MUNICIPAL ASSOCIATION OF VICTORIA

Municipal Association of Victoria

Submission in response to the VCEC `Inquiry into the Social and Economic Costs of Problem Gambling in Victoria' issues paper

September 2012

The MAV is the statutory peak body for local government in Victoria, representing all 79 municipalities. The MAV engaged Dr Charles Livingstone, of Monash University, to assist the Association undertake this work. The MAV would also like to acknowledge the contribution of those who provided their comments and advice during this project.

While this paper aims to broadly reflect the views of local government in Victoria, it does not purport to reflect the exact views of individual councils. This submission has been endorsed by the MAV Board.

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1 Introduction

The Municipal Association of Victoria (MAV) welcomes the opportunity to provide a submission in response to the Victorian Competition & Efficiency Commission (VCEC) issues paper for its inquiry in the social and economic costs of problem gambling in Victoria.

The MAV is the peak body for local government in Victoria. Formed in 1879, we have a long and proud tradition of supporting councils and councillors to provide good government to their communities.

Gambling, and the many harms associated with this activity, has been identified as a priority issue of concern to local government in the MAV Strategic Plan and through the MAV State Council resolution process.

The increasing number and concentration of electronic gaming machines (EGMs) in Victoria's most socio-economically disadvantaged communities is of particular concern to councils, with the current regulatory framework for gambling providing little protection to Victoria's most vulnerable. As noted in the issues paper, research suggests that EGMs are implicated in around 85% of gambling problems.

Councils have called on the MAV to advocate for a number of changes and improvements to the current regulatory system, including for the State to amend the *Gambling Regulation Act* 2003 to:

a) Require decision-makers at the Victorian Commission for Gambling and Liquor Regulation (VCGLR) to consider the social and economic impacts of increasing densities of EGMs in vulnerable communities at the local level or census Collection District (CD) level;

b) Require community benefits to be genuine (i.e. to benefit those at most risk of harm from EGM gambling) and require the applicant to prove that there is positive community benefit if increasing the number of EGMs (as opposed to the current 'will not be detrimental' test);

c) Prohibit applications for new or increased numbers of EGMs in local communities (i.e. at suburb or SLA level) with below average Socio-Economic Indexes for Areas (SEIFA) scores where the EGM density is currently above or will become above the state average.

While the *Gambling Regulation Act* provides councils with the right to raise their concerns with the Victorian Commission for Gambling and Liquor Regulation (VCGLR) about the social and economic impacts of proposed new or additional EGMs in their municipal district, experience to date has shown that these submissions, which are extremely costly and time-consuming to prepare, are given little weight by decision-makers.

2 Approach to calculation of costs attributable to problem gambling

The approach taken by the Productivity Commission (PC) for the calculation of the costs of problem gambling presents a comprehensive and authoritative method to this problem. There are however a number of other frameworks available for this purpose and it may be of value for the Commission to consider these. For example, the approach adopted by the South Australian Centre for Economic Studies (SACES) in its reports on the impacts of gambling on communities (2005) and the social and economic impacts of gambling in Tasmania (2008), is valuable and insightful.

However, there is considerable merit in basing the calculation of costs on the existing framework developed by the PC, subject to refinement to accommodate additional data, for example in relation to the physical health costs associated with gambling. This submission refers to some relevant research (below) to support such an expansion of the framework.

Of particular interest to local government is the impact of proposed and existing gaming venues on local business. As the PC noted, the availability of legalised gambling does not of itself constitute any additional economic activity (unless it is funded by a run down in the rate of savings):

> …the gambling industries do not create net employment benefits, because they divert employment from one part of the economy to another (PC 2010: 6.1).

All other things being equal, gambling expenditure relies on the diversion of other consumption expenditure (or, in the case of many of those with gambling problems, capital investment or expenditure) to gambling expenditure. This does not constitute additional consumption expenditure, does not contribute to economic growth over and above the alternative uses to which gambling expenditure could be put, and does not create new employment opportunities.

In fact, it is likely that the diversion of consumption expenditure from other entertainment purposes (particularly restaurant or like consumption) may reduce employment opportunities at the local level. SACES (2005) reports that the job intensity (that is, the number of jobs created per unit of expenditure) associated with gambling industry expenditure is comparatively low, particularly when compared to viable alternative expenditure such as retail, sale of liquor and beverages, or sales of food and meals. Table 1 sets out the relative job intensity for these sectors.

This is of very significant importance for local governments seeking to maximize the economic strength of local areas. Although it may appear that development or redevelopment of gambling facilities such as hotels or clubs contributes to local economic activity (as is frequently argued by those supporting such developments), this must be weighed against the impacts of this on existing or potential local businesses and their resulting capacity to provide or sustain employment.

Table 1: relative job intensity of gambling and likely alternative expenditure

Sector	Jobs per $1 million expenditure
Gambling	3.2
Retail generally	6.5
Sales of liquor and beverages	8.3
Sales of food and meals	20.2

Source: SACES 2005 p. 47

This should also be considered in the context of the capacity of gambling-based businesses often being in a position to provide subsidised food or drink, generally by cross-subsidizing bar or restaurant prices from the significant revenue stream generated by gambling. Given significant contributions by those with a dependency on gambling (i.e., problem or at-risk gamblers) this represents a transfer from vulnerable people to those benefiting from the subsidy. The costs incurred by the vulnerable will likely be far more significant than the benefits delivered to those enjoying the subsidy. Such arrangements are also arguably strongly anti-competitive, as they are likely to reduce the overall level of competition within affected communities over time.

The Commission's current inquiry does not seek to assess the benefits associated with gambling. However, gambling industries frequently make claims of the many benefits associated with the revenue stream gambling generates, such as contributions to community activities, the encouragement of volunteerism, and so on. This is also a frequent claim made by applicants for

gambling approval at hearings of the Victorian Commission for Gambling and Liquor Regulation. However, the PC is clear on such claims:

> The claimed benefits of gambling revenue on sporting activities and volunteering do not appear strong. Indeed the presence of gambling may adversely affect volunteering rates …
> The (gross) value of social contributions by clubs is likely to be significantly less than the support governments provides (sic) to clubs through tax and other concessions (PC 2010: 6.1)

Further, the claimed benefits to community economic and social activity have to be weighed against the harms associated with gambling – harms which are not associated with the many alternative uses of consumption expenditure diverted into gambling activities, such as consumption in restaurants, cafés and on other entertainment products.

3 Problem gambling and harm

Problem gambling is generally (and probably erroneously) regarded as being synonymous with the amount of harm occasioned by gambling. However, it should be noted that although problem gambling prevalence rates provide a metric (if instruments and survey methodologies are applied consistently over time)[1], prevalence surveys are unlikely to indicate the number of people actually adversely affected by gambling nor are they capable of assessing the actual impacts of the harm experienced by those affected.

The most commonly utilised problem gambling screen is the Problem Gambling Severity Index (PGSI), derived from the Canadian Problem Gambling Screen. Given inconsistent application of this screen it is not possible to assert with any authority that the trend in gambling prevalence is clear.

However, as Young (2012) argues, even within their own terms, gambling prevalence studies tend to be rather flawed – inconsistent, insensitive and frequently imprecise. They are also arguably a device for identifying a 'deviant' population for the purposes of asserting that the harms of gambling are narrowly confined to the excesses of a moderately small proportion of the population rather than being more widely distributed (Young 2012).

The harms of gambling are clearly not limited to those who score above a certain level on the PGSI scale. The family, friends, employers and neighbours of people who gamble frequently experience harm as a result of this activity, and in a more systematic way so do communities and economic actors generally. It is for this reason that local governments have a pressing interest in reducing the adverse outcomes of gambling.

It is important to stress that the problems derived from gambling are not limited to the prevalence of problem gambling estimated within a particular community.

Problem gambling prevalence can provide a useful metric but it is only one indicator of the harm associated with and in many cases occasioned by gambling.

A further and perhaps familiar consideration requires a public health analogy. The pattern of distribution of, for example, alcohol consumption is instructive. The consumption of alcohol can be regarded as following a standard distribution, whereby most people drink alcohol in relative moderation, some drink to excess, a small number significantly so. Another small proportion drink not at all, and some drink very little.

[1] Unfortunately, as the PC notes, prevalence methodology in Australia has been widely variable and has been plagued by small sample sizes, inconsistent use of and inappropriate comparison of the results derived from distinct gambling screens, and ad hoc modification of screens without explanation (PC 2010: 5.11-12)

The harm occasioned to those who regularly drink to excess is obvious and significant. Less obvious but also significant is the harm done to those who periodically engage in excessive episodes of alcohol consumption. However, in the aggregate, the harm done to those who drink relatively moderately may well exceed the harm associated with those who drink to excess. The public health challenge is to 'shift the distribution to the left' – in other words, to reduce the average level of consumption and thus reduce the aggregate harm experienced in the community.

Alcohol also provides an example of the effects of 'passive drinking' – that is, the harm experienced as a result of alcohol consumption by those who have not themselves consumed alcohol. Much of the harm associated with gambling is experienced by people who do not themselves gamble, and in some cases may not even be associated with individuals who do. To date there is only modest progress in understanding the nature and extent of these harms, but they clearly include economic, social, personal, health and criminal costs.

It is therefore likely that focusing on problem gamblers as the locus of gambling problems should form only a part of any strategy to reduce the harms of gambling. As the PC comments:

> While the prevalence rate of harm is much lower among non-problem gamblers, the absolute number of such people experiencing some form of harm is high. Multiplying a small rate times a very large population can equate to tens of thousands of people. Indeed, ostensibly 'non-problem' gamblers sometimes account for more than half of those affected by some specific harms. For instance, around 60 per cent of those who admit they are experiencing health problems arising from their gambling are not categorised as problem gamblers (PC 2010: 18-19).

4 Costs to local government arising from participation in the electronic gaming machine (EGM) gambling approval process

In preparing for this submission the MAV undertook a survey of members to assess the costs identified by councils in addressing issues associated with problem gambling.

A significant category of such costs relates to the preparation of submissions to the Victorian Commission for Gambling and Liquor Regulation (VCGLR) or its predecessor, the VCGR, in relation to applications by licensed venues for EGM approvals – generally for approval of premises for EGM operation or the expansion of EGMs available at such venues.

The *Gambling Regulation Act* provides that councils, as responsible authorities under the *Planning and Environment Act*, may make a submission, using a form approved by the VCGLR, "addressing the economic and social impact of the proposal for approval on the well-being of the community of the municipal district in which the premises are located, taking into account the impact of the proposal on surrounding municipal districts."

Councils have a maximum of 60 days in which to make their submission. An extension of 30 days may be granted if the Commission considers there are exceptional circumstances. Given the level of detail (and therefore resources) required to prepare a submission, and the fact that Councils operate on a monthly meeting cycle, these timeframes are grossly inadequate.

In determining whether to approve an application for a new EGM gambling venue or additional EGMs in an existing venue, the VCGLR must be satisfied that "the net economic and social impact of approval will not be *detrimental* (emphasis added) to the well-being of the community of the municipal district in which the premises are located."

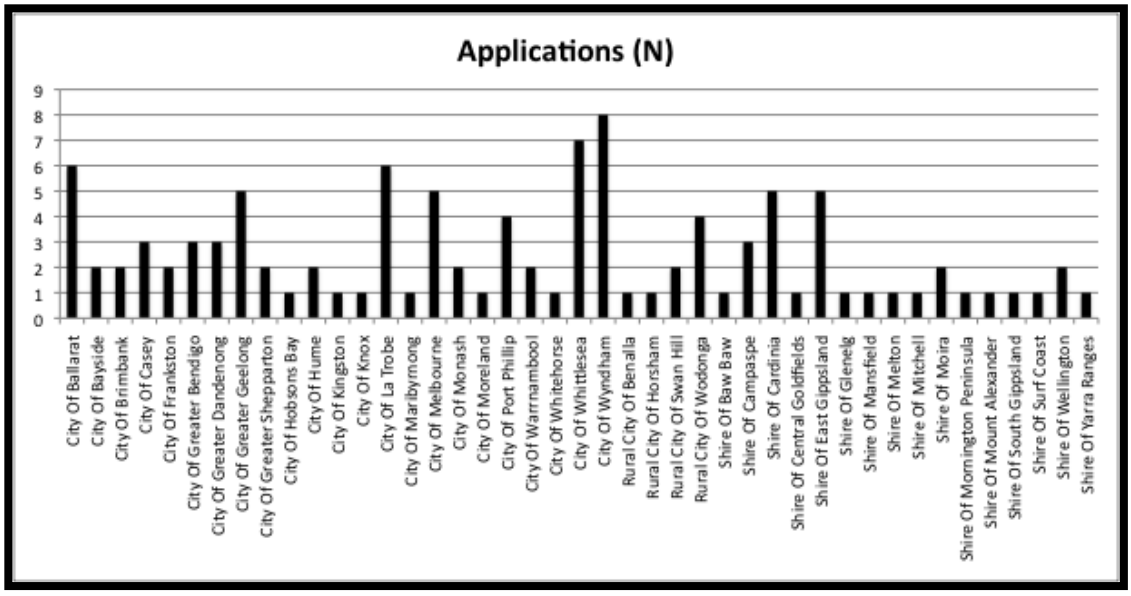
Taking into account the many harms associated with problem gambling, particularly EGM gambling, the MAV contends that this test has been entirely wrongly framed and that the question instead should be whether the new or increased availability of EGMs will bring a net economic and social *benefit* to the municipal district and surrounding communities. Applicants should be the ones required to provide a detailed and evidence-based response to this question.

It is somewhat perverse that the State leaves it to local government to identify the social and economic impacts of a proposal, when protecting and preserving the wellbeing of the community is clearly a shared responsibility, and duty, of all levels of government.

In Victoria between 1 July 2007 and 15 August 2012, there were 106 applications for a new gaming venue or to increase the number of EGMs in an existing venue, in 43 separate local government areas. Of these, 96 (90.6%) were approved as sought by the applicants (i.e., the full number of EGMs sought were approved by VCGLR or VCGR). A further 3 applications (2.8%) were partly approved. In 55 cases, the relevant council made a submission to the VCGLR or VCGR and in 50 cases this submission opposed the application wholly or in part. Where the council opposed the application, it was partly successful in 3 cases (6%) and wholly successful in 6 (12%). In one case, the relevant council did not make a submission and the application was rejected.

The distribution in the number of the applications by LGA is shown in Figure 1. A further breakdown of this data is provided at Appendix 1.

Figure 1: Number of applications to VCGLR or VCGR by LGA for a new gaming venue or to increase the number of EGMS in an existing, July 2007 to August 2008 (Source: VCGLR)



Although these data suggests that participation by councils in the EGM gambling application process *can* influence the outcome of the application, councils must balance the likelihood of success against the often significant costs of such participation. The overall rate of approval of such applications is in excess of 90%. Where councils have actively participated and opposed an application, the rate of success by applicants declines to 82%. This is a statistically different result. However, councils are aware of the relatively modest rate of success in opposing such applications, and must balance this against the not inconsiderable costs associated with such active participation. In the case of local government areas where numerous applications for new or additional EGMs are made, the costs of active participation can be very high.

The substantial costs for councils of participating in the EGM gambling application process is amply demonstrated by information obtained from councils responding to the MAV survey relating to this submission. These councils reported that the costs of making submissions in response to these applications were very significant. Of the 36 councils who responded, 20 had made at least one submission to the VCGR during the last five years, and reported that the cost of these ranged from $1,000 to $285,000 (reflecting the costs of legal advice in the preparation of submissions, expert opinion, community surveys, officer time, etc). The average cost of the 41 submissions reported by councils was $27,630. In many cases officer time was not factored in to these calculations, so it is likely that the actual average cost would be somewhat greater.

Further, in addition to the costs of making submissions to the VCGLR/VCGR, the costs associated with participation in VCGLR/VCGR proceedings were reported as ranging from $10,000 to $220,000. The average cost of appearing at the VCGLR or VCGR was estimated as $37,203 by those councils that responded to the survey. Responding councils also reported that they had appealed or responded to appeals against the decisions of VCGLR or VCGR on eight occasions, at an average cost of $63,750.

Clearly, the decision to pursue these matters can impose significant cost burdens on councils and it is likely that in many cases the high cost and very modest likelihood of success predicates against council participation in these proceedings. As one council commented:

> … the significant resourcing required and the lack of knowledge/expertise regarding the submission and the process, and the internal resources required made it a very challenging option. Ultimately Council determined the process was onerous and prohibitively expensive when the application was within the cap and it was considered unlikely to be refused no matter what case Council put forward.

Another council commented that they had:

> Considered it … but short time frame with little time for preparation necessitated our withdrawal.

It should be noted that 34 of the 36 councils responding to the MAV survey for this submission regarded problem gambling as a social and economic issue of concern.

A number of councils (13) also reported allocating resources to planning appeals arising from refusal to approve premises for gaming. Costs associated with these matters were reported as ranging from $20,000 to $288,000, with an average reported cost of $81,667.

Councils also report contributing to community activities and support services targeted at assisting those with gambling problems or their families. Of the councils who responded to the MAV survey, 13 identified services provided by or funded by council targeting or servicing people experiencing harm from gambling. These ranged from financial counseling services to family support services and relapse prevention services. Councils also indicated that generalist services were often providing support to clients likely to be experiencing difficulty with gambling problems but not always disclosing this readily (based on reports by staff of these services). Councils able to identify specific problem gambling related expenditure (6) advised average council contributions to these services of $69,333 per annum.

Considerable uncosted staff time is also reported by councils in relation to addressing gambling related issues including policy development consultation with local services including Gamblers Help services, welfare and charitable agencies and gambling researchers.

5 Costs to health and community wellbeing

In the available literature, there is some degree of understanding of the extent to which gambling problems can cause, exacerbate or significantly contribute to mental health problems. In the Victorian context, Thomas & Jackson (2008) demonstrate these links (importantly, noting that the direction of causality is unclear) and a more recent longitudinal study (Department of Justice 2011) demonstrates the alarming extent of co-morbid mental health issues amongst those who gamble regularly.

For example, 51% of the problem gambler segment in this latter study reported depression, compared to 10.4% of the non-problem gambler segment, and 48.9% of problem gamblers reported anxiety disorders compared to 7.6% of non-problem gamblers. It should be noted that the rate of these disorders increased as the severity of gambling problems increased from non-problem to low-risk, moderate-risk and problem gambler categories (Department of Justice 2011: 14-15).

The gambling industry has tended to argue that mental health issues are an underlying cause of gambling problems. Firstly, it must be stressed that this is very unclear from the available evidence, which suggests that although underlying mental health issues may in some cases contribute to the development of gambling problems, such problems are very likely to exacerbate any pre-existing conditions. In any event, gambling problems are highly likely to induce serious mental health pressures even for those who may not previously have reported any symptoms of psychological distress.

There is considerably less material available to inform understanding of the links between gambling problems and physical health problems. The 2011 Victorian longitudinal study does advise that 51% of problem gamblers self-report their health as fair or poor, compared to 15% of non-problem gamblers (Department of Justice 2011: 14).

Other studies suggest some equally alarming associations between gambling and physical health and related issues.

In a study conducted in France, Germain et al (2011) demonstrated that problem gamblers experience a 13-fold increase in risk of Coronary Heart Disease compared with non-problem gamblers. This clearly represents a very significantly elevated risk of serious physical disease.

The risk of violence and associated injuries is also clearly elevated by involvement with an intimate partner who gambles excessively. Brasfield et al (2011) report that amongst a sample of men ordered by courts to attend ‘batterer intervention programs’ as a result of intimate partner violence (IPV), 26% met criteria for pathological or problem gambling. Korman et al (2007) reported that amongst a sample of 248 male and female problem gamblers, 25.4% reported perpetrating severe IPV in the previous year, with 62.9% reporting either perpetrating or being the victim of IPV over that period. In 2002, Muelleman et al reported that amongst a sample of women presenting at an emergency department, the adjusted odds ratio for IPV if their partner was a problem gambler was 10.5 (CI 1.3-82) – in other words, they were at greater than 10-fold higher risk of experiencing IPV in such circumstances (Muelleman et al 2002).

In a Victorian context, Wheeler et al (2010) found a significant relationship between crime rates and gambling expenditure, including violent crime against the person. The most significant relationship noted in the Wheeler study was that between gambling expenditure and income-generating crime, and this is of itself a concern to councils.

A comprehensive survey of available evidence on the effects of problem gambling on families, partners and children is provided by Shaw et al (2007). One such observation (derived from an Australian study) is that as many as two in three cases of IPV are related to gambling problems.

The abstract for this article incorporates the following observations:

> Pathological gambling (PG) is widely reported to have negative consequences on marriages, families, and children. Empirical evidence is only now accumulating but when put together with anecdotal information, the extent of these problems is clear. PG contributes to chaos and dysfunction within the family unit, disrupts marriages, leading to high rates of separation and divorce, and is associated with child abuse and neglect. Divorce rates are high, not surprising in light of reports that these marriages are often abusive. Research shows that the families of pathological gamblers are filled with members who gamble excessively, suffer from depressive or anxiety disorders, and misuse alcohol, drugs, or both (Shaw et al 2007).

Unfortunately, there is a lacuna of readily available data relating to these observations, and although Shaw et al provide a good overview of the available evidence, the evidence base relating these issues to problem gambling is scant in Australia. There is little doubt however that all of the issues identified by Shaw et al (and the other articles cited in this section) have relevance to the community level costs of gambling problems in Victoria.

6 How much do problem gamblers contribute to poker machine revenue?

In an appendix to its 2010 report, the Productivity Commission sets out its reasons for quantifying the proportion of problem gambler EGM expenditure at 40% (and moderate risk gamblers at about 20%) and in the process is critical of some of those who attack this methodology (see PC 2010: Appendix B).

A principal argument of those who attack the methodological approach that supports the 40% hypothesis is that as problem gambling prevalence declines, the expenditure share of problem gamblers should also decline. This argument would be available had overall participation in gambling been constant over time. However, between 2003 and 2008 in Victoria, EGM gambling participation (i.e., those who used EGMs at least once over a 12 month period) declined from 33.5% of the adult population to 21.5% (CGR 2004, Department of Justice 2008).

Over this period, and on the basis of the same studies, the problem gambling prevalence rate reportedly declined from 1.12% to 0.7% of the adult population. Of this group (i.e., problem gamblers), the 2003 study reported that 94.3% used EGMs and the 2008 study reported that 91.04% used EGMs. The adult population problem gambling prevalence rate for EGM users was therefore 1.06% and 0.64% respectively. However, if applied to the population actually using EGMs at all (which had declined markedly over this period) the problem gambling prevalence rate had stayed remarkably consistent, at 3.2% in 2003 and 3.0% in 2008.

In other words, the proportion of problem gamblers amongst those who actually use EGMs has stayed about the same, and given the margins of error associated with the above prevalence and participation estimates, does not represent a significant difference.

In Victoria, the average Net Gambling Revenue (NGR) per actual EGM user increased in real terms (2008-9 values) from $2,062 in 2003 to $3,017 in 2008, an increase of 46.3%. The average real NGR per problem gambler can be estimated at $26,155 in 2003 and at $40,719 in 2008, an increase of 55.7%. That is, for both average users, and particularly for those classified as problem gamblers, average expenditure increased significantly in real terms, suggesting a likely increase in the level of harm experienced by those with gambling problems. Although the number of problem gamblers reportedly shrank as a proportion of the population, the harm experienced by those who had a gambling problem was likely to have increased.

Whatever the pattern of distribution of NGR, there was undoubtedly a significant increase in average and regular gambler expenditure between 2003 and 2008, suggesting that aggregate levels of harm increased significantly during this period. It must be noted that only about 4% of the adult population use EGMs weekly or more often, and amongst this group the combined problem gambling and moderate risk rate (i.e., CPGI 3+ rate) is around 30% (PC 2010: 5.24). Overall, the regular gambler group will contribute far more to EGM NGR than non-regular users, and in many cases this may be associated with intermittent but sometimes severe harms.

It should be noted that these estimates are consistent with the Productivity Commission's discussion of these issues (PC 2010: 2.21-2.22).

This is demonstrated by the PC's examination of player loyalty data for a large NSW club for the period September 2008 to February 2009, which was analysed to assess expenditure by EGM user segment. These data were provided to the Productivity Commission by Clubs Australia. The two highest spending groups by loyalty club spending segment, representing 0.1% and 0.5% of loyalty club members, were reported to spend $86,020 and $28,719 p.a. respectively, which amounts to 42.6% of NGR. The average expenditure for these two groups was thus $38,270 p.a. (PC 2010: p.B.23) (note: average expenditure for segments 1 and 2 was calculated using a weighted means method).

It is clear that a small segment of the population contribute a disproportionate amount of EGM NGR, and it is reasonable to assume that harm is concentrated in this group. However, not all regular gamblers will be categorised as problem or even moderate risk gamblers, and likely expenditure patterns in regular EGM users are likely to be at levels that suggest recurring or intermittent harmful effects.

7 How many problem gamblers are there in Victoria?

In 2011, the problem gambling incidence rate for Victoria was calculated to be 0.36%. (Department of Justice 2011). This estimate is based on data derived from a longitudinal panel study. This report thus indicates that the number of new cases of problem gambling in Victoria is around 15,800 per annum, based on 2012 population estimates and the reported incidence rate of 0.36%. This is a comparatively high incidence.

In 2008, the problem gambling prevalence rate was estimated at 0.7% of the adult population (29,200 individuals) (Department of Justice 2008), a little less than twice the incidence rate. Given the likely length of problem gambling 'careers' it seems feasible that the prevalence of problem gambling may have increased since 2008.

8 Are gambling problems concentrated in particular areas? If so, why?

The most recent Victorian gambling prevalence survey (Department of Justice 2008) reports distinct rates of problem and moderate risk gambling prevalence depending on the band of EGM expenditure characteristic of LGAs. Thus, low expenditure LGAs have problem gambling rates of 0.05% on average; moderate and high expenditure LGAs have much higher rates, at 0.83 and 0.80 respectively. Similarly, moderate risk prevalence is, from low to high band LGAs, 1.51%, 2.25% and 2.62%.

Table 2 below summarises data for these bands of EGM expenditure.

Table 2: EGM and population data by EGM expenditure band, Victoria, 2008-09

EGM band	EGM N	Adult pop	NGR - 2008-09	NGR/EGM	EGM/ 1,000 adults	PG rate	Mod risk rate	CPGI 3+ rate	NGR/ Adult
High	18,845	2,492,899	1,966,166,122	$104,334	7.6	0.80%	2.62%	3.42%	$789
Med	5,691	1,058,273	551,223,611	$96,859	5.4	0.83%	2.25%	3.08%	$521
Low	2,236	745,851	189,888,703	$84,923	3.0	0.05%	1.51%	1.56%	$255

Sources: VCGLR, ABS, Department of Justice 2008

These data should be interpreted with care because of the limited number of data points and disparities in population, etc. However, there is a clear relationship between the CPGI 3+ rate (i.e., the total of problem and moderate risk gambler categories) and NGR per EGM, EGMs per 1,000 adults, and NGR per adult. The correlation coefficients for these relationships are very robust, being, respectively, 0.98, 0.94, 0.95.

Similarly, data for metropolitan regions demonstrates robust relationships between the CPGI 3+ rate and EGMs per 1,000 adults, NGR per adult, and NGR per EGM (see table 3). The correlation coefficients for these relationships are respectively 0.90, 0.92 and 0.96.

Table 3: EGM and population data by metro region, Victoria, 2008-09

Region	EGM (N)	Adult pop.	NGR - 2008-09	NGR/ EGM	EGM/ 1000 adults	PG rate	Mod risk rate	CPGI 3+ rate	NGR/ adult
EM	4,448	815,494	461,833,234	$103,829	5.5	0.25%	1.79%	2.04%	$566
NWM	8,819	1,331,872	992,610,996	$112,554	6.6	1.18%	2.66%	3.84%	$745
SM	6,134	1,035,983	664,071,092	$108,261	5.9	0.78%	2.64%	3.42%	$641

Sources: VCGLR, ABS, Dept of Justice 2008"

The relationships between the above data and non-metropolitan regions were also analysed. Relationships between NGR, EGM density and other variables are much less clear in these regions. The average population size in non-metropolitan regions of Victoria is about 220,000 adults, compared to an average of about 1.06 million for metropolitan regions, and sampling and other statistical errors are likely to lead to much less clear-cut estimates of gambling prevalence – as indicated by the standard errors reported at non-metropolitan regional level in the 2008 gambling prevalence study.

Nonetheless, the data summarized in tables 2 and 3 above provide strong indications of a relatively robust relationship between EGM density, the prevalence of moderate risk and problem gambling, and the level of per capita EGM expenditure. Across Victoria at large cell sizes (defined by bands of expenditure) and at the large cell (metro) regional level, a relatively higher rate of gambling problems is associated with both higher EGM density and higher per capita EGM expenditure.

9 What factors predict gambling expenditure?

Consistent with existing research, a recent article (Rintoul et al 2012) addresses the relationship between socio-economic disadvantage and gambling expenditure in metropolitan Melbourne. This article identifies a strong relationship between EGM losses and disadvantage, but also notes the contribution of EGM density to this gradient.

Rintoul et al (2012) present an ecological study examining the relationship between socioeconomic disadvantage (measured by the Australian Bureau of Statistics SEIFA Index of relative disadvantage), and EGM losses at the suburban level across metropolitan Melbourne. It develops a predictive spatial model of gambling vulnerability.

The findings reveal that there is a graded and increasing level of loss as disadvantage increases across SEIFA quintiles. Losses of the least disadvantaged areas were 22% (95% CI 11-41%) of those in the most disadvantaged areas. The highest mean annual losses of $849 per adult (95% CI $749-963) occurred in areas classified in SEIFA Quintile 1, the most disadvantaged areas. The density of poker machines (measured as poker machines per 1,000 adults) confounded the relationship between losses and relative disadvantage. In Rintoul et al's model, 40% of the apparent effect of disadvantage was explained by the density of EGMs.

Thus, the vulnerability surface reflects socioeconomic patterns across Melbourne, showing areas of greater disadvantage in the middle and outer north-west and outer south-east with particularly high levels of EGM vulnerability.

The lacuna of prevalence data for small areas makes it difficult to demonstrate beyond doubt that EGM-derived harm is concentrated in areas of disadvantage, although the weight of available evidence strongly suggests that this is indeed the case. Furthermore, the analysis of 2008 prevalence data referred to above, in combination with the findings of Rintoul et al (2012) indicates the very strong likelihood that socio-economic vulnerability is indeed a predictor of problem gambling.

More importantly perhaps, it is also very likely that the combination of socio-economic disadvantage and high densities of EGMs also predicts significant harmful effects from EGM gambling, as distinct from problem gambling prevalence.

10 Do populations adapt to gambling availability?

The gambling industry and some researchers have argued that, over time, populations adapt to exposure to increased gambling opportunities. This is often referred to as the adaptation or social learning hypothesis for problem gambling. In summary, this hypothesis argues that populations adapt to gambling exposure, leading to a declining prevalence of gambling problems.

One of the more prominent proponents of this hypothesis was Prof. Max Abbott of Auckland University of Technology. Prof. Abbott did propose this hypothesis for some time but in 2009 was co-author of a paper which explored both the adaptation hypothesis and the link between accessibility to gambling machines and the prevalence of problem gambling. This article (Storer, Abbott & Stubbs 2009) undertook a meta-analysis of a large number of prevalence studies in Australia and New Zealand from 1991, and concluded that:

> Strong statistically meaningful relationships were found for an increase in prevalence with increasing per capita density of EGMs, consistent with the access hypothesis and supported by no evidence of plateauing of prevalence with increasing density of EGMs. A decrease in prevalence over time with availability held constant is also evident, partially consistent with adaptation (Storer Abbott & Stubbs 2009: 225)

The article further concludes that

> … there is strong support from the present findings for the access thesis, with strong statistically meaningful relationships between an increase in problem gambling prevalence and increasing per capita density of EGMs, at an average increase of 0.8 problem gamblers for each new EGM. Further, there is no evidence of plateauing of prevalence with increasing density of EGMs, one of the predictions of the adaptation thesis …
>
> The finding of a decrease in prevalence of problem gamblers, at a rate of 0.09% per annum with EGM density held constant is partially consistent with the adaptation thesis. It suggests that measures related to public education and other community and individually based preventative or treatment programs may be effective in reducing harm over time (Storer Abbott & Stubbs 2009: 241).

Thus, the effect of adaptation is modest compared to the effect of access to additional poker machines. Additionally, the Productivity Commission's 2010 report highlights the role of accessibility in gambling harms. The PC also notes the likelihood of a 'threshold' effect – whereby beyond a certain point additional poker machines have a declining impact on the level of problem gambling (PC 2010: 14.1). These conclusions are consistent with the analysis of Victorian data referred to above and with the conclusions of Storer Abbott & Stubbs (2009).

11 Conclusion

In 2008-09 gambling expenditure in Victoria was about $5.1 billion. Put more starkly, $5.1 billion was *lost* gambling in one year in one state. Spending on gaming machines in hotels and clubs accounted for 53% of the $5.1 billion lost. This money could have been spent on other, non-gambling related, goods and services. This "opportunity cost" for potential and existing local businesses is of grave concern to local councils seeking to grow and sustain healthy local economies. It should also be of significant concern to the state and federal governments.

It is well known that those gambling at problem or at-risk levels are unlikely to publicly attribute any health, social or financial difficulties they're experiencing to their gambling activity. Accurately assessing the social and economic costs of problem gambling in Victoria must then, inevitably, be a difficult task. That said, the fact that it is known that so much money is lost each year, predominantly in Victoria's most disadvantaged communities, and that gambling problems lead to a range of physical health, mental health, social and economic harms, does, or should, raise important public interest questions for all three levels of government.

While councils have the opportunity to lodge a submission to the VCGLR highlighting their concerns about the social and economic impacts on local communities of a proposed new EGM gambling venue or additional EGMs in an existing venue, experience to date has shown that these submissions very rarely lead to an application being refused by the Commission. Given the substantial amounts of time, money and resources councils must commit to prepare a submission in a very short timeframe, there can be no doubt that the very poor success rate of councils provides a significant disincentive from engaging in the process.

The fact that it is even left to councils to attempt to spell out the social and economic impacts when the harms associated with problem gambling are so well known, is of itself of concern given that all levels of government have a responsibility to work for the public good. The primary question the VCGLR should be asking itself, and the applicant, is whether the new or increased availability of EGMs will bring a net economic and social *benefit* to the municipal district and surrounding communities. The current test that is applied, regarding net detriment, does not prioritise the best interests of the community.

12 References

Brasfield H. Febres J. Shorey R. Strong D. Ninnemann A. Elmquist J. Andersen S. Bucossi M. Schonbrun Y. Temple J. Stuart G. (2012) Male Batterers' Alcohol Use and Gambling Behavior. Journal of Gambling Studies. 28: 77-88

Centre for Gambling Research (CGR) (2004) 2003 Victorian Longitudinal Community Attitudes Survey. Gambling research Panel/Department of Justice, Melbourne.

Department of Justice (2009) A Study of Gambling in Victoria – Gambling from a Public Health Perspective. Department of Justice, Melbourne.
Department of Justice (2011) The Victorian Gambling Study – a longitudinal study of gambling and public health – Wave Two findings. Department of Justice, Melbourne.

Germain, C. Vahanian A. (2011). Brief report: coronary heart disease: an unknown association to pathological gambling. Front Psychiatry 2: 11

Korman L. Collins J. Dutton D. Dhayananthan B. Littman-Sharp N. Skinner W. (2008) Problem Gambling and Intimate Partner Violence. Journal of Gambling Studies. 24: 13-23

Muelleman R. DenOtter T. Wadman M. Tran TP. Anderson J. (2002). Problem Gambling in the Partner of the Emergency Department as a Risk Factor for Intimate Partner Violence. The Journal of Emergency Medicine. 23(3): 307-312

Productivity Commission (2010) Gambling. Report No. 50. Canberra
Rintoul A. Livingstone C. Mellor A. Jolley D. (2012) Modelling vulnerability to gambling related harm: how disadvantage predicts gambling losses. Addiction Research & Theory (in press, accepted 3 Sep 2012)

Shaw M. Forbush K. Schlinder J. Rosenman E. Black D. (2007). The Effect of Pathological Gambling on Families, Marriages, and Children. CNS Spectrums. 12(8): 615-622

South Australia Centre for Economic Studies. (2005). Community impact of electronic gaming machine gambling. Gambling Research Panel-Department of Justice. Melbourne
South Australia Centre for Economic Studies. (2008). Social and economic impact study into gambling in Tasmania. Department of Treasury and Finance. Hobart.

Storer J. Abbott M. Stubbs J. (2009) Access or Adaptation? A meta-analysis of surveys of problem gambling prevalence in Australia and New Zealand with respect to concentration of electronic gaming machines. International Gambling Studies, 9(3): 225-244

Thomas, S & Jackson, A. (2008). Report to beyondblue: Risk and protective factors, depression and comorbidities in problem gambling. The Problem Gambling Research and Treatment Centre. Melbourne

Victorian Commission for Gambling and Liquor Regulation. EGM expenditure, venues and EGM numbers by local government area, Victoria, 2008-09 – personnel communication
Victorian Commission for Gambling and Liquor Regulation. Hearings completed. http://www.vcgr.vic.gov.au/CA256F800017E8D4/Meetings/AA83563E8D9EC9A0CA25785B001DDA89?Open#

Wheeler, S., Round, D. K. & Wilson, J. K. (2010). The relationship between crime and gaming expenditure in Victoria: Final report. Department of Justice Melbourne

Young M. (2012) Statistics, scapegoats and social control: A critique of pathological gambling prevalence research. Addiction Research and Theory (Early online) DOI

13 Appendix 1: Detail of VCGLR/VCGR applications 2007-2012

Local government area	Applications (N)	Applicant successful (N)	Applicant part successful (N)	LGA submitted (N)	LGA opposed (N)	LGA supported in submission (N)	Application refused (N)	LGA successfully opposed (N)	LGA unsuccessfully opposed (N)
City Of Ballarat	6	6		1	1			0	1
City Of Bayside	2	2		1	1			0	1
City Of Brimbank	2	1		2	2		1	1	1
City Of Casey	3	3		0	0			0	0
City Of Frankston	2	1	1	2	2			0	1
City Of Greater Bendigo	3	3		2	2			0	2
City Of Greater Dandenong	3	3		1	1			0	1
City Of Greater Geelong	5	5		2	2			0	2
City Of Greater Shepparton	2	2		2	1	1		0	1
City Of Hobsons Bay	1	1		0	0			0	0
City Of Hume	2	1	1	2	1	1		0	0
City Of Kingston	1	1		1	1			0	1
City Of Knox	1	1		1	1			0	1
City Of La Trobe	6	6		0	0			0	0
City Of Maribyrnong	1	1		1	1			0	1
City Of Melbourne	5	4		4	4		1	1	3
City Of Monash	2	1	1	2	2			0	1
City Of Moreland	1	1		1	1			0	1
City Of Port Phillip	4	4		4	4			0	4
City Of Warrnambool	2	2		0	0			0	0
City Of Whitehorse	1	1		1	1			0	1
City Of Whittlesea	7	6		6	5	1	1	1	4
City Of Wyndham	8	8		7	7			0	7
Rural City Of Benalla	1	0		1	1		1	1	0

Appendix 1 (cont.)

Council	Applications (N)	Applicant successful (N)	Applicant part successful (N)	LGA submitted (N)	LGA opposed (N)	LGA supported in submission (N)	Application refused (N)	LGA successfully opposed (N)	LGA unsuccessfully opposed (N)
Rural City Of Horsham	1	1		0	0			0	0
Rural City Of Swan Hill	2	2		1	0	1		0	0
Rural City Of Wodonga	4	4		1	0	1		0	0
Shire Of Baw Baw	1	1		1	1			0	1
Shire Of Campaspe	3	3		0	0			0	0
Shire Of Cardinia	5	4		2	2		1	1	1
Shire Of Central Goldfields	1	0		0	0		1	0	0
Shire Of East Gippsland	5	5		0	0			0	0
Shire Of Glenelg	1	1		0	0			0	0
Shire Of Mansfield	1	1		1	1			0	1
Shire Of Melton	1	1		0	0			0	0
Shire Of Mitchell	1	1		1	1			0	1
Shire Of Moira	2	2		0	0			0	0
Shire Of Mornington Peninsula	1	1		1	1			0	1
Shire Of Mount Alexander	1	1		1	1			0	1
Shire Of South Gippsland	1	1		0	0			0	0
Shire Of Surf Coast	1	0		1	1		1	1	0
Shire Of Wellington	2	2		0	0			0	0
Shire Of Yarra Ranges	1	1		1	1			0	1
43	106	96	3	55	50	5	7	6	41

Source: VCG