A Research Strategy for Gaming in Massachusetts

May 2019

Judith Glynn, *Strategic Science*

Mark VanderLinden, *Massachusetts Gaming Commission*

Table of Contents

Table of Contents 1
Table of Figures 2
Introduction 3
Objective 3
Primary Deliverable 3
Approach 3
Section 1. Overall 6
Research Goals, Objectives and Guiding Principles 6
Committee Functions 10
Section 2. Foundational Research Projects 11
The need for expansive knowledge translation 14
The future of these projects 14
Section 3. Ideas for Future Research 15
General comments on Research Agenda 15
Types of Research 16
Topics of Research 17
Populations of interest 20
Section 4. Community-Engaged Research 23
Objectives and Benefits 23
Focus *24*
Team Composition *24*
Links to State Level Research and Programming *25*
Promotion of Community Research Program *25*
Funding Envelope *25*
Duration and Structure *26*
Grants Procurement and Administration *26*
Evaluation and Recognition *27*
Section 5. Knowledge Translation for Key Stakeholders 28
Key Knowledge Users 29
Driving Knowledge into Policy and Practice 30
Knowledge Pathways 30
Section 6. Data Management 33
Program Components 33
Stakeholder Support 34
Section 7. Evaluation 35
Areas for Improvement 35
Recommendations 36
Section 8. Infrastructure to Support the Research Strategy 38
In Closing 40

Appendix A: Stakeholder Consultation Report 41
Stakeholder Groups 42
Consultation Methods 43
Consultation Highlights 43
Stakeholder Register (Abbreviated) 46
Appendix B: Document Review Report 49
Method 50
Overview of Documents Reviewed 50
Observations and Recommendations 50
List of Documents Reviewed 52

Table of Figures

Figure 1. Phases of Work 4
Figure 2. Mapping Research Program onto Objectives 7
Figure 3. Community Economic Profiles 8
Figure 4. Geographic Units of Data Collection 12
Figure 5. Two Pillars of Population Health Indicators 12
Figure 6. Indicators for Social and Health Pillar 13
Figure 7. Indicators for Economic and Fiscal Pillar 13
Figure 8. Knowledge Pathways 32
Figure 9. Infrastructure to Support the Research Program (proposed) 39

Research Strategy for Gaming in Massachusetts

Introduction

Objective

The State of Massachusetts has made a commitment to "understand the social and economic effects of casino gambling." The Massachusetts Gaming Commission (MGC) has dedicated substantial funds to this commitment, commissioning the most comprehensive research on this topic in the United States. MGC, Executive Office of Health and Human Services (EOHHS) and Department of Public Health (DPH) have formed the Public Health Trust Fund (PHTF) Executive Committee to provide leadership on a more comprehensive research strategy that will both understand these effects, and inform programming to maximize beneficial and minimize negative impacts of casino gambling in Massachusetts.

Primary Deliverable

Research Strategy – a multi-year plan for the evolution of a comprehensive research program to serve the needs of the Massachusetts Gaming Commission, Massachusetts Department of Public Health of the Massachusetts Executive Office of Health and Human Services, as collaboratively represented in the Public Health Trust Fund.

Approach

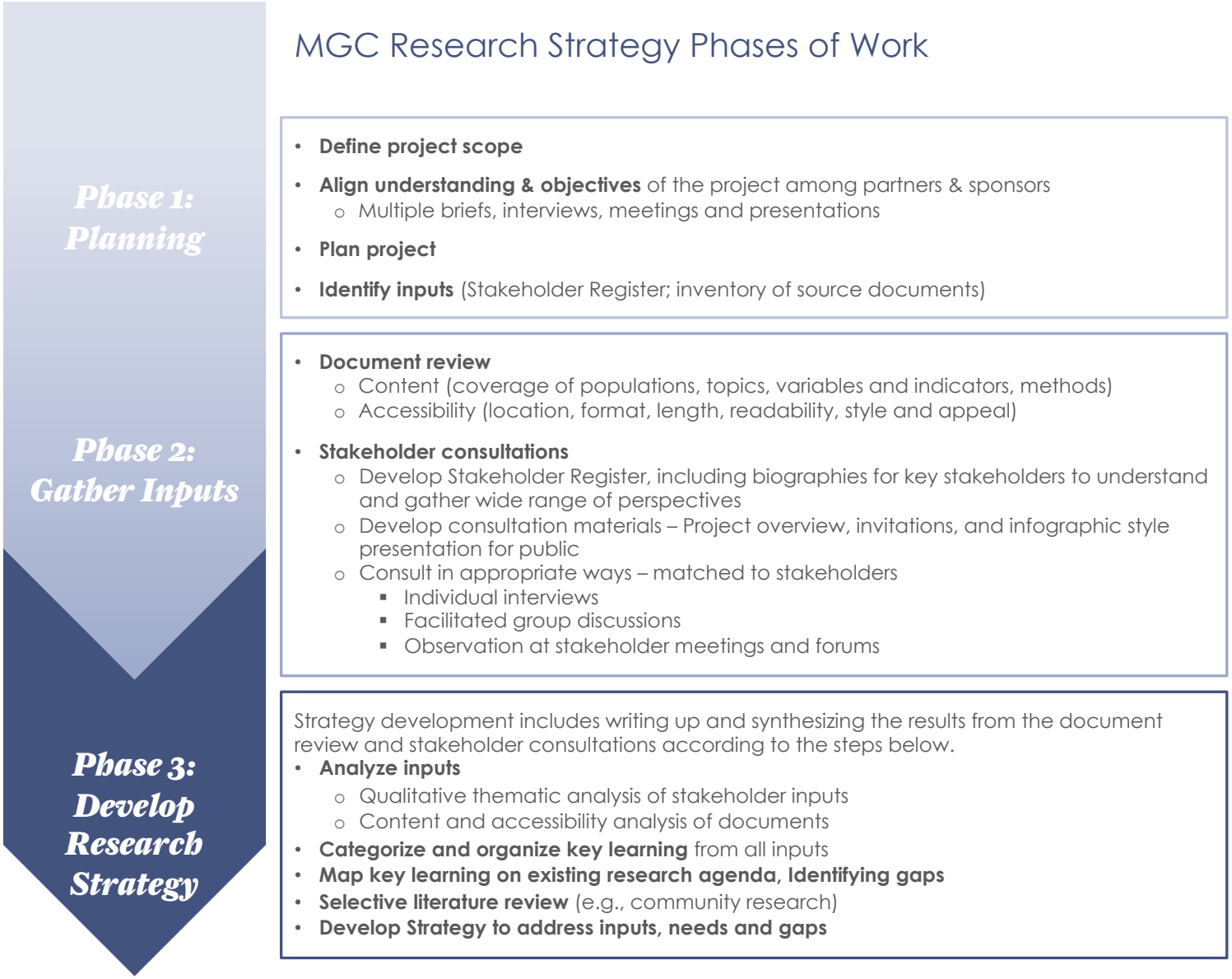
The original work plan, based on a six-month project (May 1 to October 31, 2018), was expanded to accommodate a longer project planning phase, increased stakeholder consultations, and vacation schedules (Summer and Holiday) of consultant and stakeholders. A draft reported was presented to the PHTF on January 23, 2019, and the revised report submitted in April 2019.

Recommendations are intended to achieve a Research Program for Massachusetts that:

- Builds on the commissioned research to understand the social and economic impacts of gambling in Massachusetts;
- Provides research results that will inform programming to prevent and mitigate gambling-related harm for the overall population while addressing health and social inequities;
- Helps host and surrounding communities to understand the impacts of casinos in their communities, and to develop policy and programs that maximize benefits while minimizing negative impacts;
- Helps at-risk populations and the organizations that serve them to understand the effects in their communities and develop programs and strategies to minimize gambling-related harm.
- Integrates all lines of research to achieve a more cohesive research program.

This project involved three overlapping phases of work as illustrated in the figure below. Detailed reports on the Stakeholder Consultation and Document Review are included as Appendix 1 and 2.

Figure 1. Phases of Work



Research Strategy

Recommendations for a Research Strategy at MGC are laid out in five sections:

1. **Overall:** This section addresses considerations and possible changes to the program objectives, guiding principles and committee structures

2. **Foundational Research Projects:** This section discusses the current social and economic research

3. **Ideas for future research:** This section brings together the rich research ideas drawn from stakeholder interview data, organized by:
    a. Types of research
    b. Topics of research
    c. Populations of Interest

4. **Community-Engaged Research**: This section maps out the addition of a funding stream for research that is driven by and responsive to community needs

5. **Knowledge Translation**: This section maps out the purpose and structure of a dedicated knowledge translation function as part of the research program

6. **Data Management**: This section describes the need to manage large datasets collected under the current research agenda, and anticipated data from casino operators and other sources

7. **Evaluation**: This section describes some work to facilitate evaluation of MGC's Responsible Gaming initiatives

8. **Infrastructure to support the research strategy:** This section outlines options to develop the infrastructure and resources, especially human resources, needed to deliver on a comprehensive research strategy

Section 1. Overall

The Massachusetts Gaming Commission has undertaken the most comprehensive research program in the United States to measure and understand the impacts of the introduction of expanded gambling. This section:

- Examines how well the current research meets the goals of the annual research agenda – as stated in The Expanded Gaming Act (2011), and interpreted by the MGC in the objectives of the Responsible Gaming Framework; and
- Identifies ways to improve the overall structure and approach of the research program.

Recommendations in brief

Responsible Gaming Framework: Research objectives and guiding principles

1. Expand the interpretation of the Research Goals articulated in the Expanded Gaming Act, such that "use findings to inform evidence-based policy and regulation" applies to policy and programs related not just to gambling (gaming regulation, responsible gaming, and problem gambling treatment and prevention), but to **all social and economic impacts of expanded gaming**
2. Add a research objective to **apply a social determinants or health equity perspective** that assures research measures social and economic effects of expanded gaming on vulnerable and at-risk populations
3. Add a research objective for **community engagement** in the research.
4. Add a guiding principle for **openness and transparency**, or rather explicitly extend this MGC principle to the Research Program

Committee Structure

5. Review the GRAC and RRC committees to more accurately reflect the purpose and functioning of these committees

Research Goals, Objectives and Guiding Principles

The Expanded Gaming Act requires the MGC to establish "an annual research agenda" to understand the social and economic effects of casino gambling in Massachusetts. The **Research Goals** are to:

- Understand the social and economic effects of expanded gambling and use findings to inform evidence-based policy and regulation
- Obtain scientific information relative to the neuroscience, psychology, sociology, epidemiology and etiology of gambling
- Inform best practice strategies and methods for responsible gaming and problem gambling treatment and prevention

- Evaluate all responsible gaming initiatives developed by the Massachusetts Gaming Commission

These goals are interpreted in the *Responsible Gaming Framework* that "aims to create an effective, sustainable, measurable, socially responsible, and accountable approach to gambling." The **Research objectives** in the Framework are to:

- Inform best practice in responsible gaming strategies and methods, problem gambling prevention and treatment, and responsible gaming messaging.
- Create and translate knowledge to support evidence-informed decision-making about gambling policy and regulation.

Two Tables mapping the current research program onto the goals expressed in the expanded Gaming Act (2011) are shown below.

Figure 2. Mapping Research Program onto Objectives

Objective	Research	Data Collected
Understand the social and economic effects of expanded gambling and use findings to inform evidence-based policy and regulation	SEIGMA *Social Impacts*	Gambling & Problem Gambling: Baseline surveys ♦ General population + Targeted + Online panel Gambling and Problem Gambling: Impact surveys ♦ General Population + Targeted +Online Panel Patron Survey
	SEIGMA *Economic Impacts*	♦ Patron Survey ♦ Operations Period Impacts ♦ Construction ♦ Employment ♦ Lottery Revenue ♦ Real Estate ♦ Community Economic Profiles *(see Table 2)*
	Public Safety Impacts	♦ Baseline: Plainville and Springfield ♦ Impact: Plainville (6m, 1y, 2y)
Obtain scientific information relative to the neuroscience, psychology, sociology, epidemiology and etiology of gambling	MAGIC	♦ Changes In Gambling Participation ♦ Changes in Problem Gambling Status ♦ Incidence of Problem Gambling ♦ Transitions, Stability And Change ♦ Implications for PG Prevention and Treatment
Inform best practice strategies and methods for responsible gaming and problem gambling treatment and prevention	MAGIC	♦ Transitions, Stability And Change ♦ Implications for PG Prevention and Treatment
	White Paper	♦ Combined: Baseline population Survey ♦ Helpline Call Data ♦ Focus Ggroup with MH&A treatment providers

Evaluate all responsible gaming initiatives developed by the Massachusetts Gaming Commission	Voluntary SE	♦ Evaluation of the Massachusetts Voluntary Self-Exclusion Program
	GameSense	♦ Compendium + four reports
	PlayMyWay	♦ PlayMyWay Preliminary Evaluation +Assessing the MGC PlayMyWay Play Management System.

Figure 3. Community Economic Profiles

Indicator Type	Indicators
Host community Industrial base & business	Employment, establishments, wages
	Industry Mix
	Business Sales
	Leisure & hospitality
Surrounding communities	Business
Host community Resident	Population
	Demographics
	Unemployment
	Income & poverty
Surrounding communities	Socio-economic
Host community Local area fiscal	Expenditures
	Revenue
	Property values
	Property tax revenue
Surrounding communities	Fiscal

Recommendation 1: The first research objective in the Responsible Gaming Framework to "Understand the social and economic effects of expanded gambling and use findings to inform evidence-based policy and regulation," could be modified to address:

- Challenges in stakeholders' understanding of the expansiveness of the research agenda; and

- Potential to apply findings far beyond Responsible Gambling and Problem Gambling programs and services to address social and economic issues that are covered by the research program and directly or indirectly related to casino impacts. The text highlighted in blue (Table 1) for the first and third objective could be interpreted more expansively to accomplish this.

Expansion of research objectives to include impacts far beyond RG and PG will require mechanisms to:

- Provide access to relevant data about non-gambling impacts
- Communicate the expansiveness of the research program
- Communicate these results to a wider range of target audiences, and
- Apply these findings in practice to: policy, regulation, programs, services, and further research

This expansion positions the research program as enabler of excellence in other areas of the MGC mandate, and as a fundamental tool for engaging communities to share information and build programs and services.

Recommendation 2: The research objectives should include the need to apply a *social determinants* or *health equity* perspective that assures research measures social and economic effects of expanded gaming on vulnerable and at-risk populations

Health inequities are the unfair & avoidable differences in health status. These differences are largely due to the social determinants of health (the conditions in which people are born, live, work & age), which are in turn shaped by the distribution of money, power & resources at national, state & local levels. A health equity approach requires considering the pre-existing inequities of certain population groups and asking: "Were those populations empowered and lifted up, or further pushed down by the introduction of casino gambling?"

Recommendation 3: The research program should be envisioned as part of the Commission's efforts to engage communities regarding the social and economic impacts of gambling, especially those communities most directly impacted by the expansion of gambling in Massachusetts. To that end, the research should address community engagement that will assist host and surrounding communities and high-risk population sub-groups to understand the social and economic impacts of casinos and develop policies and programs that maximize benefits while minimizing negative impacts.

The term "community-engaged research" (CER) is the term selected by MGC for its emphasis on engaging the community, while allowing for a range of methods, relationships and roles within a collaborative framework.

Some examples of community engagement include:

- Outreach to community groups and high risk sub-groups to explain the goals of the research
- Outreach to community groups and high risk sub-groups to explain the findings of the research before they are released to the public
- Inclusion of questions of interest to the host of surrounding communities
- Inclusion of a community response section in reports to the MGC
- Inclusion of a community advisory board or other groups to solicit community input into the overall planning and implementation of state-wide as well as targeted surveys

Additionally, the MGC will fund a separate program for community driven research initiatives, which is described in Section 4 below. The research objectives should include ways to both honor the principles of CER, and to connect State level research with these community-engaged research projects and teams in order to maximize and coordinate research efforts.

Community partnerships and community involvement should be important considerations and regarded as an advantage in future research projects and proposals.

Recommendation 4: **Guiding principle:** Consider adding ***openness and transparency*** as a guiding principle, or rather extending this principle from the larger regulatory approach, to Responsible Gaming and the Research Strategy. The intended result of this change is that data, data collection and reporting processes of operators would be designed with maximum transparency and serve to increase the *evaluability* of RG programs, tools and approaches. In practice this principle could impact such functions as:

- Data collection and extraction procedures to ensure linking data to individual player behavior
- Sharing of employee surveys
- Collaborating on patron surveys, or player surveys
- Training and employee assistance programs
- Awareness and referral to GameSense Information Centres (GSICs) by casino staff

Committee Functions

Recommendation 5: A further recommendation is to review the function of the two committees that were developed to support the research program, the Research Review Committee (RRC) and the Gambling Research Advisory Committee (GRAC). Both of these committees represent a demand on staff resources to manage them (scheduling and logistics, materials preparations, guest presenters, etc.). The roles and expectations of these committees could be examined to clarify whether they are intended to 1) fulfill functions and reduce staff workload, or 2) bring together important stakeholders to keep them apprised of the research program, but as a demand on staff time rather than a support. Considerations could include:

- The **RRC** provides quality assessments by research experts. Two minor criticisms arose during consultation. The first is the description of the Committee's function as "independent gaming research peer review" and, the second is the lack of sufficiently deep economic expertise on the committee. The RRC provides a much needed vetting of research reports by researchers with varied expertise. Two minor recommendations are to:
    - Change the description of the committee to remove "independent"; and
    - Recruit additional economic and fiscal expertise to the RRC.
- **GRAC** was intended to support knowledge translation but appears to function in practice more like a knowledge recipient than a body that assumes responsibility for knowledge translation functions from one meeting to the next. That being said, this does represent an important group of stakeholders who are very close to the research program and so should be knowledgeable about it. This may require a simple shift in thinking of GRAC as a key stakeholder group with whom to share research and that serves as a test group to gather reactions and ideas for more effective knowledge translation to other audiences.

Section 2. Foundational Research Projects

The Research Strategy is built upon two foundational research projects:

- Social and Economic Impacts of Gambling in Massachusetts (SEIGMA)
- Massachusetts Gambling Impact Cohort MAGIC)

Recommendations in brief

Foundational research projects

- Provide expansive knowledge translation
- Considerations for the future of these projects

These are both multi-year studies with rigorous methodology "to assist in understanding the social and economic effects of the introduction of casino gambling in MA, and in making annual scientifically-based recommendations to the Legislature." The results of these studies are to be applied "by policy makers and regulators to create policies that maximize the possible benefits and minimize the possible harms of expanded gambling in the Commonwealth." (https://www.umass.edu/seigma/)

The research design of the two studies is complementary, so that each potentially strengthens the results of the other, combining a large scale multi-year assessment of social and economic indicators at the population level, with a cohort study that follows a sample of people at the State level (with more intensive sampling of people at risk of problem gambling), to assess changes in their lives year-over-year, as casino gambling is introduced. The rigor and comprehensiveness of these two studies combined produces the strongest assessment of gambling impact undertaken in the world to date.

A graphic depiction of the extensive population health indicators being tracked across these two studies is provided in the four figures below.

Figure 4. Geographic Units of Data Collection

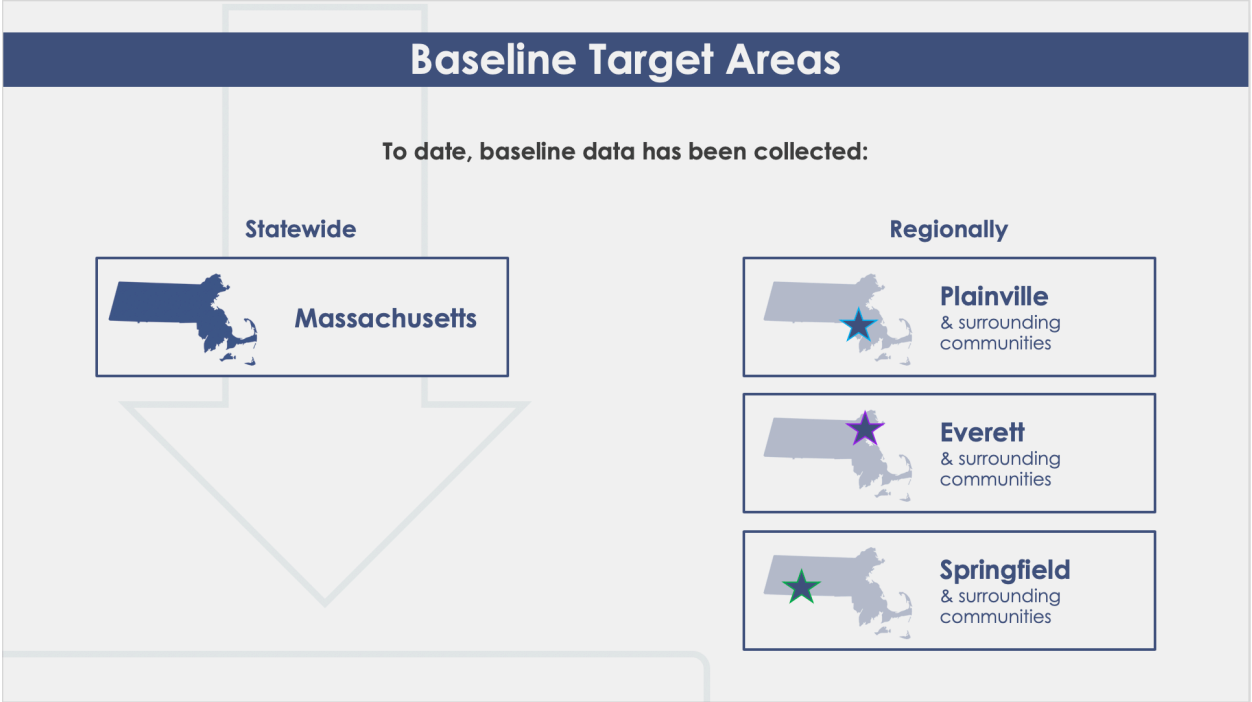


Figure 5. Two Pillars of Population Health Indicators

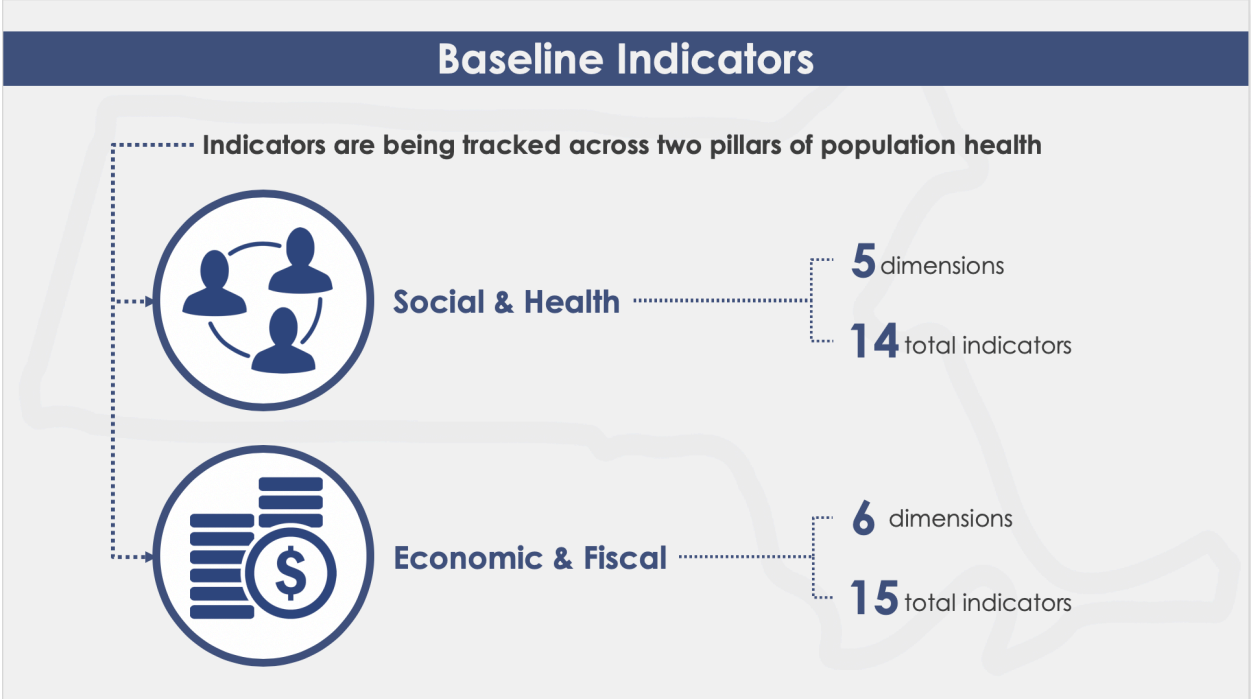


Figure 6. Indicators for Social and Health Pillar

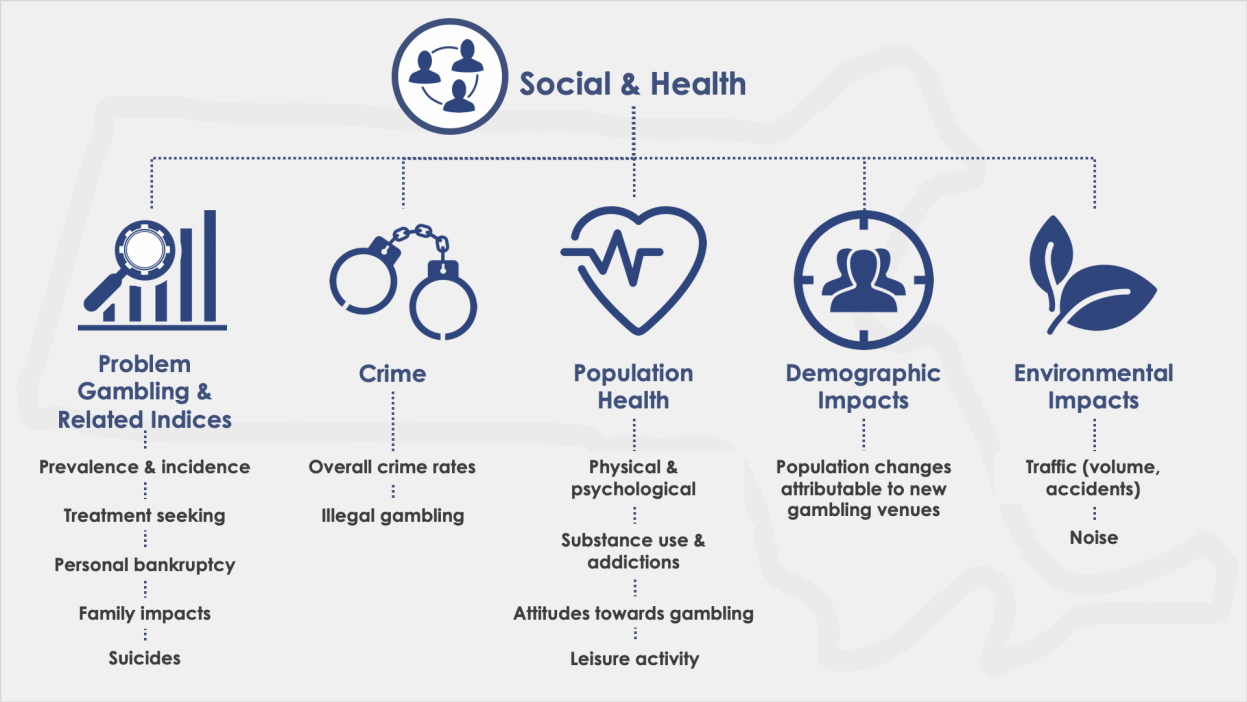
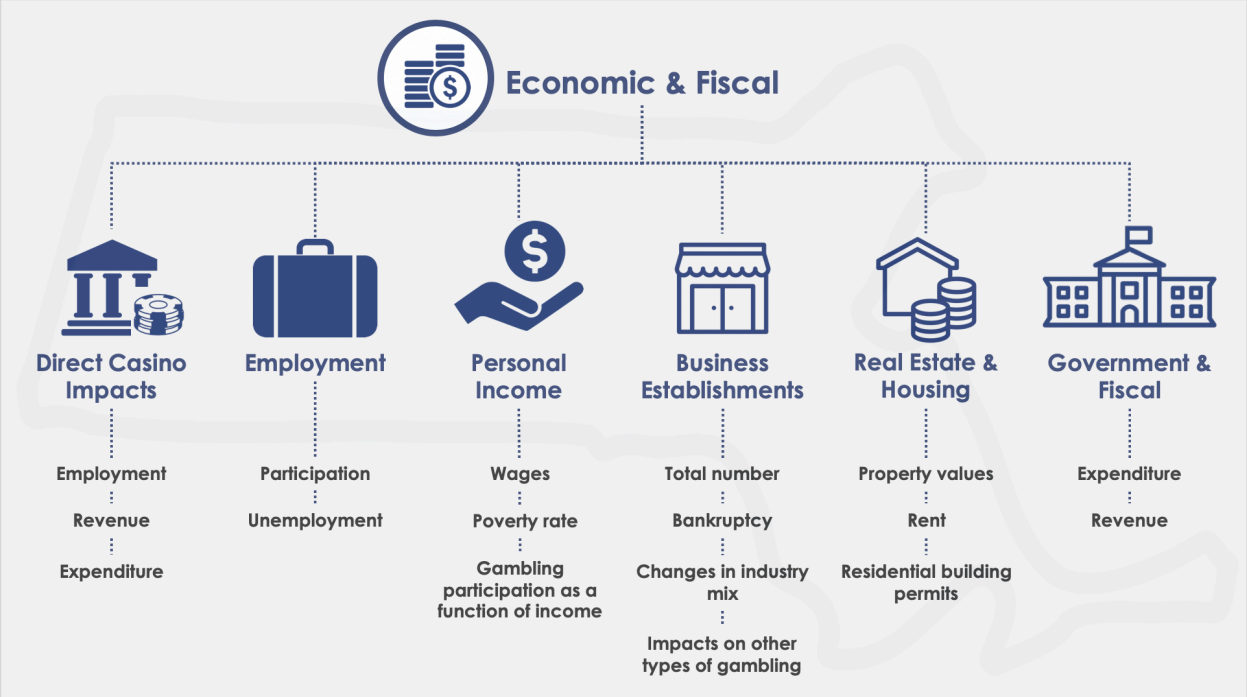


Figure 7. Indicators for Economic and Fiscal Pillar



The need for expansive knowledge translation

One of the key findings of the stakeholder consultation undertaken for the development of the Research Strategy was the lack of understanding of the comprehensiveness of the current research. That is, the majority of stakeholders believed the studies focused primarily on gambling participation and the prevalence of problem gambling, and were surprised by the breadth and depth of social/health and economic/fiscal data being collected on their communities. As stakeholders were made aware of this, they recognized the value of the research results for policy and programs far beyond problem gambling prevention and treatment. This was true even of highly engaged stakeholders, suggesting that the perception is fairly entrenched and requires ***explicit communication efforts on the comprehensiveness and potential value of the research to a range of community stakeholders***. This point is expanded upon in *Section 3. Knowledge Translation*.

The future of these projects

The MGC has begun the process of re-procuring the social and economic research. It will be important for future work in this area to **build on the current work and consider important and complex issues of consistency and comparability,** as well as **intellectual property**.

Section 3. Ideas for Future Research

Stakeholders shared an extraordinary number of interesting ideas for enriching or adding to the current research agenda. These are organized below in four sub-sections:

- **General comments on the current Research Agenda**
- **Types of Research**
- **Topics of Research**
- **Populations of Interest**

General comments on Research Agenda

Ensure the MGC and DPH research agendas are complementary

- Need clarity on the MGC research vision with respect to RG, especially for operators
- DPH appears to be funding their own research on the public health perspective – how does this intersect with the Commissions' research?
- In response to the dynamic tension between MGC and DPH, there is potential to bridge these "two parallel pathways" by framing the end goal as prevention (primary, secondary and tertiary/treatment), and include such things as evaluation of treatment effectiveness
- Balance emphasis on social health equity perspectives with economic, crime and other topics. Some stakeholders emphasized the need not to speak just to a public health audience, but to include the rich data related to crime, business and other economic indices. There is the potential for this economic audience to "be lost" in the public health terminology
- Public health triangle (host, agent, environment) – focus resources in line with this framework

Include all forms of gambling

- The distinction of casino gambling is artificial for most target audiences, with the possible exception of legislators
- Emerging forms of gambling such as sports betting – research to understand current state and anticipate legalization and/or expansion
- Recognizing video gaming as part of spectrum of gambling addiction
- Fantasy sports should be examined

Types of Research

Methodological research
Members of the Research Review Committee and the Gaming Research Advisory Committee in particular emphasized the opportunity to explicitly examine and document the important, but often invisible, work involved in such large scale and ambitious research projects.

- Extensive range of methods such as cross-sectional, longitudinal cohort, targeted population research
- Map current methods, units of analysis, populations and sampling strategies
- Sampling and recruitment in special populations – document learning and recommendations, and strategies for more deeply understanding these populations
- Efforts to integrate primary and secondary data across multiple studies and methodologies to create deeper profiles of target groups
- Use of probability panels concurrent with cross sectional and cohort studies with different sampling strategies – compare approaches on many aspects

Qualitative research
Research and community stakeholders reminded MGC to enrich the current research with qualitative methods.

- To more deeply understand issues, also to probe emerging findings from larger populations studies
- Pilot studies to inform appropriate and effective methodologies to reach, engage and understand a population

Community participatory research
While there is a section dedicated to the addition of this stream of research, it is worth noting that many stakeholders either raised the issue themselves or expressed strong support for the idea when asked, citing benefits such as:

- Will shed more light on how to conduct research with special populations
- Deepen insights
- Address mistrust – such as that encountered by the Research team for the report Casinos & Gambling in Massachusetts: African-American Perspectives – where some respondents expressed doubt about whether the research findings would be used; “do you have any power to change things?” they asked.

Structural impact research
Members of the Research Review Committee and the Gaming Research Advisory Committee as well as host community stakeholders suggested research to understand impact of expanded gambling on social and political structures, including:

- Impact of introduction of casinos on State and local politics and decision-making

- See the report Casinos & Gambling in Massachusetts: African-American Perspectives on focus groups with African Americans to understand the potential impact of casino gambling, where participants expressed fears with respect to fairness, corruption, and ability of the community to influence all of the above, and to have a voice.
- This is potentially a good news story if the perception of fairness is greater after introduction of casinos than before

- Normalization
- Business practices such as procurement
- Comparison of Massachusetts to other jurisdictions – Are we doing a better job?
  - Potentially strike a working group to generate goals and objectives and develop a common definition of success

Program Evaluation

There is a section that describes ways to improve program evaluation research at MGC. It is worth noting that several stakeholders expressed the need for this type of applied research to inform program improvements and assess innovations

- More comprehensive RG program evaluation, pilot and testing research as programs and services are implemented
- Resources should shift to evaluation of programmatic activity (NOTE: this specialized form of research must be recognized as such)
- Inform decisions on where to invest money
- Industry safety and regulatory policy
- GIS mapping: Increased use of this tool to better understand needs and match resources

Topics of Research

Gambling product safety research

- Industry safety, regulatory policy
- Give direction to the gambling industry to conduct some level of product safety testing and to submit the results to the regulator before introducing new products. This would ensure a more measured response to the rapidly evolving technology and gambling landscape
- Industry needs research – decisions made in the dark

Employment: long-term impacts on individuals and communities

- Develop a framework that assesses the role of casinos in the employment path.
- Employee turnover study that tracks new casino employees on their broader career trajectories, including employment status prior to the casino, length of employment, internal progress and promotions, dismissal or resignation, external opportunities, and other stages

- Assess factors such as number of dependents, education, training, access to child care and to transportation
- Determine whether impact of employment is greater in at-risk and disadvantaged populations
- Quality of employment - Compare employment at casino to similar jobs and examine employee benefits, compensation and other factors
- The area of research could be strengthened by a sub-set of qualitative interviews to provide a richer picture of the career trajectories and the factors that had positive or negative impacts on their careers and employment well-being. These could be used to create case studies for employment impacts and trajectories.
- Track where funds are going for casino training institutes and the impact of these funds

Employment Data sources

- New employee survey
    - Incredibly valuable source of information
    - Ensure consent included to track their data
- MOSES (Massachusetts one-stop employment system) database
    - For those employees who were in the covered UI system, information can be accessed to better understand their path

Hospitality

Profile

- The associations that support and advocate for the hospitality industry – 16 regional tourist councils doing destination marketing: leisure, conventions, group tours, sports – their goal is to extend stay, extend spend of visitors
- Tend to attract oddball conventions, e.g., Can-vention, Rabbit or pigeon breeders, insurance

Associations would benefit from data, findings and supports. Key issues include:

- Assess whether casino is cannibalizing other events, groups, products
- Missed opportunities – there is a need for consulting/coaching to support local small businesses in transitions, to understand how to maximize impact of casino. Examples include training and support to help adjacent restaurants exploit opportunities for growth, or to help small businesses understand the importance of and learn how to manage their reputation in an online (social media) world

Hospitality methods and data sources

- Three key methods and metrics – all will help inform impact on hospitality sector
    - Customer intercept research at attractions – visitor numbers and origin
    - Conversion – of those who request tourism materials, who subsequently comes
    - Awareness – of Pioneer Valley brand, for example
- Need data/support to collect data from MGM
    - Length of stay

  - Where are they staying
  - Visits to other attractions
  - MLife data drove casino marketing – where to pull people from. Do they have data to show if it's working?
  - Impact of casino on accommodation rates, which hadn't moved in 10 years prior
- VISA data – every swipe shows where they spend and zip code
- Other data sources
  - Ticket sales for big attractions such as Six Flags
  - Meal taxes, local option taxes
  - Smith travel research for hotel rates and occupancy
  - Business occupancy in office and commercial space, change in mix in buildings
  - Bradley Airport traffic
- Low or no budget to do research – need data, collaboration, support
  - Our members don't or can't afford to do high quality, high tech research
  - They need access to data on their communities,
  - Interested in collaborative research to enable them to keep their members up-to-date on trends and opportunities in their communities

Property values consider expanding the current research for a deeper understanding of changes in housing in communities and neighbourhoods

Public safety

- Deeper dive into the factors that lead to changes in crime patterns in and around casinos
- Impact of alcohol service, cannabis and other substances on gambling behaviour and on crime behavior

Environmental justice perspective – This research would consider casino gambling as introducing potential hazards into a community, one that has been marginalized and is experiencing a number of vulnerabilities and risks

Crime with an equity perspective: Some stakeholders noted that public safety and crime research seems to lead to more police and policing – calling this response too simple – and emphasizing the need to take into account pre-existing policing practices and inequitable treatment of people of colour

Intersection with other substance use and risk behaviors

- Casinos are also alcohol environments – 80-90% of crimes involve alcohol or substance use or both
- Legalization of marijuana - Consider including expansion of marijuana legalization, such as whether dispensaries are geographically located near casinos.
- Complexity of multiple addictions for individuals and communities

Problem Gambling Services

- Co-occurring disorders and screening: Better understanding of which mental health and addiction behaviours cluster and how to screen for and respond to gambling problems in clients presenting for other reasons
- Recovery: Ways to address longer term recovery of problem gamblers, and their families, especially for cultural groups that are less integrated in the mainstream society
- Barriers to treatment: to help service providers understand (and potentially address) why people are not accessing services, e.g., lack of awareness, stigma or other barriers such as other health conditions, transportation, insurance, etc.
- Multiple definitions of problem gambling and risk. This is fine as long as it's clear which ones should be used in which settings, e.g., clinical diagnosis, screening, population survey
- Development of brief screens for shorter community-based research

Populations of interest

African Americans – building on pilot study

- Reach out to community leaders and agencies for strategies to reach, recruit and engage this population
- Stakeholders indicated there is goodwill in the black community towards gambling, should be capitalized upon, messages that we "have their backs"
- Need for services targeted to and/or located in areas with high concentrations of people of colour – "it's not easy to go into a treatment agency waiting room full of white people"

Asian – building on pilot study

- Recent research highlighted complexity of conducting research in this community, including:
    - Logistical challenges such as translation at each stage of instrument development, recruitment, data collection, transcription and analysis
    - High ethics bar for protection of privacy and confidentiality, and resulting challenges in recruitment
    - Low income population targeted because they are at greater risk

- Spouses played important role in getting partners to participate and attend interviews

- Need for stronger baseline for Chinese and Asian populations in MA, High cost of population recruitment and research for this population
- Motivations: Casinos offer Chinese-themed games, restaurants and promotions – in the face of few recreational opportunities in Chinatown
- Reach beyond Chinese community
- Consult with operators on their objectives, targets and promotional approaches to Chinese and other Asian customers – the sample recruited for the pilot study of Chinese lower income service workers did not resemble the population that casino marketing targets to attend Springfield casino
- Option of engaging Chinese customers at casinos (suggestion that 15-40% of customers at most large casinos are Asian) or collaborate with operators for data and insight
- Reported strong positive response to services customized and targeted to Chinese or Asian populations, including a Vietnamese counsellor and Chinese GameSense Advisor, even with no advertising or promotion

Hispanics

- Stakeholders expressed need for more information on this population which tends to be more dispersed and difficult to target for sampling and recruitment
- Western MA – large influx of this population

Immigrant communities: based on results of general population survey and prevalence research in general, immigrants, especially those with language and cultural barriers are at greater risk for gambling problems. Consider examining the role of immigration on problem gambling risk

Youth

- Attitudes and behaviours, Note: MGC provided funding for youth health survey (YHS/YRBS) in Western MA
- Better understanding needed to inform interventions, including role of video gaming in transition to gambling
    - Are video gaming and the normalization of gambling breeding gambling in youth?
    - Is gambling is a gateway behaviour to other risk behaviours?
- How does gambling contribute to the reduced socializing in favour of online engagement among youth
- Consult school principals, guidance counsellors, etc.

Transition age youth and young adults

- Research that would focus on young adults, out of high school, in college, transition age youth, campus and casino close together
- Consider providing and assessing impact of education on campus about casino gambling in particular

Gamblers

- Emphasis on all gamblers, attitudes and behaviours of 99% who gamble responsibly,
- Not just variables that are predictive of development of problems, but also protective factors
- Involved gamblers Higher gambling involvement (frequency, duration, speed, engagement with a variety of games) is linked to risk
- Casino employees experience gambling problems at higher rates

Special populations Consider research on population sub groups that may be too small or difficult to identify in survey samples. Suggested populations to explore include:

- Previously or currently incarcerated
- Vulnerable because of assessment of mental capacity/competence

People with **physical disabilities**

- California study showed physical disability was one of first factors correlated with PG.
- Determine whether current research includes this variable in data collection and analysis
- Walk through Springfield casino shows high rate of visible physical disabilities

The ideas shared by stakeholders provide many directions for changes or additions to the foundational research projects, such as the methodological research, and for community-engaged research in the host and surrounding communities. These ideas could be reviewed and organized in different ways to be shared with the current research teams and as part of the promotion of the community-engaged research program, which is described in the section below.

Section 4. Community-Engaged Research

From the outset of the strategic planning process, the Commission wished to explore a program of research that is driven by and responsive to community needs, with a focus on at-risk groups in the communities surrounding the three casinos. Three such pilot projects funded by the Commission in the previous fiscal year are completed or nearing completion:

- *Casinos and Gambling in Massachusetts: African-American Perspectives* – led by Roldolfo Vega, PhD
- *A Study of Gambling Behavior and Problem Gambling in Boston Chinatown* – led by Carolyn Wong, PhD
- *Gambling Problems among Military Veterans: Screening Study in Primary Care Behavioral Health* – led by Shane Kraus, PhD

Recommendation in brief

There has been strong support for this component throughout extensive consultation and information gathering. In response to this strong support, the Commission wishes to fast-track a community research program. The recommendation is to launch the program in the current fiscal year, ending June 30, 2019, and to engage in a more extensive and formal launch in the next fiscal year, as detailed below.

This section is adapted from a brief provided to the Public Health Trust Fund in November 2018. This section outlines considerations and options for a community research program that targets social determinants of health in host and surrounding communities.

Community-based research (CBR) is a **philosophical approach** that emphasizes collaboration, participation and social justice agendas over the notion that research is, or should be, objective and apolitical (Flicker & Savan, 2006). Many terms are used for research that is conducted with community members. Each term may emphasize different methods, roles and levels of involvement for researchers, service providers and community members. The term "***community-engaged research***" (CER) is the term selected by MGC for its emphasis on engaging the community, while allowing for a range of methods, relationships and roles within a collaborative framework.

Objectives and Benefits

Community-engaged research has the potential **to more deeply understand and address the impact of the introduction of casino gambling** in Massachusetts communities.

> Community Based Research is increasingly being recognized as important in yielding concrete knowledge and understanding that can guide policies and programs to reduce health and social disparities (Flicker & Savan, 2006)

Community-engaged research benefits include:

- Suited to research with population groups that are difficult to research with epidemiological or general population studies
- Responsive to communities' demand/need for more involvement in research that takes place in their midst
- Targeted to specific groups and related health inequities
- Relevant – results should be more readily accessible, accountable and relevant to people's lives
- Capacity-building for researchers and for community and agency representatives
- Empowering for all parties, especially community representatives and agencies, to make sustainable personal and social change (Wallerstein & Duran, 2003)

Focus

- **Geographic:** host and surrounding communities where casinos exist or are planned
- **Target populations:** life course (e.g., youth, seniors, parents), ethno-racial, identity groups such as LGBTQ, veterans, etc.
- **Topics:** the relationship of casino gambling with social determinants of health, such as poverty, education, housing, and employment
- **Outputs:** community assessment, evaluation, community awareness, etc.

Team Composition

Teams should be composed of some collaboration among:

- Community representative of organization, agency, or assembly of people with a common focus
- Service providers, may be same as above
- Local public health agency or institute
- Academic researcher, with encouragement to also include post doctoral or early career researchers to build capacity (balance CBR experience with capacity building)

Each partner should choose the level of involvement at each stage to best accomplish objectives.

One sponsoring institution will need to assume responsibility for receiving and administering each grant, with responsibility for:

- Managing contract compliance and administering funds for approved budget expenditures
- Monitoring and reporting to MGC
- Overseeing knowledge translation and exchange (post-research)
    - Expectations for presentations, briefings, case studies, and publication
    - Requirements, if any, for advance notice to funder prior to publication
    - Advocacy work for policy and program change

The university of one of the academic team members typically undertakes this role because it requires institutional infrastructure to manage accountability. However, awarding funds to universities or research institutes, which is typical, establishes a power imbalance from the outset. MGC could consider asking a local agency such as public health, or the Centre for Community Health Equity Research at the UMASS to assist in administering funds for community engaged research.

Links to State Level Research and Programming

During consultation a number of stakeholders strongly supported a direct link to the SEIGMA and MAGIC research teams. Two expressed disappointment that the three projects currently underway represented a missed opportunity for the SEIGMA/MAGIC teams to provide research results and suggestions to inform the design and execution of the community research projects. Other stakeholders suggested there be a structure for community research teams to share information with each other at all stages of the research process.

This is consistent with the RG Framework Strategy 6 – Engage the Community: "Engaging the community is a way to understand, participate in, and act upon critical workplace, marketplace, and environmental issues." Some structure and support should be provided for communication links among research teams.

Promotion of Community Research Program

Publicize and promote CER Program to key audiences, and **provide resources to maximize successful collaborations**, such as:

- Share promotion of CER program, possibly with Department of Public Health, MASSHire, etc.
- Provide profiles of gambling and gamblers in host and surrounding communities
- Identify resources for CER – tool kits, web links, case studies, and templates are all available from a range of organizations that specialize in this work. Carefully select a resource inventory.
- Consider workshops in target communities
    - To launch process, bring together potential collaborators, assess readiness and related needs for resources or training to actively participate in CER
    - Ongoing (annually?) among all teams to establish links and share experiences and learning
- Consider supporting training opportunities
- Consider identifying potential researchers or research institutes that specialize in CER. Evidence shows that outcomes are best when researchers are experienced in CER.

Funding Envelope

Current plan is for $200,000 annually, $185,000 in Year One

- Consistent with the formula of 5% of total research awards budget ($50,000 per $1M) recommended in literature

- Consider cost-sharing final stage work (KTE) with DPH or appropriate public organization so research and outcomes can be linked
- Consider allowing budget items often excluded in traditional research funding guidelines:
    - Capacity building opportunities such as training, staff buy- outs, and administrative overhead
    - Items that address barriers to participation, especially for community representatives, such as childcare, translation, transportation, refreshments, etc.
    - Limits could be set on the proportion of the total budget for these components

Duration and Structure

Consider funding fewer projects longer term rather than diluting resources (funds, community participation, researchers) across many projects. CER takes time and longer-term support increases the likelihood of success.

Consider stages of work:

- **Seed grants**: Support development phase to establish relationships, define roles, and develop a research program (identify problem, describe target population, research questions, methods).
- **Project grants:** To conduct research.
- **Knowledge translation and exchange**: Basic dissemination could be included in project grant. Advocacy work to create change may require separate support and could be co-funded with an appropriate public organization.

These stages could be:

- Combined into one longer term award that details each stage over 2-3 years,
- Awarded in stages, conditional on completion of previous, or
- Separate awards that allow a team to apply at any stage of their development.

Grants Procurement and Administration

This refers to the internal function led and managed by MGC, to develop and implement a community-engaged research program. Steps include:

- Establish guidelines
    - Establish frequency and possibly templates for reporting updates and final report (Financial and Research aspects)
- Manage structure and process for (peer) review
    - Establish structure and identify people for review process
        - Academic peers should include CBR experience
        - Public health
    - Assign and manage peer review, (e.g., matching reviewers to proposals)

- Assemble recommendations for each funding round
- Create core team for final decisions – may be same as reviewers or a standing group

- Execute contracts and award funds
- Provide administrative support and oversight for grantee responsibilities
- Receive grant deliverables (interim, budget and final reports)

Evaluation and Recognition

- Build evaluation requirements into the Grants Program as a whole, to ensure consistency and reduce burden on individual grant teams.
- Establish objectives that match anticipated outcomes (building relationships and capacity, satisfaction with process, satisfaction with results, dissemination of results, changes advocated and implemented), including outcomes that are specific to each stage.
- Build assessment of some objectives into grant reporting process, e.g., brief confidential survey of team members.
- Establish a reasonable period for results to manifest, and consider evaluating different aspects in stages. For example, seed grants could be evaluated on their own criteria almost immediately, as opposed to changes in policy or programs, which may take three years or more.
- Potential outcomes:
  - Working relationships and new coalitions
  - Community capacity
  - Plans for future projects
  - Changes in agency programming
  - Changes in government policy
- Support and reward agencies for effectively using research to improve their program and advocacy objectives. This could be done by recognizing these accomplishments publicly, and by providing funding or support for funding requests to DPH or other bodies in order to make changes happen. As discussed in the next section on knowledge translation**, helping community agencies to implement change based on research evidence is the ultimate goal of knowledge translation.**

Section 5. Knowledge Translation for Key Stakeholders

Knowledge translation is one term used to describe the process of putting research findings to practical use. Terms such as *implementation science*, *knowledge mobilization*, *translational research* and *research utilization* are used to describe similar approaches. These concepts refer to the process and steps needed to ensure that new research findings are made known to the right people and used to inform the relevant policies, programs and services. The definition developed by the Canadian Institutes for Health Research is widely used, including by the United States National Center for Dissemination of Disability Research and the World Health Organization (WHO). Knowledge Translation is defined as:

> A dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge to improve the health of [individuals], provide more effective health services and products, and strengthen the health care system.
>
> Retrieved from http://www.cihr-irsc.gc.ca/e/29418.html#6 January 4, 2019.

MGC has committed to using the knowledge from the commissioned research to inform planning and funding allocation, advance the quality of policy and programs, and inform future research – as outlined in the excerpt below from *Report on the Research Agenda of the Massachusetts Gaming Commission, December 18, 2013.*

> **Utility of the Research Findings**
> The Massachusetts Gaming Commission is committed to fully understand the impacts of expanded gaming in the Commonwealth. The research findings will be essential in developing a strategy to minimize gambling-related harm and bring the greatest possible benefit to the people of the Commonwealth. These findings will:
>
> - Inform how monies from the Public Health Trust Fund (Section 58) are expended;
> - Assist in assessing community-level impacts and inform decisions about expenditures from the Community Mitigation Fund (Section 61);
> - Improve problem gambling prevention;
> - Advance the quality, effectiveness and efficacy of treatment of gambling disorders;
> - Inform the ongoing MGC research agenda;
> - Provide quantitative and qualitative assessments of a broad range of impacts of expanded gaming; and
> - Provide Massachusetts stakeholders a neutral database for strategic analysis and decision-making.

Recommendation in brief

The recommendation is to develop the explicit function, expertise and resources at both MGC and DPH Office of Problem Gambling Services to engage in strategic knowledge translation and fully exploit the substantial knowledge being generated by the research program.

Given that few understand the comprehensiveness of the current research, there is a case to be made for an explicit knowledge translation function and resources at MGC. The complexity and volume of knowledge being generating by the MGC Research Program is substantial.

Key Knowledge Users

It is not surprising that we heard many ideas for knowledge translation, because we asked stakeholders to tell us what impact they wanted the research to have and on whom – framing the questions as use-of-research. The consultation provided extensive detail on potential uses for research findings and a strong appetite for same. The need for the knowledge generated by the MGC Research Program to be translated into useable forms was expressed in many ways throughout the stakeholder consultation.

- **MGC** – Commissioners identified many ways to use research knowledge, including to complete the communications loop with the community stakeholders they consulted – to demonstrate that the Commission listened and developed a rigorous regulatory framework to maximize benefits and minimize negative impacts, and provided communities with funding to target concerns and improve their readiness for casinos. Research evidence showing the success of these readiness efforts should be shared with the original stakeholders.
- **Department of Public Health (DPH)** – in the early stages of consultation considerable time and effort were dedicated to understanding the knowledge needs of DPH leadership, and helping the research team to analyze data and interpret findings in ways that align with the needs of DPH to design, develop, implement and evaluate policy and programs that address health and social inequities.
- **Host communities** – **Health and Social Service** agencies and their staff, including public health representatives expressed strong desire to understand the scope and scale of the research program and to receive research findings in ways that would help inform their decision-making and planning.
- **Host communities** – **Hospitality and Leisure, Business associations** such as Chambers of Commerce – These organizations described the need for timely information regarding the impact of casinos so they could adjust to maximize economic benefits and minimize negative impacts for the member businesses they represent (hotels, restaurants, tourist attractions, financial institutions, and others). These associations often have limited or no capacity to conduct complex research to provide meaningful insight to their members and develop resources to help them succeed in changing business climates.
- **Public safety** – stakeholders identified this body of research as having, to a great extent, built in the knowledge translation process by establishing collaborative relationships to collect, analyze and interpret the data. This model of engaging knowledge users suits this type of research where the same stakeholders are the source of the data and the ultimate users of the information in their work. Police forces who work with the primary investigator on this work, Christopher Bruce, work in the communities that are hosting expanded gambling and can use the findings immediately to provide training and policing that is responsive and appropriate. The public safety stakeholders, including police, also worked with the investigator to modify their own reporting processes to improve the usefulness of the data.

Not surprisingly, each stakeholder we consulted identified people or organizations that need to know the results of this research to do their jobs better.

Driving Knowledge into Policy and Practice

The stakeholder consultation revealed a high level of engagement in host communities across a wide range of organizations and mandates related to local government, economic development, and health and social services. A common concern was whether the research findings would be used to drive funding for programs and services that are not directly related to gambling and problem gambling. Some stakeholders regarded the Community Mitigation Fund as potentially addressing some economic and fiscal impacts. However, there did not appear to be a mechanism for addressing broader health and social impacts through services and programs, especially targeted at communities experiencing disadvantage.

Two steps are suggested to address this concern. The first is to create knowledge tables in each host community that bring together a diverse group of stakeholders for annual updates on research findings and deep insight into the data collected in their communities. This could be done with updates organized by topics over the course of an update session so that stakeholders could attend the entire session or presentations of interest to them. The second step, and certainly the more complex one, is to develop a process whereby the research findings are linked to resource allocation for programs and services, particularly those provided or supported by DPH in these communities.

This process should also connect community-engaged research as part of the process to more deeply understand gaps and needs in host communities. True knowledge translation would require a path from the foundational research projects to community-engaged projects and ultimately to changes in the mix of programs and services supported and delivered in these communities. The knowledge tables could be central to this process as mechanisms for sharing research findings, discussing potential community-based research ideas and findings, and making recommendations on the types of service and program changes needed.

This is undoubtedly one of the most important challenges facing the PHTF as it provides leadership across the MGC research strategy and DPH service and program delivery.

Knowledge Pathways

The parallel paths of research and development of policy and programs, and how the research findings can and should be applied to both of these pathways, are illustrated in the figure below.

Figure 3. Knowledge Pathways notes feedback loops in the lower right corner for three important uses:

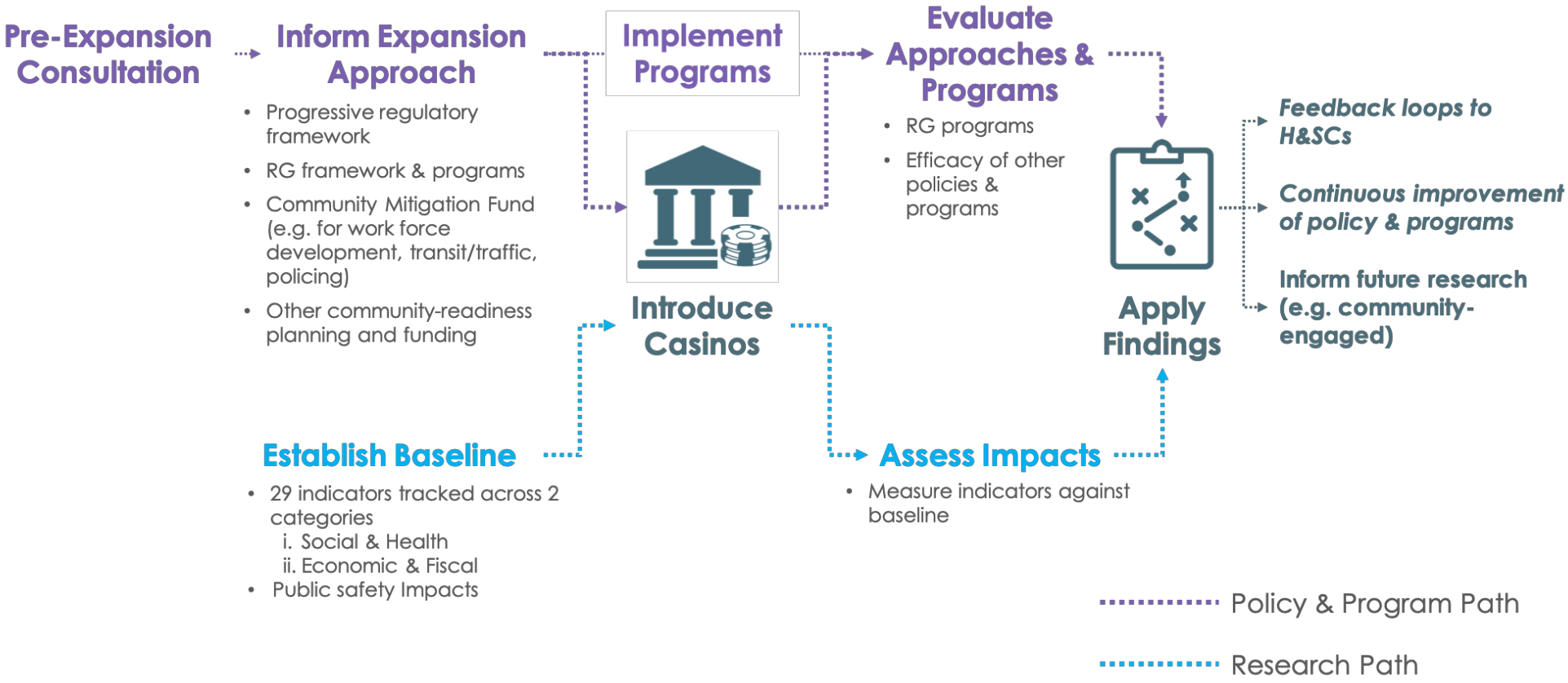
- **Host and surrounding communities** – Research knowledge should be communicated for a number of purposes, such as to demonstrate the impact of readiness efforts; to provide monitoring and early alerts to changes in their communities; and to inform future work to sustain and build on positive impacts and reduce negative ones. For example, the Western Massachusetts Casino Health Impact Assessment detailed several concerns; a feedback loop should outline how these concerns are being addressed and the effectiveness of those efforts.
- **Policy and programs** – This includes internally for the MGC and DPH to advance the regulatory approaches and to ensure the quality and effectiveness of the public health services. Externally almost every organization providing health and social services in host communities would

benefit from the research findings. The same is true of economic stakeholders, especially those representing local business and economic development.

- **To inform future research** – The findings should make clear what future research is needed, including the deeper and finer grained research that can be undertaken in community-engaged research projects.

The leadership for the knowledge translation function is envisioned as part of the role of a Research Strategy Manager, to understand the potential of the research knowledge, the range of knowledge users who would benefit from the findings, and the implications for future research. The Research Strategy Manager would provide leadership to the Knowledge Broker who would implement the knowledge translation strategy, collaborating with key stakeholders to develop knowledge products, and working with both internal MGC staff and external organizations to drive knowledge into practice.

Figure 8. Knowledge Pathways



Section 6. Data Management

Data management refers to a series of steps to store and maintain data as a valuable resource, and potentially provide access to the data for other research. Work is already underway at MGC to develop a data management function. To reiterate a point made above in the section on Knowledge Translation, the complexity and volume of data being generated by the MGC Research Program is substantial. In addition, the quality of this data is perhaps unparalleled because of the commitment to gold standard methods such as the large-scale cohort study, Massachusetts Gambling Impact Cohort (MAGIC) study, and the Social and Economic Impact of Gambling in Massachusetts (SEIGMA) study.

Recommendations in brief

1. Continue to support the rather complex development of a data management function at MGC, which may include partnership with DPH or other State-level organization on the infrastructure for a data repository;
2. Provide ongoing resources to maintain and build this data management function at MGC;
3. Explore, once the data management function is up and running, a research access program that allows external researchers in Massachusetts, and in broader research fields and jurisdictions, to maximize the use of the data being generated by the research program.

Program Components

Some key components of a data management function are:

- **Data repository** for commissioned research and player account data – forming potentially the richest source of gambling-related research data in the world.
- **Data management framework** – This refers to a structure for collecting, recording, extracting and providing data to MGC and should be applied to all research funded by MGC. This is particularly important for the management of player account data that is to be provided to MGC by Casino operators. In other jurisdictions, such as New Jersey, difficult lessons have been learned about receiving, cleaning, integrating and using player account data. Researchers encountered extensive issues with data quality, completeness and the lack of identifiers to enable researchers to link and compare data across databases, and even for the same player at different times or in different databases. Developing this framework in collaboration with casino operators will be an important step in the data management process.
- **External research program** to maximize the value of the data assets for Massachusetts and the field of responsible gaming. Specific recommendations for the structure of an external program should be developed. There are a number of organizations in the gambling research field that have developed data management functions.

Stakeholder Support

Stakeholders expressed support for a data management function in different ways. For example, researchers wanted to be able to use the data being generated for secondary analyses, communities wanted both topic-specific synthesis and, in some cases, raw data to inform their work, and other stakeholders described data management functions and tools that could be substantially enhanced by the integration of the data from the MGC research program.

In their report *Western Massachusetts Casino Health Impact Assessment* (2014), the authors requested annually posting MGC data on: employment and workforce development, traffic and transportation, and PG rates, to make it possible to assess and track the value of collaborations and strategies designed to maximize positive impacts such as employment, and minimize negative ones.

In their report to MGC, the *Preliminary Study of Patrons' Use of the PlayMyWay Play Management System at Plainridge Park Casino: June 8, 2016-January 31, 2017*, the authors from the Division on Addiction, Cambridge Health Alliance, detailed many data issues, including quality, missing data and the inability to link patron play behaviour data to their use of the PlayMyWay system to manage their spending limits. The authors suggest that the poor data quality seriously compromises transparency and the ability to conduct meaningful analyses, including evaluating the impact of RG initiatives and tools. This leads to one of the most important uses of research data, to evaluate the effectiveness of policy, programs, services and tools, as outlined in the next section.

Section 7. Evaluation

MGC has committed to the evaluation of its three RG programs (GameSense Information Centers, PlayMyWay, and Voluntary Self-Exclusion) and has engaged researchers from the Division on Addiction, Cambridge Health Alliance to conduct preliminary evaluations of each. The reports for these evaluations were reviewed for this project. While these reports offer important information on the implementation of these programs, improvement is needed to achieve program evaluation excellence.

Recommendations in brief

1. Develop an evaluation framework in collaboration with DPH to ensure a shared and rigorous approach to program evaluation, continuous improvement and innovation of the responsible gaming programs and problem gambling interventions across the State.
2. Develop an evaluation function and expertise at MGC, to manage evaluation and continuous improvement of its programs, and to coordinate program evaluation with DPH for shared learning and innovation.

Areas for Improvement

Based on a review of the evaluation reports to date, the following critique is offered:

- Program managers did not do some of the important work to identify a framework for continuous improvement and program evaluation, or develop logic models for each program to guide the evaluation work.

  NOTE: Logic models map the path from a program's inputs to the desired objectives (program outputs and outcomes), and are considered an important program planning and evaluation tool.

- Program managers did not identify clear metrics and measures by which success could be evaluated, nor targets/thresholds for those metrics (e.g., patrons' use of GameSense Information Centers is targeted at 2% of patrons for Year One, growing to 4% in Year Two).
- In the absence of this pre-existing work, evaluation teams and program managers would normally work collaboratively to select a suitable evaluation framework, and decide on program objectives and measures, before evaluation began. This does not appear to have taken place.
- The evaluation teams did not appear to include program evaluators or researchers with program evaluation expertise.
- Inconsistent evaluation frameworks and methodologies were used across programs.
- The GameSense evaluation team selected the RE-AIM framework, despite the fact that an evaluation framework, including a logic model, has been developed and validated for this purpose since 2013 (Responsible Gaming Information Centers Evaluation Framework, 2013) and subsequently used to evaluate GameSense Centres in a number of jurisdictions. This potentially limits the usefulness of the evaluations because the results cannot be compared with those in other jurisdictions.

- There is no learning across program evaluations. Normally the same overall framework would be used to evaluate all of the programs in an organization, particularly when the objectives of each program converge on a similar goal, in this case to support responsible play in casinos. It appears each report was done in isolation with no learning drawn across and among programs.
- Reports are not accessible to a lay reader, in terms of content and format. This expectation should have been communicated to the evaluation teams, given the high bar for openness and transparency set for MGC.

Recommendations

This section briefly outlines some work that could be done to ensure the quality and usefulness of future evaluations. In addition to ensuring good quality data is available, it is important to clearly state what each program is trying to achieve and what success would look like.

To support and provide structure for future evaluations, program managers at MGC and the DPH Office of Problem Gambling Services could:

- Select a shared overarching evaluation approach or framework for continuous improvement that applies to all of the responsible gaming programs and problem gambling interventions at MGC and at the DPH, Office of Problem Gambling Services. This will enable the two organizations to coordinate work toward common goals in maximizing benefits and minimizing harm from expanded gaming in Massachusetts.
- Refine specific **objectives** for each program (what does success look like?). The program goal and objectives may be aspirational and therefore unachievable but should inspire excellence and continuous improvement.
- Develop a **logic model** for each program, mapping the path from the program activities to achievement of the desired objectives
- Identify:
    - **Measures/metrics** that can be used to determine achievement of objectives (what outcomes can we assess to measure the effectiveness of the program?); and
    - **Data sources** for these metrics, such as counts, surveys, and patron player data.
- Set **targets** for one to three years (what are our targets or thresholds for success?). While the objectives may be aspirational, targets should be achievable, and should evolve over time as the program is established and longer-term impacts have time to manifest. For example,
    - Year One targets may be strictly related to awareness, use and satisfaction with service, such as
        - 50% of patrons are aware of GSICs,
        - 3% of patrons use GSICs,
        - 75% of users are satisfied with the service,
        - 68% of casino staff are aware of and comfortable making referrals to the GSIC, as assessed in an employee survey
    - Year Two targets may

- Increase previous year targets, and
- Add impact of GSIC interaction on patrons' gambling knowledge, as assessed in a patron survey.

- Year Three targets may
  - Use more complex measures of impact on both gambling knowledge and play behavior;
  - Add the exploration of data sources to track what happens when GS Advisors make a referral to a helping agency;
  - Add metrics to assess changes before and after a visit to the GSIC in uptake of RG tools.

When the objectives, metrics and targets for success are clearly set out, these metrics can be tracked annually, in addition to conducting formal program evaluations every few years. This supports continuous improvement.

Some program-specific ideas for a more comprehensive evaluation program are suggested below:

- **GameSense:** An evaluation framework developed in Canada maps out components and data sources. MGC could consider using this framework for future evaluations, adding any desired elements, in order to maximize comparability across jurisdictions to inform objectives, measures/metrics and targets, and program improvements.
- **Credit use by patrons:** MGC has put rigorous requirements in place for this, such as credit applications including a PG self-assessment; credit officers obtain verbal confirmation that patrons are willing to lose the amount requested in credit; credit card transactions not permitted for the purposes of gambling; and rules on impairment and credit. Together these requirements represent a program aimed at reducing the risk of gambling with credit, and an evaluation of these initiatives could provide important information on how well these are working.
- **New and emerging policy:** Patron impairment is an emerging issue with cannabis legalization and operators may need guidance on how to identify and respond appropriately to impairment. Any new initiatives developed for this purpose should be evaluated, especially given the lack of scientific consensus on assessing impairment.
- DPH is in the process of developing and implementing programs to **prevent and mitigate gambling-related harm**. Using a shared evaluation framework at MGC and DPH will make it easier to transfer learning in an efficient and coordinated way from research studies and from program evaluations to the policies and programs of both organizations.

Section 8. Infrastructure to Support the Research Strategy

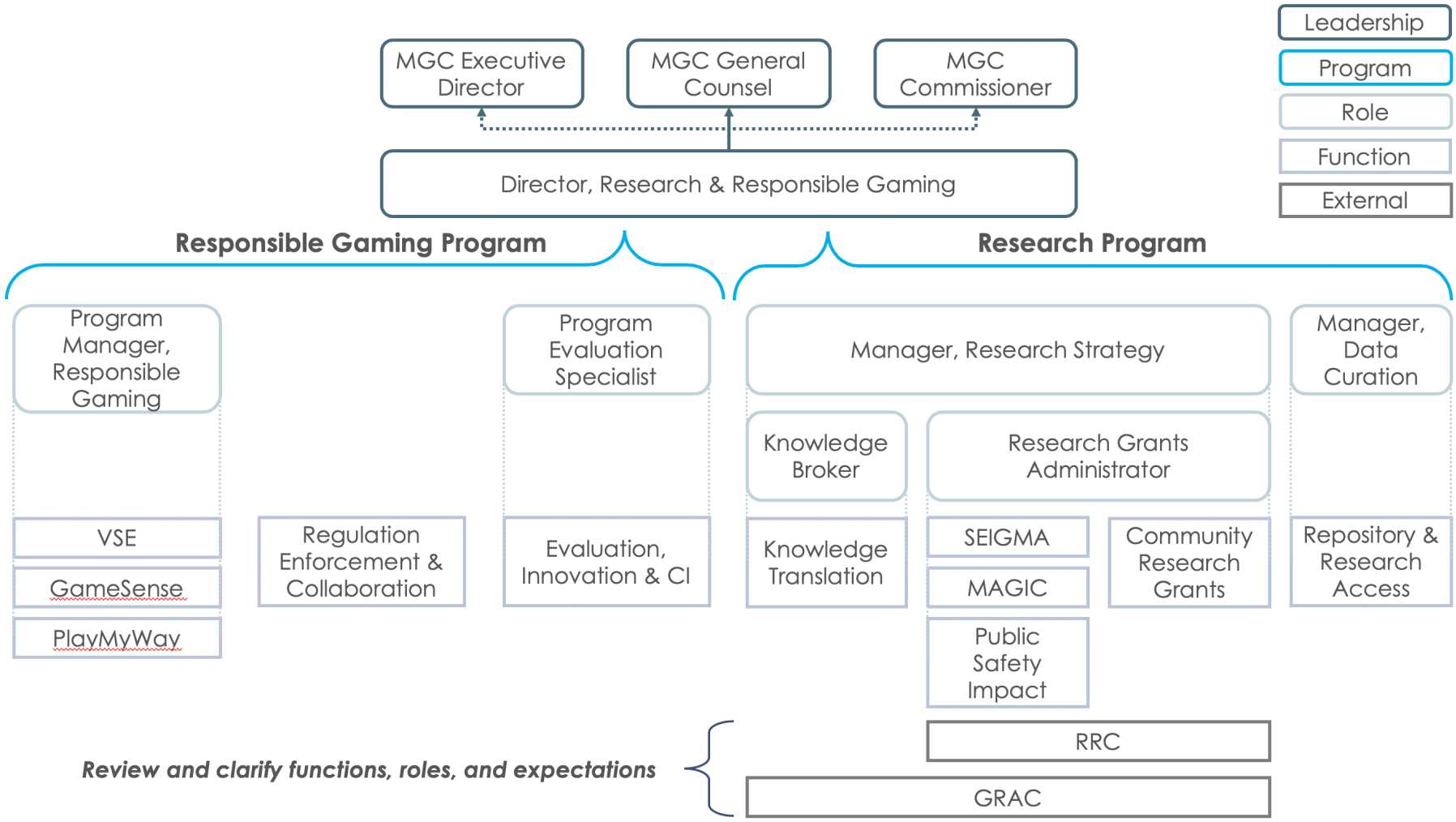
This section was developed after the sections above, to envision the capacity for an expanded Research Program. It is presented here as the foundation necessary to develop and implement the Research Strategy described in the above sections. It is remarkable that MGC is able to accomplish so much with the limited staff resources that are currently dedicated to the Research Program.

The Research Strategy described here requires the addition of substantial resources and capacity. One approach is to add the following functions and expertise:

- **Research Strategy Manager**: This is a leadership role with research expertise and related topic knowledge to envision how the components of the program work together to create and share the required knowledge. This requires understanding why the research is important and to whom, in the internal (regulatory) environment and multiple external environments (responsible and problem gambling services; host communities; health, economic and social service planners and providers at the State, regional and community levels, etc.) to inform a wide range of stakeholders, policies and programs across the State. This role is also envisioned to liaise with the Department of Public Health on their research and knowledge needs.
- **Grants Administration and Oversight**: This role is required to manage the implementation of the research program, providing oversight for solicitations, RFPs, contracts, amendments and deliverables. This role will grow with the introduction of community-based research.
- **Knowledge Translation**: A knowledge broker is urgently needed to begin to translate research findings into knowledge products for a wide range of stakeholders. This role is also envisioned to take the next step, that is, to establish collaborations that help drive research findings into policy and practice, both internally to MGC and externally with a wide range of stakeholders.
- **Data Curation and Management**: This role is urgently needed and currently filled by a part-time consultant. There are two primary stages of work. The first is to establish a data management function and repository, potentially in partnership with other State entities. This stage should include the development of a data framework for casino operators to ensure data is collected and shared to maximize its utility. The second stage of work is to manage the ongoing collection and storage of data at MGC. The Grants Administrator could manage access to the data repository by researchers in the longer term. The data management function is described in greater detail in *Section 4. Data Management* earlier in this report.
- **Program Evaluation Specialist** – MGC could consider adding this skill set either to an existing role or as an additional role to manage the continuous improvement and regular evaluation of MGC responsible gambling programs

The figure below illustrates a possible structure for the proposed additions to the Research Team.

Figure 9, Infrastructure to Support the Research Program (proposed)



In Closing

This strategy attempts to build on the very powerful research agenda already undertaken to understand the impact of the introduction of casinos in Massachusetts. More detailed information on the stakeholder consultation and document review is available in appended reports. This strategy envisions making the key connections among the research projects and teams, operators, communities and their stakeholders to ensure that the valuable knowledge is being gathered and applied to minimize gambling-related harm and negative impacts and maximize the positive impacts across the Commonwealth.

Appendix A

Stakeholder Consultation Report

Stakeholder Consultation Report

Stakeholder Consultation

The stakeholder consultation undertaken in the development of the research strategy provided the ideas, issues and advice that drove the recommendations in the research strategy.

Many stakeholders were already strongly engaged in other aspects of the introduction of casinos. As the introduction of casinos has unfolded over the past several years, the Massachusetts Gaming Commission (MGC) has undertaken extensive community consultation at the state level and especially in the three cities and surrounding communities that are set to host a casino. In the three host and surrounding communities, MGC has engaged in public listening sessions and targeted outreach and discussions with many community stakeholders involved in local government, economic development, hospitality, employment, public health, policing and a wide range of health and social service agencies, as well as organizations serving multicultural, at-risk or vulnerable populations.

The consultant made efforts to build upon those existing relationships, and avoid duplicating or competing with planned consultations. In some cases this took the form of listening and participating in a planned meeting such as with the Pioneer Valley Planning Commission or the SEIGMA/MAGIC annual update meetings.

Stakeholder Groups

The consultant engaged with key stakeholders within the MGC and the DPH, and externally, to draw on their knowledge and experience, and to understand their needs in relation to the research strategy. More than 60 stakeholders were consulted, representing a range of perspectives, including policy makers, planners, regulators, public safety, researchers, public health leaders, economic development and employment specialists, trainers, casino operators, responsible and problem gambling providers, community activists and service providers.

The list of stakeholders was managed through a Stakeholder Register, which included contact information as well as details to guide optimal methods, tools and frequency of communicating with each, including some who may only need to be kept informed but not directly involved. An abbreviated version of the Stakeholder Register is included at the end of this report.

For each stakeholder, the Register included:

- Mandate and populations served, whether they have any research role or experience
- Their position on gambling and the casino (where known)
- How/if they will be impacted by the casino
- History of communication/role to date (whether they have been involved in the process of establishing a casino and in what way)
- Relationships to each other (where applicable)

Consultation Methods

Consultation was conducted in person as much as possible, or by telephone or online after an initial in-person introduction at early project planning sessions. Considerable time was devoted to the planning stage of this project with multiple meetings in person and via telephone and email conversations, to provide clear scope of the project and the broader stakeholder consultation. In preparation for the broader consultation the consultant prepared a PowerPoint presentation that graphically mapped out the current research program and the project to develop a comprehensive research strategy.

Consultation was semi-structured to ensure coverage of key issues and also allow for probing and exploration of new issues and ideas.

Methods included:

- Facilitated consultation and planning meetings to obtain input from multiple stakeholders and perspectives, as efficiently as possible.
- Interviews with thought leaders and key executives.
- Small group discussions with participants from a single agency or perspective to explore more sensitive topics or probe more deeply.
- Observation, attending select meetings to listen and learn.

Consultation Highlights

The Stakeholder Consultation generated substantial insight and feedback that helped guide all aspects of the Research Strategy development and final recommendations. A summary of key highlights is provided below.

- **More than 60 stakeholders consulted:** representing 7 key groups
  - **Core Project Stakeholders:** extensive consultation loops during project planning stage and throughout consultation with broader stakeholder groups, with key people from each of:
    - Public Health Trust Fund Committee
    - MGC Staff & Commissioners
    - Massachusetts Department of Public Health
  - **Research Stakeholders**
    - SEIGMA and MAGIC research teams from UMASS Amherst and the Donahue Institute
    - Division on Addiction, Cambridge Health Alliance
    - MGC Research Review Committee
    - UMASS Center for Community Health Equity Research (CCHER)
  - **Gambling-Related Stakeholders**
    - Massachusetts Council on Compulsive Gambling

        - Gambling Research Advisory Committee, which includes casino licensees, treatment service providers, prevention specialists, and representatives from priority populations
        - Representatives from agencies funded to provide problem gambling treatment, training and technical support
    - **Public and Community Health:** at the State and host community level
    - **Massachusetts – other State level**
    - **Host & Surrounding Communities**
    - **Casino Licensees**
- **18 one-on-one interviews**
- **9 group meetings/discussions**
- **Most time intensive phase of the Research Strategy**
    - **36+ hours of consultation**
    - Supported by 75+ hours of preparation, note-taking, review and synthesis
- Individuals and organizations representing a range of mandates
    - **Responsible Gambling**
    - **Education**
    - **Community Health**
    - **Mental Health**
    - **Employment Support**
- Individuals and organizations serving key population groups
    - **At-risk/high need**
    - **Children and families**
    - **Youth**
- Individuals and organizations with both **scientific and community-based research capacity**
- Vital feedback helped guide all areas of the Research Strategy
    - **Overall:** Efforts to improve stakeholders' understanding of research efforts needed (comprehensiveness, potential value, breadth and depth).
    - **Overall (Support Infrastructure):** Minor adjustments to Research Review Committee structure suggested.
    - **Community-Engaged Research:** Strong support for community research; program should be fast-tracked. Suggest providing direct links between community research projects and foundational projects (e.g. SEIGMA/MAGIC) or other community projects; encourage knowledge sharing at all stages of research.

- **Knowledge Translation:** Extensive input provided on potential uses for research findings; strong desire to use research findings in various ways; identified many individuals and organizations who would benefit from research findings.
- **Data Management:** Three groups of stakeholders expressed desire for data management functionality to serve objectives
  - **Researchers:** use of generated data for secondary analyses.
  - **Communities:** topic-specific synthesis and raw data to inform work.
  - **Other stakeholders:** integration of data from the MGC research program could substantially enhance existing data management functions and tools.

Public Health Trust Fund Research Strategy (2019)
Massachusetts Gaming Commission & Department of Public Health

Stakeholder Register

Name	Organization	Title	Population Served	Primary Mandate
Public Health Trust Fund Committee				
Enrique Zuniga	Public Health Trust Fund	Chairperson	All/General	Responsible Gambling
Lindsey Tucker	Public Health Trust Fund	Chairperson	All/General	Responsible Gambling
Stephen Crosby	Public Health Trust Fund	Chairperson	All/General	Responsible Gambling
Jennifer Queally	Public Health Trust Fund	Executive	All/General	Responsible Gambling
Michael Sweeney	Public Health Trust Fund	Executive	All/General	Responsible Gambling
Carlene Pavlos	Public Health Trust Fund	Executive	All/General	Responsible Gambling
Massachusetts Gaming Commission Staff & Commissioners				
Thomas Land	Massachusetts Gaming Commission	Director of the Office of Special Analytic Projects at MDPH	All/General	Responsible Gambling
Gayle Cameron	Massachusetts Gaming Commission	Commissioner	All/General	Responsible Gambling
Bruce Stebbins	Massachusetts Gaming Commission	Commissioner	All/General	Responsible Gambling
Edward Bedrosian Jr.	Massachusetts Gaming Commission	Commissioner	All/General	Responsible Gambling
Eileen O'Brien	Massachusetts Gaming Commission	Commissioner	All/General	Responsible Gambling
Massachusetts Department of Public Health				
Abigail Averbach	Massachusetts Department of Public Health	Assistant Commissioner & Director, Office of Pop'n Health	All/General	All/General
Victor Ortiz	Massachusetts Department of Public Health	Director of Problem Gambling Services	All/General	Responsible Gambling
Peer Research Review Committee				
Tom land	Massachusetts Gaming Commission		All/General	All/General
Michael Wohl	Carleton University		All/General	All/General
Joel Weissman			All/General	All/General
Anthony Roman			All/General	All/General
Phil Kopel	MASS Compulsive Gambling		All/General	All/General
Zi Xhang	UMASS	Research Director at Center for Health Information & Analysis	All/General	All/General
Jeffery Marotta	Problem Gambling Solutions		All/General	All/General
Bruce Cohen			All/General	All/General
Marc Potenza			All/General	All/General
Gambling Research Advisory Committee				
Bruce Cohen	RRC	Researcher	All/General	Responsible Gambling
Phil Kopel	MASS Compulsive Gambling		All/General	Responsible Gambling
Marlene Warner	MASS Compulsive Gambling		All/General	Responsible Gambling
Rachel Volberg	UMASS Amherst		All/General	Responsible Gambling
Allyssa Mazar	UMASS Amherst		All/General	Responsible Gambling
Lisa McKenny	Plainridge Park Casino - Penn National		All/General	Responsible Gambling
Jacqui Krum	Encore Boston Harbor - Wynn		All/General	Responsible Gambling
Alan Feldman	MGM		All/General	Responsible Gambling
Victor Ortiz	Massachusetts Department of Public Health		All/General	Responsible Gambling

Joel Weissman	RRC	Researcher	All/General	Responsible Gambling
Caroline Wong	Institute for Asian American Studies UMASS Boston	Researcher	All/General	Responsible Gambling
Rodolfo R.Vega	JSI Research & Training Institute, Inc.	Researcher	All/General	Responsible Gambling
Tom Land	Massachusetts Gaming Commission		All/General	Responsible Gambling
Mark Vander Linden	Massachusetts Gaming Commission		All/General	Responsible Gambling
Enrique Zuniga	Massachusetts Gaming Commission		All/General	Responsible Gambling
Christine Reilly	NCRG		All/General	Responsible Gambling
UMASS Amherst Research Team				
Rachel Volberg	UMASS Amherst	Co-Principal Investigator, SEIGMA	All/General	Education
Robert Williams	UMASS Amherst	Co-Principal Investigator, SEIGMA	All/General	Education
Alissa Mazar	UMASS Amherst	SEIGMA-MAGIC Project Manager	All/General	Education
Mark Melnik	UMASS Amherst	Director, Economic & Public Policy Research, Donahue Institute	All/General	Education
Division on Addiction, Cambridge Health Alliance				
Debi LaPlante	Division on Addiction, Cambridge Health Alliance	Director of Research & Academic Affairs	All/General	Education
Heather Gray	Division on Addiction, Cambridge Health Alliance		All/General	Education
UMASS The Center for Community Health Equity Research (CCHER)				
Susan Shaw	UMASS Amherst	Community Liaison, Community Health Education	All/General	Education
Brenda Evans	UMASS Amherst	Community Liaison, Community Health Education	All/General	Education
Massachusetts Council on Compulsive Gambling				
Marlene Warner	MASS Compulsive Gambling	Executive Director	All/General	Responsible Gambling
Phil Kopel	MASS Compulsive Gambling		All/General	Responsible Gambling
Julie Hynes	MASS Compulsive Gambling		All/General	Responsible Gambling
Massachusetts - other State level				
Allcie Sweeney	MASSHire Dept of Career Services		All/General	Employment Support
Jennifer James Price	Commonwealth of Massachusetts	Under Secretary of workforce development	All/General	Employment Support
Giles Li	Boston Chinatown Neighborhood Center (BCNC)	Executive Director	All/General	Community Health
Elmer Freeman	Center for Community Health Education Research & Service	Executive Director	All/General	Community Health
Rebecca Bishop	MassTAPP (Education Development Center)	Gambling Prevention Manager; Technical Assistance Provider	All/General	Education
Chien-Chi Huang	Asian Women for Health	Founder & Executive Director	At-Risk/High Need	Community Health
Host & Surrounding Communities				
Across multiple communities				
Jessica Collins	Public Health Institute of Western MA	Executive Director (Staff)	All/General	All/General
Kathleen Szegda	Public Health Institute of Western MA	Director of Community Research & Evaluation (Staff)	All/General	All/General
Springfield (Hampden County) - West MA (some shared PH resources with Plainfield?)				
Health and Social Stakeholders				
Soloe Dennis	Springfield Department of HHS	Deputy Commissioner	All/General	All/General
Sharon Hall-Smith	Gandara Center	Program Coordinator	At-Risk/High Need	Mental Health
Jenise Katalina	Square One	Vice President, Family Services	All/General	Community Health
Tinamarie Fioroni	Behavioral Health Network (BHN)	Program Manager, Integration	All/General	Community Health
Thomas Bolton		Director, veteran services	Veteran	Community Health
Ethel Griffin	Revitalize Community Development Corp.	Associate Director	All/General	Community Health
Rene Pinero	Center for Human Development	Clinical Director	All/General	Community Health

Economic Stakeholders				
All	Pioneer Valley Planning Commission	*All*	All/General	Community Health
Catherine Ratte	Pioneer Valley Planning Commisiion	Principal Planner/Manager, Regional Info & Policy Center	All/General	Community Health
Molly Goren-Watts	Pioneer Valley Planning Commisiion	Principal Planner	All/General	Community Health
Casino Licensees				
Plainridge Park Casino - Penn National				
Lisa McKenny			All/General	Responsible Gambling
MGM Springfield - MGM				
Alan Feldman	MGM Resorts International	Executive Vice President	All/General	Responsible Gambling
Encore Boston Harbor - Wynn				
Jacqui Krum			All/General	Responsible Gambling

Appendix B

Document Review Report

Document Review Report

Document Review Report

To develop a research strategy that builds on the substantial research commissioned to date, the consultant reviewed planning and strategy documents, research reports, committee charters and minutes, and other documents.

Method

Some notes regarding the approach are outlined below.

- Document review was conducted online to the extent possible, of mostly electronic versions of documents.
- Many documents were reviewed in their entirety, such as: slide presentations and fact sheets on the SEIGMA/Magic and MGC websites, SEIGMA and MAGIC annual meeting materials, host community research reports, biographies prior to all interviews, and Committee charters and meeting materials prior to consultation with those groups (PHTF, RRC, GRAC, PVPC).
- Where interim and final or compendium reports existed, review was of the final or compendium report only, unless searching for specific information.
- Review of Table of Contents, Executive Summary and select chapters for large research reports, such as: Evaluation reports, MAGIC Wave 2, Interim Public Safety reports.

Overview of Documents Reviewed

Approximately 88 documents of various length and level of detail were reviewed:

- MGC background and planning documents (9+)
- Research – Social & Economic (40)
- Research – Social (5)
- Research – Economic (14)
- Public Safety (3)
- Evaluation of programs (6)
- Service planning (2)
- Academic literature (5)

Observations and Recommendations

The document review provided context for many of the recommendations in the research strategy. In addition, some overall observations on the documents are described below.

Transparency

- In general MGC provides an unusual level of transparency and accessibility of its meeting materials and reports, including research reports – and is to be commended for same
- There are some changes that could be made to make these reports more accessible to non-researchers, and members of the public in general, as outlined below

Accessibility

- **Glossary of terms:** Consider developing, posting and regularly updating, a Glossary of terms and abbreviations, such as the one included on page v. in Analysis of MAGIC Wave 2: Incidence and transitions (Volberg, et. al. 2017). Posting this in an easily accessible online location as a companion to research-related documents will make it easier for a lay audience to understand the research results
    - Consider making it a requirement of those who produce research documents to use common terminology across all reports, where possible; and to provide updated terms and abbreviations as needed to maintain this resource
- **Formatting:** Good formatting enhances readability, which means the document will be easier to understand, for all audiences. There are general guidelines for readability. MGC could consider providing a formatting guide for reports to standardize or set minimum limits for such things as font size, margins and line spacing – even the space between characters in the font (kerning) can greatly contribute to or diminish readability. One evaluation report, Preliminary Study of Patrons' Use of the PlayMyWay Play Management System at Plainridge Park Casino: June 8, 2016-January 31, 2017, provides an example of text that is rendered almost illegible by narrow margins, narrow line spacing and tightly squeezed characters. Tremendous work goes into producing a report like this one, and the application of formatting standards to improve readability would make that work more accessible to a non-researcher audience.

  Some basics formatting guidelines could include:

    - Clear hierarchy and heading structure in the report (and reflected in the Table of Contents) acts like a good roadmap for the report
    - 11-12 point font
    - Good line spacing of 1.2 with extra space between paragraphs
    - Spacious margins of 2cm minimum on all sides, possibly more at the top

- **Length**: The sheer breadth and depth of research being undertaken for these reports may require lengthy, detailed documentation. However, MGC could require that an *executive summary for a lay audience* to be prepared for all research reports, with guidelines on the length (say, maximum of five pages) and reading level (e.g., grade six to eight) to be targeted for such summaries. Where they existed among the documents reviewed, the executive summaries were an excellent introduction to longer research reports, enabling the reader to target specific sections of the detailed report for a deeper understanding of selected topics or findings. A set of PowerPoint slides could also serve a similar purpose to an Executive Summary.

List of Documents Reviewed

MGC background and planning documents (9+)

- Expanded Gaming Act
- Responsible Gaming Framework
- Research Agenda
- Report on the Research Agenda of the Massachusetts Gaming Commission, December 18, 2013
- SEIGMA Research Plan, June 15, 2013
- Social and Economic Impacts of Gambling (SEIG) Report, 2011
- Gaming Commission and Public Health Trust Fund Executive Committee proceedings related to the research agenda
- Research Review Committee
    - Charter plus relevant meeting materials and minutes
- Gambling Research Advisory Committee
    - Charter plus relevant meeting materials and minutes

Research – Social & Economic (40)

- Social and Economic Impacts of Expanded Gambling in Massachusetts: 2018, September 18, 2018 (Executive Summary)
- Report on the Social and Economic Impacts of Gambling in Massachusetts (SEIGMA) Study, April 9, 2014
- 10 Fact Sheets
- 22 presentations – overlap in content made it possible to review several representative presentations
- Academic publications 6 – abstracts only

Research – Social (5)

- Analysis of the Massachusetts Gambling Impact Cohort (MAGIC) Wave 2: Incidence and Transitions, December 22, 2017 (Executive Summary)
- Gambling and Problem Gambling in Massachusetts: In-Depth Analysis of Predictors, March 23, 2017 (Executive Summary)
- Impacts of Gambling in Massachusetts: Results of a Baseline Online Panel Survey (BOPS), January 10, 2017 (Executive Summary)
- Key Findings from SEIGMA Research Activities: Potential Implications for Strategic Planners of Problem Gambling Prevention and Treatment Services in Massachusetts, December 18, 2015 (Executive Summary)

- Gambling and Problem Gambling in Massachusetts: Results of a Baseline Population Survey, September 15, 2017 (Executive Summary)

Research – Economic (14)

- Real Estate Impacts of the Plainridge Park Casino on Plainville and Surrounding Communities, October 11, 2018 (Executive Summary)
- Lottery Revenue and Plainridge Park Casino: Analysis After Two Years of Casino Operation, May 10, 2018 (Executive Summary)
- Patron and License Plate Survey Report: Plainridge Park Casino 2016, October 13, 2017 (Executive Summary)
- Plainridge Park Casino First Year of Operations: Economic Impacts Report, October 6, 2017 (Executive Summary)
- New Employee Survey at Plainridge Park Casino: Analysis of First Two Years of Data Collection, May 10, 2017 (Executive Summary)
- Lottery Revenue and Plainridge Park Casino: Analysis of First Year of Casino Operation, January 19, 2017 (Executive Summary)
- Real Estate Profiles of Host Communities, August 30, 2016
    - Everett Real Estate Profile
    - Plainville Real Estate Profile
    - Springfield Real Estate Profile
- The Construction of Plainridge Park Casino: Spending, Employment, and Economic Impacts, September 19, 2016-Revised March 7, 2017 (Executive Summary)
- Economic Profiles of Host Communities, October 20, 2015
    - Everett Host Community Profile
    - Plainville Host Community Profile
    - Springfield Host Community Profile
- Measuring the Economic Effects of Casinos on Local Areas: Applying a Community Comparison Matching Method, November 5, 2014

Public Safety (4)

- Baseline in each of two of three host communities
    - Plainville
    - Springfield
- Impact in each
    - Plainville conducted at 6 mos. 1 year and 2 years after opening

Evaluation of programs (6)

- Voluntary SE
- GameSense (four reports in all)
- PlayMyWay

Service planning (2)

- Memo and Strategic Plan for Services to Mitigate the Harms Associated with Gambling in Massachusetts, https://www.mass.gov/files/documents/2016/07/st/problem-gambling-strategic-plan.pdf

Academic literature (5)

- Literature Review for Community Research - high level including an existing review and environmental scan of community based research across Canada, and select journal articles (4)