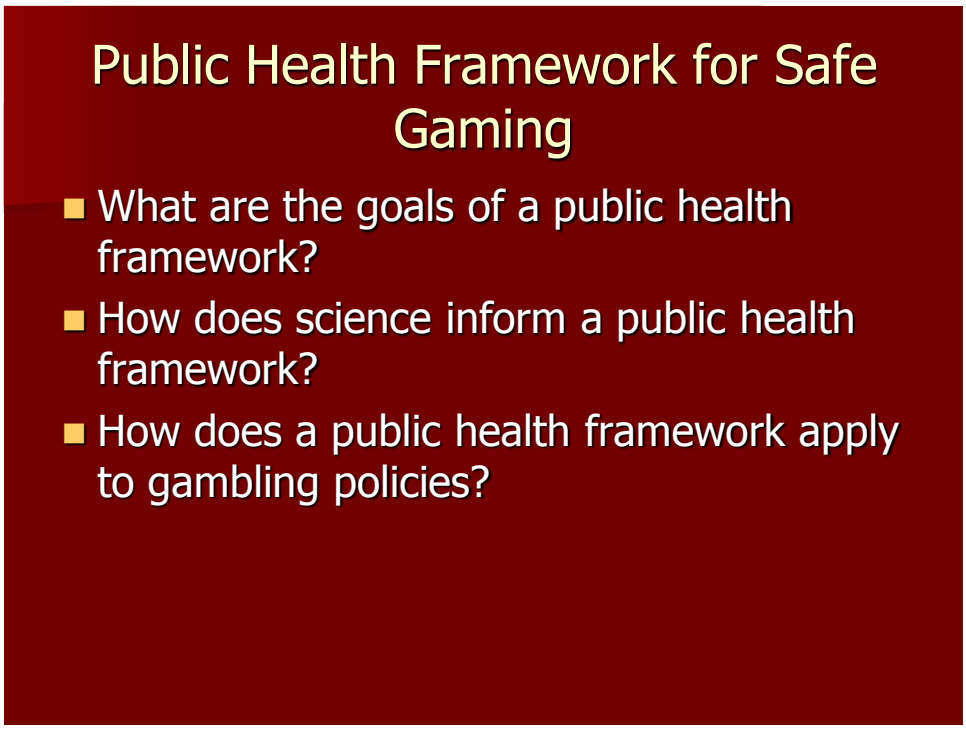
Good afternoon. I want to thank Chairman Crosby and Members of the Commission for the invitation to be here today and thank you for taking the time to learn about these important issues.



I'm going to talk today about applying a public health approach to responsible gaming efforts, and applying an empirically-driven scientific approach to evaluating those efforts. I will focus particularly on casino self-exclusion programs.

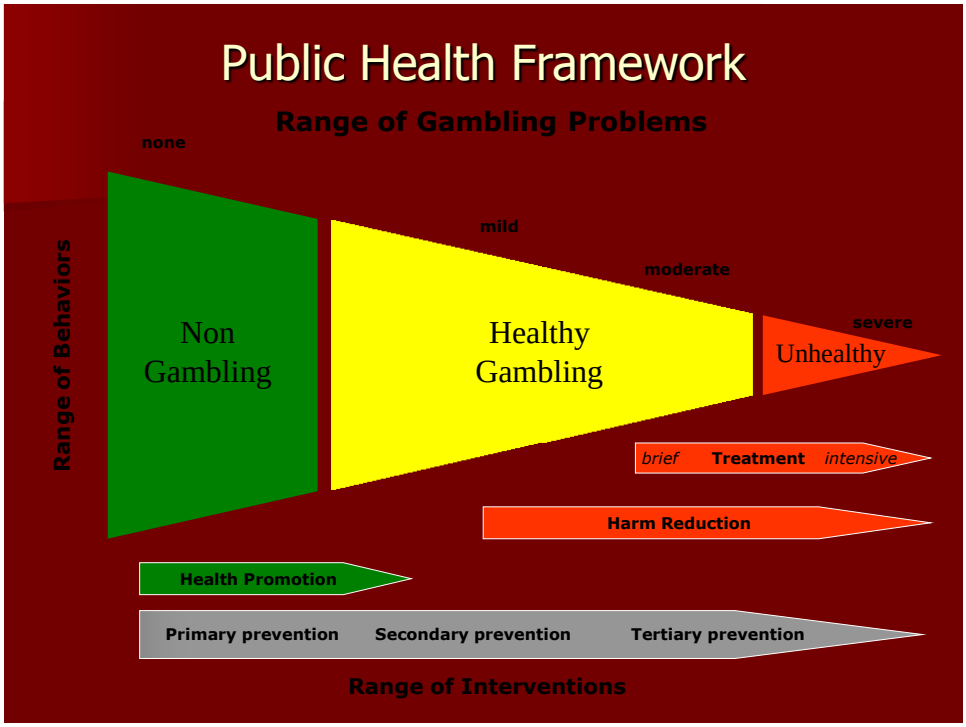
I'd like to begin with a few examples of harm minimization techniques not directly related to gambling. In the 1990s, airbags became a mandatory safety device in most cars. These devices are effective and certainly save lives. But research has also shown that they can cause injury

and even kill small children. These findings have led to specific recommendations and new safety standards for airbags. The US has a minimum drinking age of 21 to protect youth from the harms of alcohol. Evidence suggests that this has steeply reduced drinking and driving fatalities among young adults. But there is some speculation that the limit might contribute to binge drinking and irresponsible behavior among young adults once they start drinking. (NIAAA). Finally, the campaign to reduce skin cancer has been hugely successful. The vast majority of the population is now aware of the risks of sun exposure and many apply sunscreen religiously, particularly to their children. However, it can be argued that an unanticipated side effect of that campaign has been an increasing incidence of Vitamin D deficiencies among recent generations due in part to lack of sun exposure.

In all of these cases, regulations, interventions, and safety devices, which in most cases are very effective harm minimization techniques, also have unanticipated consequences. Only through empirical research can we learn about the efficacy and side-effects of these techniques and improve them.

Researchers who study the impact of gambling on health and well-being often focus on individual risk for addiction. But decisions about gambling expansion and regulation are based on debates and assumptions about costs and benefits to whole communities and impacts on vulnerable groups.

A public health approach to research examines the distribution and determinants of phenomena across populations. A public health approach to prevention and intervention uses that research to inform decisions about who to target and how.

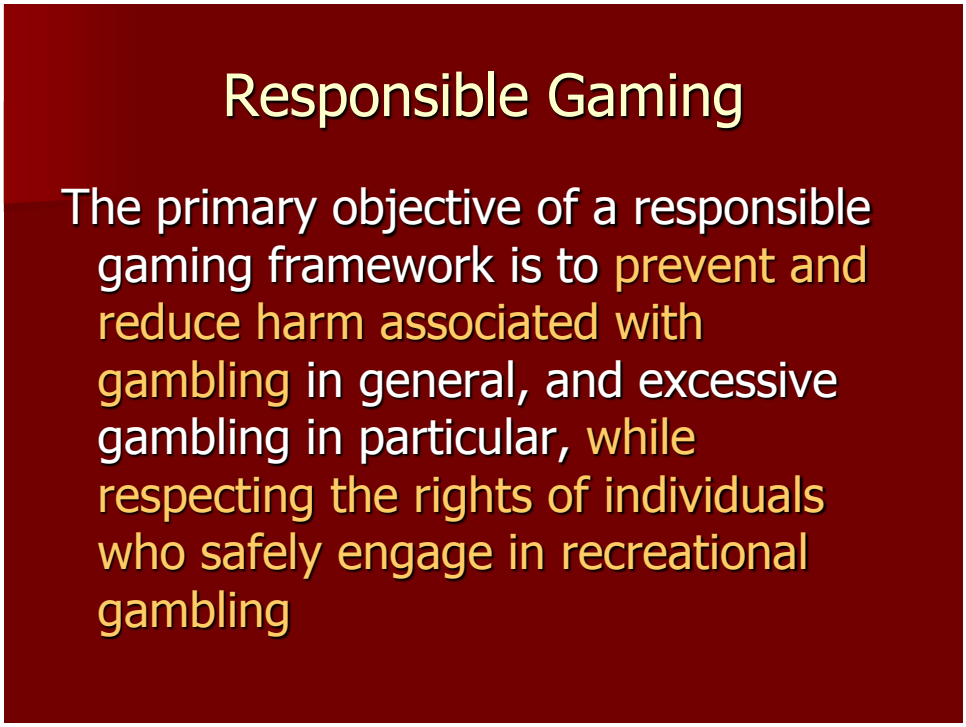


This figure, adapted to gambling by Korn and Shaffer, shows how gambling regulations and interventions can selectively target the different groups we know exist. On the left side, primary prevention efforts such as health promotion and awareness efforts can target those

who do not yet gamble. In the middle, secondary prevention efforts related to harm reduction and some forms of treatment can target healthy gamblers. Primary and secondary prevention efforts can have an effect on unhealthy gamblers, but tertiary prevention for these gamblers involves targeted intervention and treatment efforts.

Research on the distribution of individuals within these groups (those targeted by primary, secondary, and tertiary prevention) and their natural progression in and out of problems can inform how much effort ought to be devoted to each of these categories.

It is important to note that techniques to make gambling safer cannot JUST be evaluated by their ability to reduce problem gambling. A public health approach recognizes the need to reduce problem gambling among vulnerable groups, but also recognizes the rights of individuals, and the importance of not imposing unjustified restrictions on the majority of gamblers who do not experience problems as a result of their gambling or unjustified financial burden on those who provide gambling services. More shortly, and this quote is attributable to Dr. Norman Zinberg: Bad laws punish many people and deter few. Good laws punish few people and prevent many.



We use this public health approach as a framework in our work with casinos to develop responsible gaming programs. The primary objective of a responsible gaming framework is to prevent and reduce harm associated with gambling in general, and excessive gambling in particular, while respecting the rights of individuals who safely engage in recreational gambling.

Principles of Responsible Gaming Programs

1. Commit to preventing and reducing gambling-related harms
2. Work collaboratively with fellow key stakeholders
3. Identify common short and long-term priorities
4. Use scientific evidence to guide policy
5. Monitor the impact of installed policies

The principles of responsible gambling programs ought to include the following:

1. Commit to preventing and reducing gambling-related harms
2. Work collaboratively with fellow key stakeholders
3. Identify common short and long-term priorities
4. Use scientific evidence to guide policy
5. Monitor the impact of installed policies

Toward Evidence-based Practices

- Do no harm
- Untested interventions pose significant individual and public health threats

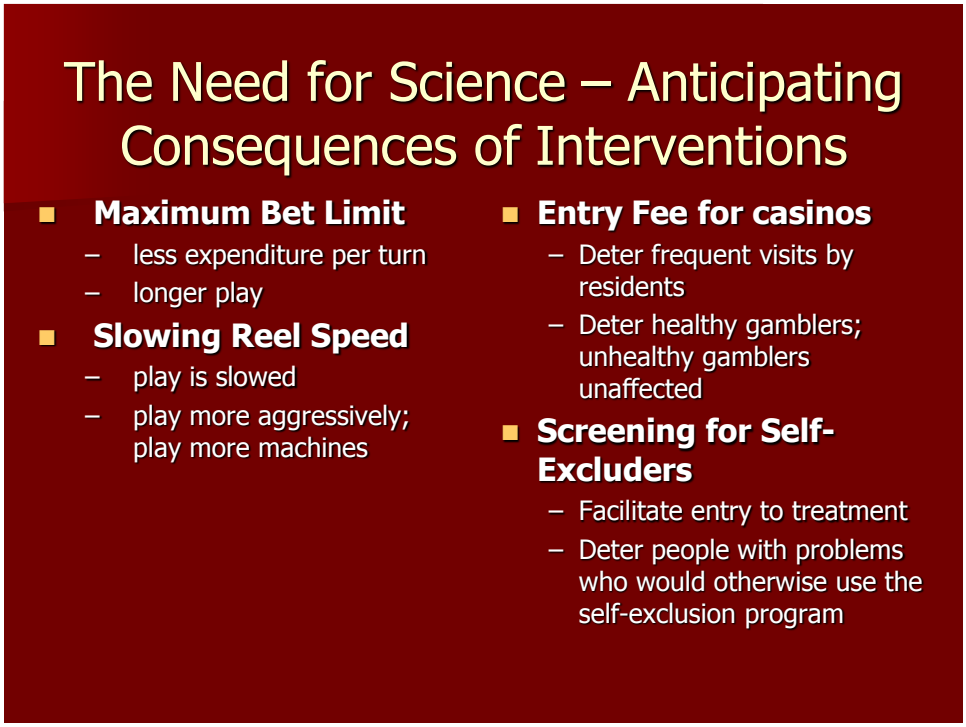
Returning now to the examples I provided initially. A guiding principal of medical ethics is to do no harm.

Most people think of this principal in terms of somatic medicine. For example, doctors often only offer untested treatments to people who are in extremely poor health and out of conventional treatment options. But in behavioral health, many treatment systems offer patients well-intentioned, but untested treatment plans. Unfortunately, untested treatments, for both somatic and behavioral health care can pose significant individual and public health concerns.

Once a public health approach is adopted, a scientific approach is necessary to ensure that policies, interventions, or treatments are accomplishing what they seek to accomplish. Specific to gambling, interventions, whatever their intentions, can:

- Decrease gambling related problems
- Increase gambling related problems
- Have no effect on gambling related problems
- Influence gambling related problems indirectly through other factors
- Have unanticipated consequences

Currently, how policymakers understand gambling and disordered gambling determines the policies they develop. And often this understanding rests upon public and private opinions, media sensationalism, and perceived threats to public welfare. Insufficient resources and infrastructure often prevent follow-up examination of the impact of policies and interventions; consequently, the efficacy of these policies and interventions remains unknown. Gambling policies would benefit if the policymaking process were science-based. We need science to tell us whether policies and interventions do what we think they do. Good intentions do not ensure good outcomes.



Specific to gambling interventions, here are a couple of possibilities of intended and unintended consequences of harm minimization strategies. Some of these are adapted from a paper by Bernhard and Preston.

Maximum bet limit on slot machine play. (In other words, only allowing patrons to wager a certain amount per turn.)

- Anticipated consequence: less expenditure per turn, less money lost
- Potential unanticipated consequence: longer play to make up for smaller limits

Slowing Reel Speed on slot machines

- Anticipated consequence: play is slowed making gambling less problematic
- Potential unanticipated consequence: playing multiple machines to make up for slow speed

Requiring an entry fee to patronize a casino (a practice currently employed in Singapore)

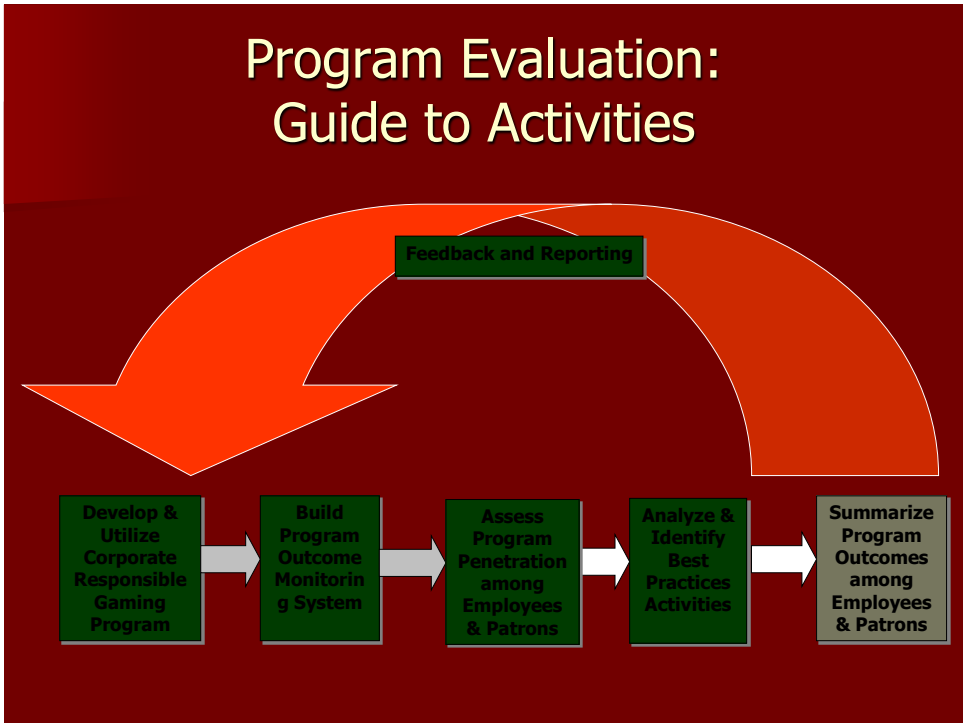
- Anticipated consequence: Deter frequent visits to the casino by residents
- Potential unanticipated consequence: Deter healthy gamblers; those with gambling problems still gamble and end up spending more

Requiring casino patrons who self-exclude to undergo a screening for gambling problems

- Anticipated consequence: Facilitate entry into treatment for those who need help
- Potential unanticipated consequence: Deter people with gambling problems from using the self-exclusion program.

None of these examples is meant to imply that these are bad policies; only that we might not fully understand their effects.

Of the studies that have been done evaluating gambling interventions and policies, most are cross sectional (taking information at one point in time) and based on gamblers' opinions about how harm minimization techniques affect them. Ideally, research on gambling policy and interventions needs to be prospective. We want to follow a sample before and after a technique's implementation. Otherwise we can't tease apart cause and effect.

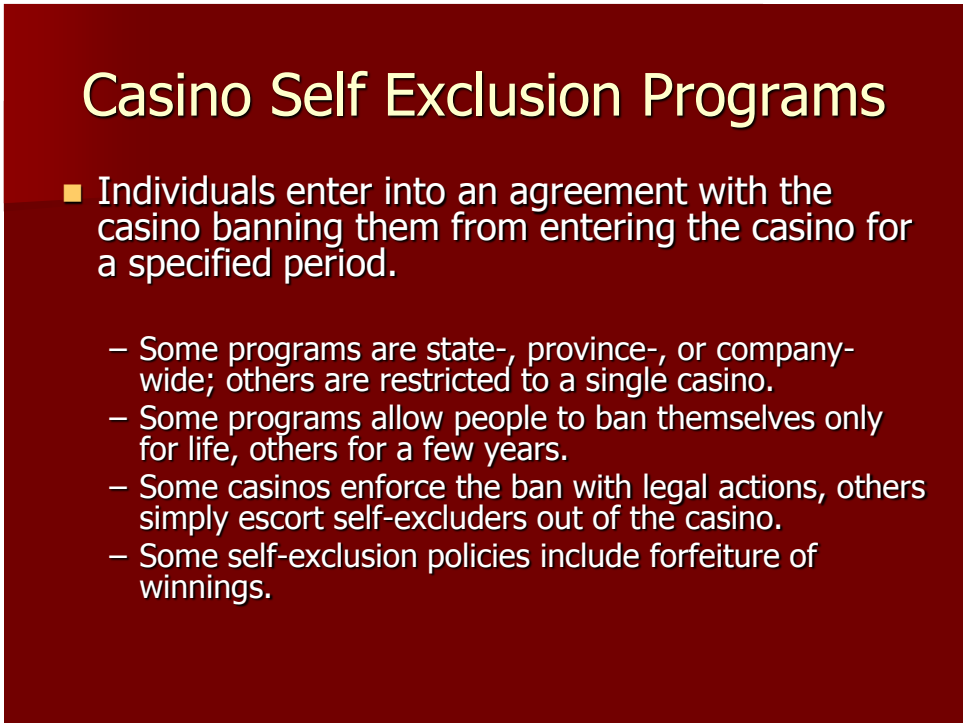


The figure here shows the steps needed to evaluate and improve responsible gambling programs. The first step is to develop and then implement the program. The next is to develop an outcome monitoring system. The next steps are to assess the penetration and impact of the program among BOTH patrons and employees, analyze them outcomes, and then recommend and implement changes according to the research findings. This is not a point-in-time evaluation but a continuous monitoring of the program and its effects.

As Kevin and Mark can attest to, compared to policy, research often proceeds at a snail's pace. However, it is crucial to set up this type of monitoring prior to implementing a program so that the research can follow at whatever pace it takes.

I want to change gears here to share with you some information from our research on casino self-exclusion programs, one of the key components of a responsible gambling program devoted to assisting those with gambling problems.

The Crystal Casino in Manitoba was the first, in 1989, to adopt a formal self exclusion program. Casinos across Canada soon followed suit. British Columbia, Alberta, Saskatchewan, Ontario, and Nova Scotia all have province-wide programs. In the US, Missouri, Louisiana, Michigan, Mississippi, and New Jersey state governments run these programs. In the world, state-wide programs exist in Australia, the Netherlands, France, Poland, Sweden, Switzerland, and South Africa. Company-run self exclusion programs are available at some multi-national casinos and all American Gaming Association Casinos.

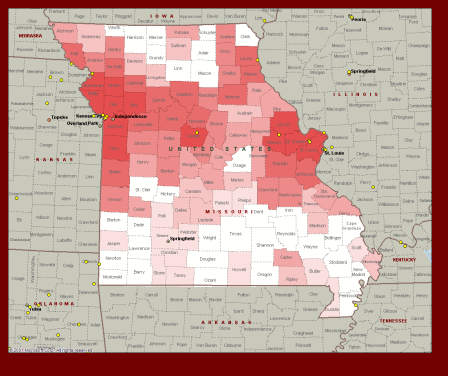


In a self-exclusion program, individuals enter into an agreement with the casino banning them from entering the casino for a specified period.

- Some programs are state-, province-, or company-wide; others are restricted to a single casino.
- Some programs allow people to ban themselves only for life, others for a few years.
- Some casinos enforce the ban with legal actions, others simply escort self-excluders out of the casino.
- Some self-exclusion policies include forfeiture of winnings.

Missouri Study

- Study of participants in Missouri's statewide self-exclusion program who enrolled between 1997 and 2003
- One of the first studies to assess long term (i.e., 4-10 years) self-exclusion experiences and outcomes

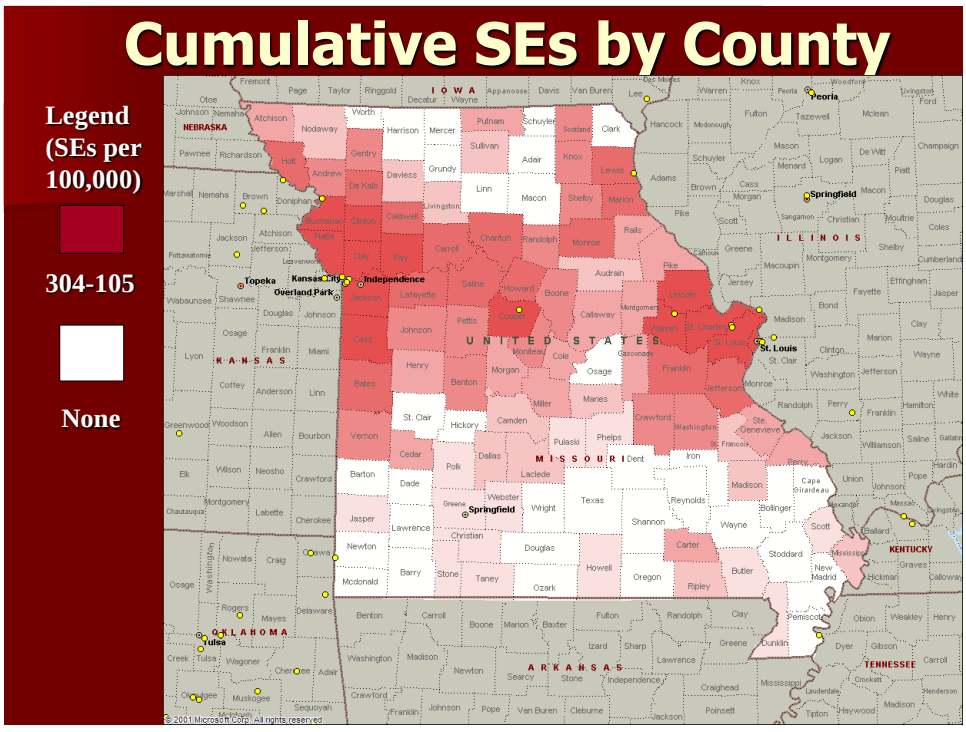


At the Division on Addictions, we conducted a study of participants in Missouri's statewide self-exclusion (SE) program who enrolled between 1997 and 2003.This was one of the first studies to assess long term (i.e., 4-10 years) self-exclusion experiences and outcomes.

Missouri's SE program was the first statewide self-exclusion program in the United States. It was created by the Missouri Gaming Commission in 1996. Applicants to the program add themselves to the **List of Dissociated Persons** for life. Each enrollee assumes responsibility for remaining off casino property. If an enrolled person returns to a casino, he or she can be arrested and charged with trespassing.

Our study included two phases. In the first, we examined the distribution of self excluders (SEs) across space and time.

This figure shows the distribution of SEs across time. In Missouri, enrollments increased across time and then leveled off, demonstrating a potential exposure and adaptation effect, similar to what Dr. LaPlante described earlier.



This figure shows the distribution of SEs across space. Casinos are marked by yellow dots. As you can see, self excluders were clustered around the casinos. This could indicate that people who lived closer to the casinos were more likely to experience problems, though other explanations are possible.

Follow-Up Participants

- 5,125 people enrolled in Missouri's self-exclusion program (MVEP) between 1997-2003
  - MGC provided us with a vetted list of telephone numbers for these enrollees
- We stratified these self-excluders (SEs) according to
  - year of application to the program
  - region
  - gender
- We randomly selected 20% from each stratum and assigned them randomly to one of five blocks
- We targeted the first two blocks (419 SEs) for interviews in '07 and '08
- We completed interviews with 113 (27%)

In the second phase of this study, we conducted interviews with SEs 7-10 years after they enrolled in the program. It is important to note that this program involved a lifetime ban at the time. More than 5,000 people enrolled in the program between 1997 and 2003. We randomly targeted 419 of those SEs for interviews. Only 169 of the 419 had accurate contact information available. We completed interviews with 113 of those 169.

45% of participants were male, 81% were Caucasian, and their average age at enrollment was 45 years old.

Follow-Up Outcomes

- 109 gambled at Missouri casinos prior to SE enrollment
  - Only 9 gambled in Missouri casinos after SE enrollment
  - The proportion visiting out-of-state casinos did not increase.
- 28 (25%) quit all gambling, 20 (18%) quit casino gambling, and 65 (58%) did not quit gambling
  - About half of those who quit returned to gambling
  - However, they gambled less than before
- Participants reported fewer gambling problems in the past 6 months than prior to SE enrollment

96% of participants reported gambling in Missouri casinos prior to SE enrollment; after entering the SE program, only 9 participants reported gambling in Missouri casinos.

The proportion of participants who gambled in any non-Missouri location (i.e., non-Missouri casinos, other venues, the Internet) did not change significantly after entering the SE program.

Twenty-eight participants (24.8%) reported quitting all gambling and 20 participants (17.7%) reported quitting casino gambling after entering the SE program. However, 65 participants (57.5%) reported not quitting gambling after they signed up for the SE program.

Among the 28 participants who reported quitting all gambling upon entering the SE program, about half had gambled at some point since SE enrollment.

Among the 98 participants who reported gambling at any point after signing up for the SE program, most reported continuing to gamble only occasionally. Finally, participants reported fewer gambling problems in the past 6 months than prior to SE enrollment.

MVEP Breaches

- Eighteen participants (16%) attempted to enter Missouri casinos after enrolling in the MVEP
  - 1 reported ~400 attempted entries
  - Other 17 tried to enter an average of 4.7 times
- 9 of the 18 (50%) entered at some point without being caught
- 10 of the 18 (56%) were caught at least once
  - 1 was fined
  - 1 was arrested
  - 7 experienced no consequences other than being asked to leave
  - 1 received a citation and had to take a class

Eighteen participants (16%) attempted to enter Missouri casinos after enrolling in the SE program. 1 reported more than 400 attempted entries. The other 17 tried to enter an average of 4.7 times. 9 of the 18 (50%) entered at some point without being caught. 10 of the 18 (56%) were caught at least once.

1 was fined.

1 was arrested.

7 experienced no consequences other than being asked to leave.

1 received a citation and had to take a class.

MVEP Satisfaction

- 68% were satisfied with MVEP
- Some of the 32% of participants who were dissatisfied provided reasons:
  - Permanence of the ban
  - Program not explained adequately upon sign-up
  - Staff implementing the program were rude
  - Program made gambling worse
  - Still easy to get into casinos
  - Able to go to other states

When we asked respondents about their satisfaction with the program, 68% reported being fully satisfied. Of the 32% who were not satisfied, some provided reasons. The most common reason was the permanence of the ban. Some respondents also reported that the program was not explained adequately to them upon sign-up.

Treatment Experiences

Treatment Type	When Participants Received Treatments (N = 113)		
	Ever	Before MVEP	After MVEP
Any Treatment	**59.3%**	**43.4%**	**53.1%**
Gambling Treatment	**37.2%**	**15.0%**	**33.6%**
Gamblers Anonymous	33.6%	12.4%	28.3%
Gambling Treatment Program	23.9%	7.1%	21.2%
Gambling Treatment Extended Care or Aftercare Sessions	2.7%	1.8%	1.8%
Substance Use Treatment	**15.0%**	**9.7%**	**8.8%**
Alcoholics/Narcotics Anonymous	12.4%	8.8%	8.0%
Inpatient Alcohol/Drug Dependency Treatment	6.2%	6.2%	0.9%
Outpatient Alcohol/Drug Dependency Treatment	6.2%	3.5%	1.8%
Mental Health Treatment	**25.7%**	**20.4%**	**23.0%**
Outpatient Mental Health Treatment	20.4%	19.5%	17.7%
Inpatient Mental Health Treatment	8.0%	6.2%	6.2%
Budget or Pressure Relief Meetings	7.1%	1.8%	7.1%
Other	**36.3%**	**24.8%**	**27.4%**

For this slide, just focus on the second, highlighted row. More than 50% of participants reported receiving mental health treatment, and close to 40% indicated receiving gambling-specific treatment. As the figure shows, gambling treatments were the most frequently received treatments among participants. Gamblers Anonymous was the most popular form of gambling treatment among participants (33.6%). Importantly, this gambling treatment was

more likely to occur *after* SE than before it. This suggests that SE might serve as a gateway for treatment entry.

Self-Exclusion Conclusions

- Self-exclusion programs appear to have promise.
- Their effectiveness may be due to their providing a straightforward first step for at-risk gamblers to begin to address their problems. The very act of enrolling may be the strongest part of the intervention.
- More longitudinal and prospective research is needed to determine longterm outcomes.

Self Exclusion Areas of Improvement

- If enforcement is a priority, more stringent measures are needed to identify and prevent SEs from entering casinos
- Obtain better contact information and maintain better records of enrollees to facilitate research and increase program enforcement and communication with enrollees.
- Reconsider the length of the self exclusion ban in light of SE satisfaction and empirical evidence

General Limitations of Responsible Gambling Programs

- Self-exclusion and other responsible gambling resources are only helpful if people can access them easily

General Conclusions

- Responsible Gambling Programs and policies may work best if they are framed as a set of tools available to individuals experiencing problems;
- It is important to increase the visibility of these programs and remove any barriers to involvement;
- Within a venue, all employees, not just floor staff ought to be trained in the principles and practices of these programs.

Additional Resources

- The Division has also developed resources and conducted studies related to:
  - Casino employee training programs
  - Responsible gambling programs and their effects on casino patrons
  - Gambling behaviors and problems among casino employees

Additional Resources

- www.divisiononaddictions.org
  - Division on Addictions' main website
  - Current projects and publications
- www.basisonline.org
  - Brief science reviews and editorials on current issues in the field of addictions (gambling, alcohol, tobacco, illicit drugs, addictions & the humanities)
  - Addiction resources available, including self-help tools
- snelson@hms.harvard.edu
  - Email me if you have any questions