

Gambling Prevalence in CT's Correctional Population

Final Report

January 9, 2018

Updated December 2018



DMHAS/UCONN Research Division

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I. INTRODUCTION and PROJECT OVERVIEW

The general purpose of this study was to determine the prevalence of gambling behaviors within the Connecticut correctional population. This project was funded by the Connecticut Department of Mental Health and Addiction Services (DMHAS) Problem Gambling Services Unit, with the intention of helping them to work with the Department of Correction to plan appropriate and targeted services for inmates. DMHAS did not have comprehensive gambling-related data on its correctional population, and funded this project to address this need by conducting anonymous self-administered surveys on gambling amongst offenders in six Department of Correction (DOC) facilities.

Literature Review

In order to prepare for the study, and again before finalizing this report, we conducted literature reviews to find what previous studies had been conducted regarding gambling among inmates. We identified several recent studies (between 2005 and 2014) which examined gambling prevalence and associated behaviors among correctional populations, but none were found that were based in Connecticut or even in New England. Slightly less than half of these studies occurred in the United States, including Hickey, Kerber, Kim, Astroth, and Shlenker's (2014) study which examined gambling problems and health correlates among adult inmates in a Midwestern county jail, McEvoy and Spirgen's (2012) study which looked at correctional staff and inmate perceptions of inmate gambling in Ohio, Williams' (2008) study of formerly incarcerated individuals in Utah, and Williams and Walker's (2009) study which investigated the impact of gambling on reentry and drew its sample from both Nevada and Utah.

We also identified studies which occurred in other countries, including two which evaluated the prevalence of moderate and severe gambling among incarcerated men in Canada (Turner, Preston, Saunders, McAvoy, & Jain, 2009; Turner, Preston, McAvoy, & Gillam, 2013), two which assessed problem gambling in New Zealand prisons (Abbott & McKenna, 2005; Abbott, McKenna, & Giles, 2005), Zurhold, Verthein, and Kalke's (2014) study which examined problem gambling among male and female pretrial detainees and prison inmates in Germany, and Riley and Oakes' (2015) study which aimed to understand the lifetime prevalence of level 2 (problem) gamblers and level 3 (pathological) gamblers among incarcerated men in South Australia.

A high prevalence of gambling was reported in the studies within the United States. Hickey et al. (2014) determined that 35% of inmates met criteria for problem or pathological gambling. McEvoy and Spirgen (2012) reported that 50% of correctional officers and staff as well as 51% of inmates asserted that half or more of the inmates gambled on a regular basis. Similarly, Williams (2008) found that 52% of the sample reported gambling while in jail or prison. Williams and Walker (2009) did not include any quantitative findings but reported that correctional professionals who were interviewed believed gambling is common in jails and prisons.

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The studies which occurred outside of the United States utilized a variety of established measures to assess gambling prevalence. There was a wide range of prevalence rates reported in the studies outside of the United States. Abbot and McKenna (2005) found 35% of the sample of women met the criteria for lifetime probable pathological gamblers and 23% met the criteria for probable pathological gamblers in the months prior to their incarceration. Abbott et al. (2005) reported that 21% of their sample of men were lifetime probable pathological gamblers and 16% were probable pathological gamblers during the 6 months prior to their incarceration. Among the three measures used by Turner et al. (2009), the DSM-IV-TR revealed the lowest prevalence rate of disordered gambling at 6.3%. The The Problem Gambling Severity Index PGSI and the South Oaks Gambling Screen SOGS revealed higher prevalence estimates of 9.4% and 13.0%, respectively (Turner et al., 2009). Turner et al. (2013) found a prevalence rate of severe problem gambling of 8.9% prior to incarceration and 4.4% during incarceration. These authors also indicated that 34% of their sample reported gambling in prison. Zurhold et al. (2014) determined that 6.6% of pretrial detainees—all male—met the Lie/Bet Questionnaire criteria for problem gambling. Furthermore, the full-scale survey of records revealed a 7.3% prevalence of problem gambling among prison inmates (7.5% among males and 3.6% among females). Finally, Riley and Oakes (2015) found that 52% of the sample indicated a lifetime prevalence of problem gambling and 20% of the sample reported their current prison term was related to gambling.

The existing literature indicates that gambling problems can both lead to criminal activity and can predict criminal recidivism (Lloyd, Chadwick, & Serin, 2014). In addition, gambling has been noted as being associated with other behavioral problems such as psychiatric (Kim, Grant, Eckert, Faris, & Hartman, 2006) and substance use disorders (Barry, Stefanovics, Desai, & Potenza, 2011).

PGS Background

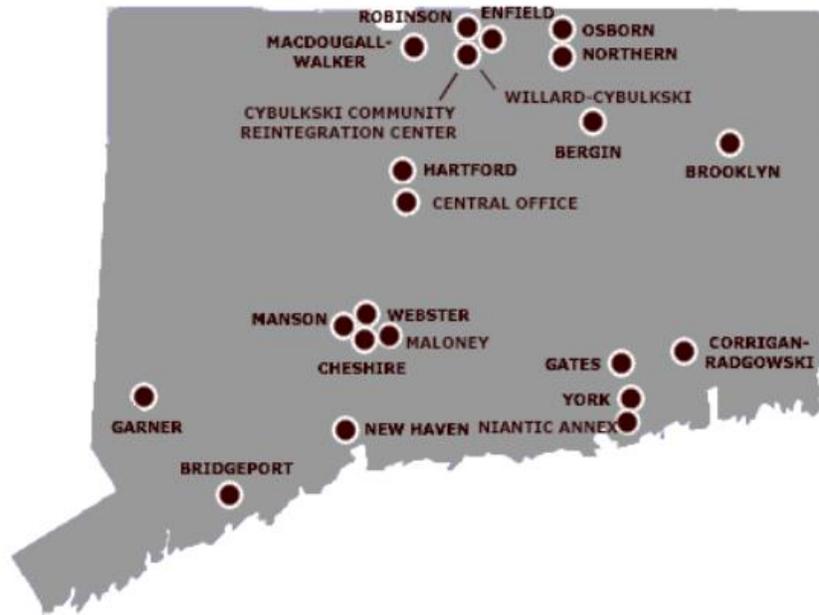
According to their website, the DMHAS Problem Gambling Services (PGS) Unit's mission is to provide a comprehensive network of consumer-oriented problem gambling recovery services for people of CT and to foster an environment throughout the state that promotes informed choices around gambling behavior. PGS works with Regional Action Councils (RACs) to increase the capacity of local community-based groups to provide information and awareness on problem gambling. They also provide education, training, and consultation to mental health and substance abuse providers. During FY2013-FY2015, PGS focused on three objectives: (1) To strategically gather statewide community awareness and readiness data; (2) To review and assess the efficacy of select current programs; and (3) To build and strengthen a gambling awareness infrastructure within each Region through the establishment of Regional Gambling Prevention Teams.

DOC Background

The CT Department of Correction currently has 17 facilities across the state, and oversees about 14,000 inmates. It is generally known to be one of the leaders in prison reform and

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being progressive with inmate programming, including substance abuse treatment and re-entry programs. Recently, the state's inmate population has decreased to a 20-year low. This is partly attributed to Governor Dannel Malloy's Second Chance Society aimed at reducing incarceration rates without compromising public safety. CT recently became one of the first states to raise the minimum age of an adult offender from 16 to 18. Many research studies have been conducted with CT's DOC population helping to implement measures to reduce recidivism and improve programming. The map below shows where all the DOC facilities are located in the state. (Some of the facilities shown on the map have closed in recent years due a reduction in inmate population, including Bergin, Gates and Niantic.)



Study Overview

The gambling prevalence surveys were conducted in male and female jails and prisons in order to include a diverse and representative sample of the CT correctional population. Carl Robinson Correctional Institution in Enfield is a medium-security prison facility housing sentenced offenders. Corrigan-Radgowski Correctional Center in Uncasville serves as both a jail (serving eastern CT) and prison, housing both pretrial and sentenced offenders. The other community jails surveyed were New Haven, Hartford, and Bridgeport Correctional Centers. York Correctional Institution in Niantic is the only female facility in the state, and operates as both a jail and prison. Surveys were conducted in these six DOC facilities so that differences in gambling behaviors could be identified among different groups.

This study was led by Eleni Rodis, M.S., Acting Director of Research for DMHAS, and Research Associate in the School of Social Work at the University of Connecticut (UConn). The DMHAS Research Division (RD) was created over 25 years ago through a unique arrangement with the University of Connecticut. Research Division staff are hired through

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UConn and considered faculty and professional staff at the School of Social Work, but collectively serve as a DMHAS unit. The DMHAS Research Division had previously collaborated with DOC on several research projects and was well-positioned to interact with the DOC facilities to collect data. The research team was responsible for coordinating and collecting the surveys, entering and analyzing data, and creating reports and presentations.

II. PROJECT DESCRIPTION

Project Development

The survey questions were developed through a multi-stage process. The PGS shared various measures they have utilized previously in the community to identify gambling prevalence, some of which are measures with established validity and reliability, and some of which were created by the PGS for their use. (More details on specific instruments are included in the Methodology section.) The RD had previously conducted surveys in DOC facilities about tobacco use, and found that many of the items were relevant to this study as well. Between the previously used PGS questions and previously used RD tobacco questions (some modified to reflect gambling vs tobacco), the bulk of the survey was developed. After a draft of the survey had been created by Ms. Rodis, reviewed by DMHAS staff and their suggestions incorporated, the survey was reviewed by several DOC staff at both the DOC central office and by Addiction Services staff at some of the facilities. Many suggestions were incorporated, including reordering some questions to best keep the inmates' attention and interest, as well as adding additional questions that were considered of interest. The final survey instrument was 7 pages long.

Ms. Rodis identified six facilities that seemed to be representative of DOC in general (jails and prisons) and included different groups of interest (e.g. women). After reviewing the list, DOC staff suggested dropping two of the facilities and replacing them with others due to changes and conditions at the time.

All study procedures and documents were reviewed and approved by the Department of Mental Health and Addiction Services' (DMHAS) Institutional Review Board (IRB). There is an agreement between the DMHAS and UConn IRBs whereby the UConn IRB is informed of and accepts the determinations of the DMHAS IRB for Research Division investigators. In addition, the DOC's Research Advisory Committee (RAC) also approved of the study procedures and documents.

Project Description

After approval from the DMHAS IRB and DOC RAC, research personnel communicated with DOC leadership at each facility to determine the most convenient procedures for conducting the surveys. A recruiting script was sent to each facility contact and dispersed by appropriate staff to inmates inviting them to participate. In addition, inmates were invited by research division staff and/or DOC personnel on the day of the survey. In most of the

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facilities, the Addictions Unit Counselors escorted the research team to conduct the surveys. In some facilities, the escort was a correctional officer. These DOC staff helped recruit inmates and to build rapport with inmates that were hesitant to participate.

Inmates were recruited in various settings and using somewhat different methods. The majority were invited when the researchers arrived and an announcement was made either by DOC staff or the research team. Inmates then gathered in a communal day room and researchers informed them of the study. In a few facilities, the DOC staff used the recruitment script to have interested inmates sign up beforehand. Others, especially in the jails, were asked to participate during inmate orientation for new arrivals. Finally, some were invited through their locked cell door and the study documents were passed under the door. Prior to having the inmates complete the surveys, researchers distributed and reviewed an information sheet which detailed the purpose and description of the study, that it was voluntary and anonymous, and that anyone could participate whether they gambled or not. Inmates then self-administered the surveys if they agreed to participate. Inmates took about 10-20 minutes to complete the survey. Research assistants administered the survey one-on-one to any individuals who had difficulty reading. All materials were translated into Spanish to be used as needed. No incentives were offered to inmates for completing the surveys. If interested, informational materials about gambling (provided by PGS) were provided to inmates to take after they completed the survey.

While most inmates who were informed of the study by research staff participated, some refused. When asked by research staff for the reason of refusal, some stated they refused because they were not going to receive monetary compensation for their participation, they didn't gamble, or they simply weren't interested. Those who stated they didn't gamble were reminded by research staff that it was important that anyone could participate whether they gambled or not. A few could not complete the survey because they stated they had previously completed one. This was especially true in the facilities where there were several return dates. While reaching survey goals occurred quickly at some facilities, it took many return visits to other facilities to collect the surveys. Some unpredictable circumstances caused lock downs in a few facilities which resulted in cancelled survey collection dates. In addition, weather caused one survey date cancellation. The project end date had to be extended because the total survey goal had not been reached by the original project end date. Surveys were administered between November 2016 and November 2017.

The survey dates and final counts can be seen in the table below.

Gambling Survey Administration Dates & Totals

DOC Facility	Dates Scheduled	Survey Goal	Total Surveys Completed
CRCI	11/30/16, 01/18/17	305	289
Corrigan-Radgowski CC	4/10/2017, 6/23/2017	256	258
York CI	3/29/2017, 5/17/2017	283	273
New Haven CC	2/15/17, 3/16/17, 3/21/17, 5/19/17, 8/30/2017, 9/20/2017, 11/8/17	249	279
Bridgeport CC	3/16/2017, 5/16/2017, 11/17/17	254	253
Hartford CC	4/19/2017, 7/19/2017, 8/2/2017, 8/16/2017, 8/23/2017, 8/30/2017, 11/8/17, 11/9/17, 11/13/17	277	279
TOTAL	11/30/16 – 11/17/17	1,624	1,631

III. METHODOLOGY

Survey Instrument

Most of the survey was developed by combining several previously utilized measures. The demographic measures (i.e., age, race/ethnicity, gender, marital status, education, and previously diagnosed behavioral health issues), facilitators, barriers and motivation to stop gambling were adapted from the CT DOC Smoking Tobacco Use Health Survey which was developed by the Research Division for a prior study. Items specific to incarceration (e.g., status, start date, scheduled release, release location) were created for this project.

The following gambling measures were included in the survey:

- 1) Frequency of gambling (daily, weekly, monthly, sometimes, never) by type of game (e.g., slots, bingo, dice, casino, lottery, etc.) was taken from the Community Event Survey (CES). The Community Event Survey was created by the DMHAS PGS and is a culmination of various survey questions and general questions adapted for the purpose of surveying the public in different venues.
- 2) PGSI – The Problem Gambling Severity Index scale, is an abbreviated version of the original tool called the Canadian Problem Gambling Index, and consists of 9 items (Ferris & Wynne, 2001).
- 3) BGS – The Brief Gambling Screen (BGS) scale also known as the NODS CLiP (Toce-Gerstein, Gerstein, & Volberg, 2009) consists of 3 questions to assess problem gambling.
- 4) BBGS – The Brief Bio-Social Gambling Screen (BBGS) (Gebauer, LaBrie, & Shaffer, 2010) is a 3-item measure including biological and social factors to assess problem gambling.

Key DOC and DMHAS staff provided feedback on a preliminary compilation of questions. Following revisions based on that feedback, all parties approved a version that was used in

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the initial facilities. Responses and questions from participants resulted in a few additional revisions implemented on January 2017 including:

- The addition of a 'Not Applicable' response for gambling related questions,
- The addition of 'Have a job' and 'Seeing anti-gambling commercials on TV' as facilitators to staying away from gambling.

Data Analysis

Surveys were checked for completeness and other quality factors by the DMHAS Research Division staff. Survey data that met initial quality and completeness criteria were entered into an Access database and again reviewed for accuracy, especially in coding 'Other' categories. Responses that could be coded under an existing response were edited in Access by DMHAS Research Division staff. Data were exported to Excel and further reviewed for inconsistencies. Final analysis of the data was conducted using SPSS.

Measurement Calculations

The frequency of gambling by type was asked in a grid format. Several items were calculated to summarize the entire grid, while others were reported separately. Most frequent type of gambling is the highest value reported for any type of game anywhere on the grid, with daily (4) being the highest. Any gambling reported indicates at least one response of gambling (Sometimes to Daily) for at least one type of game. Gambling "more than sometimes" indicates at least one response of monthly, weekly or daily gambling for at least one type of game.

The scales used for this analysis were:

1. PGSI – The Problem Gambling Severity Index (PGSI) scale is calculated as the sum of 9 four-point ordinal scales with the levels –Never (0), Sometimes, Most of the times and Almost Always (3). Range: 0-27.
 - a. A grouped version of Problem Gambling Severity Index scale using 4 classification subtypes reported in Ferris & Wynne, 2001.
 - b. A new grouping of the PGSI scale with an additional sub-category to explicitly identify people with the most severe level of problem gambling based on the distribution of PGSI within this incarcerated sample. The scale authors identified their highest level of problem gambling being those who scored from 8-27. Our analyst created an additional category for those scoring in the 15-27 range.
2. BGS – The Brief Gambling Screen (BGS)/NODS CLiP scale which indicates Problem Gambling as any Yes response to: (Range: 0-1)
 - a. Have you ever tried to stop, cut down, or control your gambling?
 - b. Have you ever lied to family members, friends or others about how much you gamble or how much money you lost on gambling?

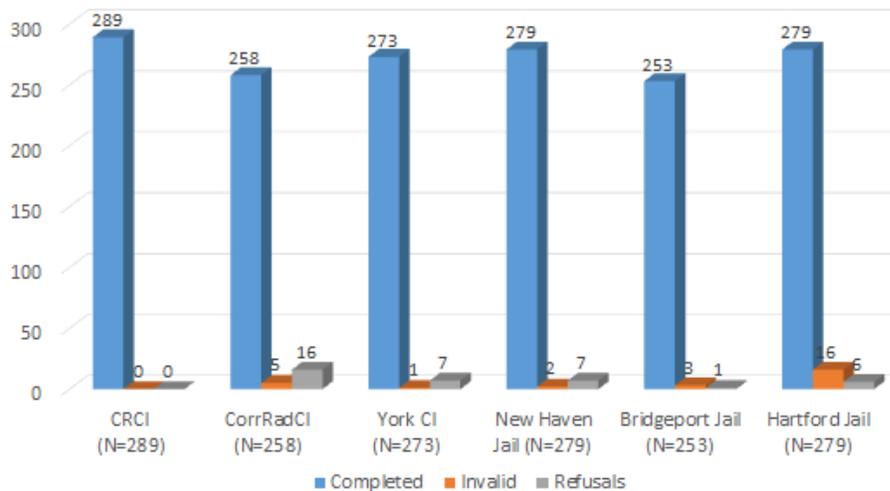
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- c. Have there been periods lasting 2 weeks or longer when you spent a lot of time thinking about your gambling experiences, or planning out future gambling ventures or bets?
3. BBGS – The Brief Bio Gambling Screen (BBGS) calculates problem gambling as any Yes response to three biological and social factors: (Range: 0-1)
- a. During the past 12 months, have you become restless, irritable or anxious when trying to stop/cut down on gambling?
 - b. During the past 12 months, have you tried to keep your family or friends from knowing how much you gambled?
 - c. During the past 12 months, did you have such financial trouble that you had to get help with living expenses from family, friends or welfare?

IV. RESULTS

As can be seen in table below, very few inmates refused to do the survey after reviewing the information sheet, and even fewer surveys were found to be unusable (invalid) after they were returned to the research staff. The main reason for surveys to be found invalid was due to lack of completeness. It should be noted that CRCI refers to Carl Robinson Correctional Institution and CorrRadCI refers to Corrigan-Radgowski.

Count of surveys in analysis

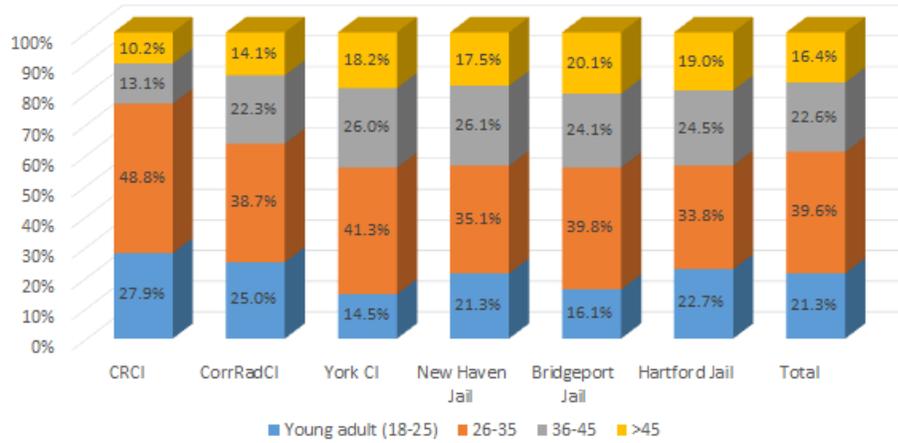


Demographics

Most of the graphs below show the results for each facility separately as well as for the facilities combined (total). In terms of demographics, in general the male facilities are similar to each other, while the female inmates (at York) differ in several ways, not just gender.

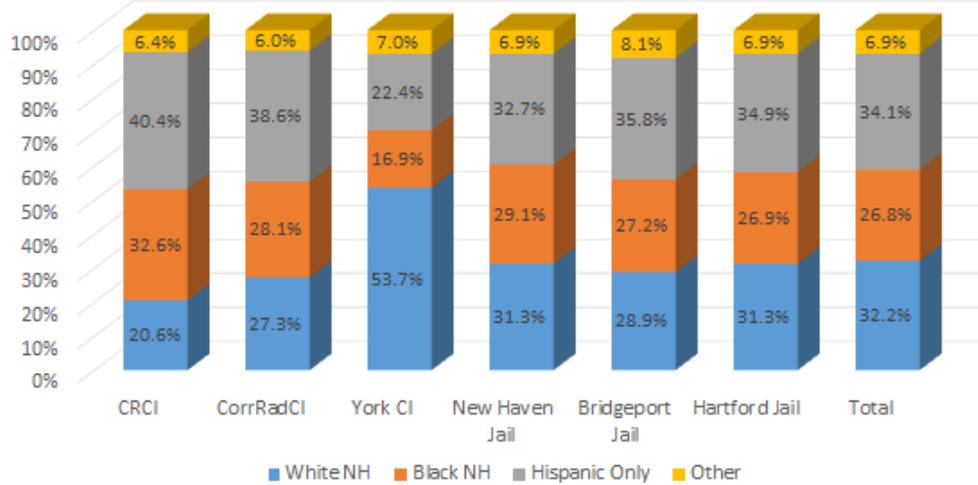
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Age Group Distribution by Site



The majority of inmates were between the ages of 26 and 45 across all the facilities. York had the lowest percentage of the youngest group (18-25) while Carl Robinson has the most. The lowest age reported in any of the surveys was 20, and the oldest was 55. The average respondent age was 34.4.

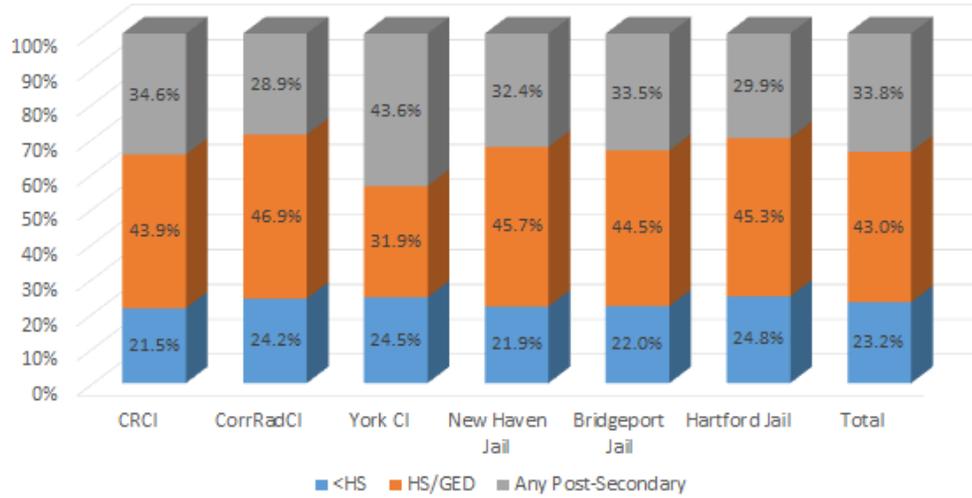
Race Groups by Site



In terms of race and ethnicity, the male facilities were generally similar to each other, with the majority of inmates being Black or Hispanic. York, the female facility, however, was majority White non-Hispanic.

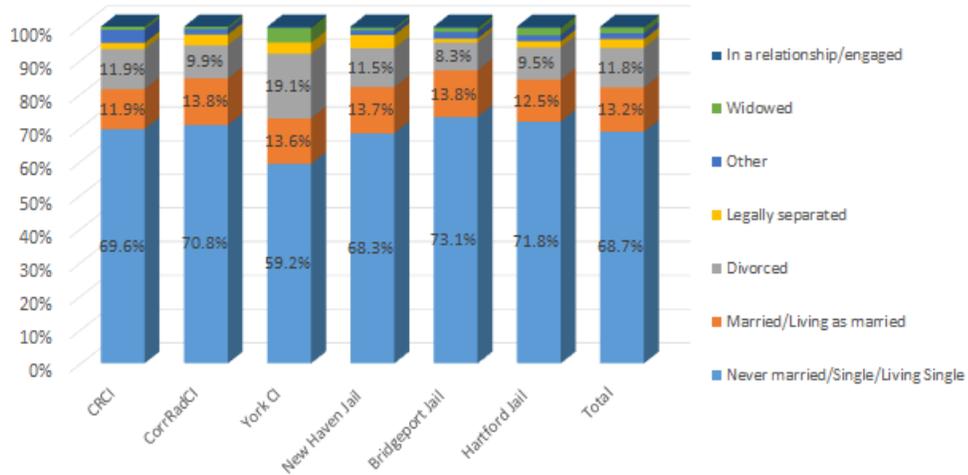
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Education Level by Site



In terms of education, there were similar rates of having less than a high school education across facilities, averaging 23.2%. When looking at post-high school education, there was more variation, with York having the highest percentage (43.6%) and Corrigan Radgowski and Hartford having under 30%.

Marital Status by Site



The great majority of inmates reported being single (never married), although more women were or had been married or living as married than the men. A significant proportion of inmates reported that they would be living with children after release (average of 42%).

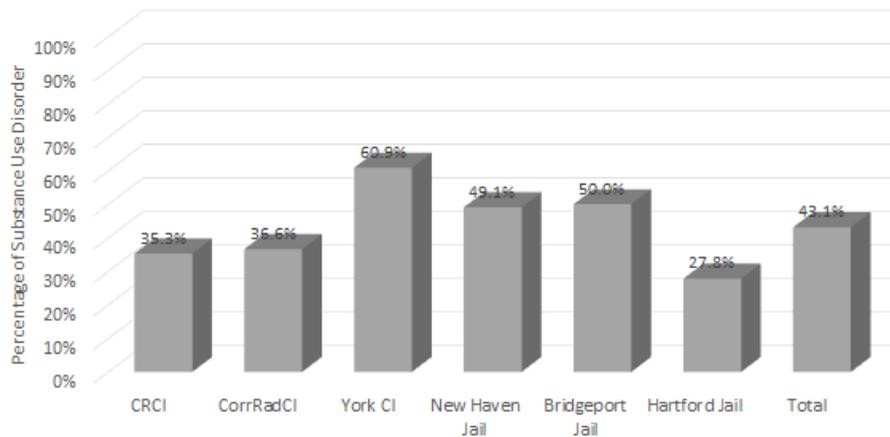
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Behavioral Health Variables

Questions about mental health and substance use were included in the survey, partly to describe the population, but also because they may be associated with gambling problems. For this survey, the inmates were simply asked if they had previously been diagnosed with a list of disorders, with a couple additional questions about mental health problem severity.

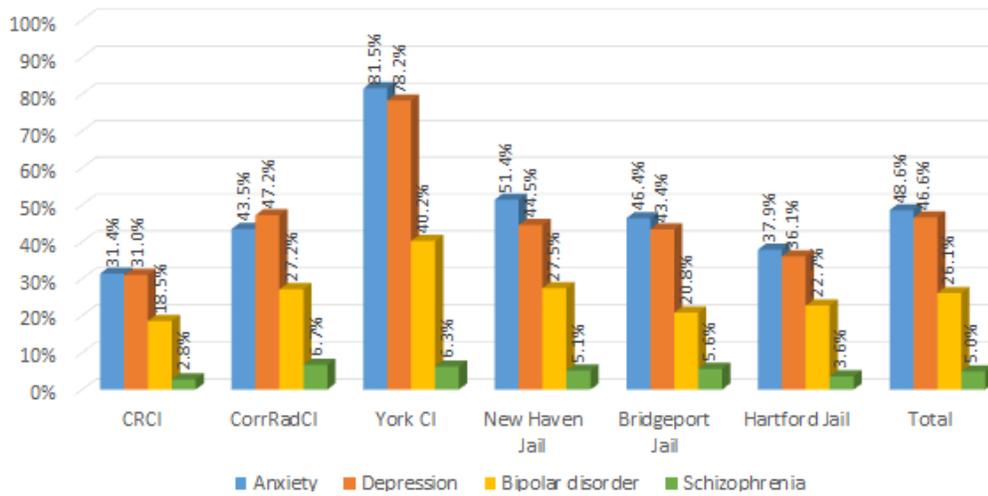
In general, there were significant percentages of the population at each facility with substance use and mental health problems, especially for the female population at York. This is consistent with other research which indicates that female inmates tend to be more impacted by behavioral health disorders than male inmates, and more than women who are not involved in the criminal justice system. Although we did not ask about trauma in this survey, other studies have shown an extremely high lifetime rate of trauma in the female correctional population, which may be the root of the other disorders.

Substance Use Disorder by Site



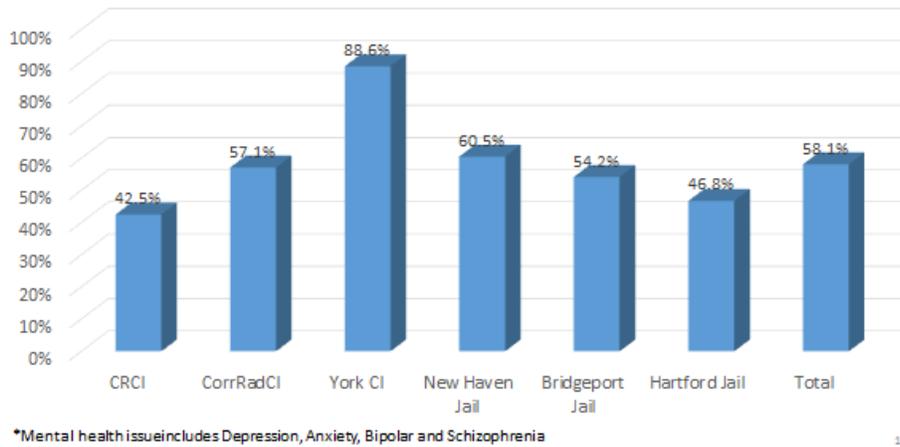
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Mental Health Issues by Site



The most commonly reported mental health issues were depression and anxiety, although a high incidence of bipolar disorder was reported as well.

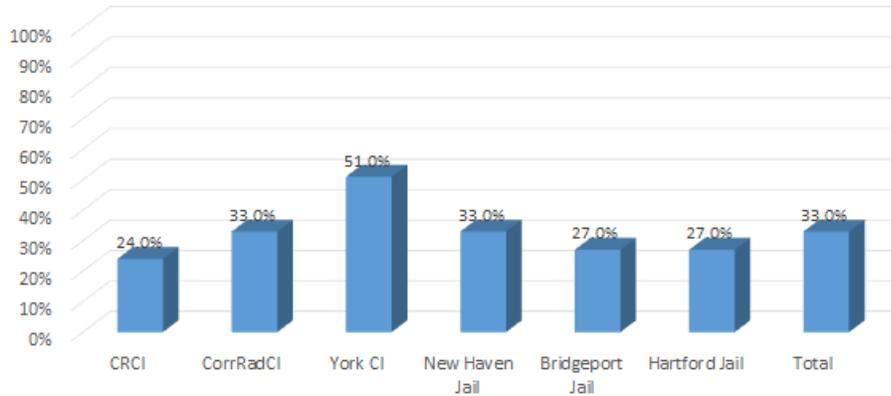
Any Mental Health Issue* Endorsed



When the presence of any mental health issue is calculated, it can be easily seen that the women at York reported a very high rate of 88.6%. Inmates at the male facilities reported a rate between 42.5 and 60.5%, which is also much higher than in community populations, especially since this reflects having been diagnosed with a disorder, not just experiencing symptoms at some point.

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Ever been in hospital/ER due to mental health problem

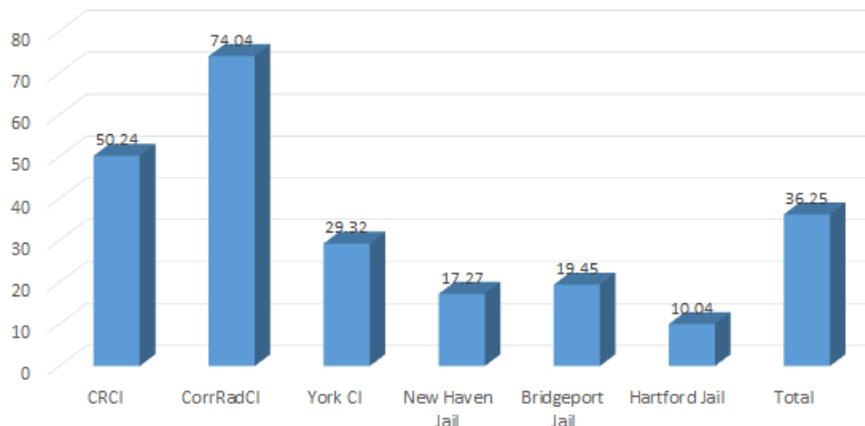


Respondents were asked if they had ever gone to the emergency room or been hospitalized due to a mental health problem as an indication of severity. The highest rate was seen in York at 51%, while the male facilities ranged from 24-33%.

Correctional Variables

There was large variation in terms of the average length of incarceration expected at each facility. Corrigan-Radgowski topped the list at over 74 months (over 6 years), with the other male prison (Carl Robinson) at around 50 months (over 4 years). The jails generally reflected shorter sentences, as expected, but ranged from around 10 to over 19 months. These longer averages could either reflect pretrial inmates who are unable to post bail or that some people who have served part of their sentences at other facilities can be returned to their local jail prior to release.

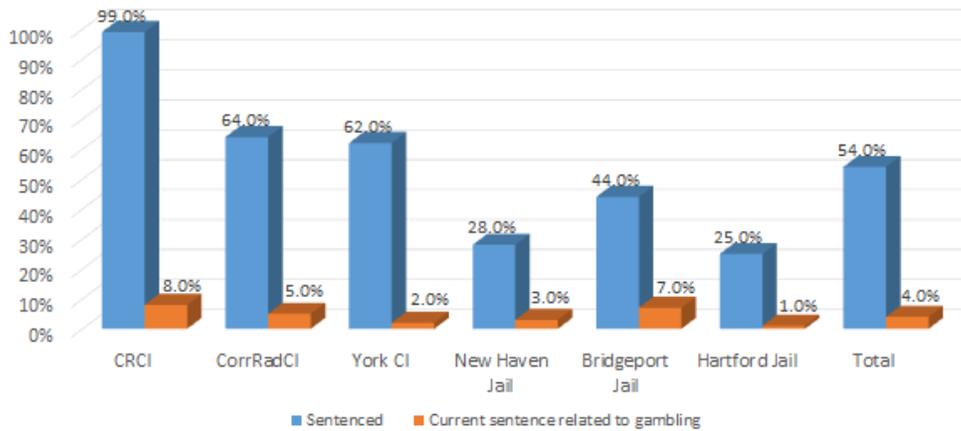
Expected duration of incarceration(in months)



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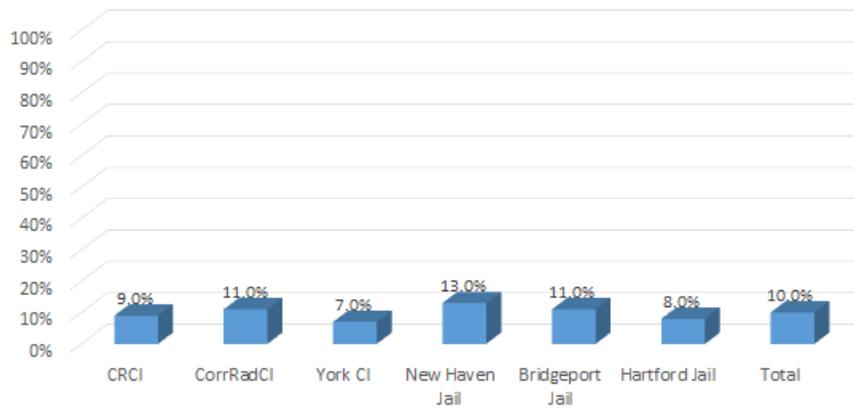
The percentage of inmates who were sentenced (not pretrial) can be seen below. As expected, Carl Robinson had the highest rate of sentenced inmates. Corrigan Radgowski and York, which have both jail and prison units, had the next highest percentages. However, Bridgeport jail had 44% sentenced, while Hartford and New Haven were at 25-28%. In addition, for those who were sentenced, we asked if their sentence was related to gambling. This was low across the board, ranging from 1% at HCC to 8% at Carl Robinson.

Percent Sentenced and Current Sentence related to gambling by Site



Additionally, inmates were asked about criminal behaviors related to gambling. This yielded higher rates than whether their sentences were gambling related, with 7-13% reporting having stolen or embezzled to support gambling.

Ever Stolen/Embezzled to support gambling

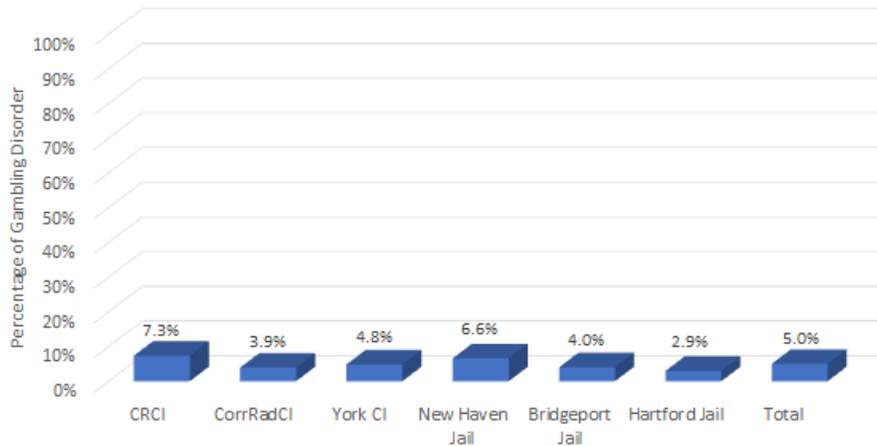


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Gambling Measure Results

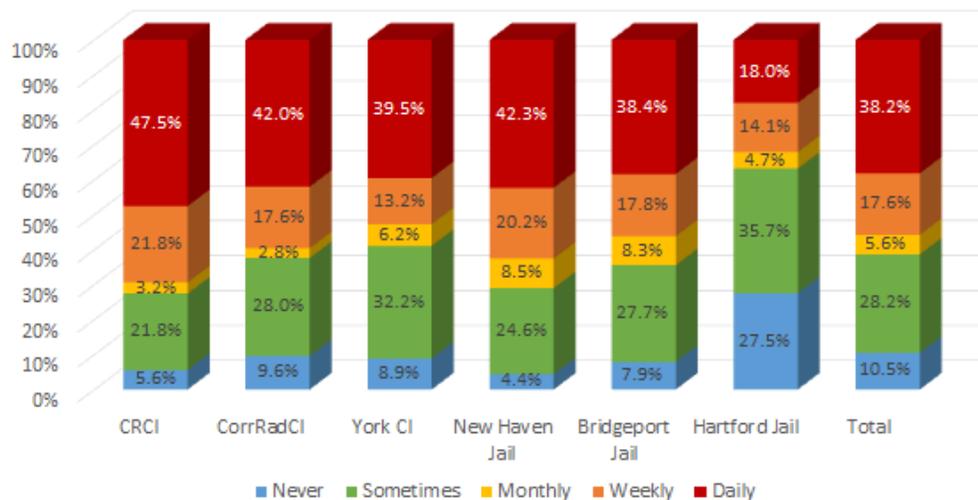
Along with the questions about having previously been diagnosed with a substance use or mental health disorder, the respondents were asked if they had been previously diagnosed with a gambling disorder. This yielded very small percentages, from 2.9 to 7.3%.

Self-Reported Gambling Disorder by Site



However, when more in-depth questions were asked about gambling behaviors and problems, much higher percentages were discovered, as will be seen later in this section.

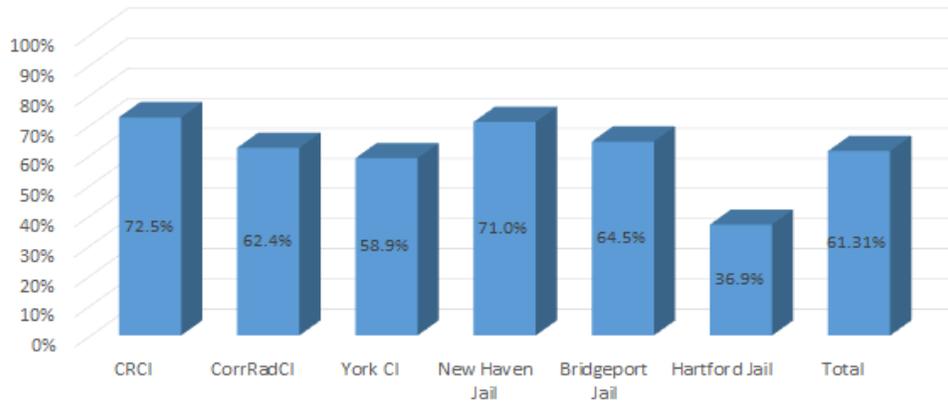
Maximum Frequency of Gambling Endorsed by site



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As previously noted, the respondents were given a list of 18 gambling types and asked to indicate how frequently they engaged in them within the past 12 months. The graph above indicates the percentages based on the most frequent type endorsed. We see that daily gambling was reported by 39.5-47.5% of the inmates at five of the facilities. Interestingly, only 18% of Hartford jail inmates reported daily gambling. Conversely, 4.4-9.6% of inmates at five facilities reported no gambling of any type in the last year, while 27.5% of HCC inmates reported not gambling at all.

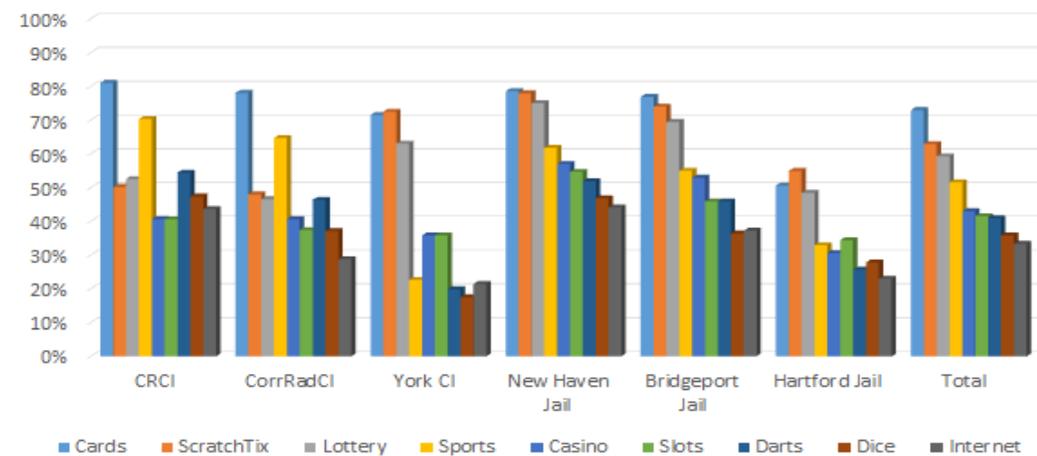
Percent who have gambled more than 'Sometimes' in the past year



Note : Responded Daily, Weekly or Monthly for 1 or more items g7a-g7s.

Another way of looking at the frequency of gambling is to calculate the percentages of those who engaged in gambling at least on a monthly basis. This ranged from 36.9% at HCC to 72.5% at CRCI.

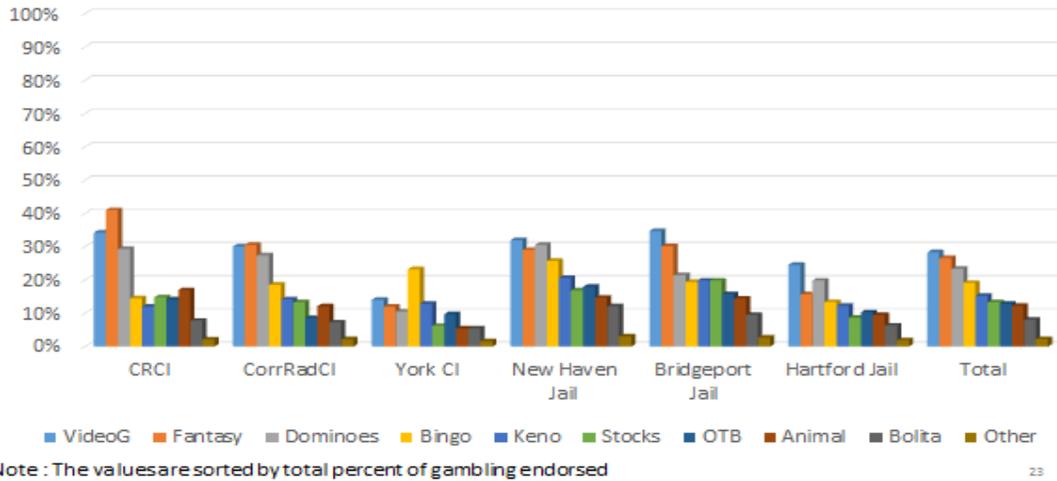
Types of Gambling by Site – Part 1



Note : The values are sorted by total percent of gambling endorsed

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Types of Gambling by Site – Part 2



In terms of the types of gambling that were engaged in, and which were the most common, the above graphs indicate the most popular (Part 1) by site, as well as a total for the combined sites. Part 2 shows the least popular types. There is some site variation, but overall the most common types of gambling were cards, sports, the lottery and scratch tickets. It should be noted that the item regarding card-playing simply asks how often they play cards; it doesn't specify betting on cards or playing for money. It may be possible that some people interpreted this item as just playing cards, even though the introduction and all the other items in that section (and the purpose of the whole survey) specified that the questions were about gambling.

Any gambling type – Male vs Female



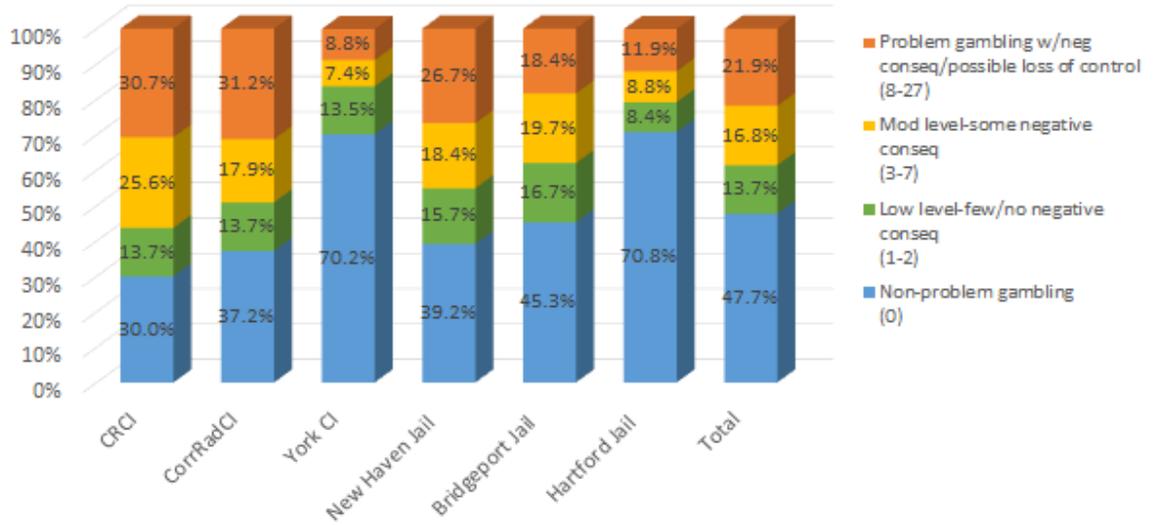
Comparing the types of gambling reported at York vs the male facilities, both reported betting on cards as the most frequent type. Women were more likely to report playing

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the lottery, scratch tickets and bingo than men, but less likely to engage in all other types of gambling.

Analyses of the various problem gambling screeners and scales were run in several different ways. The first table below shows the results of the Problem Gambling Scale Inventory (PGSI) across the sites in the four standard groups. York and Hartford show the lowest rates of problem gambling and the highest rates of non-problem gambling (over 70% with no reported problems). The total average shows some level of problem gambling for over 52% of the inmates overall, with almost 22% at the most serious level. The two male prison facilities have the highest rates of serious gambling problems at over 30%.

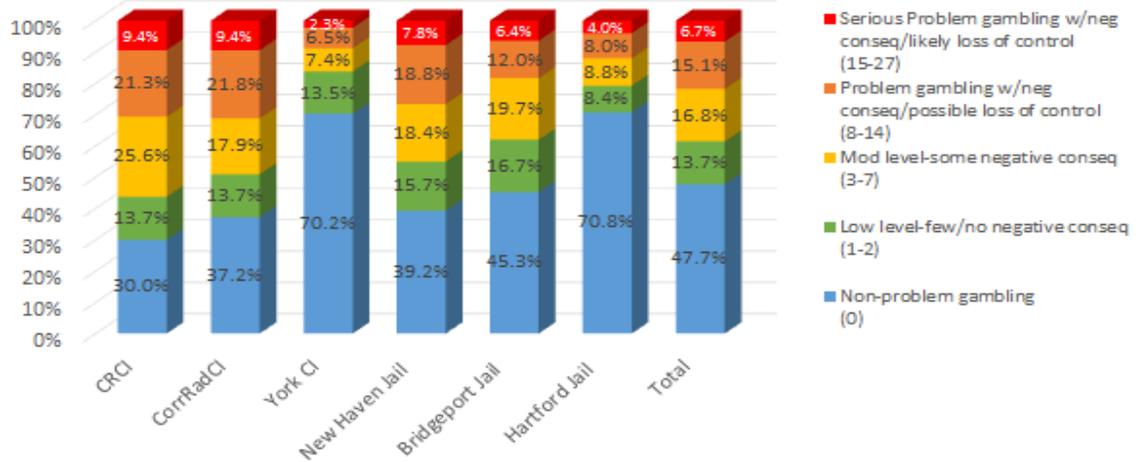
PGSI Scale by Site
using the usual 4 Group distribution



The PGSI analyses were rerun to separate out the most severe of the serious gambling problem group. This 5th group has not been normed as the other groups have, but seems to provide some further differentiation. This group shows that the York inmates have the lowest rate at 2.3% while the two male prisons have the highest rate at 9.4%.

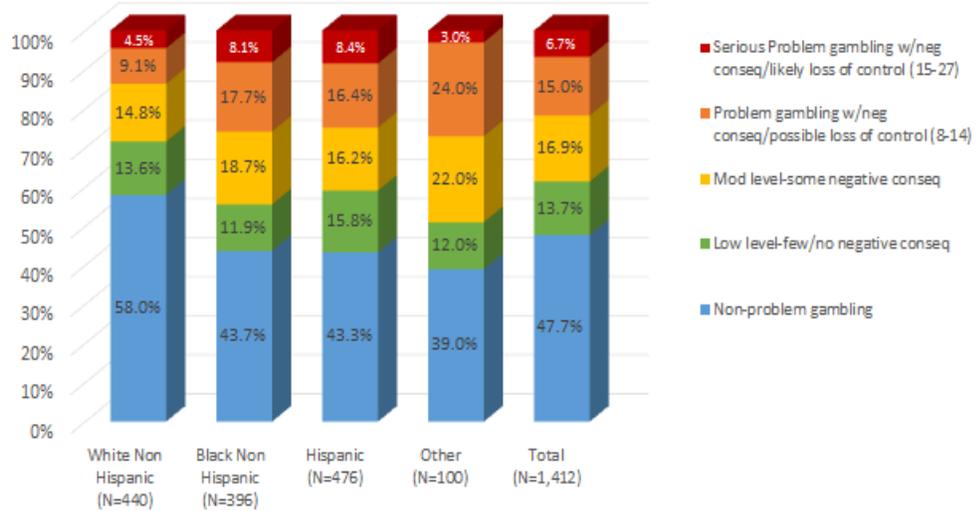
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PGSI Scale by Site(5 Groups*)



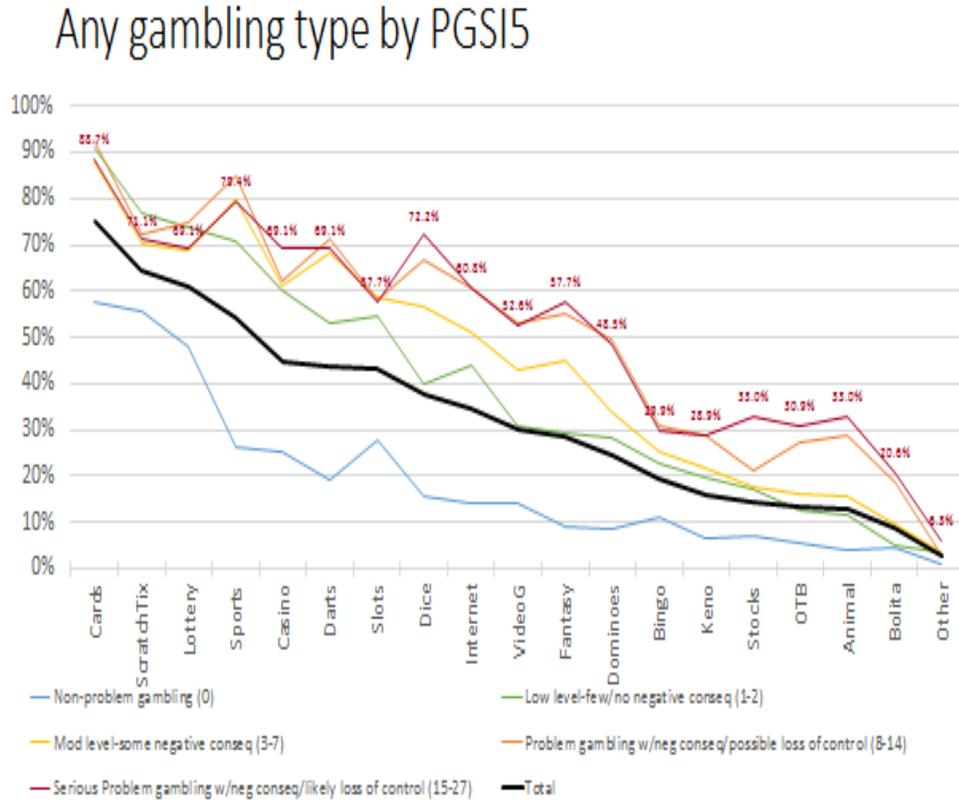
*Highest group is unique to this study and has not been normed

PGSI by Race



In examining the PGSI results by race/ethnicity, the lowest problem gambling rates were reported by White non-Hispanic participants.

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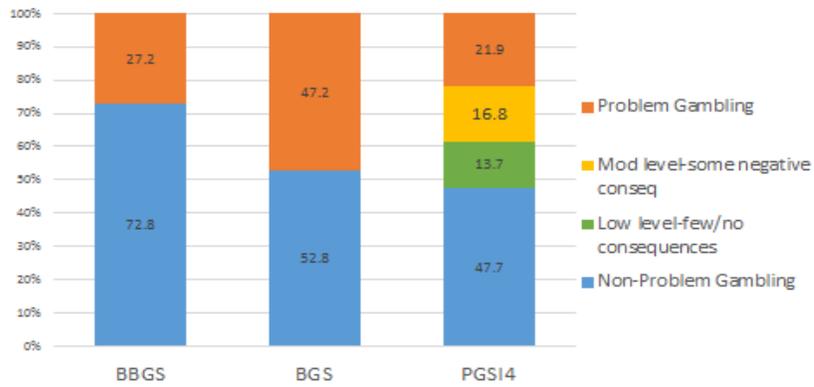


The PGSI results were correlated with type of gambling endorsed in order to see if there was a relationship between problem gambling and type. For the most part, the same types of gambling were engaged in by both problem and non-problem gamblers, but the problem gamblers gambled more frequently. However, there was some divergence seen whereby the people with the most serious problems were especially likely to bet on sports and dice as compared to those without a gambling problem.

We conducted several analyses comparing results from the three Gambling scales. As can be seen in the table below, when doing a general comparison of problem vs non-problem gambling rates, the scales were strongly correlated with each other, but the non-problem rates were higher with both the BGS and the BBGS as compared to the PGSI. Since the BBGS is used more frequently as a screening tool, there are additional slides on that and the PGSI.

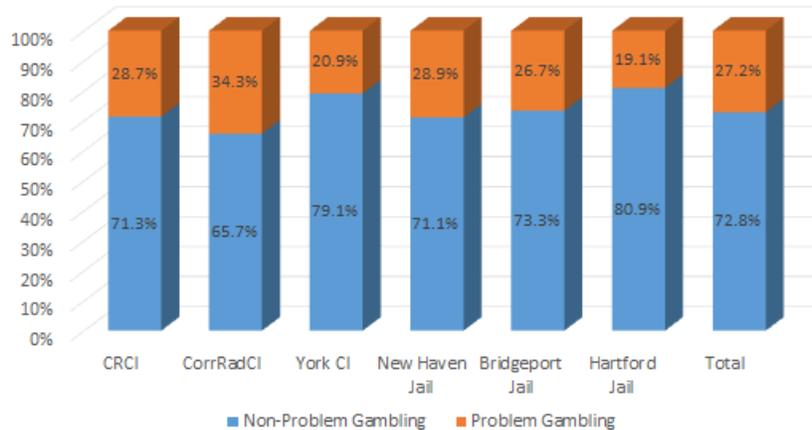
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Problem Gambling Measures Compared



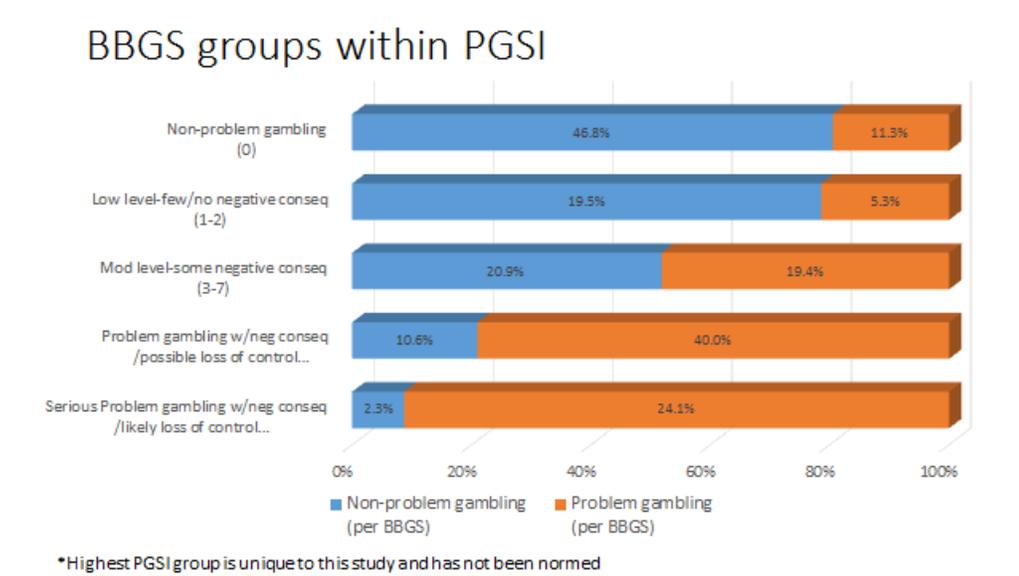
Several analyses were run on the Brief Biosocial Gambling Screen (BBGS), including some comparisons between the PGSI and BBGS results. The BBGS is a much shorter scale which results in just two groups -- problem vs non-problem gambling. The BBGS results indicate much lower problem gambling rates across all sites than the PGSI. Even if the low level problem group from the PGSI was combined with the non-problem group, the rate of non-problem gambling would still generally be higher using the BBGS.

Brief Biosocial Gambling Screen (BBGS) by Site

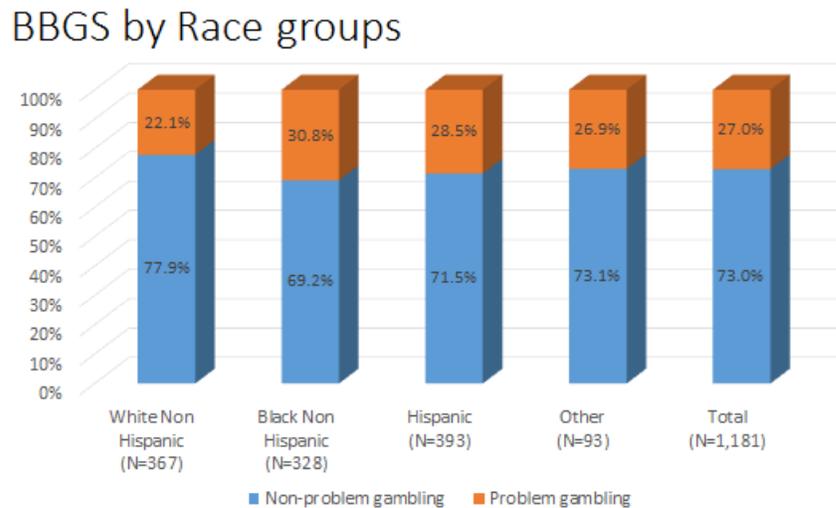


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The next graph further illustrates the similarities and differences between the PGSI and the BBGS, showing how the BBGS levels are distributed within the PGSI levels. These analyses indicate that some people could be categorized as problem gamblers by one measure but not by the other. However, the general trend was for the measures to be consistent with each other.

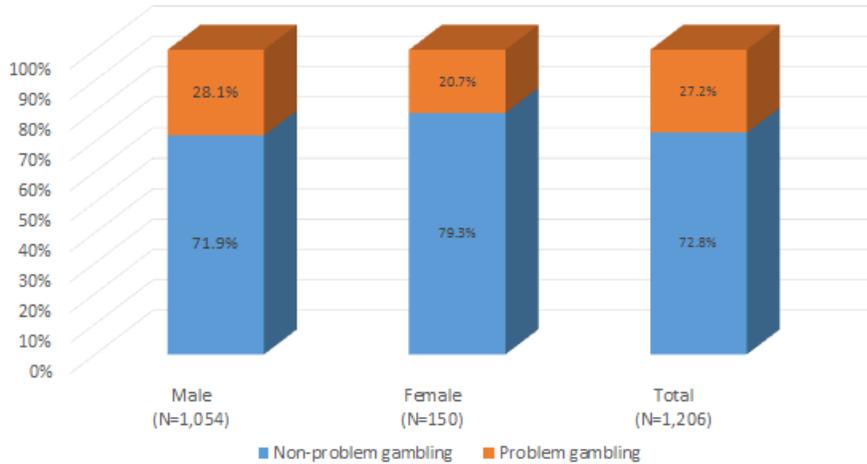


As seen with the PGSI, the BBGS estimates the lowest problem gambling rate for White and female inmates, but the differences between groups are much less with the BBGS.



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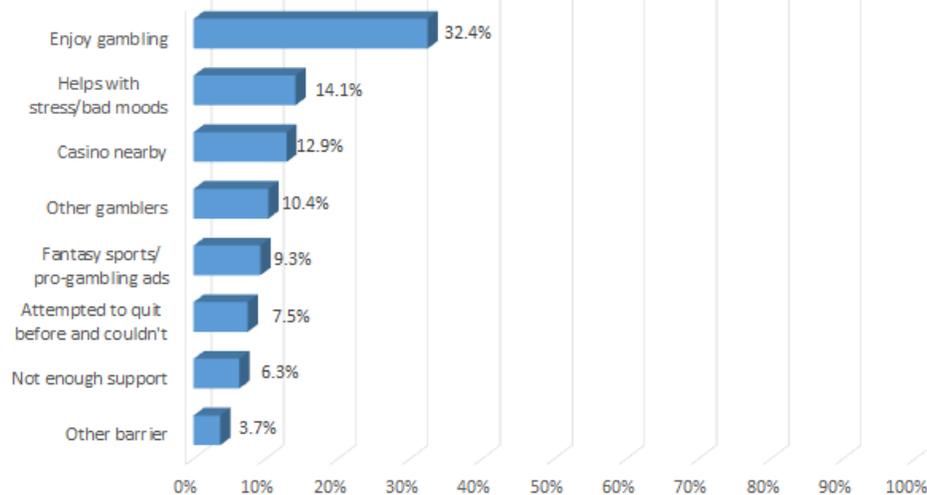
BBGS by Gender



Results from the Brief Gambling Screen (BGS) were more similar to the results from the PGSI.

Additional questions were asked about what types of things would either help or hinder people to stop gambling. By far, the most common barrier to stopping was that people enjoy gambling (32.4%).

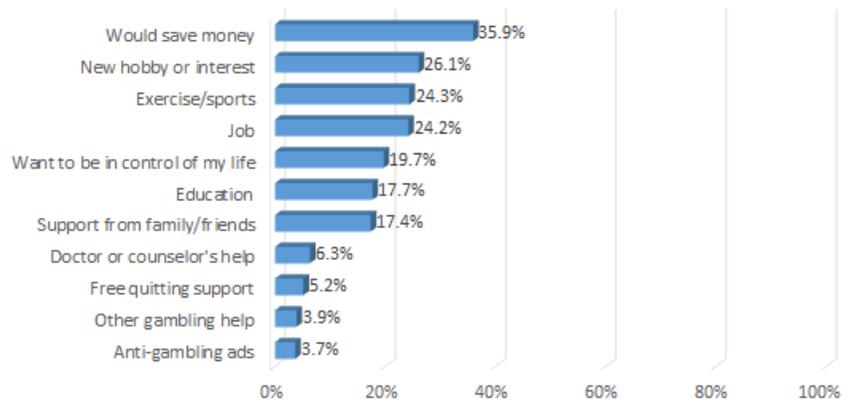
Barriers to staying away from gambling - Overall



The supports that would help them stop gambling were more varied. The most common (more than 20% endorsed) were: saving money, having a new hobby or interest, doing exercise/sports, and having a job. More than 17% of respondents endorsed wanting to be in control of their lives, education, and support from family or friends to help them.

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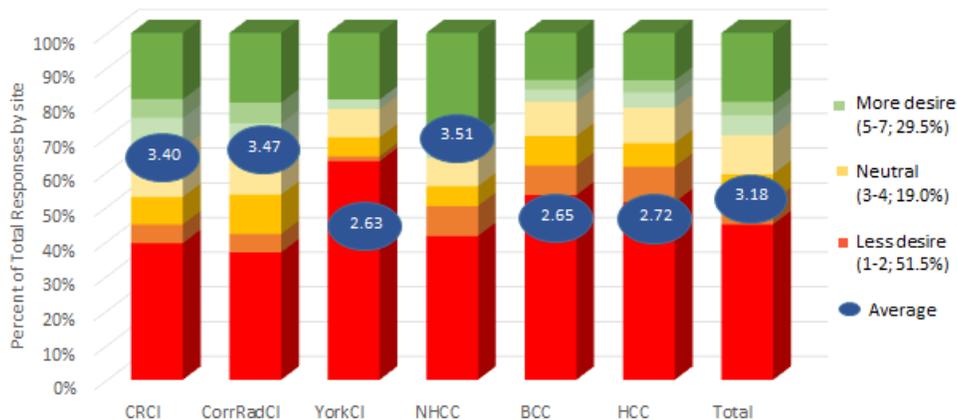
Supports to stay away from gambling - Overall



In terms of how motivated people were to stop gambling, 29.5% reported a high level of desire to quit. There was site variation, which seems at least partly to mirror the level of problem gambling at each facility.

“How much do you want to quit Gambling?”

1 = 'Not at All' 7 = 'Very much'



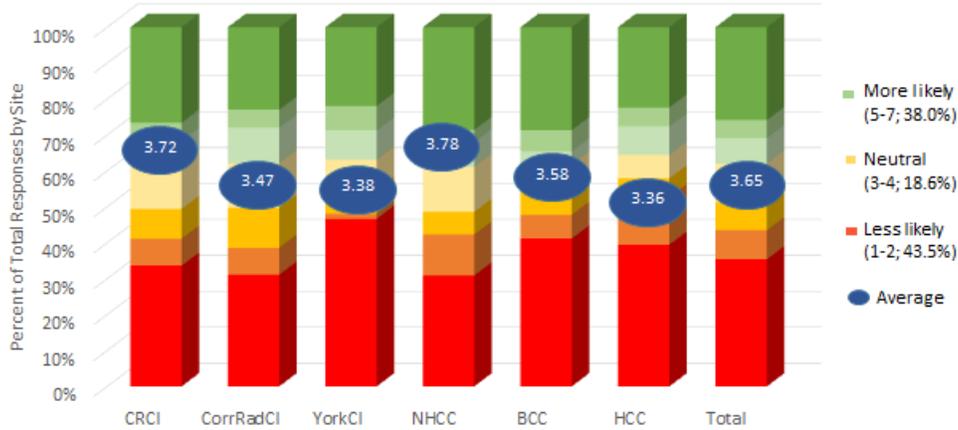
Note: This chart uses all responses (i.e., it doesn't take invalid, N/A, responses like "Doesn't gamble" into account).

When asked how likely it was that they would stop gambling after their release from incarceration, a higher percentage reported it would be highly likely (38%) than those that had a high motivation to quit. This may reflect that daily life at the facilities doesn't offer as many options for activities as in the community. Anecdotally, it is reported that people tend to engage in gambling while incarcerated as something to do to pass the time.

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“How likely is that you will quit gambling after release?”

1 = 'Extremely Unlikely' 7 = 'Extremely Likely'

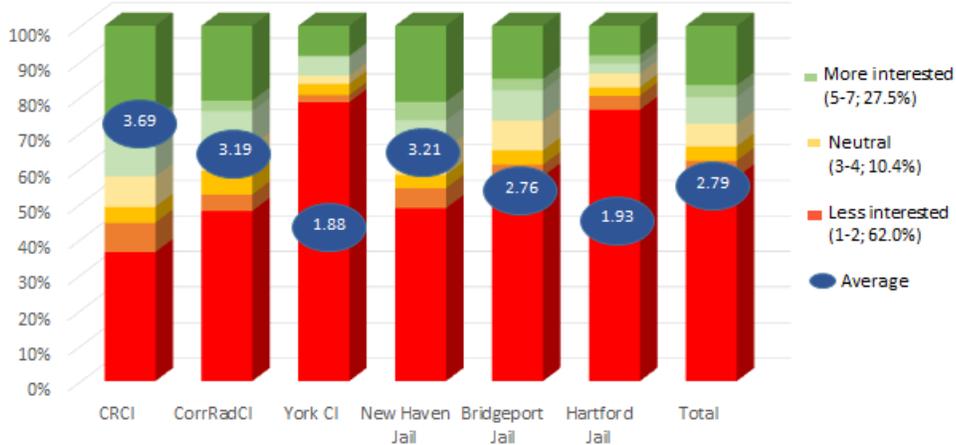


Note: This chart uses all responses (i.e., it doesn't take invalid, N/A, responses like "Doesn't gamble" into account).

Approximately 27.5% of the inmates reported being highly interested in learning about gambling, again with site variation reflective of the rates of problem gambling.

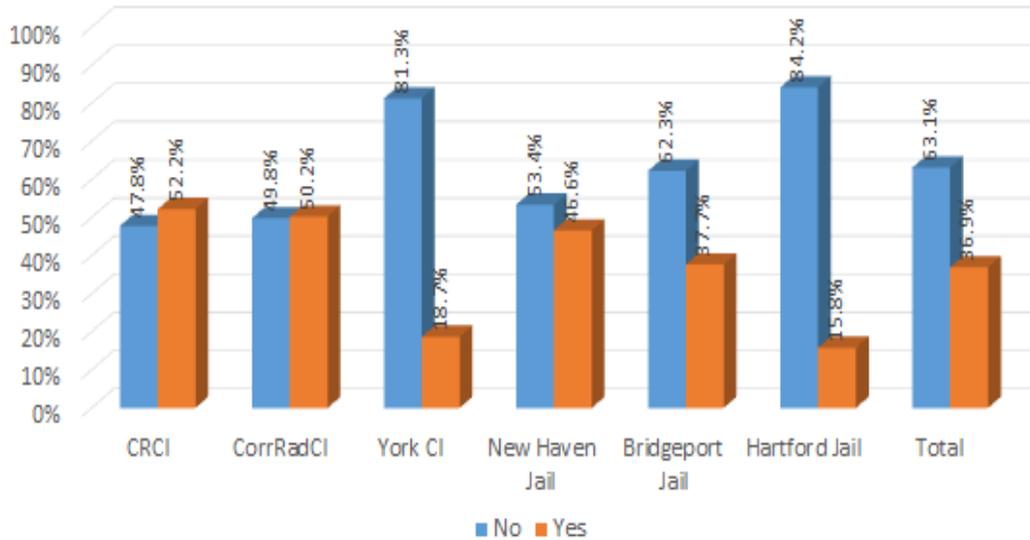
“How much are you interested in learning about Gambling?”

1 = 'Not at All' 7 = 'Very much'



There was an even higher percentage of inmates who expressed an interest in having a problem gambling program or support group at the facility. On average, 36.9% said they would be interested, with the facilities ranging from 15.8% at the Hartford jail and 52.2% at Carl Robinson. Again, these percentages generally reflect the rates of problem gambling reported at the sites.

Interested in Problem Gambling Program/Support Group



V. DISCUSSION

The results of this study will hopefully add to the base of knowledge about gambling in the US correctional population, as well as in different subgroups of the population, especially in CT. In general, the rates of problem gambling discovered in this study are consistent with those noted in the few published studies of correctional populations in other states and countries, although it is difficult to make direct comparisons due to differences in measurement and methodology. However, the rate of frequent gambling seems higher in CT than in the previous studies we were able to review. In terms of subgroups, the female inmates in CT were found to have a much lower rate of problem gambling than the males, even though a majority of the women engaged in frequent gambling, mostly card playing. Although inmates at the male facilities generally reported similar gambling rates, surprisingly, the Hartford jail evidenced a much lower incidence of problem gambling.

It is of note that when asked about previously being diagnosed with a gambling disorder or engaging in criminal activities related to gambling, only a very small percentage of inmates answered in the affirmative. When more detailed questions about gambling behaviors and other problems associated with them were asked, the rate of problem gambling was often tripled or quadrupled or even more. This has implications for how gambling problems are screened and assessed within the correctional facilities.

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In the future, it would be of interest to conduct additional research to explore other aspects of this topic. One area of further interest would be to try to verify the regional variation discovered in this study whereby inmates at the Hartford jail reported much lower rates of problem gambling than in the other male facilities. Does the Hartford community at large have a lower incidence of problem gambling than other regions in the state? Is there a difference in the rules or culture at HCC than in other facilities whereby gambling is discouraged? Was it due to a fluke of timing? (The bulk of HCC surveys were done in November 2017, later than most of the other surveys.) It should also be noted that the HCC surveys were done in larger groups than at the other facilities, which could have made a difference in the comfort level of the respondents. However, the HCC participants reported similar rates of other sensitive information (e.g. mental health and substance use disorders), so that may not have been an issue.

It would also be interesting to rerun the analyses to compare sentenced vs pretrial inmates to see if there are consistent differences in these subpopulations. A longitudinal study to investigate whether gambling behaviors change after release from incarceration would be of great value in planning services. Most of the inmates in the current study anticipated that they would stop gambling after release, and it may be that they engage in gambling while incarcerated simply as a way to pass the time. However, it is also possible that there would be a greater likelihood for people to continue gambling, and develop associated problems, after their exposure within the facilities.

The survey developed for this project included 3 different pre-existing gambling measures. The results from the different measures were significantly correlated with each other, but there were some inconsistencies whereby the same individual could be categorized as having a problem with gambling by one measure and not by another. In general, the BBGS resulted in lower rates of problem gambling being assessed than the other measures. Two of the measures (BBGS and BGS) were 3-item screeners resulting in either being categorized as having a gambling problem or not. The PGIS is 9 items and results in 4 categories ranging from non-problem to serious problem gambling. Since it is still brief but results in more differentiated and useful information, this would be the measure recommended to use when possible.

The inmates expressed fairly high motivation to stop gambling after their release and high interest in having a problem gambling program they could access in the facilities. The main barrier to quitting that was reported was that they find gambling to be enjoyable. The main supports to quitting that were endorsed were saving money, having a new hobby or interest, and engaging in exercise or sports. Perhaps these findings can help guide DMHAS and DOC in designing gambling interventions for the correctional population.

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