

The Maryland Center of Excellence on
PROBLEM GAMBLING

ANNUAL REPORT **FY TWENTY**
15



Shaping the Future



UNIVERSITY of MARYLAND
SCHOOL OF MEDICINE

FY TWENTY

15

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Shaping the Future

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EXECUTIVE SUMMARY

The Maryland Center of Excellence on Problem Gambling (The Center) continued to address the issue of the expansion of legalized gambling within Maryland with the opening of Maryland's fifth casino and first urban casino. The initial two years of The Center's operation laid a foundation for addressing the issue of problem gambling in Maryland. In this third year, building on that foundation, The Center has focused on shaping the future direction for developing broader community based services integrated within existing behavioral health structures and creating a deeper understanding of problem gambling and the best approaches to its treatment, prevention, public awareness and research. Additionally, we have worked to develop a more comprehensive understanding of problem gambling, its risk factors and its public health impact through our research division. Our efforts have focused on the following six domains.

TREATMENT AND INTERVENTION SERVICES Helpline calls and referrals to treatment continued to increase during FY15. To meet this increasing need, the highest priority for The Center during FY15 was to work within the existing structure of Maryland's Behavioral Health Administration (BHA) service system to expand and enhance providers' capacity to address problem gambling. Data reported by publically funded substance use disorder providers reflected a significant increase in the number of agencies engaged in screening for problem gambling and in the number of individuals whose gambling problems were reported as addressed in treatment. Additionally, The Center worked to increase the training standards for the problem gambling counselor referral network and to assure accessibility of services. To this end, peer support counseling has proven to be an important element for engaging individuals seeking help for a gambling problem and connecting them to treatment resources. Clinical research studies focused on screening for problem gambling in substance use disorder programs have provided key data to support the development of best practices for addressing gambling problems in this at-risk population. This research was translated into clinical practice with the Maryland Disordered Gambling Integration (DiGIn-MD) project that was developed and initiated in FY15. This program is designed to comprehensively integrate the topic of the impact of gambling and problem gambling on recovery health and well-being into substance use disorder and mental health treatment programs.

PUBLIC AWARENESS The success of The Center's FY15 public awareness efforts was reflected in the substantial increase in numbers of individuals accessing The Center's Problem Gambling Helpline, websites and social media. The Center, in collaboration with MedSchool Maryland Productions, developed three major multimedia public awareness campaigns that focused on at-risk groups in conjunction with the opening of a new, urban casino in Baltimore City: African Americans, young adults and women. The effectiveness of these campaigns was reflected in increased Helpline call volume and, specifically, increased calls from the targeted groups during times campaigns were running. Additionally, visits to websites and the YouTube™ channels created for these campaigns together with visits to The Center's main website increased over seven fold in FY15 compared to FY14. The Center's efforts were recognized by the National Council on Problem Gambling at the organization's annual conference where our campaigns received awards for Best Public Awareness Campaign and Best Website.



TRAINING AND EDUCATION Across the three years of its operation (FY13, FY14, FY15), a total of 1,795 unique individuals have attended problem gambling trainings conducted by The Center. Education activities sponsored by The Center over this three-year period have attracted over 9,000 attendees. These training efforts have developed a core group of problem gambling informed clinicians and service providers. Intensive problem gambling training programs were offered by The Center in FY15 that provided a total of 18 one-day sessions throughout the state. These sessions included basic and advanced topics to expand the core group of counselors and to provide a more in-depth training experience for those already having basic competence. As the problem gambling knowledge and skills of our core group of counselors has increased, The Center has established more rigorous requirements for our problem gambling counselor referral list. In addition to the 18 publically offered sessions, 16 training sessions were provided in response to specific agency requests for staff training. The Center co-hosted the 29th National Conference on Problem Gambling which was held in Baltimore. This conference attracted national and international experts in the field of problem gambling and over 600 behavioral health and mental health professionals. This was the largest attendance ever reported at any of the National Conferences on Problem Gambling. Over 150 Marylanders attended this unique educational event including over 80 who received conference scholarships offered by The Center.

PREVENTION The Maryland Smart Choices (Smart Choices) youth problem gambling prevention program completed its second year of development. Through collaboration between The Center and the University of Maryland School of Medicine, Center for School Mental Health (CSMH), this program was conducted in five Baltimore City Public Schools (three middle schools and two high schools). Over 70 students participated in the three-session program. In addition, students created posters inspired by the lesson themes of gambling awareness and life choices. The posters were incorporated into a 2014-2015 calendar and widely distributed to schools, youth groups, health departments and community events. The two years of pilot data from this program provide a solid base for moving the program forward towards being an evidence based problem gambling youth prevention program and for expanding this program to other communities in Maryland with particular focus on those jurisdictions in which casinos are located.

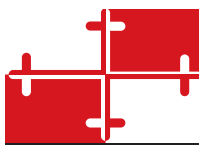
PUBLIC POLICY The Center and the Public Health Law Clinic at the University of Maryland Francis King Carey School of Law in collaboration with the Maryland Lottery, developed problem gambling education and awareness training on new legislation on underage gambling and its legal consequences. This training was conducted for Maryland judicial staff, attorneys, public defenders and judges, targeting communities with casinos. Additionally, The Center actively participated in multiple stakeholder meetings conducted as part of the Maryland Behavioral Health Integration process.

RESEARCH The Center's Research Program on Gambling continued to expand its research agenda in FY15 during its first complete year of operation. Highlights from FY15 include conduct of community impact studies before and after the opening of Maryland's first urban casino, Baltimore Horseshoe. Results of the pre-opening community impact assessment were presented at the 29th Annual National Council on Problem Gambling Conference held in Baltimore. The Research Affiliate Program, a program developed to encourage interest in the Center's activities and engagement in the Research Program on Gambling's research mission has expanded to over 40 participants across UMB professional schools and other University of Maryland System campuses. Through a collabora-

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tion with the University of Maryland Shock Trauma injury epidemiologists, the Research Program on Gambling evaluated increases in motor vehicle crashes near gambling venues. These data were also selected for presentation at the National Council on Problem Gambling's annual meeting. The Free State data warehouse continues to grow its data sources to support assessment of the public health impact of gambling in Maryland. Other research studies in progress include studies on gambling in veterans, sex differences in gambling behavior, gambling among college students and young adults, and gambling problems in individuals with substance use disorders.

FUTURE DIRECTIONS Fiscal year 2015 represented movement from laying a solid foundation for problem gambling awareness and services within Maryland to building towards the future. The development of a comprehensive network of problem gambling clinical services within the structure of the Department of Health and Mental Hygiene (DHMH) / Behavioral Health Administration (BHA) will remain a priority for The Center. Competencies of problem gambling counselors will continue to be developed through training and supervision with emphasis on assuring the skills and commitment of those counselors included on our problem gambling counselor referral list. The first year of the DiGIn Program will be completed and evaluated, and a prevention component will be included along with the clinical protocol. The prevention component will include the integration of problem gambling into existing community based substance use disorder and mental health prevention initiatives. While the Smart Choices program will be offered more broadly throughout Maryland, prevention efforts will be expanded to the full age spectrum. Prevention efforts will be focused on casino based communities. Public awareness campaigns will focus on Prince George's County where the newest casino is planned for opening in FY16 and also on other groups, such as Asian Americans who have been reported to have higher rates of problem gambling than the general adult population. Research efforts will continue to evaluate the impact of gambling and problem gambling in Maryland, with an impact study planned for Prince George's county prior to the opening of a casino in that jurisdiction. Also, program evaluation protocols will be developed and implemented to effectively monitor and improve problem gambling treatment and intervention services, and studies will continue on risk and protective factors for gambling disorder to best inform prevention, treatment and public health practices.



THE GOAL OF THE CENTER IS TO PROMOTE
HEALTHY AND INFORMED CHOICES
REGARDING GAMBLING FOR INDIVIDUALS
AND COMMUNITIES IN THE STATE OF MARYLAND.

OUR MISSION: The Maryland Center of Excellence on Problem Gambling promotes healthy and informed choices regarding gambling and problem gambling through treatment, prevention, training and education, public awareness, research and public policy. It does so by working closely with appropriate state stakeholders and bringing together experts from a variety of disciplines including psychiatry, medicine, epidemiology, social work, law and others.



HISTORY and CONTEXT

Fiscal year 2015 was the third year of operation of The Center which is housed in the University of Maryland School of Medicine, with its research division within the Department of Epidemiology and its clinical/prevention division within the Department of Psychiatry.



KEY CENTER ACCOMPLISHMENTS FY13 - FY15

- PROVIDED PROBLEM GAMBLING TRAINING TO OVER 1,750 UNIQUE INDIVIDUALS
- CREATED A GROUND BREAKING DOCUMENTARY ON THE DEVASTATION OF PROBLEM GAMBLING
- DEVELOPED AND EVALUATED PROBLEM GAMBLING HELPLINE
- ESTABLISHED AND ENHANCED STANDARDS FOR PROBLEM GAMBLING COUNSELOR REFERRAL LIST
- IMPLEMENTED DISORDERED GAMBLING INTEGRATION PROJECT
- DEVELOPED AND IMPLEMENTED EVIDENCE INFORMED YOUTH PROBLEM GAMBLING PREVENTION PROGRAM - SMART CHOICES
- CREATED AWARD WINNING PROBLEM GAMBLING PUBLIC AWARENESS CAMPAIGNS
- ESTABLISHED RESEARCH PROGRAM TO ASSESS IMPACT OF PROBLEM GAMBLING

The Center began operation July 1, 2012 to help address the expansion of legal gambling availability within Maryland. Legislation authorizing this expansion also provided for a problem gambling fund to be established and administered by the Department of Health and Mental Hygiene (DHMH) / Behavioral Health Administration (BHA). The fund was designated to provide support for problem gambling treatment, helpline services, prevention, public awareness and research.

The Center has worked closely with BHA to best integrate problem gambling awareness, training and services within the existing structure for substance use disorder and mental health services in Maryland. A major focus of The Center's efforts has been to provide a wide range of training opportunities to enhance the capacity of existing behavioral health providers to address the needs of those with gambling problems. Through training, a qualified referral network of problem gambling counselors was established along with a toll free problem gambling helpline to connect help seekers to these trained community providers as well as self-help resources. Multi-media advertising campaigns have been implemented to increase public awareness of problem gambling as a treatable behavioral health disorder and of resources for help. Prevention programs focused on youth and underage gambling have been developed.

FY15 marked the first complete year of increased funding for The Center's research division. This has allowed for targeted studies on the public health impact of gambling within Maryland as well as enhanced program evaluation efforts. Highlights from FY15 include conduct of community impact studies before and after the opening of Maryland's first urban casino, Baltimore Horseshoe. Other research studies in progress include studies on gambling in veterans, sex differences in gambling behavior, gambling among college students and young adults, and gambling problems in individuals with substance use disorders. The Research Affiliate Program expanded to over 40 participants across University of Maryland Baltimore professional schools and other University of Maryland System campuses. The Free State Data Warehouse continues to grow its data sources to support assessment of the public health impact of gambling in Maryland.

TREATMENT and INTERVENTION SERVICES

A main focus of The Center's efforts to develop problem gambling treatment services in Maryland has been to increase the capacity of the existing behavioral health care system to identify and treat problem gambling. The Center added Clinical Director and Administrative Assistant staff positions to meet the need for expanding and monitoring problem gambling treatment services within Maryland.

In FY15, the extent of screening for problem gambling in publically funded substance use disorder (SUD) treatment programs in Maryland, as indicated by data reported through the Statewide Maryland Automated Record Tracking System (SMART) database, increased. Data were reported on 50,246 clients admitted to SUD programs in FY15. Of those, 30,466 (61%) were screened for problem gambling. That is more than twice the absolute number of those who were admitted and screened in FY14, though the percentage of those screened compared to total admissions remains essentially constant (59.7% in FY14). Of those who were screened in FY15, 810 individuals were reported as screening positive for problem gambling and having their gambling problems addressed (either within the reporting agency or being referred for treatment). This is double the number of clients admitted in FY14 to get help for gambling problems.

In FY15, 2,489 clients discharged from programs submitting data into SMART were reported to have had gambling problems identified and addressed during the course of their treatment. This represents a three-fold increase from 698 clients in FY14. The FY15 number represents 5.2% of all clients discharged which is an increase from 3.9% of clients in FY14 (*Figure 1*). This is a significant number of clients having gambling problems recognized and addressed during treatment for their substance use disorder.

The significantly higher percentage of clients identified as having gambling problems on discharge compared to admission suggests that programs are improving their ability to include ongoing sensitivity to gambling problems throughout the treatment process. This correlates with The Center's efforts to increase awareness of addressing problem gambling throughout Maryland's existing behavioral health treatment system.

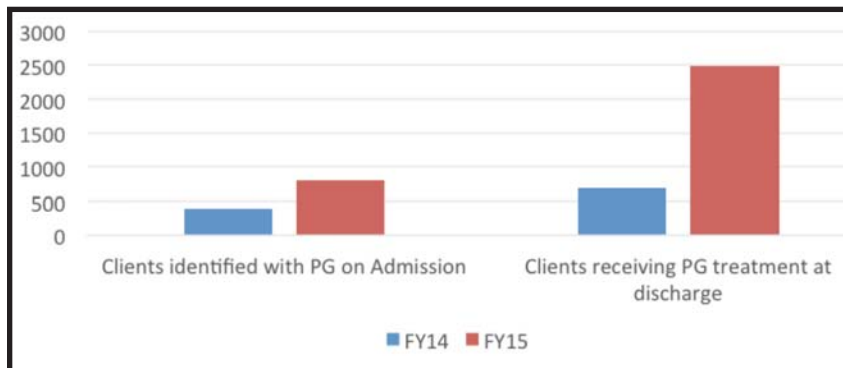


Figure 1: Number of Clients Reported to Have Problem Gambling Identified and Treated in Publically Funded Substance Use Disorder Treatment Programs



In FY15, the percentage of clients identified with a gambling problem who had their gambling problem addressed within the agency rather than referred for external gambling treatment increased to 83% from 77% in FY14. These data clearly show improvement over the last two fiscal years in the ability of SUD treatment providers to screen and address gambling problems among their clients.

While the percentage of those identified and treated is still significantly lower than the prevalence rate of gambling problems among those in SUD treatment as suggested by research studies (see Research Section of this report), it is significant that SUD programs have shown improvement in their ability to identify gambling problems throughout the course of treatment and to improve their capacity to treat problem gambling as a co-occurring disorder.

Disordered Gambling Integration Project

To further build on this encouraging effort, The Center implemented the Disordered Gambling Integration Project (DiGIn) in FY15 to continuing building the capacity and competency of SUD and Mental Health programs to address gambling problems among their clients. To this end, The Center particularly focused on engaging County Health Departments and agencies in counties where casinos are, or will be, located.

Research studies have consistently found higher rates of problem gambling among individuals with substance use and mental health disorders in both community and treatment seeking populations. One meta-analysis of surveys of patients in treatment for substance use problems reported that nearly 1/3 of patients across 18 studies were identified as having problem or disordered gambling. Additionally, the co-occurrence of problem gambling with substance use and mental health disorders has been associated with indicators of poorer treatment outcome including suicidality, increased service utilization and use of more intensive/expensive services, higher rates of arrest and incarceration, increased rates of treatment drop-out, greater alcohol use severity, and higher levels of depression.

Even though, as we have previously noted in this section, there has been improvement in problem gambling being identified and addressed in substance use disorder programs in Maryland, we have only begun to fully address the impact of gambling on recovery within our treatment settings. Indeed throughout the United States, in spite of the high rates of problem gambling among individuals with substance use and mental health disorders, not enough effort has been devoted to identifying and treating gambling problems in substance use and mental health treatment programs. In one study sponsored by The Center (see Research section), Himelhoch et al (2015) found that only 6.5% of methadone maintenance clinic clients had discussed gambling with a health care provider even though nearly 50% had met DSM5 gambling disorder diagnostic criteria. This percentage is very close to the percentage of those reported to have had their problem gambling addressed in SUD treatment through the SMART database. Therefore, our research suggests a significant gap in the percentage of individuals in treatment for SUD or mental health issues who actually experience gambling problems that impact their recovery and the percentage of individuals who

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have gambling identified as a clinical issue to be addressed as part of their treatment. This under-identification and treatment of gambling issues has been found nationally. In an analysis of data from the National Comorbidity Survey Replication, researchers found that of those individuals with a lifetime history of pathological gambling, 49% received treatment for a mental health or substance use disorder, but none received any treatment for gambling problems. To date, clinical practice and research have not adequately addressed barriers to effective screening, assessment and intervention for gambling problems among individuals seeking treatment for substance use and mental health problems. The DiGIn program seeks to do that through developing enhanced problem gambling integration practices within existing behavioral health systems and conduct thorough program evaluation of these interventions.

The DiGIn program offers small grants to publically funded SUD and Mental Health treatment agencies to integrate problem gambling screening and treatment in all levels of their programming and operation, from agency policies and procedures, through intake and assessment, to treatment and continuing care. The grant funding is designed to offset costs for staff time required for training and attending project meetings, survey completion, and other project requirements. The goal of this project is to develop and implement protocols that integrate the impact of gambling and problem gambling on recovery, health and well-being throughout the screening, assessment and treatment process. This is done by providing basic problem gambling training to all clinical staff and intensive training to key staff to be the problem gambling staff resources within each agency. Additionally, The Center staff works closely with agencies to incorporate gambling and problem gambling into their intake and assessment process, psychoeducational and treatment materials, agency policies and procedures, and agency staff training. This project employs evidence-based practices utilized in co-occurring disorder and trauma Informed programs and practices.

The inaugural meeting of the Maryland DiGIn program was held on June 3, 2015. Twenty individuals including counselors and program managers from seven agencies in six counties (including four counties where casinos are or will be located) participated in this initial meeting.

Maryland Problem Gambling Counselor Referral List and Peer Recovery Support Services

In addition to the large number of individuals receiving services for problem gambling within BHA-funded substance use disorder programs in FY15, 137 unique clients were reported to receive counseling through Peer Recovery Support Services provided by The Center as well as counseling by community providers listed on the Maryland Problem Gambling Counseling Referral List. Peer support continues to be a highly utilized service and has contributed to successful treatment engagement for helpline callers.

During FY15, 76 counselors from 60 organizations located in 16 counties plus Baltimore City were included in The Center's counselor referral list. More than half of providers (39) are located in counties with existing or planned casinos.



Training, continuing education and supervision requirements for listed providers were increased and minimal reporting requirements were introduced for all providers in an effort to assure minimal competency consistent with national best practices and to begin gathering client tracking and monitoring data.

Reporting compliance has gradually increased over the course of FY15, but it is likely that the reported number of unique clients receiving services is an underestimation of the actual number. The Center is working to increase the number of clients served. In FY15, 137 unique clients received treatment through peer support or referral list counselors. In comparison to well established problem gambling programs in more populous states such as Pennsylvania that reported treating fewer than 200 clients for problem gambling and Ohio which treated fewer than 100 (Marotta et al, 2014. 2013 National Survey of Problem Gambling Services), this number indicates that our system is doing comparably well for its early stage of development.



Helpline 1.800.GAMBLER

The Maryland Problem Gambling Helpline is a toll free helpline that operates 24 hours a day, 7 days a week and is staffed by helpline counselors specifically trained to address problem gambling issues. The Helpline offers information as well as referrals to community-based problem gambling services within Maryland. During this fiscal year, the Helpline number was changed from 1-800-522-4700 to the more easily recognized and remembered 1-800-GAMBLER.



Figure 2: Comparison of Helpline Callers from FY13-FY15

The number of Helpline callers during the past fiscal year increased by nearly 100 callers. Additionally, the capability to reach Helpline counselors through texting and internet chat was introduced during the last quarter of FY15. Though this feature was not widely advertised, the number of chats and texts has gradually begun to increase.

Over the past three fiscal years the 45–54 age group has remained the largest age group of helpline callers, with the relative numbers of callers in other age groups also being relatively consistent over this time period. However, there have been notable increases in both the 25–34 year old age group (see Figure 3) and the over 65 group, with the number of callers in both of these groups nearly doubling from FY13 to FY15.

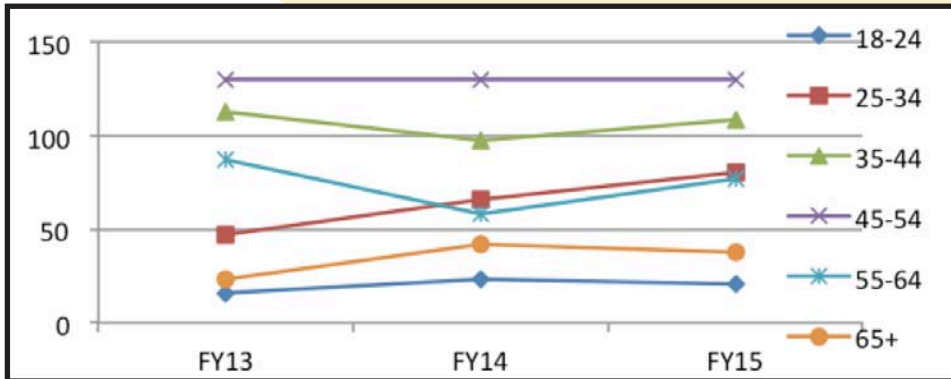
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Figure 3: Number of Helpline Callers by Age Group
FY13-FY15

In FY15 the gap between male and female helpline callers narrowed compared to FY14 (*Figure 4*).

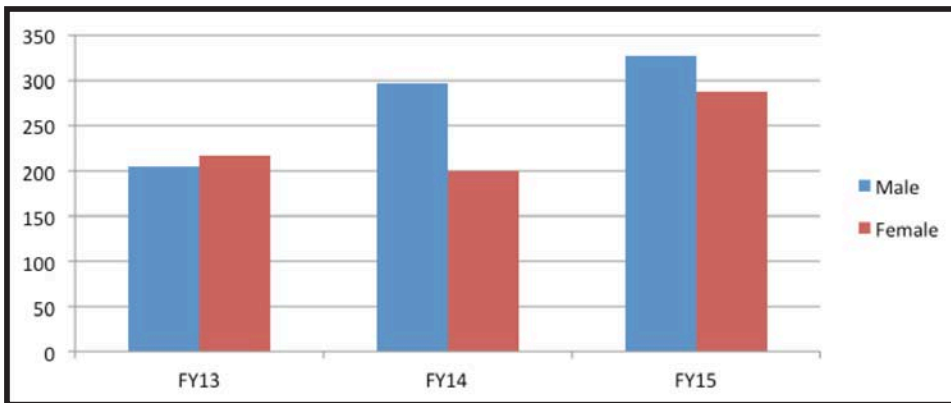


Figure 4: Gender of Helpline Callers

Helpline callers continue to report casino games as their primary form of problem gambling. However, in FY15 there was an increase in reporting of casino slot gambling as a primary concern, bringing calls regarding this form of gambling up to FY13 levels. It is interesting that this coincides with a narrowing of the gap between male and female callers as women problem gamblers are more likely to prefer machine forms of gambling rather than the more strategic forms of gambling such as table games.

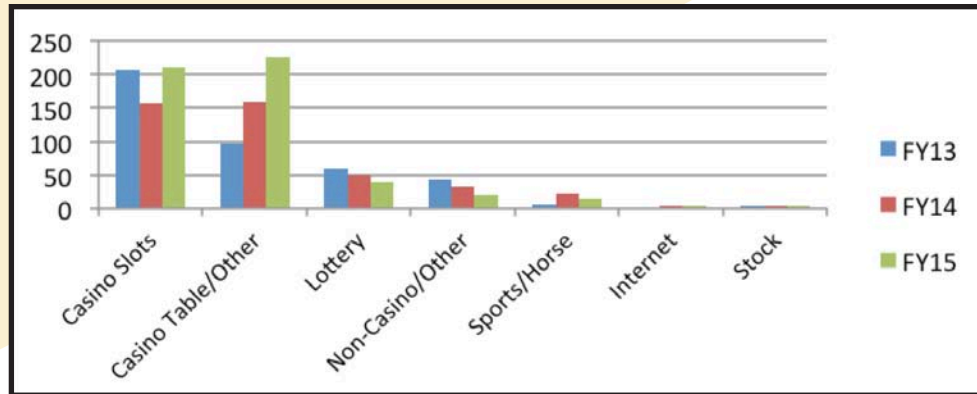


Figure 5: Primary Gambling Problem Reported by Helpline Callers FY13-FY15

FY15 saw a significant increase in the number of African American helpline callers compared to FY14, while the number of European American callers remained consistent across the two fiscal years. This is particularly notable since a public awareness campaign was implemented in FY15 prior to the opening of the Horseshoe Casino that focused on the African American community in Baltimore. Since both national and Maryland-specific prevalence data has indicated that African Americans have higher rates of problem gambling than other ethnic groups, it is significant that our outreach efforts to this high risk group are showing positive results.

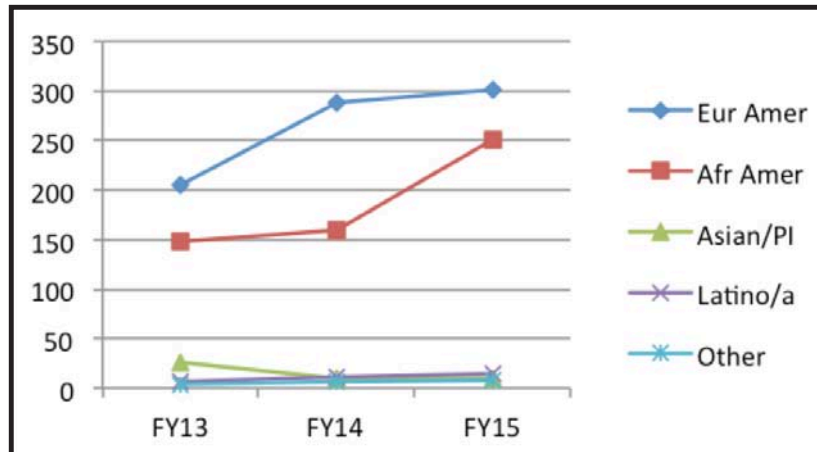


Figure 6: Number of Helpline Callers by Race/Ethnicity FY13-FY15

Referral Sources

Casinos were the most frequently cited referral source for helpline callers (Figure 7). This is likely the result of responsible gambling practices at casinos including the posting of Helpline information and the provision of information regarding problem gambling. Helpline data also point to the success of The Center’s efforts to promote the service through electronic media. Such media — internet, social media, television and radio ads — is the second most frequently cited source of Helpline information.

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Notably, as shown in *Figure 7*, there has been a consistent decrease in the number of callers citing the lottery as the source of Helpline information over the past two fiscal years. The Maryland Lottery and Gaming Control Agency has already initiated a review of its practices to increase public awareness of the problem gambling Helpline and will collaborate with The Center in enhancing this aspect of its responsible gaming efforts in FY16.

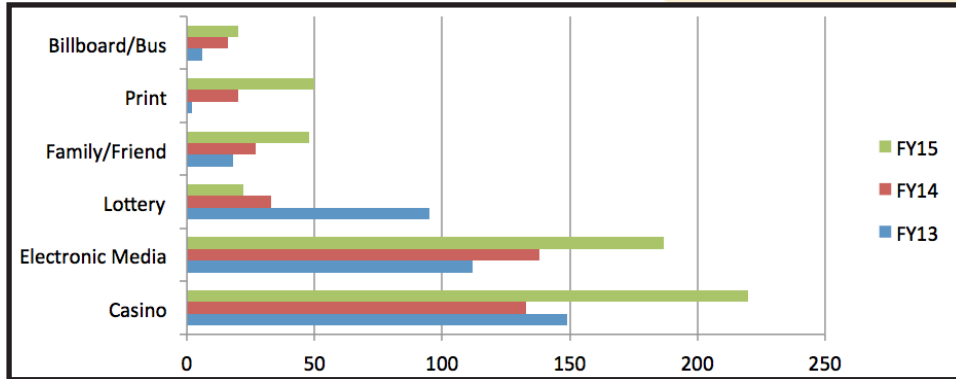


Figure 7: Where Callers Learned of Helpline

Research Analysis

The Research Program on Gambling is providing technical, scientific and analytic support for the evaluation of Maryland Helpline data, working closely with The Center and support personnel that operate the Helpline to improve data completeness and streamline data transfer for reporting and analytic purposes.

An analysis of data for the 15-month period between January 2014 and March 2015 showed that calls to the Helpline occur throughout the 24-hour cycle (*Figure 8*).

Additionally, while most calls were initiated by individuals seeking help for themselves, 20% of calls were initiated regarding someone else's gambling behavior.

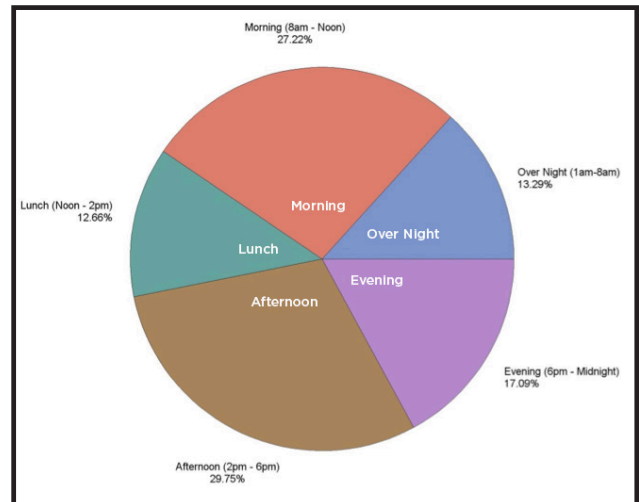


Figure 8: Times Helpline Calls Initiated

Based on data available to date, the Research Program on Gambling, working closely with The Center director and Helpline personnel, will work on enhanced program evaluation goals to monitor effectiveness of the Maryland Helpline:

- Did the caller use information provided by the Maryland Helpline (e.g., was contact made with services, called counselor, attended a GA meeting)?
- Was the caller's stated reason for the call met?
- Was the caller satisfied with the information provided by the Maryland Helpline?

The Research Program is currently exploring methods to obtain follow-up information by providing the option for callers to voluntarily waive anonymity.



PUBLIC AWARENESS

The Center continued its collaboration with MedSchool Maryland Productions (MMP) to create three new multimedia public awareness campaigns in FY15 to specifically reach the African American community in Baltimore (in conjunction with a new casino opening in downtown Baltimore), women and young adults. These combined campaigns resulted in over three times the number of website visits in FY15 compared to FY14 (Figure 9).

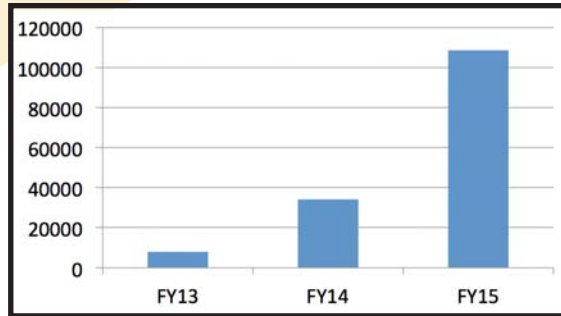


Figure 9: Total Website Visits FY13-FY15

Specific websites as well as YouTube™ channels were developed for each campaign. Figure 10 shows that combined website and YouTube™ visits increased over 7.5 times in FY15 compared to FY14, with specific campaigns also driving traffic to The Center’s general www.MDproblemgambling.com website.

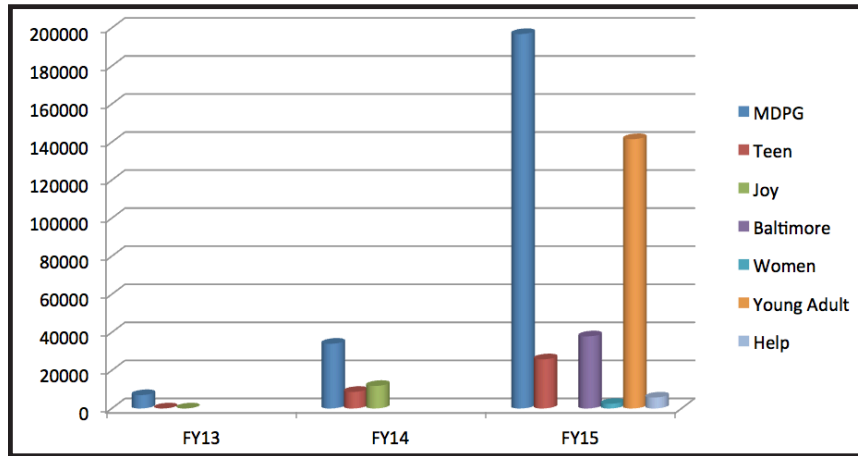


Figure 10: Combined Total Website and YouTube™ Visits FY13-FY15 for Specific Public Awareness Campaigns

BaltimoreGambler Campaign

From July 2014–August 2014, in advance of the Horseshoe Casino opening in downtown Baltimore, The Center with MMP ran a multimedia public awareness campaign that included TV and radio ads as well as billboards, bus signs, and online tools (www.baltimoregambler.org; www.youtube.com/BMoreGambler). The campaign focused on the African American community which has been identified as a group that is at higher risk than the general population for gambling problems.

BALTIMORE
FREE-CONFIDENTIAL HELPLINE 24/7 → **1-800-522-4700**

HERE TO HELP!
Call for yourself, a family member, or a friend.

The Baltimore City Awareness campaign, is a Baltimore community project, collaborating with local Baltimore citizens to help educate and promote general awareness about the potential negative effects of engaging in gambling and to give information about problem gambling, gambling recovery, and responsible gambling. The Baltimore Gambler Initiative uses real Baltimore people who have had real life experiences with problem gambling in all of our videos and promotional materials.

For immediate assistance call the free confidential helpline and a trained counselor will talk with you.

1-800-522-4700

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MMP developed all components in collaboration with problem gambling content experts; cultural and African American community leaders within Baltimore; and individuals representing diverse age, gender, economic and recovery perspectives. The Baltimore campaign developed messages to address the prevention continuum from primary responsible gambling messages to more targeted messages about recognizing and seeking help for a gambling disorder. MMP utilized their unique expertise to engage community members through an innovative documentary style to craft messages including: rap and hip-hop artists who produced a music video along with radio and TV ads; swing dancers; a taxi driver; a person in recovery; college professors; and problem gambling experts.

This approach, utilizing “real” people and their experiences, had a significant impact as shown by a 240% increase in Helpline calls from Baltimore City and a 150% overall increase in calls during the quarter this campaign was running. In addition, the number of African American callers nearly doubled. Web clicks for the quarter in which ads were running leapt to 30,000, an increase of over 15,000 from the previous quarter.



AboveAllOdds Campaign

From March 2015–April 2015, The Center collaborated with MMP to develop a campaign focused on young adults/college students to coincide with “March Madness” as well as Problem Gambling Awareness Month. In recognition of the media use patterns of this age group, the multimedia campaign focused on social media with YouTube™ PSA’s, videos, a website (www.abovealloods.org), as well as more traditional radio and music channel PSA’s.

Themes for the campaign emerged from talking with college students about gambling and were designed to engage young adults on social media in a conversation

about gambling and problem gambling. Building on the statistic that young adults with gambling problems have an average debt of \$30,000, one theme used in this campaign was “What would you do with your \$30,000?” Another theme was the question, “What was your craziest bet?” These themes then allowed for providing information on risks and warning signs of problem gambling and guidelines for low risk gambling. A young adult volunteer who was in recovery for a serious gambling problem also agreed to be filmed relaying his struggle with gambling.

The success of this campaign is depicted in Figure 10 on page 13. The number of visits for the AboveAllOdds sites exceeds visits for all other campaigns combined with over 140,000 clicks. During the campaign, Helpline calls for the youngest age groups (18-24 and 25-34) also increased 6% and 10% respectively.



GambleSafe-Women Campaign

A key demographic for the women's public awareness campaign (www.gamblesafe-women.org) was women in the 50-65+ age range as this group has been identified as particularly vulnerable to

gambling problems. A group of women were filmed talking about how to keep gambling safe and affordable while traveling on a bus to the casino as well as engaging in other recreational activities.



NATIONAL RECOGNITION
THE CENTER AND MMP RECEIVED NATIONAL RECOGNITION ON JULY 10, 2015 AT THE 29TH NATIONAL CONFERENCE ON PROBLEM GAMBLING FOR TWO OF THE FY15 PUBLIC AWARENESS CAMPAIGNS. THE NATIONAL COUNCIL ON PROBLEM GAMBLING (NCPG) AWARDED "BALTIMOREGAMBLER" ITS BEST PUBLIC AWARENESS CAMPAIGN AWARD AND THE YOUNG ADULT "ABOVEALLODDS" CAMPAIGN RECEIVED THE NCPG BEST WEBSITE AWARD.



Receiving the awards from Left to Right: Heather Filtz (MMP), Jeff Otradovec (MMP), Lori Rugle (The Center), Keith Whyte (NCPG), Kellie Gable (MMP).

Collaborative Public Awareness Efforts

During FY15, The Center also collaborated with the Maryland Lottery under the banner of the Maryland Alliance on Problem Gambling (MARG) to increase radio and television problem gambling public service announcements. By utilizing PSA's developed by The Center and MMP, the Maryland Lottery and Gaming Control Agency donated airtime to significantly increase visibility of Problem Gambling Awareness messages. Such collaborative efforts will be further explored in FY16.

TRAINING and EDUCATION



29th National Conference on Problem Gambling
New Challenges > Creative Solutions



The Center and the Maryland Council on Problem Gambling (MCPG) were selected as co-hosts for the 29th National Conference on Problem Gambling at the Hilton Inner Harbor Hotel in Baltimore, bringing a nationally recognized problem gambling conference to Maryland for the first time. While the conference took place in July 2015, the significant effort involved in organizing and planning this benchmark event took place in FY15.



Untitled
By Carol Cutler

The conference theme *New Challenges and Creative Solutions* was infused in the presentation topics covering treatment, responsible gaming, prevention, recovery and community culture. Over 30 Continuing Education Hours were offered over the four day conference and the first ever national Art of Gambling Recovery exhibit was held at the American Visionary Arts Museum as the conference's high-lighted Friday evening event on July 10, 2015. (At left, art from the exhibit.)

The conference attracted a record-breaking attendance of over 600 participants from across the United States and internationally. Maryland-based participants totaled 157. Attendees included gambling and addiction counselors, people in recovery, researchers, state administrators, industry executives, lottery officials, regulators and community advocates.

The work of The Center received gratifying recognition throughout the conference. The collaborative efforts between The Center and CSMH were nationally recognized with the Best In Show Prevention Award for the innovative Smart Choices program. As previously mentioned (see Public Awareness), The Center together with MMP received two public awareness awards. The Center, along with various schools of the University of Maryland campuses, as well as professionals from private and non-profit Maryland based organizations, contributed 18 presenters.



Through the support of BHA and the University of Maryland School of Medicine, The Center awarded over 80 scholarships for conference attendance to Maryland mental health and substance abuse professionals, representing over 13 different health jurisdictions in Maryland. These scholarships allowed for a unique learning opportunity for a broad range of stakeholders throughout Maryland. These scholarship recipients will be invited to participate in a community advisory group in FY16 to further gambling awareness and problem gambling treatment best practices.

Maryland Regional and Statewide Training Series

In its third year, The Center continued its commitment to build the capacity of mental health, substance use and other health care and prevention providers to address the issue of problem gambling. Over 3,800 participants throughout Maryland attended education events provided by The Center. This number remains consistent with the prior year participation rates.

The Center provided a total of 18 one-day sessions throughout the state with 402 unique individuals attending. Of these individuals, 62% attended problem gambling training for the first time reflecting a growing acknowledgment of the need to assess and treat clients with gambling problems.

As part of The Center's commitment to integrating problem gambling within the existing behavioral health system, an additional 16 trainings were conducted at the request of behavioral health agencies and organizations within Maryland. These trainings were tailored to meet agency/organization specific needs to more fully infuse problem gambling into their existing practices.

Evaluations of training continue to reflect a very high level of participant satisfaction with an average rating of 4.7 on a scale of 1 to 5 (consistent with FY14 ratings). At the conclusion of FY15, a total of 72 individuals (doubled from FY14) achieved over 30 hours of training to meet the criteria established for inclusion on the problem gambling counselor referral list.

Online Training Series

Four webinars were presented by The Center staff, focused on integrating gambling counseling within existing BHA programs:

1. Integrating Problem Gambling into substance abuse disorder and mental health treatment - Part One.
2. Integrating Problem Gambling into substance abuse disorder and mental health treatment - Part Two.
3. Engaging Problem Gambling clients into gambling treatment.
4. Treatment Planning for Problem Gambling clients.

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Case Consultation Calls

Case consultation calls were conducted by The Center to enhance the skills and competence of treatment providers to address the needs of clients with gambling problems. Participation in case consultation calls increased in FY15 supporting implementation of an additional call each month. In FY15, attendance on these calls increased to an average attendance of 10-15 per call. In addition to scheduled case consultation calls, The Center staff provided individual consultation on request as well as onsite agency consultation.

National and International Training

Due to their expertise in the field of problem gambling, The Center staff presented at five annual/national problem gambling conferences and ten state conferences outside of Maryland. In addition, The Center, funded by the Oneness Group in Japan, presented an in-depth problem gambling training series to addictions counselors in Japan and is collaborating to develop a problem gambling counselor certification program in that country. This cross-cultural initiative also serves to deepen The Center's expertise in cultural competence regarding the public awareness, prevention and treatment of problem gambling.





PREVENTION



The Smart Choices program, developed in collaboration with CSMH, is a resource to support Maryland adolescents living in communities in which gambling opportunities are expanding. The program focuses on the inherent risks of gambling and emphasizes positive decision making skills.

By making the Smart Choices program available to both school-based and community-based programs, The Center intends to offer training directly to schools and communities on building resiliency skills and reinforcing refusal skills in adolescent responsible decision-making. Today's adolescents are reasonably well-informed about health risks involving drugs, drinking, sex, smoking but few have any information about the health risks involved in gambling.

BEST IN SHOW

SMART CHOICES RECEIVED THE "BEST IN SHOW" NATIONAL PREVENTION AWARD AT THE 29TH NATIONAL CONFERENCE ON PROBLEM GAMBLING IN BALTIMORE.

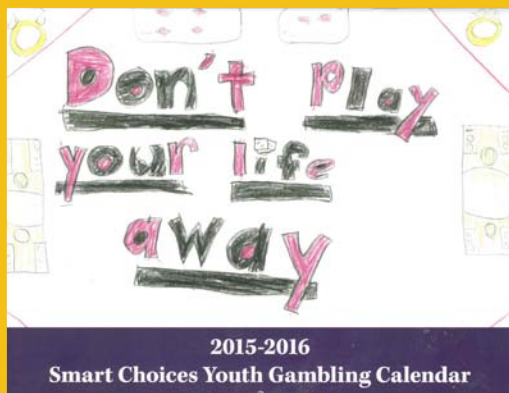


Receiving the award from left to right: Brittany Parham (CSMH), Kelly Willis (CSMH), Carl Robertson (The Center), and Jennifer Lease (CSMH).

Phase 2 (2014-2015) of the Smart Choices was built on the evaluation of Phase 1 of the Smart Choices pilot program implemented in Maryland in FY14. In FY15, the Smart Choices program was further enhanced by the staffs of The Center and CSMH by adapting content and concepts of the original Smart Choices program for use in an urban setting with high-risk adolescents.

The Phase 2 pilot incorporated a very interactive and culturally relevant approach between participating students and the program facilitators. Five Baltimore City public schools participated in the program, including three middle schools and two high schools. The students served were primarily racial or ethnic minorities of low socioeconomic status. The program consisted of three sessions that can be conducted in classrooms or other group settings.

Students created posters to describe what they learned in the sessions — 13 of those posters were selected for inclusion in a Smart Choices Calendar that will be distributed to schools, youth groups, health fair participants and the general public in the upcoming (2015-2016) year.



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In Phase 2 of the program, 73 students completed both the pre- and post-test assessments that evaluated their involvement in gambling activities, their knowledge of gambling, and their attitudes toward gambling and addiction. Results indicated that students were likely to have received lottery tickets as a gift or to have bet on games of skill or other activities such as fantasy leagues. Comparison of pre- and post-tests of student knowledge about gambling showed that after the program students had increased awareness that young people could develop a gambling addiction and that winning in gambling relies on luck rather than skill. Additionally, the students were able to more accurately identify what constitutes a gambling activity after the intervention. Many individuals don't automatically categorize activities such as buying lottery tickets or playing bingo as gambling and therefore diminish the risk involved in such activities. It is therefore very important that students understand the range of activities that can present the risk of gambling.

Along with student pre- and post-tests, Smart Choices was evaluated by classroom teachers and the clinicians (Master Level licensed mental health providers employed by an outpatient mental health program serving the schools) who facilitated the program. They completed extensive questionnaires and key informant interviews. Perceptions of student engagement, the usefulness of the program, and the ease of program implementation were evaluated. Overall, teachers and clinicians reported that students appeared to be engaged in the Smart Choices and eager to participate. Specifically, they noted that the behavior management system seemed to be an effective way of promoting appropriate behavior during curriculum implementation. Additionally, clinicians indicated that interactive activities and the potential to earn rewards seemed to encourage positive participation. Teachers and clinicians also evaluated a detailed manual that was developed to allow for broader implementation in community schools and youth settings. They found that it was very detailed and included all necessary materials to effectively facilitate the program. They also reported that the manual content flowed well and built upon previous sessions, was easy to follow, and that they had no difficulty implementing program elements. Additional review and recommendations were completed by directors of the CSMH and The Center involved in the Smart Choices program.

Phase 3 (2015-2016) will focus on the statewide expansion of the Smart Choices program. The collaboration efforts will continue with CSMH taking the lead on the implementation of the program in eight Baltimore City schools. The Center will focus its efforts on the promotion and delivery of youth prevention efforts with the grantees of DiGIn programs. Additionally, outreach efforts with youth advocacy groups in high-risk communities will be pursued.



PUBLIC POLICY

During FY15, The Center in collaboration with the Public Health Law Clinic at the University of Maryland Francis King Carey School of Law continued to conduct outreach and awareness regarding legislation on underage casino gambling that took effect in 2014.

Judicial Outreach (2014-2015): Underage Casino Gambling Law

The Maryland Legislature passed a new law: (see section 10-136 and 10-137) of the Criminal Code addressing Underage Casino Gambling Violations. Maryland joins 23 other states with legal casino gambling in imposing penalties on underage persons found gambling or on a casino floor.

The Center and the Network for Public Health Law at the University of Maryland are collaborating on education and awareness training for Maryland judicial staffs, attorneys, public defenders and judges especially in the communities where casinos are located. Training focused on the referral resources available under the new law. Presentations were provided jointly in 2014 with the Maryland Lottery as well as in direct meetings with judiciary/ judges in casino jurisdictions. The outreach program will continue to expand the scope of the trainings in 2015.



Preventing Underage Gambling FACTS
Maryland's New Underage Casino Gambling Law

UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE

The Maryland Center of Excellence on PROBLEM GAMBLING and The Network for PUBLIC HEALTH LAW

The New Statute
The new law can be found in Section 10-136 and 10-137 of the Criminal Code, under the new Part "Part V. Table Games and Video Lottery Games and in the Annotated Code of Maryland. Violation of this law is a civil offense for which a law enforcement officer may issue a citation.

Individuals Under 18
Under the new law, children 18 or under who are not emancipated under the law or who are in the custody of a parent or guardian may not gamble. Any individual who is under 18 and who gambles may be subject to a civil offense, community service, or mandated participation in counseling for problem gambling.

Individuals Aged 18-20
Individuals 18 to 20 years old issued a citation will receive a summons from the District Court to appear for trial before the court to appear for trial in contempt of court. At this time, the burden of proving the violation is on the state, which is the same burden of proof as in criminal cases.

If a defendant is found guilty of a code violation the District Court may impose the following:

- For a first violation a fine not to exceed \$500;
- For a second violation a fine not to exceed \$500; and
- For a third or subsequent violation, participation in gambling addiction treatment.

Addressing Violations
First and second offense: Education Resources for Parents and to be found at: www.problemgambling.com/help-for-parents

Other sites to: www.problemgambling.com/help-for-parents

For more information call The Maryland Center of Excellence on Problem Gambling at 1-867-214-2120

CONFIDENTIAL 24/7 HELPLINE 1-800-Gambler

Participation in Maryland Behavioral Health Integration Process

The Center, with the active support of DHMH, also participated in multiple stakeholder meetings to develop and review statute and regulatory language related to the merger of DHMH's Alcohol and Drug Abuse Administration and Mental Health Administration into the newly created Behavioral Health Administration (BHA).

RESEARCH and PUBLIC HEALTH SURVEILLANCE PROGRAM on GAMBLING

In FY15, the Research Program on Gambling on behalf of The Center has actively pursued a robust research agenda designed to identify and prevent problem gambling behavior and related consequences for public health through rigorous scientific inquiry. The following section details progress and achievements in FY15.

Capacity Building and Outreach

Research Affiliate Program — The Research Affiliate Program is a networking and outreach program within the Research Program on Gambling. It is comprised of faculty, staff and other associated individuals who are interested in the scientific study of gambling and the impact of gambling on populations. The Research Program on Gambling is housed at the University of Maryland School of Medicine and the Research Affiliate Program extends the outreach of the Research Program and The Center.

Faculty and staff from all schools of the University of Maryland, Baltimore and other University System of Maryland campuses are eligible to be affiliates of The Center. Other interested parties are invited to apply for affiliation.

Affiliates of the research program are working together with Research Program on Gambling faculty to extend the research agenda to the study of gambling addiction, as well as the larger individual, community and social impacts of gambling.

Examples of research being conducted by Research Program affiliates include:

- Etiology of gambling addiction
- Prevention of pathological and problem gambling
- Genetic architecture of behavioral addictions
- Neuroimaging correlates of gambling behavior
- Public health impact assessments of gambling on individuals and communities
- Policy evaluation
- Data linkage studies of gambling-related traffic crashes
- Injury prevention and harm reduction among populations at risk for problem gambling

Status as a research affiliate confers access to a network in which junior and senior affiliated faculty members share, mentor, and collaborate on research studies of myriad aspects of gambling. Affiliates have access to the Research Program on Gambling's Free State Data Warehouse to perform secondary data analysis projects or to provide pilot data for grant applications. The Research Program on Gambling also maintains staff trained in the aspects unique to research in the area of behavioral addiction, including reluctance to participate, issues with self-report and heightened concerns over privacy.



The Research Program on Gambling currently has 30 faculty, five doctoral student and seven staff affiliates.

Seed Grant Program — The seed grant award program has two goals: 1) to generate preliminary data that will lead to a major grant application to federal or commercial agencies; and 2) promote scientific excellence and innovation in the domain of gaming research.

The 2014 seed grant was awarded to Yu-Ching Cheng, PhD and Lauren Levy, JD, MPH for their project titled, “Gambling Behavior in Veterans: A Pilot Study.” The study aims to screen veterans utilizing services through the VA Maryland Health Care System as well as veterans in the community. The prevalence of problem and disordered gambling in a veteran population will be estimated. Information on health history, combat experience and gambling exposure while deployed is currently being collected and analyzed. The project is also collecting biological samples (saliva) that will allow for analysis of genetic correlates of gambling behavior. Data collection for this project continues with focus on recruiting participants from the Maryland Veteran’s Administration Health Care System and through local veteran service organizations such as the American Legion, Veterans of Foreign Wars and others.

The 2015 seed grant was awarded to Todd Gould, PhD and Istvan Merchen-thaler, MD, PhD, DSc for the project titled, “Sex-dependent Modulation of Decision-making in Gambling Tasks.” We know from basic human epidemiologic studies of gambling prevalence that problem and pathological gambling are more common among men than women. However, the biological mechanisms of these sex differences are not well understood. Studies of the biological origins of gambling behavior in general and sex differences in gambling behavior specifically have the potential to advance our understanding of gambling disorder and inform development and evaluation of pharmaceutical treatments for gambling addiction.

The purpose of this seed grant project is to characterize sex differences in risk-taking behavior with an animal model and to identify the role that sex hormones such as testosterone and estrogen play in risk-taking behavior. We anticipate that this seed grant will provide critical data pertaining to the biological basis of differences in problem gambling prevalence in men and women.

Partnership with National Institute of Child Health and Human Development (NICHD)

Functional near-infrared spectroscopy (fNIRS) is an imaging technology designed to be a less invasive, more cost-effective alternative to MRI for studying patterns of brain activation associated with various conditions and disorders. As it relates to the behavioral addiction of gambling, there is some scientific evidence to suggest that brain functioning of problem gamblers is different from that of non-problem gamblers, particularly in the dorsolateral prefrontal cortex.

We have established a research partnership with the laboratory of Dr. Amir Gandjbakhche at the National Institute of Child Health and Human Development (NICHD). Dr. Gandjbakhche is an internationally recognized expert

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in fNIRS. In partnership with the Research Program on Gambling, Dr. Gandjbakhche would like to extend his fNIRS research to the study of problem gambling.

In FY15, the Research Program on Gambling entered into a formal scientific partnership with Dr. Gandjbakhche to evaluate the reliability, validity and feasibility of using the fNIRS for the study of gambling behavior. Together Drs. Tracy and Gandjbakhche have developed a formal research protocol for assessing individuals during performance of a gambling task, while simultaneously being measured via fNIRS. Pilot data are currently being collected by both Dr. Tracy and Dr. Gandjbakhche's research laboratories to allow for minor modifications to the research protocol.

Prevention

Prevention and Etiology of Gambling Addiction in the US (PEGASUS) – The PEGASUS Study is a prospective cohort study that broadly recruits participants with behaviors reflecting the full range of gambling behaviors in the general population, including those who exhibit no problem gambling behaviors and those with varying severities of problem gambling behaviors. The broad purpose of the PEGASUS Study is to identify factors associated with gambling behavior.

1. Identify risk factors for problem gambling.
2. Identify factors that protect against developing problem gambling behaviors.
3. Evaluate biological correlates of gambling behavior, including brain activation, cognitive correlates and genetic correlates.

Our working hypothesis is that numerous biopsychosocial factors distinguish problem gamblers from individuals who gamble but do not develop pathological gambling behaviors. Identification of correlates (risk and protective) will form the scientific basis for developing evidence-based approaches to mitigating problem gambling behaviors.

We propose to recruit 1,000-1,500 adults who will be followed longitudinally. Domains that are being assessed include but are not limited to: demographics and social history, medical history, neuropsychological assessment, psychological assessment, collection of a genetic sample, functional Near Infra-Red Spectroscopy (fNIRS).

The PEGASUS study received institutional review board (IRB) approval from the University of Maryland Baltimore in April 2015. IRB approval required Dr. Tracy (the principal investigator) to obtain a certificate of confidentiality (CoC) for the PEGASUS study. The CoC allows researchers to refuse to disclose names or other identifying characteristics of research participants in response to legal demands. In short, a CoC protects the privacy and confidentiality of research participants who enroll in sensitive, health-related research studies by allowing the principal investigator to refuse to disclose information such as illegal activities that may be disclosed as part of data collection for a research project. The CoC was issued to Dr. Tracy on 6/12/2015.

In an effort to optimally recruit a diverse participant group representing the full range of gambling behaviors, we have partnered with TrialSpark, which offers customized, targeted advertising on social media to recruit geographically dispersed, hard to identify populations to participate in research



projects. TrialSpark has developed a comprehensive, targeted recruitment strategy to help our study team efficiently and effectively identify individuals with a variety of gambling behaviors. In addition, TrialSpark has developed customized landing pages for the PEGASUS project, an online scheduling system that participants and study team members can use to schedule participant visits and monitor study progress, and analytical tools that can be used to ensure that recruitment goals for the PEGASUS project are met.

As fiscal year 2015 ended, detailed plans for recruitment using TrialSpark were finalized. Study team members were assigned roles for the project and received training on the research protocols. Mock participants have participated in study visits to allow study team members to practice procedures, modify the procedures as necessary, and determine time estimates for the study visit. Deborah Greenberg, research affiliate and senior research manager for Dr. Tracy's team, will serve as the project coordinator for the PEGASUS project. We anticipate that recruitment for the PEGASUS study will begin by September 2015.

Surveillance

Free State Data Warehouse — The Free State Data Warehouse is a curated warehouse of data implemented to support assessment of the public health impact of gambling in the State of Maryland. The following data sources are currently available through the data warehouse:

SOURCE	DATASET
Maryland Lottery and Gaming Control Agency	Lottery revenue, Gaming revenue, Instant bingo halls
Maryland Office of the Comptroller	State budget
Maryland State	Vehicular collisions, Population size
Beta Baltimore	Crime, Arrest, Crime camera locations
Baltimore Neighborhood Indicators Alliance	Vital signs, Community maps
Baltimore City Dept of Finance	Simulated slot machines
Gambling Impact and Behavior Study	Adult survey, Youth survey, Community database
National Epidemiologic Survey on Alcohol and Related Conditions	Wave 1 data, Wave 2 data
US Census	Block/Tracks maps
Crash Outcomes Data Eval System (CODES)	MVA Licensing & Regulations Motorcycle Safety Training Driver Citations Police Crash Reports Ambulance and EMS logs Emergency Department Data Hospital Records Statewide Trauma Registry Toxicology Autopsy Records Vital Statistics
Maryland Statewide Gambling Prevalence	Raw data from 2010 survey

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Several projects that made use of the Data Warehouse were advanced during FY15. The projects and their major findings are summarized below.

Increases in Motor Vehicle Crashes Following Maryland Live! Casino's Opening — Little is known regarding the public health impact of legalizing casino gambling. Increases in motor vehicle crashes are a common community concern when casinos are proposed for jurisdictions that have previously banned casino gambling. The objective of this project — that used CODES data from the Data Warehouse — was to evaluate traffic crashes before and after the opening of Maryland Live! Casino. The specific aims of the project were to determine whether the frequency of certain types of crashes increased; to determine driver characteristics related to any observed increase in crashes; and to determine if alcohol-related crashes have increased more than other types of crashes.

Data for this study included crash data for motor vehicle crashes that occurred for the period 18 months prior to the opening of Maryland Live! and for the 18th month period of time after the casino opened. Data were derived for all crashes that occurred within a 1-mile and a 5-mile radius of the casino. Data used for this study included reported crashes from the State Police crash database, geographic location of crash data from the State Highway Administration database, and driver data from the Maryland Motor Vehicle Administration Driver's License file.

Crash Specific Data							
	Within 1 Mile Radius (N = 773)			Within 5 Miles (N = 6,497)			
	Before	After	% Change	Before	After	% Change	
Weekend - Fri Sat Sun	128	227	77.34%	1141	1344	17.79%	
Single Vehicle (+)	103	127	23.30%	964	1023	6.12%	
Impaired crash	24	38	58.33%	266	277	4.14%	
9pm-5am	61	114	86.89%	624	662	6.09%	

Driver Specific Data							
	Within 1 Mile Radius (N = 1,383)			Within 5 Miles (N = 11,746)			
	Before	After	% Change	Before	After	% Change	
Male (+)	307	465	51.47%	3250	3533	8.71%	
Age 21 - 49	387	521	34.63%	3535	3802	7.55%	
Age 50+	103	153	48.54%	1225	1458	19.02%	
Impaired alc&/or Dru	24	37	54.17%	267	275	3.00%	
Alcohol Suspected	17	31	82.35%	217	222	2.30%	
Drug Suspected	7	6	-14.29%	50	53	6.00%	

Figure 11: Crash and Driver Data

Crashes occurring within 1 mile of the casino increased by 34.2%, while crashes occurring within a 5 mile radius increased by 7%.

For the area representing the 1-mile radius of the casino, weekend motor vehicle crashes increased by approximately 77%, crashes occurring between 9pm and 5am increased by nearly 87%, and crashes in which one of the drivers involved was impaired at the time of the crash increased by approximately 58%, especially when drivers were impaired by alcohol. The greatest increases in motor vehicle crashes were among individuals that lived near the casino. Notably, the greatest percentage increase in motor vehicle



crashes occurred among drivers from Virginia, a state that does not currently offer legalized gambling. No significant increases were noted within a 5-mile radius of the casino.

This study demonstrated the value of data linkage studies for evaluating the public health impact of casinos on the jurisdictions in which they are located. Increases in crashes within 1-mile of the casino are particularly concerning given that the frequency of motor vehicle crashes has been declining overall for the state of Maryland.

Prevalence Study Advanced

Pursuant to Health — General § 19-804, the Department of Health and Mental Hygiene (DHMH) was tasked with providing an initial assessment of problem gambling prevalence on or before July 1, 2009 with follow-up prevalence studies to be completed no less than every five years. DHMH respectfully submitted the report, *Gambling Prevalence in Maryland: A Baseline Analysis*, in June 2011. With the formation of the Maryland Center of Excellence on Problem Gambling and integration of the Research Program on Gambling into The Center, the responsibility for conduct of the statewide prevalence of gambling study now rests with the Research Program on Gambling.

The Baseline Study of Gambling in Maryland was conducted in September 2010; therefore, the second statewide prevalence study should be conducted no later than 2015 to comply with our legislative requirement. At this time, the final approved casino has yet to open. Based on consultation with DHMH colleagues and researchers in the field, it has been recommended that the statewide prevalence study of gambling in Maryland be postponed until June 2017 so that the follow-up study will truly reflect change in gambling behavior following full implementation of casino gambling in the state. A formal request was submitted by then-Secretary Sharfstein to former Governor Martin O'Malley, Senate President Mike Miller, and Speaker of the House, Michael Busch. The request was approved and work on the study will commence in 2017.

The Research Program on Gambling pursued a partnership with DHMH's Prevention and Health Promotion Administration that would allow for questions related to gambling to be included in the annual population-based Behavioral Risk Factor Surveillance System (BRFSS) survey. A partnership with the BRFSS survey would allow us to assess gambling behaviors more frequently and to examine gambling behaviors within the context of other health and risk behaviors in the state of Maryland population and nationally. We also proposed a more extensive call-back sub-study with more in-depth assessment of gambling behavior to be completed with BRFSS participants at least once every five years. The BRFSS program approved inclusion of a module of gambling questions in 2015.

In FY15, the Research Program on Gambling also completed an environmental scan to identify potential partners to participate in the next study of the statewide prevalence of problem gambling in Maryland. Several promising partners have been identified. It is anticipated that a Request for Proposals will be made in early 2016 to allow interested groups to submit a proposal to partner with the Research Program on Gambling for the completion of the next statewide prevalence study.

Monitoring and Evaluation

Maryland Helpline Data — The program provided technical, scientific and analytic support for evaluation of Maryland Helpline Data and proposed additional data points to better monitor effectiveness (See Helpline section).

Impact

This study provides an outstanding example of how research can inform public policy as well as public awareness and clinical efforts. The Horseshoe Casino Catchment Area Community Assessment was a community-based survey designed to assess the prevalence of gambling behavior in the communities in and around the Horseshoe Baltimore Casino and to evaluate attitudes of community residents about the casino prior to its opening August 26, 2014. The broad purpose of the study was to establish a baseline assessment of gambling behaviors and community attitudes to facilitate comparisons over time.

This study received exempt approval from the University of Maryland Baltimore Institutional Review Board on 6/24/2014.

The catchment area for this study included the following neighborhoods located within 1 mile of the Horseshoe Baltimore Casino that were also north of I-95:

- Barre Circle
- Federal Hill
- Otterbein
- Ridgely's Delight
- Sharp-Leadenhall
- South Baltimore
- Washington Village/Pigtown

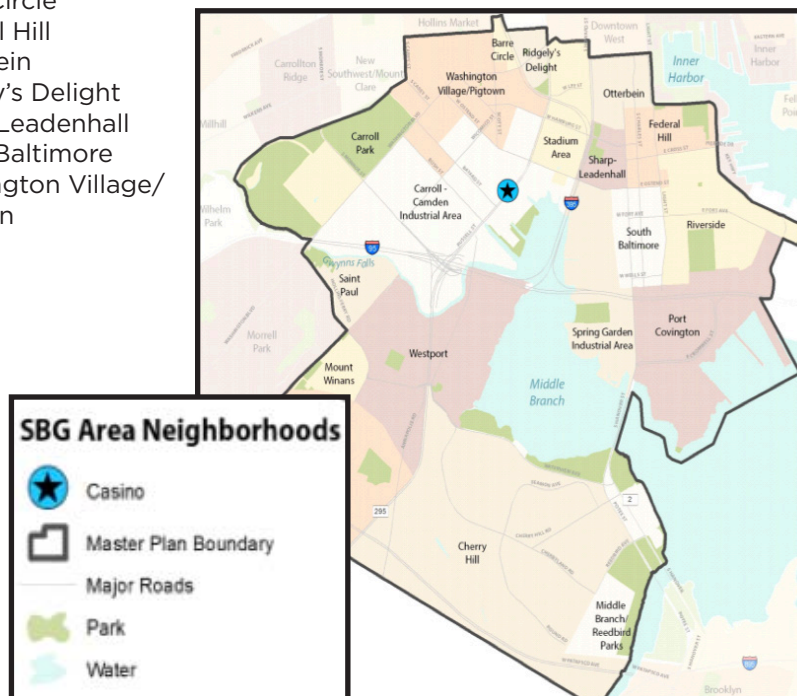


Figure 12: Selected residential neighborhoods for The Horseshoe Casino Catchment Area Community Assessment, Baltimore City, Maryland.

Recruitment also included convenience sampling of individuals who visited the catchment area for entertainment purposes (e.g., an Orioles baseball game) during the data collection period.



Trained surveyors began recruitment on July 6, 2014. It was completed on August 25, 2014 just prior to the grand opening of the Horseshoe Baltimore Casino. The survey collected data on the following domains:

- Demographics
- Income and employment
- Housing
- Health behaviors
- Casino impact
- Gambling behaviors

Respondents were 1,136 adults between the ages of 18-87 who resided in or visited the catchment area for entertainment purposes during the study's data collection period. To date, this study has yielded 2 manuscripts that have been submitted for publication and an oral presentation at the National Council on Problem Gambling meeting in July 2015.

Community Attitudes — Initial analyses focused on summarizing community concerns related to the grand opening of the Horseshoe Baltimore casino. Complete data were available for 1,024 adults between the ages of 18 and 83 who lived or owned businesses in the catchment area. As shown in *Figure 13*, the top 5 community concerns were crime (63%), drunk driving (62%), traffic (55%), pedestrian safety (52%), and property values (46%). Women expressed significantly more concerns than men, white respondents expressed more concerns than respondents from other racial groups, and property owners expressed more concerns than non-property owners.

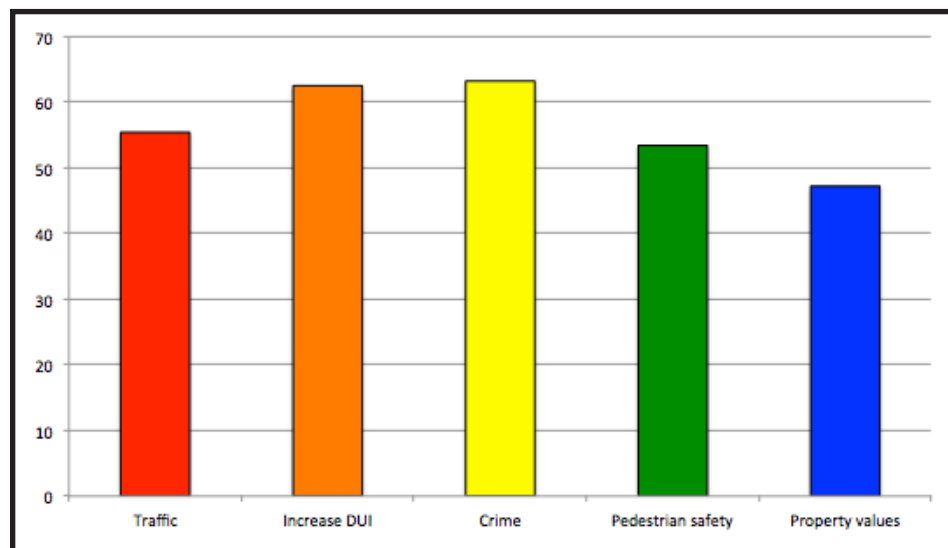


Figure 13: *Top Community Concerns*

Gambling Behaviors — Following our analyses of community attitudes toward Maryland's newest casino, we conducted further analyses that focused on gambling behaviors of respondents to the community survey. 906 respondents had complete data related to gambling behavior that could be analyzed; individuals who skipped 3 or more questions on the South Oaks Gambling Screen (SOGS) were excluded from analysis. Among respondents to our community survey, 4.5% of respondents scored in the range of prob-

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able pathological or problem gambling behavior. The prevalence was higher among blacks than whites (6.5% vs. 3.0%) and higher for males compared to females (6.5% vs. 3.1%). Approximately 30% of respondents scored in the range of 1-4 indicating “some problems” with gambling, raising the possibility that many respondents had subclinical gambling problems. Lower education levels, lower household income, unemployment, poor health, and low levels of concern about the casino impact were associated with scoring in the subclinical range of gambling behavior. Behavioral risk factors such as tobacco use, marijuana use, binge drinking and driving while intoxicated were also associated with subclinical levels of problem gambling behavior.

The findings of this study have served to inform The Center’s public awareness campaign for the Baltimore area as described earlier in this report as well as to confirm the need for prevention efforts such as those The Center has implemented through the Smart Choices program in Baltimore City Schools. The results of this study also provide a demographically comparable comparison group for the work of Dr. Himelhoch (described below) in studying rates of gambling disorder among clients in treatment for a substance use disorder.

Horseshoe Baltimore Community Survey Follow-up — To explore changes in attitudes and gambling behavior following the opening of the Horseshoe Baltimore casino a follow-up study was planned for the summer of 2015. Refinement of data collection measures and procedures took place during the spring of 2015. Approximately 20 temporary field workers were hired to conduct community-based data collection. At the close of FY15, our survey team was preparing to enter the field for data collection with a target for completion of data collection by the end of August 2015.

Data from the follow-up survey will be analyzed in conjunction with data from the Horseshoe Baltimore Community survey for 2014 to determine whether attitudes and gambling behaviors have changed since the casino became operational.

Prince George’s County Community Survey — A final Maryland casino is scheduled to open on the site of National Harbor in Prince George’s County Maryland in the second half of calendar year 2016. The MGM National Harbor Casino is being launched as a “destination resort casino” that will include not only casino gambling but also luxury accommodations, fine dining restaurants, entertainment shows, retail vendors and a luxury spa to attract guests. Because the physical setting and features of the MGM National Harbor Casino will be significantly different from the Horseshoe Casino Baltimore, it is of continued interest to evaluate local community attitudes and gambling behavior. To achieve this objective, we have entered a planning phase for a community survey to be conducted in Prince George’s County prior to the opening of the National Harbor casino. Planning meetings will begin in July 2015 with planned implementation of the survey to occur in the spring of 2016.

Vulnerable Populations

Several of our research affiliates are currently working on state of the art literature reviews focused on vulnerable populations. These literature reviews



are focused on older adults, veterans and family, particularly child maltreatment and problem gambling. The literature reviews will inform future research endeavors.

Child Maltreatment and Gambling Behavior — Child maltreatment is associated with physical and mental health problems in adulthood and problem gambling is associated with negative consequences for children. This study reviewed research on child maltreatment and risk of gambling problems in adulthood and adult problem gamblers' risk of abusing or neglecting their own children. Multiple database searches were conducted using pre-defined search terms related to gambling and child abuse and neglect. We identified 601 unique references and excluded studies if they did not report original research, did not specifically measure child maltreatment or gambling, or include a control/comparison group. Our search yielded eleven studies that included multivariable analysis of childhood maltreatment exposure and problem gambling. Eight studies focused on the effect of child maltreatment on later gambling; Two studies assessed the risk of problem gamblers' maltreatment of their own children, and a single study explored both of these questions. Six of seven studies examining childhood sexual abuse and four of five studies examining physical abuse showed a significant positive association between abuse and later gambling problems. Both studies examining psychological maltreatment and two of three examining neglect identified positive associations with problem gambling. Among three studies measuring risk of child abuse and neglect among current problem gamblers, studies suggest an increased risk for child physical abuse and medical conditions indicative of neglect although there is a considerable variation among studies. Child abuse is associated with increased risk of gambling problems as an adult. Problem gamblers may be more likely to physically abuse or neglect their children, but data here are limited.

Gambling in College Students and Young Adults

In partnership with The Center, a team of researchers at The Center for Young Adult Health and Development at the University of Maryland School of Public Health (led by Dr. Amelia Arria) has worked to complete research activities focusing on understanding the association between gambling and substance use among young adults. While working toward submission of two manuscripts, in FY15 Dr. Arria's team performed a new set of analyses focusing prospectively on the changes in gambling behavior over a five-year interval (i.e., 2009 to 2014) in the College Life Study sample.

Overall, high rates of persistence of gambling among prior gamblers (76%) were observed, as well as high rates of initiating gambling among prior non-gamblers (45%). Controlling for demographics, further analyses revealed that individuals with higher risk for alcohol use disorder (AUD) in Year 5 were at increased risk for initiating gambling by Year 10 (versus continued non-gambling), and that more frequent gambling in Year 5 predicted a greater likelihood of continuing to gamble in Year 10 (versus desisting). Although most individuals who gambled did so infrequently (i.e., less than once a month), heavier drinking in Year 5 was significantly associated with more frequent gambling in Year 10, even after accounting for the effects of Year 5 gambling frequency, sensation-seeking, and demographics. Results also indicated that higher levels of sensation-seeking predicted more frequent gambling in Year

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10, but only among individuals who had already been gambling in Year 5. These results were presented at the 29th National Conference on Problem Gambling in Baltimore, Maryland.

In light of the relationship between gambling and excessive drinking among college students, a selection of gambling measures has been integrated into existing statewide measurement system of college students' alcohol consumption. This measurement system consists of an annual web-based survey entitled the Maryland College Alcohol Survey and is being conducted by the Maryland Collaborative to Reduce College Drinking and Related Problems.

The 2015 administration of this survey included 3,303 full-time undergraduate students ages 18 to 25, from eight different colleges and universities throughout Maryland. Although the survey is not designed to measure problem gambling, the 2015 data is anticipated to provide a baseline measure against which future assessments of college student gambling can be compared, both at the level of each individual school and statewide. For example, approximately 18% of students surveyed said they played the lottery in the past year, and 9% gambled at a casino.

More information about the Maryland Collaborative and its measurement system is available online (<http://marylandcollaborative.org/maryland-college-alcohol-survey/>).

Screening for Gambling Problems Among Individuals In Substance Use Disorder Treatment

Research to inform and support best clinical practices for addressing problem gambling among individuals in substance use disorder (SUD) treatment has been conducted by Dr. Seth Himelhoch and his team and provides a model for the way in which research can be translated into clinical practice. Their studies have validated the most effective brief screening tools for evaluation of gambling problems among individuals in SUD treatment and also have reported that more than 46% of individuals in an urban methadone maintenance clinic meet the DSM5 criteria for gambling disorder (*Figure 14*).

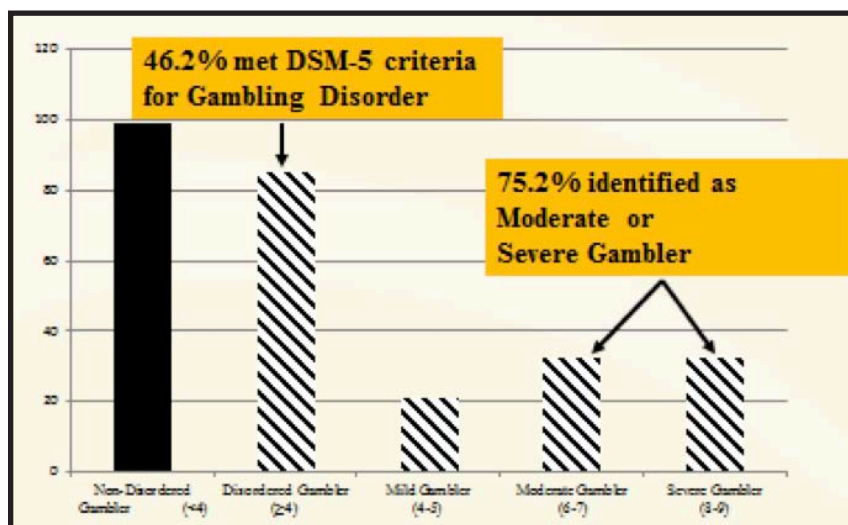


Figure 14: Percent of Clients in SUD Treatment Meeting DSM5 Gambling Disorder Criteria



This is an extremely high rate compared to the general population rate of 1.9% found in the 2010 Maryland prevalence study and also compared to 4.5% found in The Center's Horseshow Catchment area study. Additionally, among those individuals who met diagnostic criteria, over 75% met criteria for a moderate to severe level of gambling disorder, confirming that gambling problems in this population are like to have a significant negative impact on their lives and SUD recoveries. For example, while the average income of this sample was less than \$20,000 per year, those identified as having a gambling disorder spent more than an average of \$300 per month on lottery tickets.

In spite of the potential detrimental impact of gambling on these individuals and the fact that nearly half reported a diagnosable gambling disorder, only 6% reported ever having talked with a counselor about their gambling. These results strongly reflect the need to address the impact of gambling and problem gambling in SUD treatment and have informed the protocol that has been developed for our Disordered Gambling Integration project implemented in FY15 (see Treatment section).

Dr. Himelhoch and his team are further exploring this data as well as conducting follow up evaluations to assess the impact of opening an urban casino on this vulnerable population. This data, combined with the Horseshoe Catchment follow up data, will provide valuable information for public health, clinical and prevention program development.

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FUTURE DIRECTIONS

The Center will continue to evaluate and grow each key initiative in all of the six domains of function. A major focus will be on further developing and expanding the integration of problem gambling services and awareness into existing behavioral health programs. Additionally, enhanced program evaluation strategies and protocols will be implemented in order to define best practices. Network functioning will be monitored specifically working toward identifying and removing barriers to care. Research findings will continue to be utilized to inform treatment, public awareness, prevention and public policy initiatives. The Center will work closely with community stakeholders in those counties with casinos to identify and respond to needs for treatment and prevention services and resources. Key goals in each domain are highlighted below.

FY 2016

TREATMENT AND INTERVENTION SERVICES

- Continue to expand the capacity to address problem gambling and the impact of gambling on recovery, health and well-being within existing behavioral health programs through the DiGIn program as well as other training and technical assistance initiatives.
- Develop enhanced systems within the behavior health treatment system for problem gambling client monitoring and program evaluation in order to remove barriers to problem gambling services and improve client outcomes.
- In collaboration with the Research Program, broaden the Helpline data tracked and analyzed.
- Work collaboratively with the Maryland Lottery and Gaming Commission Agency and BHA to enhance its Voluntary Exclusion Program (VEP) and to develop the most effective and therapeutic practices for this program.

PUBLIC AWARENESS

- Expand campaigns across the state of Maryland, particularly collaborating with counties housing casinos to develop targeted messaging for their jurisdictions.
- Implement campaigns geared to special populations, such as Asian Americans
- Expand use of social media for awareness campaigns.
- Develop additional collaborative public awareness efforts through the Maryland Alliance on Responsible Gambling.



TRAINING AND EDUCATION

- Launch on demand, online problem gambling training to meet needs of training the broadest range of behavioral health professionals.
- To meet the need of growing numbers of problem gambling treatment providers, increase case consultation calls to four times per month.
- Continue to offer tailored trainings in response to the requests of specific agencies and organizations.
- Hold an annual Maryland Conference on Problem Gambling in spring, 2016 which will be a learning forum that will bring together national experts and the latest information, research and resources to better understand and address the impact of gambling and problem gambling for individuals, families and communities.

PREVENTION

- Integrate problem gambling prevention strategies and practices within existing community prevention initiatives and in line with the Maryland Strategic Prevention Framework (MSPF).
- Develop outreach efforts with youth advocacy groups in high-risk communities.
- Offer the Smart Choices program to school districts in Maryland outside of Baltimore City.

PUBLIC POLICY

- Expand the scope and outreach of judicial trainings and programs in collaboration with the Maryland Lottery to educate those in the legal system regarding the VEP and therapeutic justice responses for violators.
- Monitor gambling-related legislation and prepare responses as appropriate.
- Create awareness materials geared toward legislators and judicial staff.

RESEARCH

- Develop and implement program evaluation protocols to effectively monitor and improve problem gambling treatment and intervention services.
- Continue to monitor impact of gambling in Maryland, with particular focus on casino jurisdictions and vulnerable populations.
- Continue to study risk and protective factors for gambling disorder to best inform treatment and prevention practices.
- Collaborate with key stakeholders on future research.

Acknowledgements

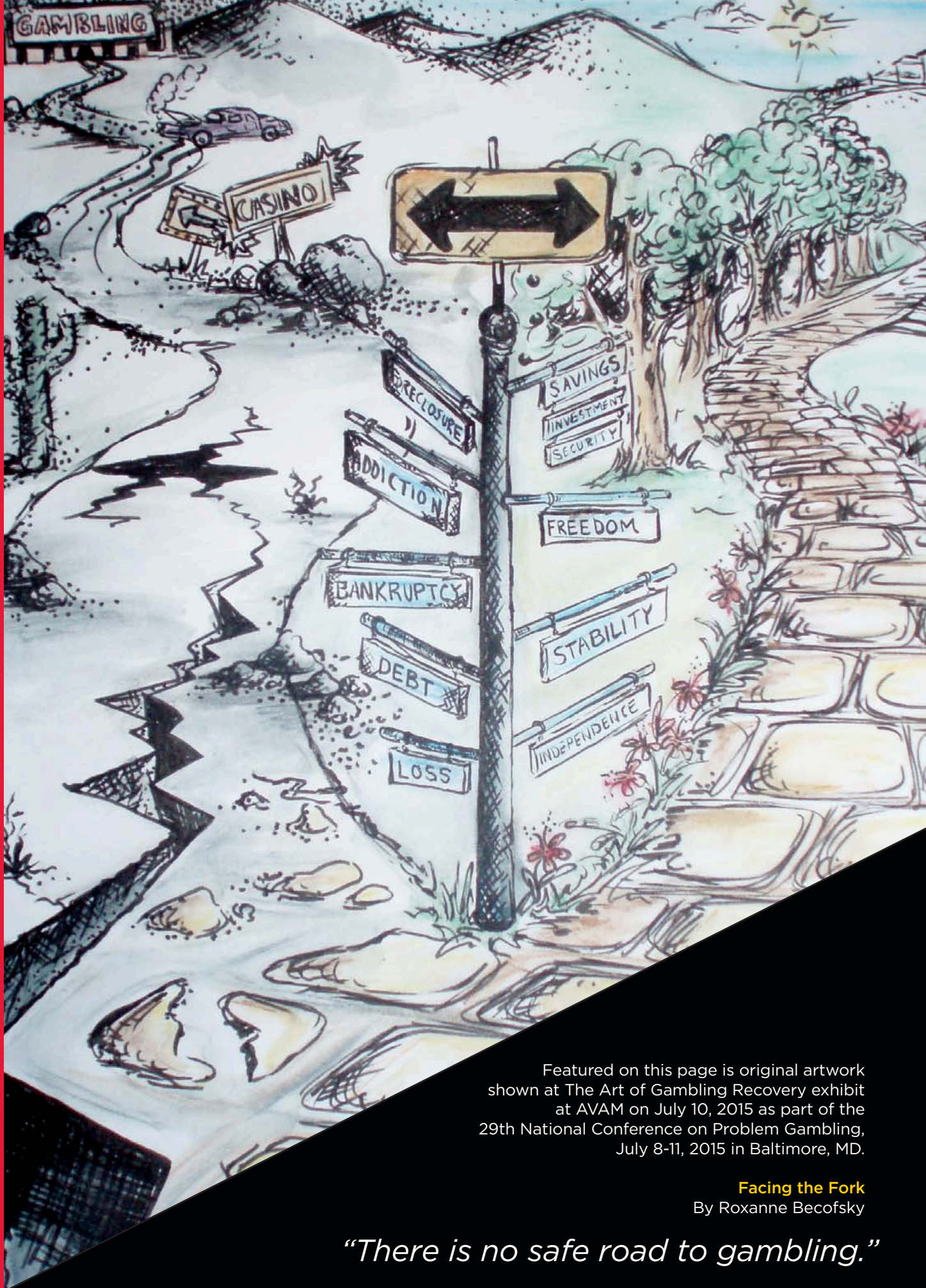
Maryland Department of Health and Mental Hygiene (DHMH)

Behavioral Health Administration (BHA)

Maryland Lottery and Gaming Control Agency

Maryland Alliance for Responsible Gambling (MARG)

National Council on Problem Gambling



Featured on this page is original artwork shown at The Art of Gambling Recovery exhibit at AVAM on July 10, 2015 as part of the 29th National Conference on Problem Gambling, July 8-11, 2015 in Baltimore, MD.

Facing the Fork
By Roxanne Becofsky

“There is no safe road to gambling.”



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