The Massachusetts Gambling Impact Cohort (MAGIC) Study:

A Cornerstone of the Massachusetts Gaming Commission’s Research Agenda

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Comparing SEIGMA to MAGIC

DEFINING KEY TERMS
Type of Study

SEIGMA:
REPEAT CROSS-SECTIONAL STUDY

- Collecting data "snapshots" at designated points in time over a period of time
- Not the same group of individuals over time

MAGIC:
LONGITUDINAL COHORT STUDY

- Collecting a kind of "moving picture" by collecting data from a group of people at designated time points
- Following the same group of people over a period of time
Etiology

• The study of causation, or what causes a particular condition
• The study of how a condition, in this case problem gambling, develops over time
Incidence vs. Prevalence

SEIGMA gives you PREVALENCE

- # of existing cases in the population
- Includes both new cases and existing cases
- = the raw # of existing problem gamblers in MA

MAGIC gives you INCIDENCE

- # of new cases in the population
- People who go from not having a condition to having a condition
- = the raw # of new problem gamblers in MA
Incidence & Prevalence
RESEARCH QUESTIONS & ANTICIPATED FINDINGS
Research Goals

1. Determine the incidence of problem gambling in Massachusetts

2. Develop an etiological model of problem gambling
Research Questions: Incidence

• What is the incidence of problem gambling in MA prior to the introduction of the 4 new gambling venues?
• What is the incidence of problem gambling in MA immediately after the introduction of the 4 new gambling venues?
• Does the incidence of problem gambling decrease after several years of these venues being open?
• What is the raw number of new problem gamblers each year?
• What are the normal patterns of continuity and discontinuity in gambling and problem gambling behavior over time?
Research Questions: Etiology

• What individual, social, and environmental variables are most predictive of, and mediate the development of future gambling and problem gambling?
• What variables are most predictive of recovery from problem gambling?
• What is the best way of using findings from the previous questions to optimize prevention and treatment services in MA?
• Are there ‘safe levels’ of gambling involvement that do not lead to problem gambling?
• What characteristics differentiate problem gamblers who seek treatment from those who do not?
# How can we apply what we learn?

<table>
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<tr>
<th>MAGIC Overview</th>
<th>Target how resources for prevention, intervention, treatment, and recovery support are allocated</th>
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</thead>
<tbody>
<tr>
<td>Raw # of New Problem Gamblers</td>
<td>• Target prevention campaigns • Target intervention, treatment, &amp; recovery support</td>
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<tr>
<td>Risk Factors</td>
<td>• Target intervention, treatment, &amp; recovery support</td>
</tr>
<tr>
<td>Protective Factors</td>
<td>• Target intervention, treatment, &amp; recovery support</td>
</tr>
<tr>
<td>Safe Levels of Gambling</td>
<td>• Develop guidelines for awareness &amp; prevention • Make safe levels the default</td>
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<tr>
<td>Treatment-Seeking Characteristics</td>
<td>• Target interventions • Ensure availability of services &amp; recovery supports</td>
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Overview

MAGIC’S METHODOLOGICAL APPROACH
Sampling Strategy

N=10,000

Random Sample of 1,300
- General Population Subsample
- MAGIC follows this group over time.

n=8700

Identify Highest Risk Individuals

1,300 High Risk Sample
- High Risk Subsample
- MAGIC also follows this group over time.
Utility of Each Subsample

**General Population Subsample**
- Used primarily to calculate incidence
- Serves as a control group

**High Risk Subsample**
- Used primarily to study etiology
Timing of Assessments

Wave 1: Launched in September 2013
Wave 2: Launch in January 2015
Wave 3: Launch in September 2015
Wave 4: Launch annually in September
Retention Strategies

• Conducting assessments at the same time every year
• Being attentive to participant needs
• Providing incentives for participants
• Maintaining contact between assessments
• Having multiple means of contact
• Having an easily remembered project “brand”
• Maintaining a website
• Having permanent offices in the region
• Having a small, stable, and cohesive research team
• Hiring the right people to recruit and maintain the cohort
• Using staff time efficiently
SIGNIFICANCE OF THE MAGIC STUDY
Limitations of Existing Small-Scale Cohort Studies:

• Focused on a very narrow demographic
• Small sample sizes
• Small # of people who developed problems
• Short timespan
• Small # of assessment periods
• Focus on gambling or problem gambling, but not both
• Short questionnaire
• Poor retention rates
Limitations of Existing Large-Scale Cohort Studies:

• Relatively low incidence of problem gambling
  – Due to insufficient oversampling of people at risk

• Long time interval between assessments
  – i.e., 1-2 years
  – Most PG assessments based on past year

• Short duration
  – i.e., 4-6 years
The Value of MAGIC

- There have been no major cohort studies of gambling in the United States
  - None conducted in Massachusetts

- Change in gambling availability in MA will be more dramatic than in other jurisdictions studied

- Findings will be synergistic with the SEIGMA study
THANK YOU!