section 4: VL Playing Pattern

To determine if players change their VL gambling patterns either in response to feature use or to avoid the "My-Play" system it was necessary to profile current play habits and practices among the panel members in each risk category.

The first set of baseline estimates obtained were based on play behaviour that occurred in the three months preceding the survey (e.g., approximately March to June 2010). Specifically, players were asked to provide detail including accessibility to play, number of regular play locations, planned versus spontaneous play, distance travelled, play frequency, time and money spent per session. Understanding the play history of regular VL gamblers in Nova Scotia and the association of such patterns with risk for gambling problems has additional value for stakeholders in informing public health policy to reduce or minimize harm. These findings are also used to confirm data gathered using other techniques (e.g., last 10 play sessions; last session; last month) and are used in combination to generate new and derived variables for tracking and assessing impacts.

4.1 General Playing Pattern

Table 4.1: General Playing Patterns

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
Frequency of VLT Play**					
Weekly (Once a Week or More)	44%	57%	77%	90%	56%
Monthly (Once a Month or More)	56%	43%	23%	10%	44%
% Played Slots at a Casino in the Last 3 Months:					
Any machine gambling at Casino	21%	22%	23%	19%	21%
History of Playing VLTs**					
Less Than 3 Years	12%	16%	9%	2%	11%
3 - 5 Years	24%	20%	20%	15%	22%
6 - 9 Years	15%	10%	10%	7%	12%
10+ Years	49%	53%	61%	76%	55%
Mean *(Months)*	**111**	**110**	**124**	**159**	**118**
Median *(Months)*	**108**	**120**	**120**	**180**	**120**

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- Over half (56%) of all regular VL players reported playing VLTs on a weekly basis.

- Those scoring at moderate risk (77%) and especially problem VL gamblers (90%) were significantly more likely to be involved in VLT play on a regular weekly basis as compared to no risk (44%) or low risk VL gamblers (57%).

- While frequency of play tends to increase with risk for problem gambling it is important to note that the majority of those playing on a regular weekly basis will fall into the no risk or low risk

groups as both these groups account for a larger proportion of the population of players. For example, those scoring for no or low risk in this current study make up 74% of the panel of players. Although they are less likely than high risk players to take part in VL gambling on a regular weekly basis collectively this group comprised 62% of all those who reported playing VLTs every week.

- About 1 in 5 (19%-23%) regular players in any of the risk categories had gambled on slot machines at a casino in the past 3 months. There were no differences observed by risk category in terms of having played at the casino, however, additional detail was not collected regarding frequency and amount played. Currently there are only two casino venues in Nova Scotia, one in Halifax and one in Sydney. There is a possibility that following introduction of the "My-Play" system those who live in these urban centres and also play at the casino could shift their playing patterns from the VLTs to slots. It also means that among the high risk and problem VL gamblers it may be helpful to be able to enforce play decisions over all machine gambling options in the province. In the follow-up surveys it will be helpful to explore changes in casino gambling in greater detail.

- Problem VL gamblers tended to have been playing VLTs longer than players in other segments. The average length of play was more than 13 years for problem VL gamblers, with half having played for 15 years or more.

4.2 Playing Locations

Table 4.2: Play Locations

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
% With Regular VLT Play Location **	**83%**	**81%**	**94%**	**92%**	**85%**
No Regular Locations	17%	19%	6%	8%	15%
1-2 Regular Locations	72%	65%	70%	70%	70%
3+ Regular Locations	11%	16%	25%	22%	15%
Kilometres from Home to Locations Played Most Often					
Mean	6.4	7.0	7.2	5.4	6.5
Median	3	3	3	2	3
Average % of Times Played at the Following Locations For Last 10 Times Played					
Bars, Pubs, Lounges, Licensed Restaurants	53%	43%	47%	51%	51%
Legion/Community Centers	26%	30%	22%	26%	26%
*Sporting Establishments	12%	18%	22%	15%	15%
First Nation Gambling Establishments	4%	6%	6%	7%	5%
Airports	.9%	.6%	.1%	---	.6%
Other Locations	.2%	.2%	.3%	.2%	.2%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- Overall, 85% of players indicated having at least one regular location where they typically played VLTs.

- Moderate risk (25%) and problem VL gamblers (22%) were more inclined than those at lower- risk to have three or more regular locations where they played, suggesting about one in four higher risk players are playing regularly at multiple locations and, thus, would benefit from a system that permits play decisions to be linked over locations.

- No significant differences were found in how far players travel to play at their regular locations. On average, players reported playing at regular locations about 5-7 kilometers from their home although for half of all regular VL players taking part in the study regular locations are located within 3 kilometers of home.

- Bars, pubs, lounges and licensed restaurants appeared to be the most popular locations for regular VL players followed by legions or community centers. This largely reflects the distribution of machines in these types of locations throughout the province.

- Based on the last 10 times played, on average, players played 51% of time at bars, pubs, lounges and licensed restaurants and 26% of time at legions or community centers. Few played at an airport or any other location that has VLTs with a similar proportion in all categories noting play at a First Nation gambling site (≈5%).

- Consistent with a slightly younger player profile those scoring at moderate risk levels were more likely to play at sporting establishments as compared to no risk gamblers (22% versus 12%).

4.3 Exposure to VLTs

Table 4.3: Exposure to VLTs in the Last 3 Months

	No Risk	Low Risk	Moderate Risk	Problem Gambler	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
# of Times in a Location each month with VLTs**					
Mean	7	10	10	14	9
Median	4	6	6	10	5
Average # of Times Played when exposed to VLTs each month**					
** *Average # of Times Planned Play*	3	4	5	9	4
*Average # of Times Played on Impulse	1.5	2.8	2.2	2.2	1.9
Total times played	4.5	6.8	7.2	12.1	5.9

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- Problem VL gamblers tended to be in a location with VLTs more often each month reporting higher exposure to VLTs than players in the other risk segments (14 times versus 7-10 times per month).

- Specifically, during the three months preceding the survey, on average problem VL gamblers reported that they were in a location that had VLTs twice as often as no risk VL gamblers (14 times versus 7 times) .

- For problem VL gamblers, it is more about planned rather than spontaneous play. For example, when problem VL gamblers were in a location that had VLTs, on average, 64% of times they were there was to specifically play the machines as compared to 43% for no risk, 40% of the times for low risk, and 50% of the times for moderate risk gamblers.

- In contrast, low risk gamblers were more likely to be in a VLT location for other reasons but ended up playing (28% of times versus 16% of times for problem VL Gamblers).

4.4 Money & Time Spent

Table 4.4: Average Money and Time Spent on VLT in the Last 3 Months

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
Out-of-Pocket Spending on VLTs Each					
% Spending Less Than $50 Each Time	68%	48%	28%	19%	54%
% Spending $50 -$100 Each Time	28%	47%	57%	32%	35%
% Spending More Than $100 Each Time	4%	5%	16%	49%	11%
Mean	**$45**	**$61**	**$89**	**$140**	**$65**
Median	**$40**	**$50**	**$60**	**$100**	**$40**
Time Spending on VLTs Each Time**					
% Playing Less Than 1 Hour Each Time	33%	19%	19%	8%	26%
% Playing 1-2 Hour Each Time	62%	68%	61%	42%	61%
% Playing More Than 2 Hour Each Time	4%	13%	20%	49%	13%
Mean *(in Minutes)*	**70 min**	**92 min**	**108 min**	**158 min**	**89 min**
Median*(in Minutes)*	**60 min**	**60 min**	**120 min**	**120 min**	**60 min**

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

In order to assess general expenditure patterns players were asked to focus on their play behaviour over the last three months preceding the survey.   Based only on this recent behaviour, players were then asked to estimate the average amount of money they tended to spend 'out-of-pocket' each time they played (excluding any winnings). In previous research and during the survey pre-test players found it easier to report on per session expenditures that focus on the actual amounts spent (i.e., amount they are up or down at the end of the play session)

- In the three months prior to taking part in the survey problem VL gamblers reported spending significantly more money and time on VLTs each time they played compared to all other player groups.

- On average, those scoring at no risk spent $45 each time they played, a rate significantly lower than players in other segments.

- In contrast, problem VL gamblers spent, on average, $140 each play session, a rate three times that reported by no risk gamblers ($45) and over twice that of low risk ($61) gamblers. In fact, 49% of those scoring at problem gambling levels reported spending at least $100 out-of-pocket each time they played.

- Similarly, problem VL gamblers tended to spend about 2.5 hours each time they played VLTs with about half (49%) typically playing two hours or more each time in the three months proceeding the survey.

- It is noteworthy that about half of high risk players in both the moderate and problem categories were playing at least two hours (median=120 minutes) a rate twice that for the no/low risk VL gamblers (median=60 minutes). However, a higher proportion of problem VL gamblers are spending at $100 or more (49% versus 16% for moderate risk VL players) or spending over two hours (49% versus 20%).

Section 5: Control Issue & Strategies

The survey examined issues and strategies related to regular VL players' expenditure and self control. While access and frequency of play are one of the factors that can contribute to problems over time, it is 'what' players do each time they gamble that determines whether ongoing play is likely to result in gambling risk or harm. This section examines strategies used by regular VL players in order to improve their chances of winning, budgeting mechanism, strategies used for self exclusion and control, perceived helpfulness of various strategies to control VL play and their help seeking behaviors over the past 3 months.

5.1 Strategies Used to Improve Chances of Winning

Table 5.1: Chances of Winning

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
% Using Strategies to Improve Chances of Winning**					
Use strategies	**5%**	**14%**	**19%**	**10%**	**9%**
Do not use strategies	95%	86%	81%	90%	91%
Strategies Used to Improve Chances of Winning (1+ Response Allowed)					
Change bet level	3%	11%	12%	7%	6%
Switch machines	---	---	1%	---	---
Switch games	---	4%	1%	5%	1%
Tap/Rub Somewhere/Screen	1%	1%	1%	---	1%
Carry Lucky charms/items	1%	---	1%	---	1%
Talk to machine/pray	1%	---	0%	---	---
Play at specific time/day	---	---	1%	---	---
Drink	---	---	1%	---	---
The Importance of Using Such a System/Strategy When Playing VLTs					
Not Important at All	1%	5%	3%	2%	2%
Somewhat Important	3%	5%	10%	5%	4%
Very Important	1%	4%	6%	3%	2%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- 9% of regular VL gamblers have done things in the past in order to improve their chances of winning, with those scoring at any level of risk twice as likely as no risk VL gamblers to report use of such strategies (10%-19% versus 5%).

- Changing bet levels, switching games, tapping the screen and carrying lucky charms or other items were mentioned most often by regular players as being used to improve their luck.

- Among those who had ever done anything to improve chances of winning, 67% quoted such systems were somewhat to very important to them when playing VL games.

5.2 Budgeting Strategies

Table 5.2: Budgeting

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
% Setting a Budget before Play**	96%	85%	88%	71%	90%
Among those setting a budget % setting per session, per week, per month, (1+ Response Allowed)					
	(n=280)	(n=67)	(n=61)	(n=42)	(n=450)
Per Session	**98%**	**87%**	**97%**	**93%**	**95%**
Average budget per session	*$44*	*$58*	*$73*	*$110*	*$56*
Median budget per session	*$40*	*$40*	*$60*	*$100*	*$40*
∇Per Week	4%	7%	2%	5%	4%
∇Per Month	5%	7%	0%	10%	5%
% Exceeding Budget Among Those Who Set Budget Over the last 10 Sessions**					
	(n=280)	(n=67)	(n=61)	(n=42)	(n=450)
Never	60%	30%	16%	10%	45%
Less than 50% of time	39%	55%	57%	26%	43%
50% of time and plus	1%	15%	26%	64%	13%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

∇ *Average $ spent were suppressed due to small n.*

- Almost all (96%) no risk VL gamblers set a budget before playing VLTs as compared to 71% of problem VL gamblers.

- Among gamblers who usually set budget for play, problems gamblers tended to set a higher limit with an average of $110 per time, an amount 2.5 times that of no risk gamblers ($44), almost twice that of low risk gamblers ($58), and 1.5 times the budget set by those scoring at moderate risk ($73).

- Problem VL gamblers not only tended to set higher limits, they were also more likely to report exceeding their budget. For example, over the last 10 sessions played, almost two-thirds (64%) of problem VL gamblers reported exceeding their budget 50% or more of the times they played as

compared to only 1% of those scoring at no risk for gambling problems and 15% to 26% for those at low to moderate risk .

5.3   General Control Strategies during the Last 3 Months

- Overall, about one third of regular players had c*ut back or tried to cut back how often they play VLTs* (34%) *or how much they spend on VLTs* (29%) in the last 3 months (34%), with 1 in 4 reporting they had *taken breaks or tried to take breaks for 1+ days* (25%).

- 17% of regular VL players had *avoided or tried to avoid playing on certain days or times* with a smaller proportion having tried to do so for *longer periods of time* (11%) or *trying to stop playing altogether (6%)*.

Figure 5.3: % Ever Tried the Following Strategies to Control VL Play in the Last 3 Months

**Cut Back/Tried to Cut Back Frequency of Playing

No Risk	16%
Low Risk	38%
Moderate Risk	68%
Problem Gambling	80%
Total	34%

**Cut Back/Tried to Cut Back Amount Spent On VLTs

No Risk	14%
Low Risk	32%
Moderate Risk	58%
Problem Gambling	64%
Total	29%

**Avoided/Tried to Avoided Playing on Certain Days/Times

No Risk	8%
Low Risk	24%
Moderate Risk	26%
Problem Gambling	44%
Total	17%

**Took Breaks/Tried to Take Breaks for 1+ Days

No Risk	13%
Low Risk	32%
Moderate Risk	45%
Problem Gambling	56%
Total	25%

**Took Breaks/Tried to Take Breaks for Longer Periods (Month)

No Risk	3%
Low Risk	15%
Moderate Risk	19%
Problem Gambling	32%
Total	11%

**Tried to Stop Playing Altogether

No Risk	1%
Low Risk	0%
Moderate Risk	13%
Problem Gambling	31%
Total	6%

*denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.*

- It is notable that those scoring at higher risk for gambling problems were significantly more likely to have used all the strategies listed above than those falling into no and low risk categories.

5.4 Perceived Ease in Keeping Track of VL Play Outcomes

Table 5.4: Perceived Ease of Tracking Expenditures over the Last 10 Times Played

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
Tell When have Broke Even during a Session**					
Easy	95%	90%	78%	64%	88%
Neutral	4%	5%	14%	17%	7%
Not Easy	2%	5%	7%	19%	5%
Keep Track of Win and Loss during a Session**					
Easy	96%	91%	77%	61%	88%
Neutral	3%	4%	16%	14%	6%
Not Easy	2%	5%	7%	25%	6%
Keep Track of Money Spent Each Month**					
Easy	84%	66%	39%	19%	67%
Neutral	10%	16%	28%	15%	14%
Not Easy	6%	18%	33%	66%	19%
Keep Track of Money Spent Over the Course of a Year**					
Easy	51%	22%	14%	7%	36%
Neutral	18%	16%	12%	2%	15%
Not Easy	32%	62%	74%	92%	49%

*denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.*

- Overall, the majority of regular VL players in each player category indicated that it was easy for them to keep track of expenditures on a per sessions basis, however, this tended to diminish over time especially for those scoring at higher risk.

- Most players found it easy to *tell when they have broken even* (88%) and to *keep track of wins and losses during a specific play session* (88%) although for at least one in every 4 to 5 problem VL gamblers this was more difficult.

- Most of those in the lower risk categories, especially the no risk VL gamblers (84%) and to a lesser extent those at low risk (66%) felt it was easy to *keep track of money spent on VLTs each month.* However, among the higher risk players who tend to play more often and play for longer periods of time, only a minority found it easy to keep track of their monthly VL expenditure with 66% of problem VL gamblers reporting it was *not easy.*

- When extended to annual expenditures, only 36% of those taking part considered it easy to *keep track of money spent over the course of a year*.

- Annual tracking was considered easy by 51% of no risk players. This contrasted sharply with findings for the other player groups in which the majority found it difficult to keep track of their spending on an annual basis especially those in the problem (92%) and moderate risk groups (74%)

5.5 Help Seeking Behaviours in the Last 3 Months

- 1 in 10 problem VL gamblers reported having enlisted the aid of friends or relatives in helping them deal with their VL play in the 3 months preceding the survey, with one third (32%) reporting friends or family members had expressed concerns to them about their VL gambling, as compared to few gamblers in any of the other risk categories.

- Problem VL gamblers were also more likely to report exposure to other family members (42%) or close friends (47%) who were experiencing difficulty with their VL gambling.

Table 5.5: Help Seeking Behaviours in the Last 3 Months

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
Sought help of Friends or Relatives**	---	---	1%	10%	1%
Sought Professional Help	---	---	---	3%	0%
Had Friends/Family Express Concern **	2%	6%	6%	32%	7%
Have other friends or family members experiencing problem with VL gambling**					
	(n=263)	(n=68)	(n=61)	(n=53)	(n=445)
Family Members	8%	22%	30%	42%	17%
Friends	12%	18%	28%	47%	19%

** denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.*

5.6 Use of Control Strategies/Options When Playing VLTs (Ever and in the last 10 Play Sessions)

Use of control strategies can vary depending upon various factors including frequency of involvement, situational characteristics (e.g., need for money, access to money or win-fall, loss of job or spouse) and/or personal characteristics (e.g., intoxicated, depressed). In some cases the need for certain play strategies is rare or only sporadic while in other cases it is common or used frequently. To assess how often players are using certain control strategies and how effective each strategy is in helping players achieve their objective players were read a series of strategies and asked if they had ever used the option, how helpful they considered such a strategy on a 5 point rating scale and how often the strategy had been used during the last 10 play sessions.

Table 5.6: Control Strategies/Options When Playing VLTs

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
% Who **Set A Money Budget Before Arriving at Venue****	89% (n=262)	89% (n=70)	91% (n=63)	75% (n=44)	88% (n=439)
Δ**% Who Rated it Somewhat to Very Helpful	96%	90%	63%	30%	84%
% Who **Bring Limited Amount of Money to Prevent Overspending****	52% (n=153)	80% (n=63)	74% (n=51)	69% (n=41)	62% (n=308)
Δ**% Who Rated it Somewhat to Very Helpful	98%	90%	78%	39%	85%
% Who **Plan to Stop Playing If Lost Certain Amount**	55% (n=160)	66% (n=52)	65% (n=45)	53% (n=31)	58% (n=288)
Δ**% Who Rated it Somewhat to Very Helpful	91%	85%	71%	26%	80%
% Who **Cash Out Frequently to Keep Track of Spending****	49% (n=144)	71% (n=56)	64% (n=44)	51% (n=30)	55% (n=274)
Δ**% Who Rated it Somewhat to Very Helpful	88%	80%	82%	43%	80%
% Who **Plan to Stop Playing If Won Certain Amount****	42% (n=124)	51% (n=40)	65% (n=45)	47% (n=28)	47% (n=237)
Δ**% Who Rated it Somewhat to Very Helpful	82%	83%	47%	43%	71%
% Who **Plan to Stop Playing If Broke Even****	29% (n=84)	41% (n=32)	46% (n=32)	34% (n=20)	34% (n=168)
Δ**% Who Rated it Somewhat to Very Helpful	87%	78%	59%	40%	74%
% Who **Set A Money Budget When Starting to Play at Machine**	25% (n=74)	27% (n=21)	29% (n=20)	36% (n=21)	27% (n=136)
Δ**% Who Rated it Somewhat to Very Helpful	95%	81%	60%	19%	76%
% Who **Not Bring Bank/Credit Cards to Prevent Overspending**	19% (n=56)	20% (n=16)	28% (n=19)	24% (n=14)	21% (n=105)
Δ**% Who Rated it Somewhat to Very Helpful	89%	94%	84%	50%	84%
% Who **Set Time Limit/Pick Time to Stop****	13% (n=37)	27% (n=21)	45% (n=31)	25% (n=15)	21% (n=104)
Δ**% Who Rated it Somewhat to Very Helpful	86%	81%	71%	33%	73%
% Who **Give Extra Cash/Cards to Someone Else to Prevent Overspending****	1% (n=2)	1% (n=1)	1% (n=1)	8% (n=5)	2% (n=9)
% Who **Ask Others to Help Me Stop or Remind Me When Certain Amount of Time Has Past**	0% ---	0% ---	1% (n=1)	2% (n=1)	.4% (n=2)

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.
Δ rated 4 or 5 on a 5 point scale where 1 means not at all helpful and 5 means very helpful.

Figure 5.6: Overall Rating of Helpfulness of the Following Strategies

(Among Those Who Have Ever Used Each of Strategy)

■ Not Helpful ■ Neutral ■ Somewhat Helpful ■ Very Helpful

Strategy	Not Helpful	Neutral	Somewhat Helpful	Very Helpful
Bring Limited Amount of Money to Prevent Overspending	8%	7%	10%	76%
Set A Money Budget Before Arriving at Venue	8%	8%	8%	76%
Not Bring Bank/Credit Cards to Prevent Overspending	12%	5%	8%	76%
Cash Out Frequently to Keep Track of Spending	6%	14%	23%	58%
Plan to Stop Playing If Lost Certain Amount	10%	10%	11%	69%
Set A Money Budget When Starting To Play at Machine	13%	11%	14%	62%
Plan to Stop Playing If Broke Even	7%	19%	20%	54%
Set Time Limit/Pick Time to Stop	16%	11%	26%	47%
Plan to Stop Playing If Won Certain Amount	14%	15%	17%	54%

* Due to rounding totals for percentages may be ± 1%.

- Overall, the vast majority (88%) of regular VL players taking part in the study reported they had *set a money budget before arriving at venue* at some time while only 27% had ever set a money budget when *starting to play at the machine*.

- In contrast, only about one in five have ever set a time limit for play although almost half of those scoring at moderate risk (45%) have used this strategy at some time with 71% finding it helpful. Problem VL gamblers were less likely to have ever set a time limit (25%) or to find it helpful controlling their play (33%).

- Almost two-thirds of players (62%) at some time had tried bringing *limited amounts of money to the venue in order to prevent overspending.*

- Over half had made plans *to stop playing once they had reached a certain amount of losses* (58%) or *cashed out frequently to keep track of spending* (55%), while slightly fewer 47% had ever strategically *planned to stop playing once they had won a certain amount of money*.

- About one third (34%) of players had ever *planned to stop playing if they broke even*, with about 1 in 5 having *ever set a time limit before playing* or *leaving credit cards and bank cards at home* to prevent overspending.

- Compared to players in other segments, problem VL gamblers were less likely to set a money limit before arriving at venue (75%), but were most likely to give extra cash or cards to someone else (8%) in order to prevent overspending although only a minority have ever used this strategy.

- Moderate risk gamblers were most likely to plan to stop if they had won a certain amount (65%) or broke even (46%).

- Consistent with their reported ability to gamble within their budgeted limits, low risk gamblers were least likely to limit amounts brought to the location in order to prevent overspending (52%) or to set time limits to stop (13%) as compared players in other segments.

- It is notable that most (71%-85%) of those who reported having ever used any strategy to assist them in staying on track found such strategies to be at least somewhat to very helpful in terms of assisting them control their play.

- However, problem VL gamblers were significantly more likely to lose control of how much money and time they spent playing VLTs, and not surprisingly were less likely to find any of the strategies helpful (26% ≈50%) as compared to players in the other risk groups.

Section 6: Last Time Play Only

It is often difficult for players to provide summary information about their detailed play behaviour over a specific period of time especially for frequent players as this information is no longer in memory. Therefore, to improve recall accuracy players were asked to focus only on the last time played for a series of questions examining the various components of their play session including money and time spent on VLTs as well as reasons for stopping play.

6.1 General Playing Behaviour

Table 6.1: Last Time Played

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
The Last Time Played On**					
Weekdays (Mon.-Fri.)	66%	70%	70%	86%	69%
Weekends (Sat. & Sun.)	34%	30%	30%	14%	31%
Planned versus Spontaneous Play**					
Planed	55%	57%	70%	75%	60%
Spontaneous	45%	43%	30%	25%	40%
Alcohol Consumption While Playing VLT **					
None	75%	61%	67%	61%	70%
1-2 Drinks	19%	22%	13%	19%	18%
3-4 Drinks	4%	13%	19%	12%	9%
5+ Drinks	2%	5%	1%	8%	3%
Average # of Alcoholic Drinks	**2.2**	**3.0**	**3.1**	**3.2**	**2.6**
Median	**2**	**2**	**3**	**3**	**2**
Number of Machines Played on**					
Single Machine	78%	71%	49%	39%	68%
Multiple Machines	22%	29%	51%	61%	32%
Average # of Machines Played on	**1.3**	**1.4**	**1.7**	**1.9**	**1.5**
Median	**1**	**1**	**2**	**2**	**1**

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- Problem VL gamblers (86%) were more likely to play on weekdays from Monday to Friday.

- Three quarters (75%) of problems gamblers reported planned play the last time they had played, a rate significantly higher than no risk (55%) players, who were more likely to be in a VLT locations for another reason but ended up playing the machines while on-site (45%).

- In comparison to higher risk players, those scoring at no risk gamblers (25%) were least likely to have consumed alcoholic beverages while playing VLTs. While problem VL gamblers were

significantly more likely than players in most of the other categories to have consumed 5 or more alcoholic beverage while playing VLTs the last time (8% versus 1%-2%) it is important to note that the majority of players in all risk segments did not drink alcohol while playing the machines despite the fact the machines are restricted to liquor-licensed establishments in Nova Scotia.

- Those scoring at moderate risk (51%) and problem VL gamblers (61%) were more likely to have played on multiple machines as compared to no (22%) or low risk (29%) gamblers.

6.2 Money Spent On VLTs

Table 6.2: Money Expenditures Last Play Session

		No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
		(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
Amount of Cash In to Start						
	Mean	$16	$18	$23	$24	$18
	Median	$20	$20	$20	$20	$20
Times Put in More Money						
	Mean	2	3	5	7	3
	Median	1	3	4	5	2
Outcome for Amount spent last time played**						
**% Won Last Time		42% (n=122)	35% (n=28)	33% (n=23)	8% (n=5)	36% (n=178)
** $ Won (Mean)		$131	$231	$156	$179	$151
$ Won (Median)		$80	$145	$100	$100	$100
**% Lost Last Time		46% (n=136)	56% (n=44)	58% (n=40)	86% (n=51)	54% (n=271)
** $ Lost (Mean)		$34	$58	$110	$170	$75
$ Lost (Median)		$20	$40	$60	$140	$40
% Broke Even Last Time		12%	9%	9%	5%	10%
Amount spent out-of-pocket last time played**:						
More than intended		2%	6%	25%	44%	11%
About The Same		86%	89%	62%	39%	78%
Less than intended		12%	5%	13%	17%	11%
Lost Track of Money During Session**		1%	3%	9%	10%	4%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- On average, problem VL gamblers reported higher amounts of cash-in for the last time they played as compared to No risk gamblers ($24 versus $16), were more likely to keep putting more money into the machine during the course of their play (7 times versus 2 times), and the majority (86%) finished the session in a loss position as compared to 46% to 58% of players in the other segments.

- Those gamblers scoring at no to low risk were more likely to report spending within their desired range whereas 44% of problem VL gamblers spent beyond intended limits.

- For the most part, players were able to keep track of their expenditure during the last session of play although one in 10 higher risk players lost track of how much they were spending as compared to only 1%-3% of those scoring at lower risk.

6.3   Time Spent On VLTs

Table 6.3: Time Spent Last Play Session

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
Time of the Day Started Play Last Time**					
Midnight - 4am	---	---	---	2%	---
4am - 8am	---	1%	---	---	---
8am - 12pm	8%	10%	10%	25%	11%
12pm - 4pm	39%	48%	43%	31%	40%
4pm - 8pm	38%	28%	36%	37%	36%
8pm - Midnight	15%	13%	10%	5%	13%
Time Spent Last Play Session					
Length of Last Session					
Mean	70 min	91 min	106 min	127 min	85 min
Median	60 min	60 min	90 min	100 min	60 min
Less than 2 hours	78%	70%	52%	51%	70%
2-4 hours	21%	28%	43%	39%	27%
Over 4 hours	1%	3%	4%	10%	3%
Amount of Time Spent Last timed Played**					
More than intended	4%	5%	19%	24%	9%
About The Same	88%	84%	77%	51%	81%
Less than intended	8%	11%	4%	25%	10%
Lost Track of Time During Session**	3%	4%	7%	19%	5%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- Overall, there were few differences in terms of what time of day regular players started playing with the exception that problem VL gamblers (25%) were more likely to play VLTs in the morning from 8:00 am to 12:00 pm than those in any other group.

- Time spent gambling on VLTs during the last play session was significantly longer for problem VL gamblers.

- On average, problem VL gamblers reported playing over 2 hours (127 min) the last time they played with one in 10 reporting session lengths in excess of 4 hours a rate significantly higher than for players in any other risk category.

- In contrast, the majority of no risk (78%) and low risk (70%) gamblers spent less than 2 hours the last time played with an average of 1 to 1.5 hours respectively.

- Consistent with the results regarding money spent on VLTs, problem VL gambler (19%) were more likely to report losing track of time during the last play session and were more likely to longer than intended.

6.4 Frequency of Specific Play Behaviour

Figure 6.4: Frequency of Specific Play Behaviour Last Time Played

Legend: ■ Didn't Do the Last Time　□ Once　■ Multiple Times

**Cashed Out Prior to the End of the Session (n=500)

	Didn't Do the Last Time	Once	Multiple Times
No Risk	55%	24%	21%
Low Risk Gambling	41%	18%	42%
Moderate Risk Gambling	49%	16%	35%
Problem Gambling	54%	17%	29%
Total	52%	21%	27%

**Let Money on the Machine Go Down to 0 before Putting More In/Stopping (n=500)

	Didn't Do the Last Time	Once	Multiple Times
No Risk	37%	29%	34%
Low Risk Gambling	34%	18%	48%
Moderate Risk Gambling	13%	32%	55%
Problem Gambling	20%	12%	68%
Total	31%	26%	43%

**Take a Break (n=500)

	Didn't Do the Last Time	Once	Multiple Times
No Risk	62%	18%	20%
Low Risk Gambling	51%	22%	28%
Moderate Risk Gambling	52%	17%	30%
Problem Gambling	37%	12%	51%
Total	56%	18%	27%

**Switch Machines (n=500)

	Didn't Do the Last Time	Once	Multiple Times
No Risk	80%	12%	8%
Low Risk Gambling	73%	15%	1%
Moderate Risk Gambling	54%	20%	26%
Problem Gambling	44%	27%	29%
Total	71%	15%	13%

* Denotes significant differences among risk segments at p< .10 level; ** Denotes significant differences among risk segments at p< .05 level. Due to rounding totals for percentages may be ± 1%.

- The last time played, most (69%) regular players *let money in the machine go down to zero before putting more in or stopping* 48% *cashed out prior to the end of the session*, 44% *took a break* and 29* switched machines* during play.

- Compared to players in other risk categories, problem VL gamblers were more likely to have let *money go down to zero* multiple times before putting more money in or stopping (68%). They were

also more likely to have *taken breaks* (51%) and *switched machines* (29%). This is not surprising given that problem VL gamblers generally have longer play sessions on average.

- Low risk (42%) gamblers were most likely to have *cashed out multiple times prior to the end of sessions*.

6.5 Reasons for Stop Playing

Table 6.5: Reasons for Stopping Last Time Played

	No Risk	Low Risk	Moderate Risk	Problem Gambler	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
**Spent up budgeted amount of money	<u>33%</u>	<u>28%</u>	19%	14%	28%
** Had somewhere else had to go	20%	18%	<u>32%</u>	19%	21%
Stopped playing because of a (big) win	18%	16%	12%	2%	15%
**Ran out of all the money you had brought	3%	5%	7%	<u>46%</u>	9%
Tired/Ready to go home	10%	13%	6%	5%	9%
Stopped playing to do something else at the venue	9%	4%	1%	3%	6%
Had to leave because of others were leaving	5%	1%	6%	---	4%
Lost enough/Spent enough money	1%	5%	9%	5%	3%
Stopped playing because you broke even	3%	4%	1%	---	3%
The machines were shutting down	---	4%	4%	7%	2%
Bored playing the machines	2%	5%	3%	---	2%
The location was closing	1%	3%	1%	2%	1%
Spent my budgeted amount of time	---	4%	1%	---	1%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- The most common reason given for stopping play among those at lower risk was because they had *spent their budgeted amount of money* (28%-33%), as compared to 14% to 19% of higher risk players citing this reason.

- In contrast 46% of problem VL gamblers stopped because they had *run out of money or all the sources of money they had brought*, a rate significantly higher than for players in any other risk categories.

Section 7: Attitudes & Perceptions

Given their level of involvement, Regular VL players were expected to have a vested interest in any policy and program changes for video lottery and to have more informed opinions surrounding the topic. Players were asked a series of questions regarding VLT availability, safety and accessibility prior to the introduction of "My-Play" in order to determine impacts on attitudes following experience with the new system.

7.1 General Attitude towards VLT Play

Table 7.1: Attitude about VLT Play

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
VLTs Should be Restricted to Few Locations**					
Agree	54%	53%	64%	92%	60%
Neutral	14%	15%	14%	---	13%
Disagree	32%	32%	22%	8%	28%
VLTs Should be Banned in NS**					
Agree	25%	29%	45%	85%	36%
Neutral	18%	8%	22%	3%	15%
Disagree	57%	63%	33%	12%	49%
Gambling on VLTs is a Safe Form of Gambling**					
Agree	20%	22%	12%	5%	17%
Neutral	24%	13%	12%	5%	18%
Disagree	56%	66%	77%	90%	65%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- Overall, only a minority of players in any player group (≈17%) considered playing VLTs to be a safe form of gambling with the majority in all groups expressing disagreement (≈65%).

- A slight majority in players in all groups support restriction of VLTs to a few locations in the province, with 36% in support of a total ban of the product.

- Almost all (92%) problem VL gamblers endorsed VLT restrictions, with 85% supporting an outright VLT ban and 90% indicating video lottery was a an unsafe form of gambling.

- Just under half (45%) of those at moderate risk overtly supported a VLT ban however, only 33% were actively opposed to the idea.

7.2 Level of Concern & Satisfaction in Controlling Expenditures on VLTs

- Overall, 16% of participating regular VL gamblers had concerns about spending too much money or time on VLTs, a rate that was significantly higher among problem VL gamblers (83%) and to a lesser extent those at moderate Risk (26%) as compared to 6% of low and 2% of no risk gamblers.

- Problem VL gamblers were also more likely to be dissatisfied with their ability to control how much money they were spending on VLTs (80%) as compared to only 1% of no risk, 5% of low risk and 22% of moderate risk VL gamblers.

Table 7.2: Concern & Control on VLTs

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
Level of Concern about Spending Too Much Money/Time on VLTs**					
Concerned	2%	6%	26%	83%	16%
Neutral	2%	15%	20%	10%	8%
Not Concerned	96%	78%	54%	7%	77%
Satisfaction With Ability to Control the Amount of Money Spent on VLTs**					
Satisfied	96%	87%	49%	14%	79%
Neutral	2%	8%	29%	7%	7%
Not Satisfied	1%	5%	22%	80%	14%

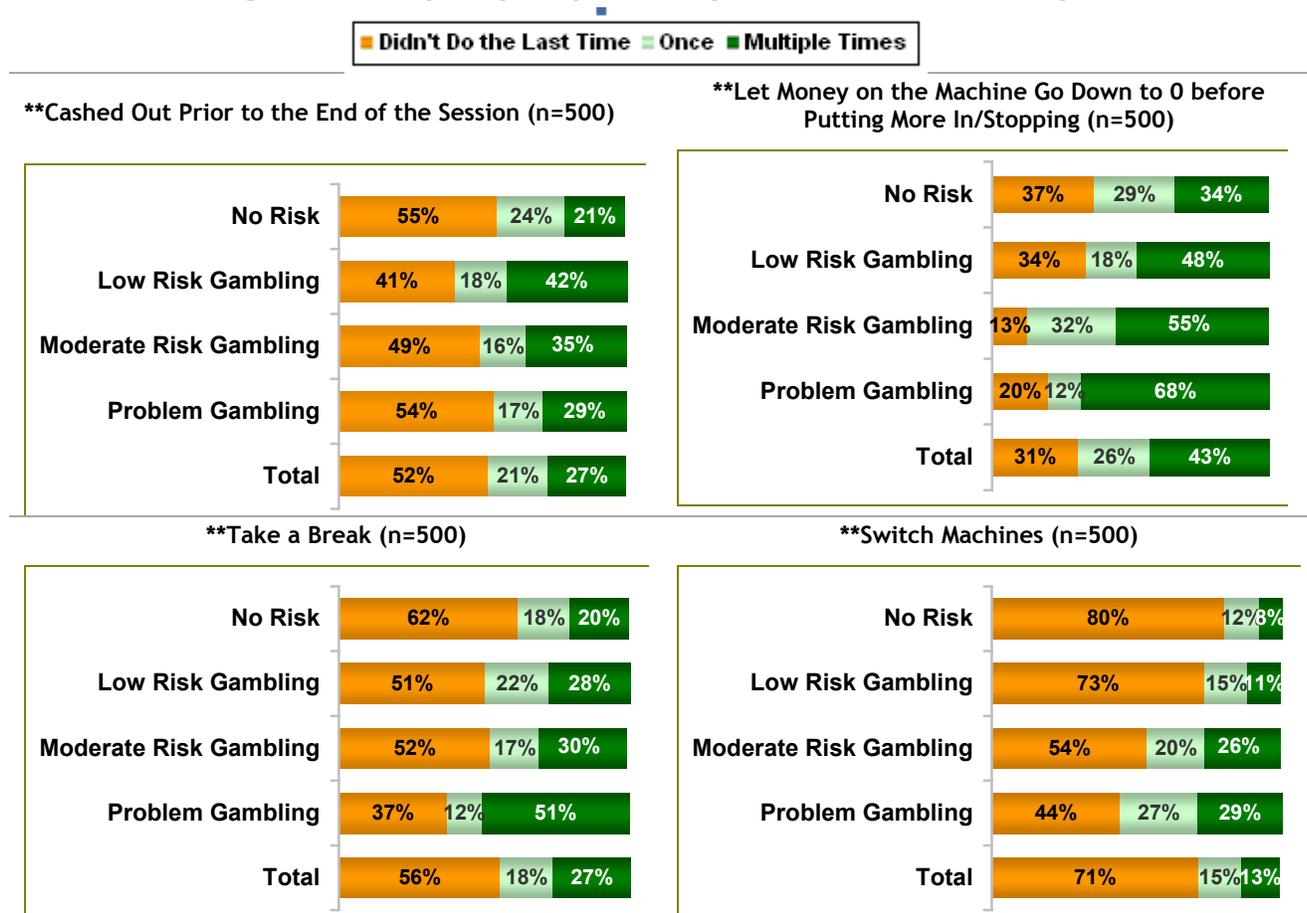** denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.*

7.3 The New Nova Scotia Video Lottery Program

Table 7.3: Awareness and Response towards the New VLT Program in NS

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
% Aware of Changes to the VLTs in NS	42%	44%	28%	37%	40%
% Recall the Name of the Program	7%	4%	1%	---	5%
% Tried the New/Modified Machine	40%	44%	30%	34%	38%
Reasons for not trying the machines :					
	(n=177)	(n=44)	(n=48)	(n=39)	(n=30)
Lack of Access	82%	84%	79%	85%	83%
Disinterested in new machines	10%	16%	10%	10%	11%
Unaware of them	3%	---	2%	5%	3%
Dislike new machines	3%	---	4%	---	3%
Other	1%	---	4%	---	1%

Table 7.3 Continued	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
% Have Card *	11%	6%	4%	3%	8%
% Planning to Get Card**	14%	23%	28%	44%	21%
% Not planning to Get a Card **	75%	71%	68%	52%	71%
Reasons for not getting a card:					
	(n=219)	(n=56)	(n=47)	(n=31)	(n=353)
Privacy Concerns	23%	29%	32%	32%	26%
Don't Need It	25%	29%	15%	3%	22%
Don't Play/Spend Enough/Social Time	28%	17%	4%	---	21%
Have Own System of Budgeting/Tracking Know How Much Spent	31%	18%	8%	---	23%
Don't Know Enough about the Card	4%	16%	13%	19%	8%
Are Quitting VLTs	---	2%	11%	16%	3%
Would Quit First if Has to Use the Card	3%	2%	2%	10%	3%
Would Get Card If Needed	4%	5%	15%	3%	5%
No Reason/Not Interested/No Benefit	6%	---	11%	---	5%
Have No Problem Gambling	5%	4%	2%	---	4%
Other	1%	5%	2%	16%	3%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- 40% of participating players indicated that they were aware that changes were being introduced to the VLT program in Nova Scotia, although only 5% could recall the name of the program.

- 38% reported they had played at least once on a new and/or modified machine.

- The primary barrier for trial was lack of access (83%) (e.g., *there were no new machines at the location where they were playing)*.

- At the time of the survey 8% of participating players had already registered and received a player card a rate that was significantly higher for no risk players (11%) versus 3%-4% for higher risk players taking part in the study.

- An additional 21% of participating players reported intentions to get a player card once the system was activated and/or available. Interest in getting a player card was substantively higher among the problem VL gamblers taking part in the study (44%).

- A majority of players in all groups were not currently interested in getting a player card although problem VL gamblers were least likely to express disinterest (52% versus 68%-75%).

- The main reasons cited for not using the card centered primarily on perceived *lack of need* (22%), *don't play enough to warrant use of the card* (21%), *already have a system for keeping track (*23%) and *concerns surrounding privacy (*26%).

- Problem VL gamblers were more split on the issue of card use compared to those in most of the other risk categories with the highest proportion indicating that *they don't know enough about it* (19%), *are already intending to quit playing* and so *don't need the card* (16%) with 10% saying *they would quit playing if they had to use a card*.

- There is also evidence that card use is associated with having a gambling problem and there may be some stigma associated with use in so far as it may identify a user as someone who has a problem with their gambling ("*I don't have a problem so don't need a card"; "Don't need it to control my gambling"; "I can control my gambling on my own and don't need any help*")

7.4   Attitudes Towards and Perceived Effectiveness of "My-Play"

Table 7.4: Attitudes Towards and Perceived Effectiveness of "My-Play"

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	**(n=79)**	**(n=69)**	**(n=59)**	**(n=500)**
Attitude Towards "My-Play"**					
Favour	48%	41%	59%	68%	51%
Neutral	18%	22%	16%	12%	18%
Opposed	33%	38%	25%	20%	31%
Perceived Effectiveness of "My-Play" in Helping People Play Responsibly					
Effective	39%	37%	51%	42%	41%
Neutral	25%	23%	25%	29%	25%
Not Effective	36%	41%	25%	29%	34%
Perceived Change in Frequency of Play if "My-Play" was Made Mandatory**					
Decrease Play	34%	38%	61%	66%	42%
No Change	66%	62%	38%	31%	57%
Increase Play	---	---	1%	3%	1%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- Overall, half (51%) of regular VL players taking part in the survey were in favour of the "My-Play" system being available on machines in Nova Scotia with 31% expressing any opposition to the program and features and the reminder neutral or undecided.

- Support for the "My-Play" program was strongest among the higher risk player segments with the majority of moderate risk (59%) and problem VL gamblers (68%) in favour of such a program as compared to no risk (48%) or low risk (41%) gamblers.

- 41% of all participating regular VL gamblers felt "My-Play" would be an effective system for helping people play responsibly, especially among moderate risk gamblers (51%).

- Moderate risk (61%) and problem VL gamblers (66%) were also more likely to agree that their frequency of VL play would decrease if "My-Play" was made mandatory while most no risk (66%) and low risk (62%) gamblers anticipated no change.

7.5 The Desirability of Responsible Gaming (RG) Features

Figure 7.5: The Desirability of RG Features/Options

Legend: **Not Desirable** **Neutral** **Desirable**

**The Ability to Personally See/Track Amount of Spending over Various Time Periods (n=500)

	Not Desirable	Neutral	Desirable
No Risk	52%	13%	35%
Low Risk	42%	16%	42%
Moderate Risk	25%	29%	46%
Problem Gambling	39%	12%	49%
Total	45%	16%	39%

**A Feature Letting You Check How Much You are Winning/Losing During Play Sessions (n=500)

	Not Desirable	Neutral	Desirable
No Risk	54%	11%	35%
Low Risk	42%	13%	46%
Moderate Risk	22%	17%	61%
Problem Gambling	36%	7%	58%
Total	45%	12%	43%

**A Feature Letting You Set Money Limits for Play Session/Day/Month (n=473)

	Not Desirable	Neutral	Desirable
No Risk	60%	11%	30%
Low Risk	51%	12%	37%
Moderate Risk	25%	15%	60%
Problem Gambling	40%	5%	55%
Total	51%	11%	38%

**A Feature Letting You Set Time Limits for Play Session/Day/Month (n=473)

	Not Desirable	Neutral	Desirable
No Risk	68%	11%	21%
Low Risk	61%	11%	28%
Moderate Risk	38%	17%	45%
Problem Gambling	45%	12%	43%
Total	60%	12%	28%

**A Feature Letting You Block Yourself from Playing for Days/Weeks/Specific Dates (n=500)

	Not Desirable	Neutral	Desirable
No Risk	66%	11%	24%
Low Risk	66%	10%	24%
Moderate Risk	33%	14%	52%
Problem Gambling	37%	8%	54%

**A Feature Letting You Block Yourself from Playing for Longer Periods of Time (n=500)

	Not Desirable	Neutral	Desirable
No Risk	67%	10%	23%
Low Risk	68%	8%	24%
Moderate Risk	38%	14%	48%
Problem Gambling	32%	12%	56%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level. Due to rounding totals for percentages may be ± 1%.

- Problem VL gamblers (55%) and those scoring at moderate risk (60%) were most likely to want machine features that *allow them to set money* and *time limits for play session, day or month*.

- The majority of higher risk players also tended to value features that *let them block themselves from playing for either short* (52%-54%) or *for longer periods of time* (56%-60%).

7.6 Availability of Card Features: Mandatory versus Voluntary

Table 7.6: Mandatory versus Voluntary of Each Feature If Available

		No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
		(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
**The Ability to Personally See/Track Amount of Spending over Various Time Periods ** **						
	Voluntary	80%	84%	71%	54%	76%
	Mandatory	20%	16%	29%	46%	24%
A Feature Letting You Check How Much You are Winning/Losing During Play Sessions **						
	Voluntary	81%	78%	72%	58%	77%
	Mandatory	19%	22%	28%	42%	23%
**A Feature Letting You Block Yourself from Playing for Days/Weeks/Specific Dates ** **						
	Voluntary	85%	89%	68%	59%	80%
	Mandatory	15%	11%	32%	41%	20%
**A Feature Letting You Block Yourself from Playing for Longer Periods of Time ** **						
	Voluntary	86%	89%	72%	64%	82%
	Mandatory	14%	11%	28%	36%	18%
**A Feature Letting You Set Money Limits for Play Session/Day/Month ** **						
		(n=275)	(n=75)	(n=65)	(n=58)	(n=473)
	Voluntary	83%	81%	69%	59%	78%
	Mandatory	17%	19%	31%	41%	22%
**A Feature Letting You Set Time Limits for Play Session/Day/Month ** **						
		(n=275)	(n=75)	(n=65)	(n=58)	(n=473)
	Voluntary	84%	89%	74%	62%	81%
	Mandatory	16%	11%	26%	38%	19%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- Most (76%-82%) regular VL players thought use of the RG features should be voluntary with players able to choose whether or not they want to use a particular feature.

- While players in all risk segments tended to support voluntary feature use, problem VL gamblers and to a lesser extent moderate risk players were most likely to want any one of the RG features tested to be mandatory.

- For example,

    o 46% of problem VL gamblers thought the *ability to personally see and track amounts spent over various time periods* should be mandatory.

o   Just under half would like to mandate features that *let them check how much they are winning or losing during play sessions* (42%), *self-exclude from playing for days/weeks/specific dates* (41%) and *let them set money limits for play session/day/month* (41%).

o   Over one third also wanted the feature for extended *self-exclusion over longer time periods to be mandatory* (36%) as well as features requiring players to s*et time limits for play session/day/month to be mandatory* (38%).

- Given that many higher risk players endorsed mandatory feature use suggests that under certain circumstance some players may be receptive to mandated use to support play commitments made personally or in treatment situations.

7.7   The Likelihood of Using RG Features if Available

Figure 7.7: The Likelihood of Using RG Feature If Available

■ Not at All Likely ▨ Somewhat Likely ■ Very Likely

**The Ability to Personally See/Track Amount of Spending over Various Time Periods (n=500)

	Not at All Likely	Somewhat Likely	Very Likely
No Risk	56%	30%	13%
Low Risk	44%	34%	22%
Moderate Risk	29%	39%	32%
Problem Gambling	44%	17%	39%
Total	49%	31%	20%

**A Feature Letting You Check How Much You are Winning/Losing During Play Sessions (n=500)

	Not at All Likely	Somewhat Likely	Very Likely
No Risk	58%	29%	13%
Low Risk	43%	28%	29%
Moderate Risk	20%	43%	36%
Problem Gambling	31%	29%	41%
Total	47%	31%	22%

**A Feature Letting You Set Money Limits for Play Session/Day/Month (n=473)

	Not at All Likely	Somewhat Likely	Very Likely
No Risk	67%	23%	10%
Low Risk	41%	36%	23%
Moderate Risk	28%	35%	37%
Problem Gambling	38%	26%	36%
Total	54%	27%	19%

**A Feature Letting You Set Time Limits for Play Session/Day/Month (n=473)

	Not at All Likely	Somewhat Likely	Very Likely
No Risk	0.745	19%	7%
Low Risk	61%	23%	16%
Moderate Risk	46%	35%	18%
Problem Gambling	45%	24%	31%
Total	65%	22%	13%

**A Feature Letting You Block Yourself from Playing for Days/Weeks/Specific Dates (n=500)

No Risk	74%	18%	8%
Low Risk	67%	22%	11%
Moderate Risk	41%	33%	26%
Problem Gambling	41%	24%	36%
Total	64%	22%	14%

**A Feature Letting You Block Yourself from Playing for Longer Periods of Time (n=500)

No Risk	77%	17%	6%
Low Risk	67%	20%	13%
Moderate Risk	44%	36%	20%
Problem Gambling	37%	27%	36%
Total	66%	21%	13%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level. Due to rounding totals for percentages may be ± 1%.

- In terms of the likelihood of using each feature if available, over half of regular VL players reported being at least somewhat likely to use a feature which permits them to *track personal expenditures over time* (51%) as well as a feature *that tracks how much is won or lost during a particular play session* (53%).

- Just under half (46%) of all players would likely use a feature that *allows them to set money limits for play session/day/month.*

- Over one third indicated they would be likely to use a feature *to set time limits for play session/day/month* (35%) or *self-exclude from playing either for short* (36%) *or longer periods of time* (34%).

- Similar to findings for feature desirability, lower risk VL gamblers were generally less likely to think that they would use these features as compared to higher risk VL gamblers.

Section 8: Last 10 Times Played

Section 8 focuses specifically on play behaviours and outcomes for the last 10 VL play sessions. Each participating regular player was asked to estimate a series of outcomes and behaviours for the last 10 times played in order to generate a set of key baseline measures for tracking purposes. In some cases this data acts as a proxy for information that would typically be collected and monitored by the machine or "My-Play" system if a player chooses to voluntarily use the system to track all play sessions. It was also collected to provide additional insight about the underlying behaviours being tracked by the monitoring system and will permit us to examine changes over time for those who choose to use the RG system versus those who do not. Essentially these measures become the key benchmarks for a standard unit of play (10 pre-trial sessions) that can be used for post-trial comparisons over a similar unit of play (10 post-trial sessions). This type of data is more suitable for testing for changes over time and use with general linear modeling or logistic regression.

8.1   Session Length

- Problem VL gamblers played more frequently than those in other segments and, therefore, accumulated 10 different play sessions faster than those in the other risk categories.

- On average, it took 3 months for no risk gamblers, 4 months for low risk gamblers, and 2.5 months for those scoring at moderate Risk to play 10 different times as compared to only 1.5 months for problem VL gamblers.

Figure 8.1: Session Length During Last 10 Times Played

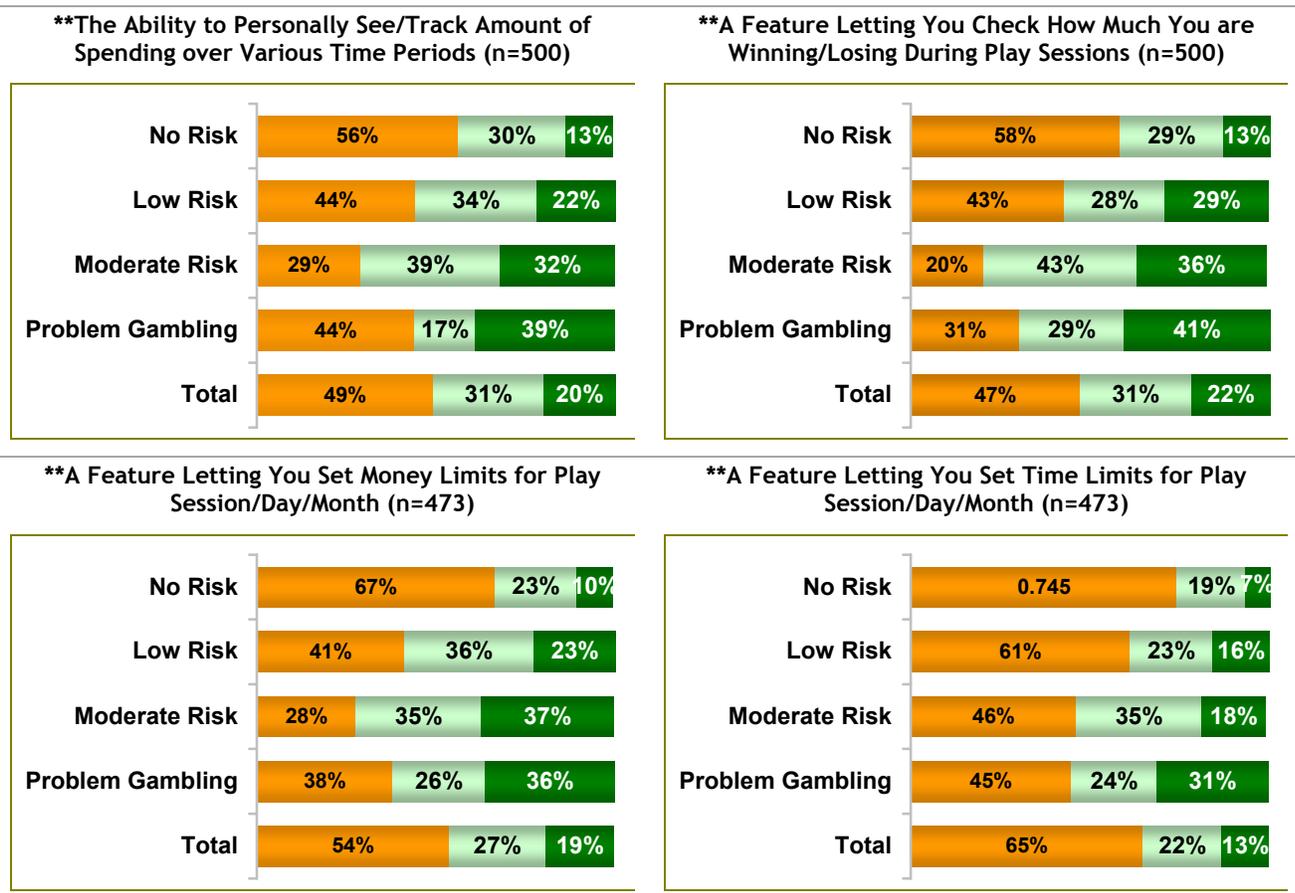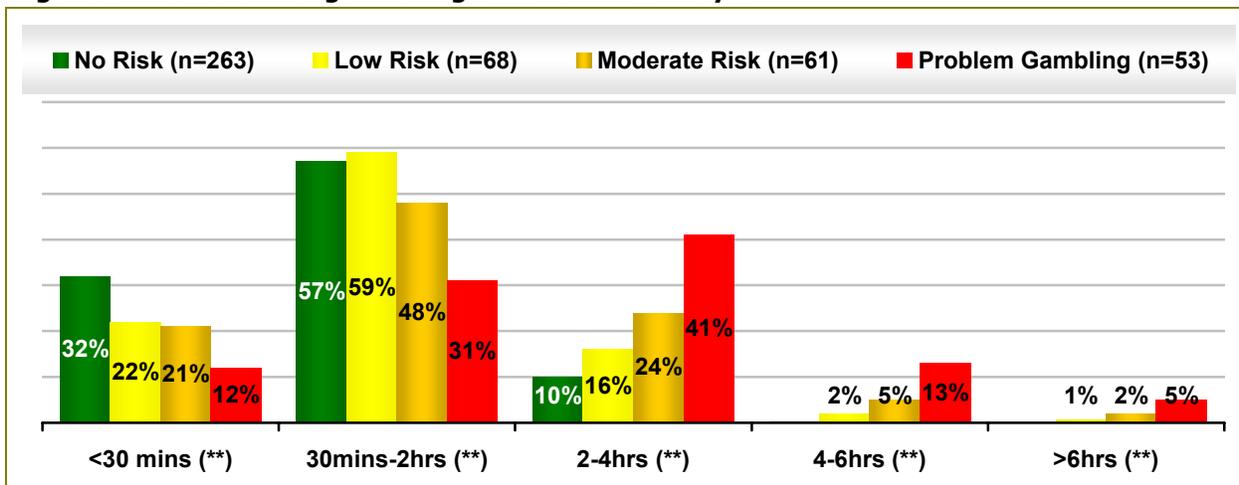** denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level. Due to rounding totals for percentages may be ± 1%.*

- Out of the last 10 sessions, problem VL gamblers, on average, tended to play for longer time periods as compared to players in the other risk categories, especially those falling into the lower risk groups.

- For example, during the last 10 sessions, on average, 59% of play sessions for problem VL gamblers lasted 2 hours or longer as compared to only 10% of the sessions played by those at no risk, 19% of those at low risk and 31% of those at moderate risk.

- On average, problem gamblers played over 6 hours 5% of the time, played between 4 and 6 hours 13% of time and between 2 to 4 hours 41% of the time.

- In contrast, the vast majority of no risk (89%) and low risk (81%) gamblers finished their play sessions within 2 hours.

8.2 Perception of Wins & Losses

Table 8.2: Perception of Wins, Losses Break Evens During Last 10 Play Sessions

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
% Ever Won **	96%	90%	96%	76%	93%
% Ever Broke Even**	69%	67%	67%	42%	65%
% Ever Lost	92%	90%	97%	100%	93%

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- Almost every player (93%) who took part in the baseline survey had at least one win or loss over the last 10 times played, with two thirds (65%) having broken even at least once.

- While the percent experiencing any losses was similar in all groups, Problem VL gamblers were less likely to have won or broken even in the last 10 sessions as compared to those in the other risk categories.

Figure 8.2.1: Percent of Times Won, Lost and Broke Even During Last 10 Sessions
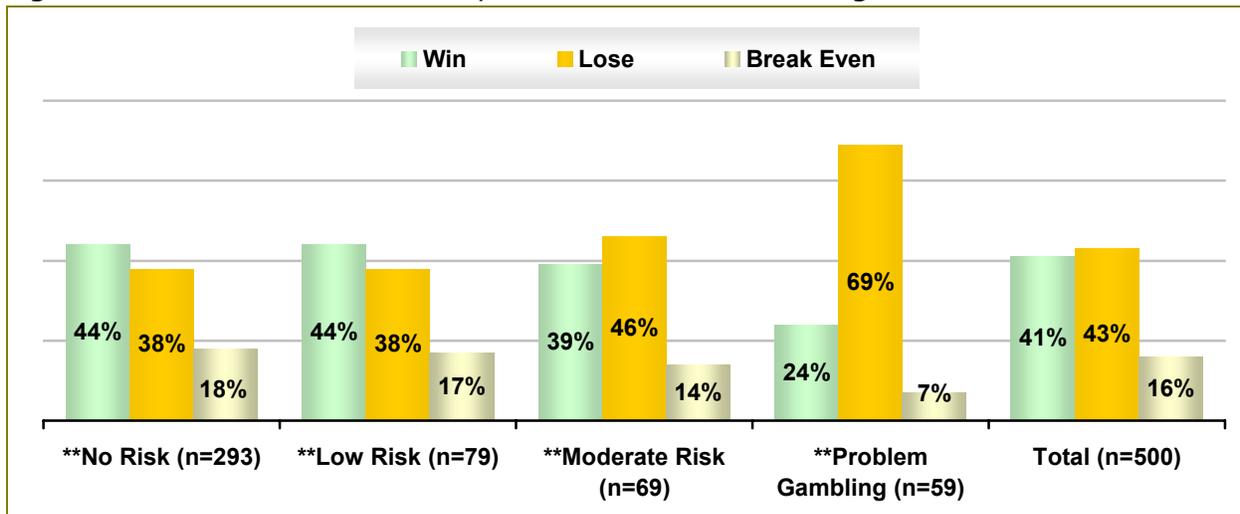
* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level. Due to rounding totals for percentages may be ± 1%.

- The average percent of times won over the last 10 sessions was significantly lower among problem VL gamblers.

- On average, problem VL gamblers reported winning 24% of the time out of the last 10 times played as compared to 39% of the time for those scoring at moderate risk, and 44% of the time for lower risk players.

- Problem VL gamblers were also more likely to have lost more sessions than other those in other regular player groups during the last 10 times played (69% versus 38%-46% for players in the other three groups).

Figure 8.2.2: % of Times Winning Specific Amounts During Last 10 Sessions
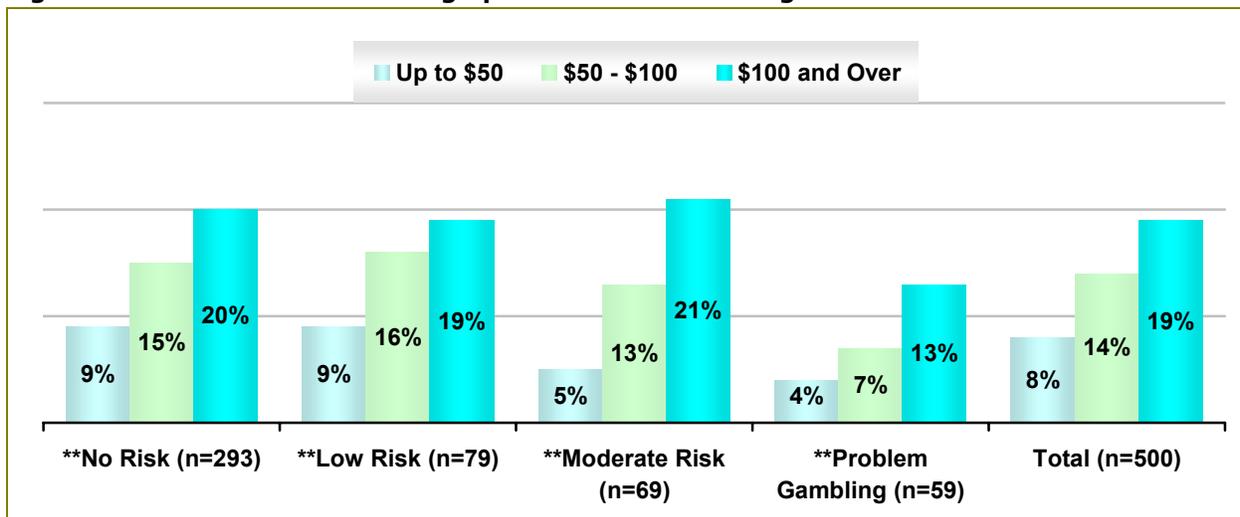
* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level. Due to rounding totals for percentages may be ± 1%.

- Despite differences observed in the occurrence of winning outcomes, players in all risk categories were equally likely to have reported experiencing a big win over $100 with the exception of problem VL gamblers.

Figure 8.2.3: % of Times Losing Different Amounts During Last 10 Sessions,
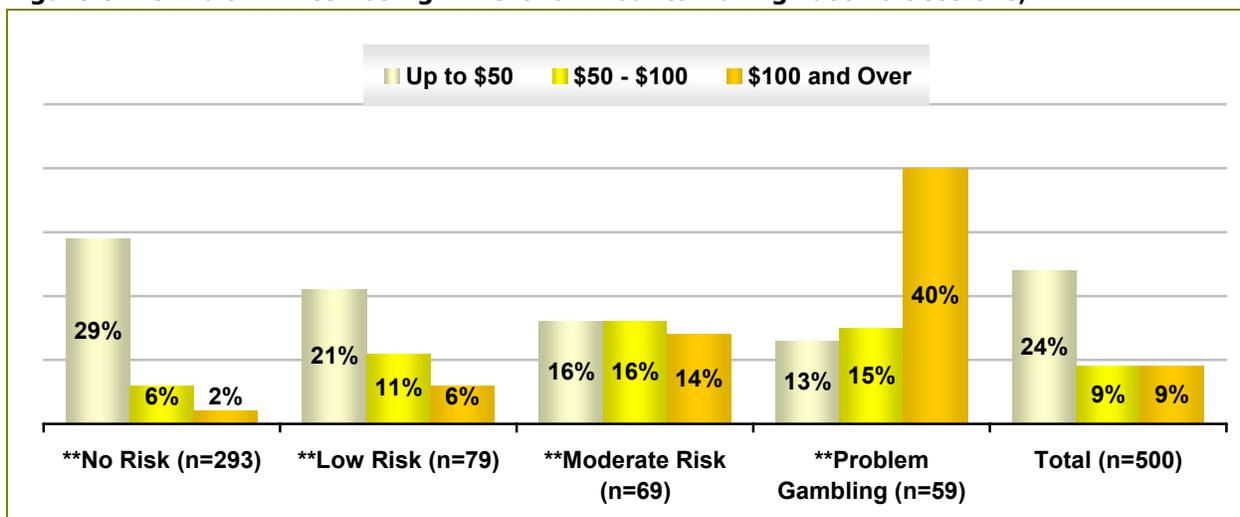
* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level. Due to rounding totals for percentages may be ± 1%.

- Conversely, not only were problem VL gamblers more likely to have lost more times during the last 10 sessions, they were also more likely to report bigger losses as compared to others.

- On average problem VL gamblers reported having lost $100 or more 40% of the times they played and were losing.

- In contrast, when in a loss position no risk gamblers only reported losing $100 or more 5% of the time (2% out of 38% of losing sessions).

8.3 Alcohol Consumption

Table 8.3: Alcohol Consumption While Playing VLTs During Last 10 Sessions

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
% Ever Drank Alcohol while Playing VLTs**	36%	51%	51%	58%	43%
# of Times Had Alcoholic Drink During Last 10 Times**					
Never	65%	49%	54%	46%	58%
1-2 Times	6%	8%	12%	15%	8%
3-4 Times	6%	8%	9%	2%	6%
5+ Times	23%	35%	26%	37%	27%
Mean	2.3 times	3.6 times	2.7 times	3.7 times	2.7 times
Median	.0 times	1.0 times	.0 times	1.0 times	.0 times

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- 43% of regular VL players had consumed alcoholic beverage at least once while playing during their last 10 play sessions, with those falling in the no risk group least likely to have consumed alcohol compared to gamblers in any other risk category.

- Alcohol consumption during play was generally lowest among the no risk group (35%) where, on average, players only drink once every 5 times they play.

- Problem VL gamblers had higher rates of alcohol consumption on average drinking 5 drinks or more 37% of the times they played. However, almost half of the times played (46%) Problem VL gamblers did not drink any alcohol despite the fact they were in locations serving alcohol more often and playing twice as long as any other player.

8.4 Gambling Experience

Figure 8.4: Gambling Outcomes During Last 10 Sessions

Legend: None | 1-2 Times | 3-4 Times | 5+ Times

Lost Track of Time While Playing

	None	1-2 Times	3-4 Times	5+ Times
No Risk	90%	5%	3%	2%
Low Risk Gambling	66%	16%	10%	8%
Moderate Risk	58%	17%	10%	14%
Problem Gambling	29%	22%	17%	32%
Total	74%	11%	7%	8%

Lost Track of Money Spent While Playing

	None	1-2 Times	3-4 Times	5+ Times
No Risk	98%	1%	1%	
Low Risk Gambling	85%	10%	5%	
Moderate Risk	62%	14%	13%	10%
Problem Gambling	41%	14%	15%	31%
Total	84%	6%	4%	6%

Spent More Time than Would Like

	None	1-2 Times	3-4 Times	5+ Times
No Risk	87%	9%	3%	
Low Risk Gambling	57%	23%	8%	13%
Moderate Risk	51%	16%	17%	16%
Problem Gambling	14%	3%	15%	68%
Total	68%	11%	7%	13%

Spent More Money than Would Like

	None	1-2 Times	3-4 Times	5+ Times
No Risk	79%	13%	3%	
Low Risk Gambling	49%	22%	11%	18%
Moderate Risk	22%	19%	25%	35%
Problem Gambling	7%	5%	7%	81%
Total	58%	14%	8%	20%

Tried to Win Back Money Lost through Gambling

	None	1-2 Times	3-4 Times	5+ Times
No Risk	91%	3%	3%	3%
Low Risk Gambling	76%	4%	6%	14%
Moderate Risk	38%	26%	14%	22%
Problem Gambling	19%	2%	8%	71%
Total	73%	6%	6%	16%

Spent All Money Brought

	None	1-2 Times	3-4 Times	5+ Times
No Risk	64%	8%	7%	21%
Low Risk Gambling	34%	13%	10%	43%
Moderate Risk	25%	17%	23%	35%
Problem Gambling	9%	5%	5%	81%
Total	47%	10%	10%	33%

Use Bank/Credit Card to Get More Money to Keep Playing

Segment				
No Risk	87%	9%		
Low Risk Gambling	60%	25%	8%	8%
Moderate Risk	42%	22%	23%	13%
Problem Gambling	25%	10%	15%	49%
Total	69%	13%	8%	9%

Won Big during a Session, But Put It All Back Into Machine

Segment				
No Risk	92%	6%		
Low Risk Gambling	68%	19%	6%	6%
Moderate Risk	59%	29%	9%	
Problem Gambling	48%	34%	5%	14%
Total	78%	15%		

Borrowed Money from Someone to Keep Playing

Segment		
No Risk	99%	1%
Low Risk Gambling	95%	4%
Moderate Risk	88%	7%
Problem Gambling	80%	17%
Total	95%	4%

Lent Money to Someone So They Could Keep Playing

Segment				
No Risk	88%	9%		
Low Risk Gambling	76%	11%	9%	
Moderate Risk	77%	12%	7%	
Problem Gambling	61%	24%	7%	8%
Total	81%	11%		

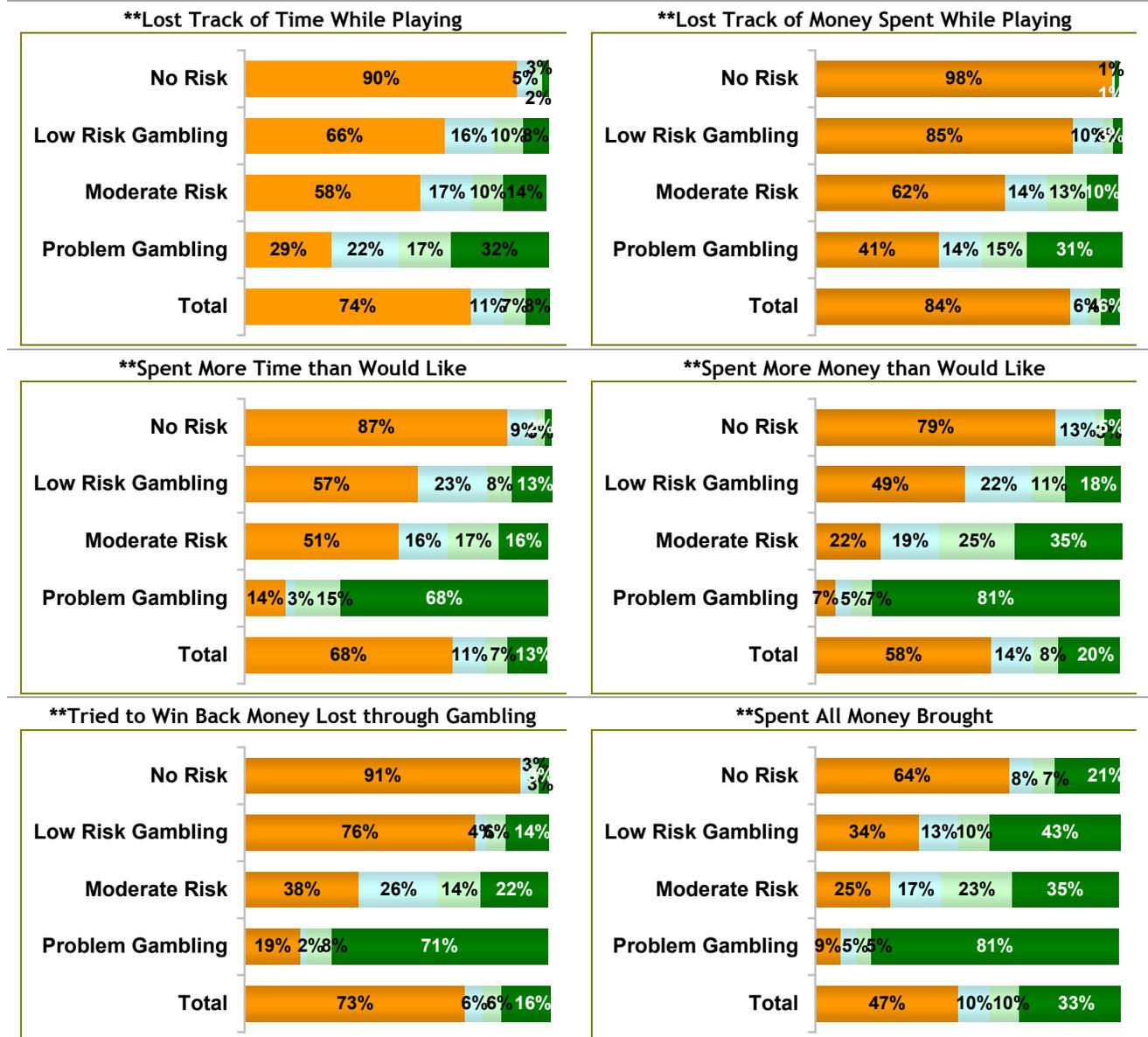** denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level. Due to rounding totals for percentages may be ± 1%.*
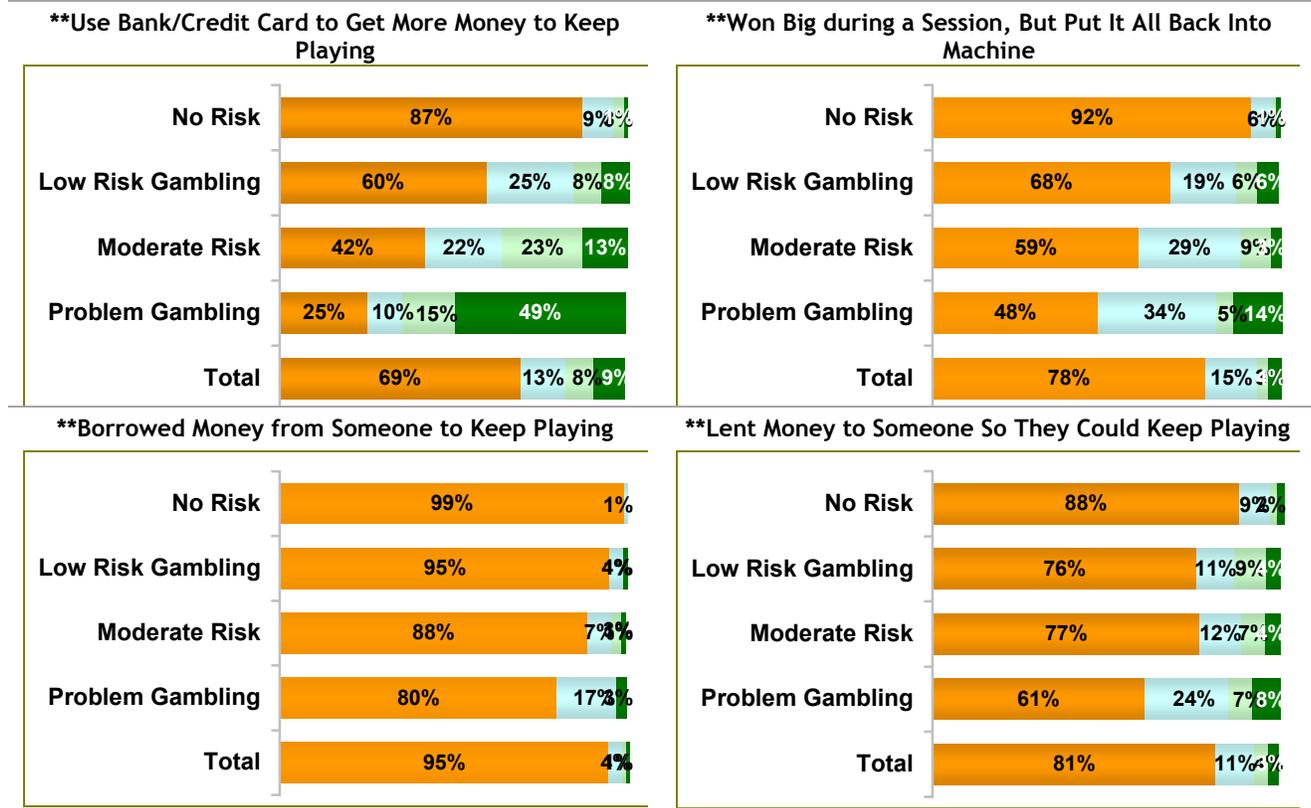
- Based on current playing patterns (last 10 times played), the majority of problem VL gamblers lost track of time (71%) and money (59%), spent more time (86%) and money (93%) playing VLTs than intended, spent all the money they brought to the location (92%), chased losses (81%), used their bank card to get more money to keep playing (75%), put winnings back into the machines (53%)and 1 in 5 ended up borrowing from others so they could keep playing (20%). These are behaviours that contribute to chronic over-spending, risk and problems.

- In contrast, those at no risk rarely lost track of how much money they were spending, almost never borrowed from others, and didn't reinvest winnings or chase losses very often.

- However 1 in 10 no risk gamblers lost track of time, 1 in 5 spent more money than they wanted and over one-third spent all the money they brought to the location, a control strategy that only no risk players found to be helpful in moderating VL expenditures.

Table 8.4: Frequency of Specific Gambling Outcomes During last 10 Sessions

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
**Spent All Money Brought	2.1	3.9	3.8	7.1	3.2
**Spent More Money than Would Like	0.7	2.2	3.7	7.7	2.2
**Spent More Time than Would Like	0.4	1.6	2.0	6.6	1.5
**Tried to Win Back Money Lost through Gambling	0.4	1.2	2.5	6.5	1.5
**Use Bank/Credit Card to Get More Money to Keep Playing	0.3	1.1	2.1	4.7	1.2
**Lost Track of Time While Playing	0.3	1.2	1.6	3.5	1.0
**Lost Track of Money Spent While Playing	0.1	0.4	1.3	3.2	0.7
**Lent Money to Someone So They Could Keep Playing	0.3	0.7	0.9	1.3	0.6
**Won Big during a Session, But Put It All Back Into Machine	0.2	0.9	0.9	1.5	0.5
**Borrowed Money from Someone to Keep Playing	0.0	0.1	0.3	0.4	0.1

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- Out of the last 10 sessions played, on average, problem VL gamblers had spent more money than they intended 77% of the time, played longer than intended 66% of the time, spent all money they brought 71% of the time, chased loss 65% of the time, used bank/credit card to get more money to keep playing 47% of the time, and lost track of time and money for 35% and 32% of the time respectively.

8.5   Gambling Behaviours & Practices

Figure 8.5: Frequency of Specific Play Behaviour During Last 10 Play Sessions

Legend: None | 1-2 Times | 3-4 Times | 5+ Times

**Played on More Than One Machine

	None	1-2 Times	3-4 Times	5+ Times
No Risk	87%	5%	3%	
Low Risk Gambling	77%	16%	10%	
Moderate Risk	68%	17%	10%	
Problem Gambling	63%	22%	17%	
Total	80%	11%	7%	

**Increased Bet (Level) to Get Wins Going

	None	1-2 Times	3-4 Times	5+ Times
No Risk	57%	12%	11%	21%
Low Risk Gambling	46%	5%	13%	37%
Moderate Risk	28%	9%	17%	46%
Problem Gambling	27%	5%	5%	64%
Total	47%	9%	11%	32%

Played with Friends/Family on Same Machine

	None	1-2 Times	3-4 Times	5+ Times
No Risk	53%	16%	10%	22%
Low Risk Gambling	44%	19%	14%	23%
Moderate Risk	54%	20%	7%	19%
Problem Gambling	59%	19%	10%	12%
Total	52%	18%	10%	20%

Played with Friends/Family on nearby Machine

	None	1-2 Times	3-4 Times	5+ Times
No Risk	0.509	14%	8%	28%
Low Risk Gambling	56%	11%	13%	20%
Moderate Risk	51%	20%	10%	19%
Problem Gambling	53%	10%	7%	31%
Total	52%	14%	9%	26%

**Played at Max Bet

	None	1-2 Times	3-4 Times	5+ Times
No Risk	70%	13%	5%	12%
Low Risk Gambling	44%	20%	9%	27%
Moderate Risk	36%	17%	9%	38%
Problem Gambling	14%	24%	5%	58%
Total	54%	16%	6%	23%

Covered All Lines on Reel Games

	None	1-2 Times	3-4 Times	5+ Times
No Risk	12%	1%	3%	84%
Low Risk Gambling	5%	3%	4%	89%
Moderate Risk	3%	1%	1%	93%
Problem Gambling	12%	2%	3%	83%
Total	10%	1%	3%	86%

Note: none of players ever jammed machine so it would play and 2% used lucky charm or special 'Good Luck' ritual (i.e. 1% of No Risk, 3% of low Risk and 6% Moderate Risk players).

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level. Due to rounding totals for percentages may be ± 1%.

- As compared to players in other risk groups, problem VL gamblers were more likely to play on multiple machines (71%), play at max bet level (86%) as well as increase the bet level to get wins going (73%).

- For example, problem VL gamblers reported betting at max level 59% of times played out of the last 10 sessions as compared to 14% of times for No Risk players (Figure 8-4).

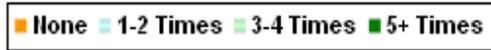**Table 8.5: Gambling Behaviours and Practices During last 10 Play Sessions**

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
Covered All Lines on Reel Games	8.3	8.8	9.1	8.2	8.5
***Increased Bet Level to Get Wins Going*	2.2	3.6	4.6	5.9	3.2
Played with Friends/Family on nearby Machine	2.8	2.4	2.1	2.8	2.7
***Played at Max Bet*	1.4	2.8	4.0	5.9	2.5
Played with Friends/Family on Same Machine	2.3	2.5	2.2	1.5	2.2
***Played on More Than One Machine*	0.6	0.8	0.8	1.3	0.8
Used Lucky Charm or Special 'Good Luck' Ritual	0.1	0.1	0.6	0.0	0.2
Jammed Machine So It Would Play Automatically	0.0	0.0	0.0	0.0	0.0

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

8.6 Control during Play

- Overall, most (87%) regular VL players set a money budget before arriving at the venue, 60% brought limited amounts of money to prevent overspending or cashed out frequently while playing in order to keep track of time and/or money, and 57% planned to stop if they reached a certain amount of losses.

- Just under half (45%) of all regular players planned to stop if they reached a certain level of winnings with 32% reporting they would stop if they broke even.

- 25% set a money budget when starting to play the machines and 17% left bank and/or credit cards at home to prevent overspending and 15% set a time limit/pick time to stop.

- Problem VL gamblers were least likely to set a money budget before arriving at the venue (71%) as compared to 89%-91% of players in other segments.

- 52% of no risk gamblers cashed out frequently in attempts to keep track of spending, a rate significantly lower than that reported by players in the other risk groups.
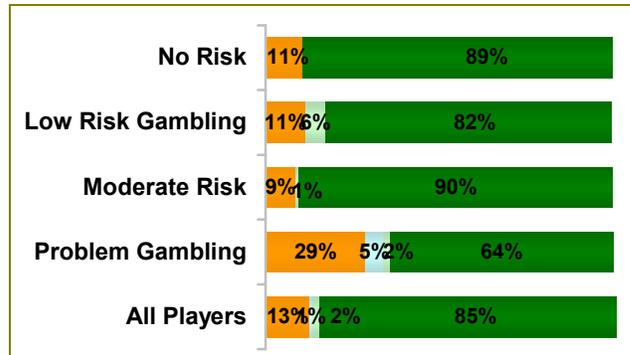
Figure 8.6: Control Strategies Used During Play (Out of Last 10 Times Played)
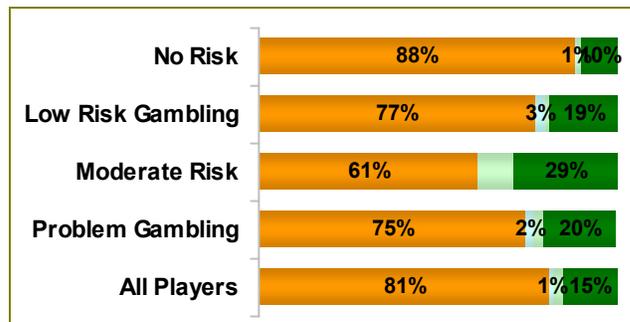
Legend: None | 1-2 Times | 3-4 Times | 5+ Times

**Set A Money Budget Before Arriving at Venue

	None	1-2 Times	3-4 Times	5+ Times
No Risk	11%			89%
Low Risk Gambling	11%	6%		82%
Moderate Risk	9%	1%		90%
Problem Gambling	29%	5%	2%	64%
All Players	13%		2%	85%

Set A Money Budget When Starting To Play at Machine

	None	1-2 Times	3-4 Times	5+ Times
No Risk	76%		2%	21%
Low Risk Gambling	73%		1%	24%
Moderate Risk	73%		3%	19%
Problem Gambling	71%		2%	22%
All Players	75%		2%	21%

**Set Time Limit/Pick Time to Stop

	None	1-2 Times	3-4 Times	5+ Times
No Risk	88%		1%	10%
Low Risk Gambling	77%		3%	19%
Moderate Risk	61%			29%
Problem Gambling	75%		2%	20%
All Players	81%		1%	15%

**Bring Limited Amount of Money to Prevent Overspending

	None	1-2 Times	3-4 Times	5+ Times
No Risk	48%		2%	49%
Low Risk Gambling	23%	3%		70%
Moderate Risk	29%		4%	64%
Problem Gambling	37%		3%	53%
All Players	40%		3%	55%

Not Bring Bank/Credit Cards to Prevent Overspending

	None	1-2 Times	3-4 Times	5+ Times
No Risk	82%		2%	16%
Low Risk Gambling	81%			18%
Moderate Risk	73%			25%
Problem Gambling	78%		2%	15%
All Players	80%		2%	17%

**Cash Out Frequently to Keep Track of Spending

	None	1-2 Times	3-4 Times	5+ Times
No Risk	51%		1%	49%
Low Risk Gambling	29%	5%		70%
Moderate Risk	36%		3%	64%
Problem Gambling	49%		7%	53%
All Players	45%		2%	55%

Plan to Stop Playing If Won Certain Amount

	None	1-2 Times	3-4 Times	5+ Times
No Risk	58%	13%		20%
Low Risk Gambling	52%	13%		28%
Moderate Risk	42%	12%		29%
Problem Gambling	58%	20%		14%
All Players	55%	14%		22%

Plan to Stop Playing If Lost Certain Amount

No Risk	46%	3% 10%	41%	
Low Risk Gambling	37%	8% 10%	46%	
Moderate Risk	35%	4% 14%	46%	
Problem Gambling	49%	8% 7%	36%	
All Players	43%	4% 10%	42%	

Plan to Stop Playing If Broke Even

No Risk	72%	9% 4%	15%	
Low Risk Gambling	62%	6% 6%	25%	
Moderate Risk	54%	14% 13%	19%	
Problem Gambling	71%	7% 7%	15%	
All Players	68%	9% 6%	17%	

Note: 2% of all players ever give extra cash/cards to someone else to prevent overspending (i.e. 1% no risk, 1% low risk, 1% of moderate risk and 8% problem VL gamblers. Almost no one ever asked others to help them stop or remind them when a certain amount of time has passed with the exception of one moderate risk gambler.

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level. Due to rounding totals for percentages may be ± 1%.

8.7 Reasons for Stop Playing

Table 8.7: Average # of Times Stopped for the Following Reasons (Out of Last 10 Sessions)

	No Risk	Low Risk	Moderate Risk	Problem Gamblers	Total
	(n=293)	(n=79)	(n=69)	(n=59)	(n=500)
You Spent Your Budgeted Money	6.3	6.0	5.7	5.6	6.1
**You Ran Out of All Money You Brought	3.0	4.7	4.4	6.7	3.9
**You Had Something Else to Do Away from Venue	2.9	3.2	3.1	1.8	2.9
**You Had Something Else to Do at the Venue	2.2	1.9	1.2	1.4	1.9
You Were Bored Playing the Machines	1.1	1.4	1.4	1.6	1.2
**You Spent Your Budgeted Time	0.8	1.6	1.7	1.8	1.2
**The Machines Were Shutting Down	0.4	0.8	1.5	1.7	0.8
**The Location Was Closing	0.3	0.6	1.3	1.7	0.6
**You Ran Out of Other Sources of Money (Maxed Credit)	0.0	0.1	0.3	1.4	0.2
	(n=275)	(n=75)	(n=65)	(n=58)	(n=473)
You Had a Big Win	1.3	1.2	1.6	1.1	1.3
	(n=263)	(n=68)	(n=61)	(n=53)	(n=445)
*You Broke Even	1.3	1.4	1.4	0.7	1.3

* denotes significant differences among risk segments at p< .10 level; ** denotes significant differences among risk segments at p< .05 level.

- The primary reason for regular VL players to stop playing was that they had spent their budgeted money (61% of times out of the last 10 sessions).

- Other reasons also included running out of all money brought to the location (39% of the times played), having something else to do either at the venue (19% of times played) or away from venue (29% of times played).

- Note that problem VL gamblers more often stopped playing because they ran out of all funds brought to the location (67% of times), ran out of all additional sources of money (14% of times), or the location was closing (17% of times played).

Section 9: Summary & Discussion

Generally, the majority of high risk and problem VL gamblers taking part in the survey responded positively to the "My-Play" concept and features tested. The system potentially has value for higher risk players many of whom are characterized as having impaired control, chronically spending beyond desired play limits with significant negative consequences. There was also evidence that these players have used various strategies to try to manage their play with little success. Therefore, any system which assists them in implementing and enforcing play decisions is seen to have potential benefit. However, one area of contention surrounding the value of the system for those at highest risk is the issue of mandatory versus voluntary card use. Most players are in agreement that use of any specific RG feature should be voluntary (e.g., setting limits, referencing account summaries, self-excluding) so players can make customized choices that meet their individual needs and circumstances with privacy and security. Yet, without implementation of a universal player identification device (e.g., mandatory card use) there is limited value to players in taking advantage of the optional features on an as-needed basis; higher risk players must continue to rely on willpower or other unsuccessful strategies when they reach pre-set limits if they can simply continue to play without the card. Since information is only gathered when players use an id device (e.g., card) optional use will also produce incomplete and potentially misleading information in the case of account summaries tracking expenditure over time making it unreliable as a management tool. Evidence suggests that cards or other player tracking devices will eventually need to be mandatory to optimize system benefits for players especially those at high risk or experiencing problems

9.1   Discussion: Mandatory Card Use versus Voluntary Card Use

When given an option most players endorse voluntary use of a tracking device as well as the RG features primarily due to concerns surrounding privacy and data security, inconvenience and the perceived irrelevance of the features and options for personal use; "I don't need these type of features" (McDonnell-Phillips Pty, 2006, Bernard Lucas & Jang, 2006; Omnifacts Stage 1, 2005, Office of Regulatory Policy, Queensland, 2009).

These findings are not particularly surprising since players responses are not based on actual experience with the system but rather on expectations of inconvenience or pre-existing perceptions of how the system works and 'who' they think it is intended to assist (e.g., the system is there to help Problem VL gamblers; since I am not a problem gambler I don't need to use it). There is little incentive for players to support change especially involving unfamiliar technology (Nisbet 2005b, 2006). Consequently, there has been some question as to how much weight player pre-trial preference should be given in influencing the introduction and use of product safety features (Parke et al, 2008).

In general, the reception of players and adults to options for assisting players in keeping track of gambling expenditures is positive suggesting that how the prospect of player tracking is framed will influence the level of support generated (e.g., communicating player advantages and normalizing use by

supporting the value of features and options for all players rather than being exclusive to those experiencing problems).

This is consistent with other mounting evidence supporting the practicality of general or universal use of player registration (ID) and tracking (RGC, 2009; Parke et al, 2008; Livingston and Woolley, 2008; Schellinck & Schrans, 2007; IGA 2005; Hing 2003).

For example, individual player information is only gathered and stored when an id device such as a player card is used; without player id the machine can't tell the difference between players or the choices they want to make. In order to take advantage of any of the safety features from the most simple (e.g., checking on how much you have spent in the last month) to the most complex (e.g., self-excluding for 6 months), means that players must be using their 'card' every-time they play so the information or service is there when they need it or choose to use it. Otherwise player information will only be tracked when someone voluntarily uses their card. It is difficult for players to anticipate when they might need such information and thus the benefits of card use may not be obvious to players at first. This means that they don't use the card to record their play and then the information is not there when they need it.

In their comprehensive literature review of cashless and card-based technologies for the UK Gambling Commission Jonathan Parke and his colleagues (2008) observed that "the ability to pre-set spending limits and avoid irrational spending decisions when in an aroused state will be redundant if the player can simply remove their card and thereby reverse any previous decisions taken to set limits" (p.65). Given the mitigating role of willpower, or lack thereof, in supporting personal spending limits while gaming, a player management system without accurate spend information and enforcement of personal play decisions is likely to have minimal value to those depending on such a system to help them gamble at desired levels.

In Stage 1 of the Windsor Trial in Nova Scotia in 2004 there was little to no voluntary use of the player card. Even among participating panel members who agreed to use the card during the trial, 44% of those who set any limits continued to play without the card after reaching their pre-set budget. This finding was underscored by low voluntary up-take in the trials conducted in New South Wales Australia in 2001 with only 1% to 3.5% of members using a card on their own.

The rate of use was higher during the most recent 2008 player card trials in Queensland; voluntary use was supported by active recruitment using on-site ambassadors and through staff referrals as well as player incentives for getting and/or using the card (e.g., weekly draws, rewards and $20 value in member points). This led to 13%-17% of members applying for a card. While this rate of use exceeded previous benchmarks the vast majority of players were still by-passing the system. This low level of use suggests the voluntary cash-less pre-commitment approach tested in Queensland did not provide enough value to players to warrant up-take and low participation rates compromised the benefit of reduced operating costs that are supposed to accompany a cashless functionality and make it more appealing to gaming operators (Schottler Consulting 2009a, 2009b). Despite high interest expressed by

players in checking on how much they were spending, no participants asked for a copy of their account summary when it was only available through a formal request to on-site staff.

In contrast, during Stage III of the Windsor Trial in Nova Scotia when card use was mandatory and feature use was optional, most regular players (71%) tried at least one of the features, especially the account summary (68%) and session summary features (Live Action: 59%). Moreover, once a player had tried a feature the majority (65%) continued to keep using it after trial. Half (48%) of all regular players in the test area took up regular use of the information features (i.e., account summaries) indicating that it had ongoing value for a substantive proportion of all players once they had actually tried it (Schellinck & Schrans, 2007). The difference between only 2% to 17% of regular players reporting any use of player management features when the system was voluntary as compared to almost half taking up regular use when card use was mandatory suggests a significant opportunity gap of about 30% to 40% in terms of the proportion of players deriving benefit from the system. Thus, mandatory use of a player card meant that more players were exposed to the potential benefits of the various player management features offered resulting in higher feature use and more players deriving ongoing value from the system.

This will be explored in greater detail during the Phase 2: Follow-up Survey assessing the ongoing impact and value of ''My-Play'' system for High Risk and Problem VL gamblers.

9.2   Summary of Key Findings

The Phase 1: 2010 Regular VL Players Benchmark Survey was used to establish detailed pre-trial measures of play behaviours, attitudes and perceptions for comparison once players are exposed to the new "My-Play" system (post-trial). While the primary purpose of the study is to assess system impacts for high risk and problem VL gamblers there was also valuable information gathered about regular playing patterns and differences between lower and higher risk players that can be used by various stakeholders in supporting other harm and risk reduction for video lottery in Nova Scotia.

The findings of the Phase 1 Benchmark Survey are promising. The player management tools appear to have relevance and potential among high risk and problem VL players. While lower risk players make up a larger proportion of the player base, those at higher risk contribute a disproportionate amount of revenue as well as negative impacts at an individual, family and community level making this an important target group for assistance.

- Similar to the NS Prevalence Study, 42% of all regular VL players taking part in the Benchmark survey were scoring at some level of risk for problem gambling with 26% of panel members scoring as high risk(14%) or as problem VL gamblers (12%);

- Using the *FLAGS* indicators at least one in five players was found to exhibit symptoms of impaired control with 21% unable to stop playing once started and 15% unable to resist going to play, 18% were engaging in risky gambling practices, and 14% were continuing to play despite suffering negative consequences (i.e., persistence);

- On average those scoring at higher risk have been playing longer than lower risk players; most problem VL gamblers were long-term players with 76% having played the machines for 10 or more years;

- Overall, most (87%) regular VL players set a money budget before arriving at the venue, 60% brought limited amounts of money to prevent overspending or cashed out frequently while playing in order to keep track of time and/or money, and 57% planned to stop if they reached a certain amount of losses.

- The vast majority of those experiencing difficulties have tried various strategies to control their VL play without success including budgeting, setting limits, avoiding play and enlisting the help of friends and family;

- The key difference between players success in using personal play strategies was related to enforcement (i.e., willpower); lower risk players were better able to set and enforce play limits whereas those who were at high risk or having problems were not;

- It was common for regular VL players to report spending beyond desired limits while playing the machines upon occasion but for those at higher risk overspending happens most times they play;

- Most players scoring at any level of risk (CPGI-PGSI score =1+), especially those at higher risk (76%-92%), find it difficult to keep track of gambling expenditures over time with 66% of problem VL gamblers reporting difficulty in keeping track of monthly expenditures;

- A minority of problem VL players (3%) have ever sought out formal assistance in dealing with their VL gambling with most preferring to pursue self-help options;

- The majority of players in all risk groups believed VLTs are not a safe form of gambling and supported greater restrictions for video lottery access in the province with 85% of participating problem VL gamblers supporting implementation of VLT ban in the province;

- Overall, half (51%) of regular VL players taking part in the survey were in favour of the "My-Play" player management features being available on machines in Nova Scotia with 31% expressing any degree of opposition to the program and the reminder neutral or undecided.

- Support for the "My-Play" program was strongest among the high risk player segments with the majority of moderate risk (59%) and problem VL gamblers (68%) in favour of such a program.

- Interest in use of the player management tools was also highest among the higher risk players with 48% of problem VL gamblers expressing interested in getting a player card and the majority at least somewhat likely to try any one of the "My-Play" features offered;

- Primary barriers to use of the system largely centered on perceptions that the features are not relevant for most players (*I don't need to use it*; *I can control my gambling on my own and don't*

need any help; already have a system for keeping track) privacy concerns, and lack of understanding about how the card/feature works

- There is also evidence that card use is associated with having a gambling problem and there may be some stigma associated with use in so far as it may identify a user as someone have a problem with their gambling; *Don't have a problem so don't need a card.*

- While most players felt that use of the specific RG features should be voluntary, evidence suggests that use of a player card or other tracking device should be mandatory so all players choosing to use any RG feature will receive accurate, complete information and/or services thereby supporting and normalizing use of the system for players in general.

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