

A blueprint for preventing and minimising harm from electronic gambling machines in the ACT

Charles Livingstone
Gambling and Social Determinants Unit
School of Public Health & Preventive Medicine
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MONASH
University

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Gambling & Social Determinants Unit
School of Public Health and Preventive Medicine
Monash University
Melbourne VIC

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Summary

EGMs, gambling and harm in the ACT

Gambling in all forms lawfully undertaken under the jurisdiction of the ACT in 2015-16 provided gambling expenditure (GE) (equivalent to user losses) totalling \$232.11 million in 2015-16. The ACT has the second highest EGM density in Australia (14.8 per 1,000 adults). It has two and a half times the EGM density of Victoria, twice that of Queensland, and other than NSW (15.5 EGMs/1,000 adults) has a higher density than all other states and territories.

In 2016-17 EGMs in the ACT provided GE of \$166.5 million (2015-16 values), a decline of 1.4% from the previous year. In 2015-16, real GE from EGM gambling in the ACT was \$168.5 million. EGMs account for 73% of ACT gambling expenditure (2015-16).

Per capita EGM expenditure in the ACT was \$537 per adult in 2015-16. This ranked fourth amongst Australian jurisdictions, on par with Victoria but higher than the NT, South Australia and Tasmania.

About 20% of ACT adults used EGMs in 2014. On 2015-16 population estimates, this means there were 62,300 EGM users, spending an average \$2,667 p.a.

Although extra-territorial gambling via the internet is not reported, the amount spent on this by ACT residents is likely to be in the range of \$20 million per annum. About 8% of ACT residents reported internet gambling activity in 2014. The 25,000 estimated internet gamblers spent an average of about \$812 in 2015-16.

Based on 2014 prevalence data, about 17,000 people (5.4% of adults) were directly affected by gambling harm in the ACT in 2015-16. About 4,700 (1.5% of adults) experienced harms at moderate or high levels. Using the Years of Life lost via Disability method developed by Browne et al, this means that the burden of harm (measured as Years of Life Lost to Disability, or YLD₁) for the ACT was estimated as the same order of magnitude as alcohol harms for the ACT.

The burden of harm for gambling is equivalent to 92% of the YLD₁ for alcohol harmful use and alcohol dependency, and on par with the burden associated with moderate levels of major depression.

Not all gambling-related harm is associated with EGM use. However, 76 per cent of CPGI 3+ gamblers reported using EGMs in 2014 and over 70% per cent of gambling expenditure in the ACT derives from EGMs. On that basis, between 70 per cent and 80 per cent of those experiencing harm from gambling in the ACT would experience it principally as a consequence of EGM use, as is the case in the rest of Australia (Productivity Commission [PC] 2010).

Harms from gambling affect more than simply the gambler. Goodwin et al (2017) estimate that each high risk gambler affects 6 others (on average), each moderate risk gambler 3 others, and each low risk gambler another person. Those adversely affected include children, other family, friends and employers, for example.

On that basis, over 47,000 people in the ACT are affected by gambling harms at any one time. This is equivalent to 11.8% of the total ACT population.

Browne et al (2017) estimated social costs of gambling harm at around \$7 billion p.a. in Victoria in 2015. This study estimated the costs of harm at \$6,304 p.a. per 'low risk' gambler, \$15,507 per 'moderate risk' gambler, and \$66,560 per 'problem gambler'.

Applying these estimates to the ACT situation produces social harm cost estimates of \$214.2 million p.a.

Current regulatory situation

The Gambling and Racing Control Act 1999 establishes the ACT Gambling and Racing Commission (the Commission) to, inter alia 'administer the gaming laws' and 'control, supervise and regulate gaming in the ACT'.

The Act specifically requires the Commission to prescribe codes of practice for the conduct of gambling by licensees.

The Commission's 2016-17 Annual Report emphasis its commitment to a public health approach to gambling harm prevention and minimisation. The Commission also commits itself to improving its understanding of recent research in this area and to provide support and treatment for those experiencing gambling harm.

The Commission has also initiated a Gambling Harm Prevention Plan 2016-17 which proposes adoption of a public health approach to gambling harm.

Current code of conduct

All Australian jurisdictions require adherence to a code of conduct or practice intended to provide minimum standards and to minimise harms experienced by gamblers. The code applying in the ACT differs from others in Australian jurisdictions by permitting licensees to initiate self-exclusion.

For the purposes of the code, a person has a gambling problem if they have difficulty limiting the amount of money or time they spend on gambling and this leads to adverse consequences for that person or another person.

The code is broadly similar to those operating in other Australian jurisdictions. It emphasises 'downstream' harm minimisation measures (primarily identification of 'problem gamblers' in venues, and self-exclusion) but does not provide effective preventive measures.

Parameter settings

All Australasian jurisdictions adopt the Australia/New Zealand Gaming Machine Standards in their regulatory arrangements.

Although these are purportedly national in scope they allow each jurisdiction to adopt distinct parameter settings.

Parameter settings describe some important structural characteristics of EGMs. Structural characteristics can be understood as the 'building blocks' of EGM games. Structural characteristics of games can be used as a means of restraining the addictive potential of EGMs.

At present, parameter settings for the ACT are not well oriented towards consumer protection, and almost certainly exacerbate the harmful potential of EGMs.

Accessibility of EGMs

EGM accessibility in the ACT is high. EGMs are available throughout the Territory, and EGM venues are often large and centrally located. They may operate until 4:00 am and provide EGMs set at high parameter values, increasing the intensity of gambling. The average size of club venues in the ACT (defined by EGM numbers) is 93, which is well above that for most other Australian jurisdictions. It has been clearly established that large venues are associated with relatively high expenditure and greater levels of harm.

Introduction

The purpose of this report is to highlight issues with the current system of gambling regulation in the ACT, with particular reference to the regulation and operation of electronic gambling machines (EGMs).

The ACT has a very high density of EGMs by Australian and world standards. The majority of gambling expenditure (i.e., losses by gamblers) is derived from EGM operations. This is true even taking into account on-line wagering. This means that the majority of harm experienced from gambling in the ACT is attributable to EGMs.

The ACT Gambling & Racing Commission has indicated its alignment with a harm prevention and minimisation approach, using public health principles to guide this. At present, this approach has not been operationalised – that is, it has not yet filled out the details of what a gambling harm prevention and minimisation approach would entail.

This report seeks to provide a range of options to support an active harm minimisation approach. The options outlined in this report are not exhaustive, but they are oriented towards those that can be achieved in the short to medium term. They provide a basis for focusing regulation on the prevention of harm.

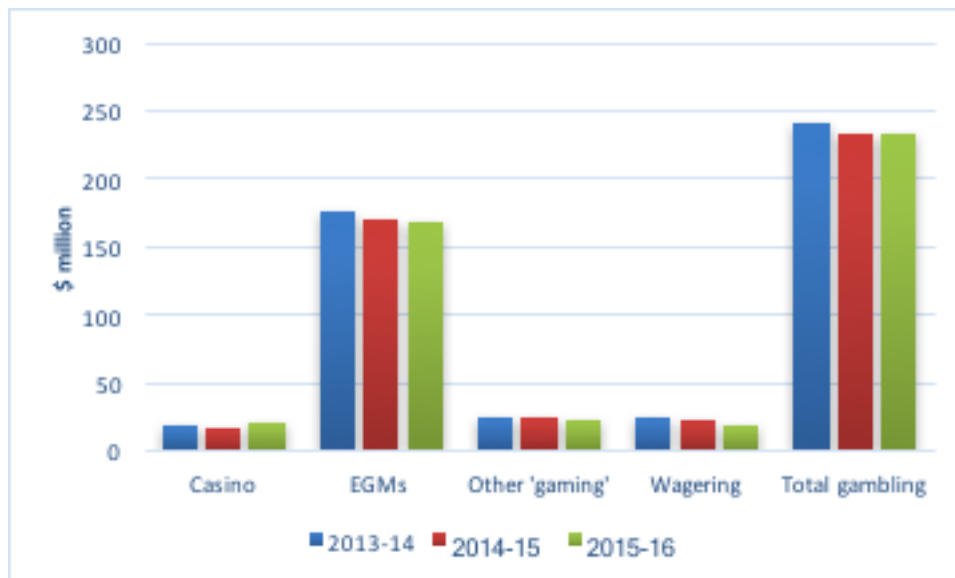
Gambling expenditure and harm in the ACT

ACT gambling expenditure and EGMs

Gambling in all forms lawfully undertaken under the jurisdiction of the ACT in 2015-16 provided gambling expenditure (i.e., user losses) (GE) totalling \$232.11 million in 2015-16. This was a reduction of 0.6% on the previous year (in real terms), and followed a real reduction of 3.4% between 2013-14 and 2014-15. Gambling expenditure has declined every year since 2006 by an average of 3.6% in real terms (Queensland Government Statisticians Office [QGSO] 2018).

In 2016-17 EGMs in the ACT provided GE of \$166.5 million (in 2015-16 dollars), a decline of 1.4% from the previous year. In 2015-16, real GE from EGM gambling in the ACT was \$168.5 million. Between 2013-14 and 2014-15 EGM GE declined by 3.5%. The distribution of ACT gambling expenditure for this three-year period is shown in Fig. 1.

Figure 1: Gambling expenditure, ACT, types of gambling 2013-14 – 2015-16



Source: QGSO – Australian Gambling Statistics

This represented just under 73% of all gambling in the jurisdiction. This was 0.8% less than the previous year. With the exception of the period 1992-93 to 1995-96 (the first four years of operation of Casino Canberra), EGM gambling has comprised not less than 70% of ACT total gambling expenditure.

Between 1990-91 and 2003-04, real EGM GE grew by an average 5.9% per annum, to a little under \$260 million. Real EGM expenditure has declined in every subsequent year (with two exceptions), averaging about 2.9% per annum. The average rate of decline has slowed since 2010-11, with an average of 2.5%. In the six years before that, the average rate of decline was 3.4%.

Extraterritorial expenditure on gambling in the ACT is not reported. However, given that most on-line bookmakers are registered in the Northern Territory, some estimates may be made. Davidson et al (2015) report that 8% of ACT adults reported gambling using the internet in 2014. This was split between betting on sports (4%) and racing (4%), with 3% also

buying lottery tickets using the internet. This participation rate is similar to that reported in other prevalence surveys in recent years (Hare 2015).

Total racing and sports betting revenue reported from the Northern Territory in 2015-16 was \$1.2 billion (AGS 2018), the bulk of which is attributable to internet gambling. Given that the ACT adult population is estimated at 1.7% of the Australian adult population (2016-17) (ABS 2018), this would suggest an ACT resident internet gambling expenditure of \$20.4 million p.a., or an average of \$812 p.a. per internet gambler in the ACT (about 25,100 people). This compares to average expenditure of \$2,667 p.a. on EGMs for the 19.9% of adults (62,341) reporting EGM use in 2014 (2015-16 GE) (Davidson et al 2015).

Note also that although sports betting has attracted considerable attention in recent years it constitutes less than 4% of total Australian gambling expenditure (\$921 million out of \$23.65 billion). All forms of racing expenditure (\$2.9 billion) constitute 12.4% of total Australian gambling. EGMs in clubs and hotels account for \$12.1 billion of expenditure (51.1%). EGMs in casinos could be conservatively estimated at contributing another \$2 billion, taking the total EGM share of gambling revenue to \$14.1 billion, or about 60% of total gambling expenditure. Thus, although internet gambling does represent an issue of concern for gambling harm, the major priority for gambling harm prevention remains focused on EGMs. This is as true of the ACT as it is for all Australian jurisdictions, only Western Australia excluded (QGSO 2018).

In 2016-17 there were 4,723 EGMs operating in the ACT. This was equivalent to 15.0 EGMs per 1,000 adults. The highest density of EGMs recorded was in 2004-05, when there were 31.7 EGMs per 1,000 adults. The highest number of EGMs in the ACT was in 2006-07, when there were 5,179 EGMs operating in the ACT. The ratio of EGMs in clubs to those in pubs has never fallen below 98.3% (in 2004-05). In 2016-17, 98.9% of ACT EGMs were in clubs.

The ACT has Australia's second highest concentration of EGMs per adult population, based on 2015-16 data (see Table A)

Table A: EGMs per 1,000 adult residents, Australian States & Territories, 2015-16

Jurisdiction	Adult pop'n	EGMs per 1,000 adults					
		Club/Hotel EGMs	Casino EGMs	Total EGMs	Club/Hotel	Casino	Total
ACT	313,723	4,635	0	4,635	14.8	0.0	14.8
NSW	6,012,359	92,908	1,500	94,408	15.5	0.2	15.7
VIC	4,825,159	26,330	2,628	28,958	5.5	0.5	6.0
QLD	3,710,696	42,735	3,746	46,481	11.5	1.0	12.5
SA	1,347,653	12,337	964	13,301	9.2	0.7	9.9
WA	1,969,978	0	2,190	2,190	0.0	1.1	1.1
TAS	404,704	2,375	1,185	3,560	5.9	2.9	8.8
NT	183,067	1,176	922	2,098	6.4	5.0	11.5
	18,647,723	182,496	13,135	195,631	9.8	0.7	10.5

Sources: ABS Population estimates; QGSO - Australian Gambling Statistics

The ACT's EGM density for hotels and club EGMs is equivalent to that of NSW, two and a half times that of Victoria, and twice that of Queensland, and greater than all other states and territories.

Table B: EGM density and GE per EGM, Clubs & Hotels, Australian jurisdictions 2015-16

Jurisdiction	EGMs/1,000 adults	GE/EGM	GE	GE/adult
ACT	14.8	\$36,352	\$168,493,000	\$537
NSW	15.5	\$65,685	\$6,102,629,000	\$1,015
QLD	11.5	\$53,036	\$2,266,511,000	\$610
SA	9.2	\$58,248	\$718,603,000	\$533
NT	6.4	\$74,007	\$87,032,000	\$475
TAS	5.9	\$48,103	\$114,244,000	\$282
VIC	5.5	\$99,381	\$2,616,703,000	\$542
WA	0	\$0	\$0	\$0
AUS	9.8	\$66,162	\$12,074,215,000	\$647

Sources: ABS Population estimates; Australian Gambling Statistics

Table B demonstrates that the ACT has the fourth highest per capita EGM revenue of any Australian jurisdiction.

Gambling harm in the ACT

In a report published by the Foundation for Alcohol Research and Education (FARE) in 2016, (Livingstone et al 2016) the burden of harm (measured as Years of Life Lost to Disability, or YLD₁) for the ACT was estimated as the same order of magnitude as alcohol harms for the ACT. That report utilised a method developed by Brown et al (2016), and drew upon prevalence estimates presented by Davidson et al (2015). These estimates are likely to underestimate the prevalence of gambling harm in the ACT, as they did not utilise a dual frame sampling strategy (i.e., only landline numbers were utilised in the survey).

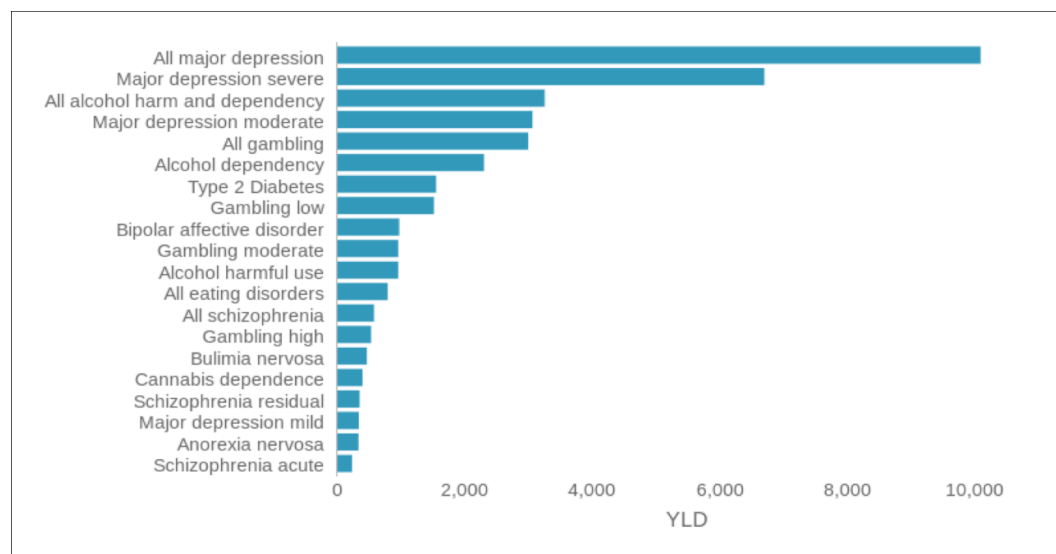
Table C and Fig 2 present the results of a similar calculation updated for the present report. Although the gambling harm experienced by high risk gamblers (Problem Gambling Severity Index [PGSI] 8+) is severe, more people are affected at lower harm rates (moderate and low risk gamblers, PGSI 1-7). The burden of harm for gambling is equivalent to 92% of the YLD₁ for alcohol harmful use and alcohol dependency, and on par with the burden associated with moderate levels of major depression. About 17,000 ACT adults directly experience some level of gambling harm at any one time (5.4% of adults), with 4,700 (1.5% of adults) at moderate or high levels.

Not all gambling-related harm is associated with EGM use. However, 76 per cent of CPGI 3+ gamblers reported using EGMs (Davidson et al., 2015), and over 70% per cent of gambling expenditure in the ACT derives from EGMs (QGSO, 2018). On that basis, between 70 per cent and 80 per cent of those experiencing harm from gambling in the ACT would experience it principally as a consequence of EGM use, as is the case in the rest of Australia (PC 2010).

Table C: YLD₁ estimates for ACT

Condition	Weight	Prevalence	YLD ₁	Population affected
Gambling low	0.13	3.90%	1,591	12,235
Gambling moderate	0.29	1.10%	1,001	3,451
Gambling high	0.44	0.40%	552	1,255
All gambling		5.40%	3,144	16,941
Alcohol harmful use	0.11	2.90%	1,001	9,098
Alcohol dependency	0.55	1.40%	2,416	4,392
All alcohol harm and dependency		4.30%	3,416	13,490
Schizophrenia residual	0.58	0.20%	364	627
Schizophrenia acute	0.76	0.10%	238	314
All schizophrenia		0.30%	602	941
Major depression mild	0.16	0.70%	351	2,196
Major depression moderate	0.41	2.50%	3,216	7,843
Major depression severe	0.66	3.40%	7,040	10,667
All major depression		6.60%	10,607	20,706
Anorexia nervosa	0.22	0.50%	345	1,569
Bulimia nervosa	0.22	0.70%	483	2,196
All eating disorders		1.20%	828	3,765
Bipolar affective disorder	0.18	1.80%	1,016	5,647
Type 2 Diabetes	0.07	7.40%	1,625	23,216
Cannabis dependence	0.33	0.40%	414	1,255

Sources: Weights (Browne et al., 2016); Prevalence (Slade et al., 2009, Davidson et al 2015).

Figure 2: YLD₁ for selected conditions, ACT

Sources: Weights (Browne et al., 2016); Prevalence (Slade et al., 2009, Davidson et al 2015).

However, harms from gambling affect more than simply the gambler. Goodwin et al (2017) estimate that each high risk gambler affects 6 others (on average), each moderate risk gambler 3 others, and each low risk gambler another person. Those adversely affected include children, other family, friends and employers, for example. On that basis, over 47,000 people in the ACT are affected by gambling harms at any one time. This is equivalent to 11.8% of the total ACT population.

It is also important to be aware that it is now clear that the social costs of gambling harm are significant. Browne et al (2017) estimated social costs of gambling harm at around \$7 billion p.a. in Victoria in 2015. This study estimated the costs of harm at \$6,304 p.a. per 'low risk' gambler, \$15,507 per 'moderate risk' gambler, and \$66,560 per 'problem gambler' (Browne et al 2017).

Applying these estimates to the ACT situation produces social harm cost estimates of \$214.2 million p.a.

Gambling harm in the ACT is not a trivial matter, confined to a small number of 'problem gamblers'. It is now clear that gambling affects a significant proportion of the ACT community, and inflicts considerable harm on those affected. Further, the social costs associated with gambling harm exceed \$200 million p.a. This is far in excess of any benefits provided by gambling enterprises, and is a cost externalised to the broader community, including the families and friends of those caught up in risky gambling. It is also clear that the vast majority of these harms, in the range of 70% to 80%, are attributable to EGM gambling, the bulk of which occurs in licensed clubs.

Current harm minimisation measures

The role of the ACT Gambling and Racing Commission

The Gambling and Racing Control Act 1999 establishes the ACT Gambling and Racing Commission (the Commission) to, inter alia, 'administer the gaming laws' and 'control, supervise and regulate gaming in the ACT'. The Minister may direct the Commission, and The Commission must exercise its functions to 'promote consumer protection', minimise criminal or unethical conduct, and 'reduce the risks and costs to the community ... of problem gambling'. The Commission is also required to engage in community consultation and monitor and research activities related to gaming and racing'.

The Act specifically requires the Commission to prescribe codes of practice for the conduct of gambling by licensees. These may include guidelines about advertising and promotions, provision of 'objective and accurate information about losing and winning', and 'limiting facilities that make it easy for a gambler to spend more than the gambler originally intended'. Self or licensee initiated exclusion from gambling facilities is a further key function.

S. 19 of the legislation also requires the Commission to carry out or sponsor counselling services, provide education, and promote programs dealing with risks of gambling, or about gambling programs. The Minister or a resolution of the Assembly may direct the Commission to address particular matters under this section.

The Commission's 2016-17 Annual Report emphasises its commitment to a public health approach to gambling harm prevention and minimisation. The Commission also commits itself to improving its understanding of recent research in this area and to provide support and treatment for those experiencing gambling harm. Significantly, the Commission also indicates its commitment to modifying its approach to conceptualisation of gambling harm, away from a focus on the problem gambler towards inclusion of environmental, technological and social factors in its considerations. Further, 'Responsible Gambling Awareness Week' has been renamed 'Gambling Harm Awareness Week'.

The Commission has also initiated a Gambling Harm Prevention Plan which proposes adoption of a public health approach to gambling harm. This appears to be a preliminary document and although it commits the Commission to adoption of an approach with reduced focus on individuals, and emphasises harm minimisation by all stakeholders, it contains limited details as to how such an approach might be operationalised. Nonetheless, the Commission does appear to be committed to modifying its approach to gambling harm prevention and minimisation.

Current code of conduct

The principal instrument for gambling harm minimisation is the Code of Conduct. This is similar to arrangements applying in other Australian jurisdictions, all of which require adherence to a code of conduct or practice intended to provide minimum standards and to minimise harms experienced by gamblers (Livingstone et al 2014). The code applying in the ACT differs from others in Australian jurisdictions by permitting licensees to initiate self-exclusion. It imposes an obligation on licensees to record 'problem gambling incidents' and to provide help to a gambler when asked to. Licensees are prohibited from encouraging a person to gambler beyond their means, and to record details of people who have been

identified by the licensee or staff as likely to have a gambling problem, along with any grounds for forming that opinion. A designated staff member is then required to discuss this issue with the person and offer them assistance. Certain criteria, such as asking to borrow money or admitting to problems or ‘scavenging for money’ are also triggers for such action.

For the purposes of the code, a person has a gambling problem ‘if they have difficulty limiting the amount of money or time they spend on gambling and this leads to adverse consequences for that person or another person.’

The code imposes some penalties for breaches. It devotes considerable attention to exclusion systems, limits cash payment of winnings for EGM venues to \$1,500, limits cheque cashing to \$250 per day, provides information about games and counselling services, etc., and limits venue operating hours to 19 hours per day (from 9:00 am until 4:00 am). Alcohol must not be served to patrons at EGMs, although they may obtain drinks and take them to EGMs. Some restrictions are imposed on advertising and promotions and on offering inducements such as free or discounted alcohol, promoting increased intensity of betting. These are typical of codes of conduct in operation throughout Australian jurisdictions.

Parameter settings

All Australasian jurisdictions (including the ACT) refer to the Australia/New Zealand Gaming Machine Standards in their regulatory arrangements. Although these are purportedly national in scope they allow each jurisdiction to adopt distinct parameter settings. These must be met for EGM games to be authorised for operation within the relevant jurisdiction. EGM parameters refer to certain characteristics of EGMs and considerable variation is permitted between Australasian jurisdictions. Table D summarises some significant parameter settings for Australasian jurisdictions.

Table D: EGM parameter settings – clubs & hotels, Australasia

Parameter	ACT	NSW	Vic	Qld	SA	Tas	NZ
Max Bet	\$10	\$10	\$5	\$5	\$5	\$5	\$2.50
Load Up	NS	\$7,500	\$1,000	\$100	Coin	Coin	\$5,979
Max Win	NS	\$10,000	\$10,000	NS	\$10,000	\$10,000	\$500
Time Display	N	Y	Y	Y	Y	Y	Y
Min RTP	87%	85%	85%	85%	87.5%	85%	78%
LDW permitted	Y	Y	Y	N	Y	N	Y
Uneven reels	NS	NS	NS	NS	NS	NS	NS

Source: Australia/New Zealand Gaming Machine Standards. NS = not specified

Parameter settings describe some important structural characteristics of EGMs. Contemporary EGMs are computers, with an infinite capacity for programming and diversity of operation. They have evolved into devices capable of operating complex games which provide significant potential for addiction. Structural characteristics can be understood as the ‘building blocks’ of EGM games. It follows that the structural characteristics of games can be used as a means of restraining those aspects of EGM games which accentuate their addictive potential (Livingstone 2017).

Losses disguised as wins (LDWs) offer a case in point (see Harrigan et al 2014). Contemporary EGMs invariably offer the ability to gamble on more than one line. LDWs occur when a multi-line game is operated with bets on more than one 'line' of the display. The default line is the arrangement of symbols across the screen in the centre of the display. The second line is the line above that, the third the line below, and so on. It is common for EGM games to offer 50 or more lines as potential bets. Reel-betting games offer similar options, but use arrangements of 'reels' and 'lines'. When bets are made on multiple lines, the cost of the total bet is the credit value of each bet multiplied by the number of lines selected. Thus, a one cent machine operated at single credits on 50 lines would cost \$0.50 per spin. If ten credits per line are selected on fifty lines, the spin will cost \$5.00, and so on. This allows low credit value games to cost up to the maximum bet.

In such a situation, it is possible (and likely) that a 'win' will occur on one of the lines being utilised, but for the value of that 'win' to be less than the amount bet. In the above example of a \$5 spin, a modest (and common) win on one line might be five credits. At bets of ten cents per line that would return \$0.50. However, if LDWs are not suppressed, the celebratory sounds and visual cues of a 'win' will be deployed, providing reinforcement. The amount of reinforcement provided by LDWs is significant, and has been calculated as equivalent to the amount of reinforcement provided by actual 'wins'. Thus, LDWs, where permitted, effectively double the reinforcement provided by the game. Reinforcement is a key pathway to habituation and addiction, as noted by Yucel et al (2018) and Livingstone (2017).

LDWs are prohibited in Qld and Tasmania for consumer protection reasons. They are permitted in other Australasian jurisdictions.

Research has shown that game 'features' – apparently 'free' games triggered by a combination of symbols appearing on a screen – are a key reinforcement sought by gamblers. They are likely to be a key factor in inducing uncontrolled operation of EGMs. Similarly, linked jackpots effectively reduce the RTP of the game being played, and may induce less controlled EGM use (Livingstone et al 2007).

Maximum bets are another key characteristic that structure EGM games. The only Australasian jurisdictions that continue to permit \$10 maximum bets in club and hotel EGMs are NSW and the ACT. All other jurisdictions have adopted \$5 maximum bets (and in New Zealand, \$2.50). Available evidence suggests that this has made a modest difference to levels of expenditure and had some harm minimisation effects. When introduced in Victoria (from 2012) it proceeded without difficulty and was fully implemented within 18 months. The available research evidence also indicates that further reduction of maximum bets (to one dollar, for example) (see Livingstone 2017) would have significant harm minimisation effects, whilst not inconveniencing intermittent users. Such a bet reduction would, of course, likely reduce revenue, which may be why it has been rejected repeatedly by industry actors.

'Near-misses', although specifically prohibited by the Australian/New Zealand Gaming Machine Standards, are a common occurrence on Australian EGMs. This is because no rule prohibits 'uneven' or 'weighted' reels. EGMs often have a different number of symbols on each reel, and different number of winning symbols on those reels. The result of this is that winning symbols may frequently appear in a sequence that may suggest the looming likelihood of a 'win', which is an artefact of game design. If winning symbols on early reels

are 'starved', the appearance of multiple winning symbols on later reels is inconsequential. Gamblers however may misinterpret the appearance of such symbols as indicating that a 'near-miss' occurred. This has been demonstrated to provide a degree of reinforcement which increases the likelihood of uncontrolled EGM operation (Barton et al 2017).

Many structural characteristics may be altered without modification to game software. Load up limits, for example, may be adjusted readily, in some cases remotely. Victoria's load up limit was reduced from \$9,959 to \$1,000 in 2012. Queensland's was reduced to \$100 in 2002 (Brodie et al 2003). These reductions provide some harm minimisation effects, and are also helpful in reducing the incidence of 'money laundering' via EGMs. They are also relatively easy to implement.

At present, parameter settings for the ACT are far from the most consumer oriented, and almost certainly exacerbate the harmful potential of EGMs. Maximum bets of \$10, for example, are not currently permitted in any jurisdiction save NSW. People at minimal risk of harm from EGMs are unlikely to be concerned by any bet size reduction of this nature. However, such a reform would limit the rapidity of expenditure available to those gamblers at higher risk of harm. In any event, Australian regulators have overwhelmingly opted for maximum bets of \$5 for EGMs in hotels and clubs, given that EGMs are intended to provide amusement in such venues.

Other harm minimisation measures

The ACT Gambling and Racing Commission has foreshadowed a commitment to a public health approach to gambling regulation. This is a welcome development for those concerned about the harms of gambling. However, implementation of this commitment requires a clear understanding of the nature of effective public health interventions. Harm minimisation measures so far utilised in gambling regulation have been overwhelmingly oriented towards detection of established harms, and associated treatment.

Detecting harmful gambling in venues

Emphasis has been placed on detecting individuals exhibiting certain external signs of harm, such as agitation, requests to borrow or 'scrounge' funds, visible distress, repeated and extended use of EGMs, and so on. These are plausible and likely accurate markers of established harm. However, there is no evidence at all that (i) these signs are actually utilised to detect people at high risk, nor (ii) of the efficacy of any subsequent interventions flowing from such observations. Available evidence in fact indicates that such signs are ignored and that few, if any, interventions occur (Rintoul et al 2017).

Treatment

Treatment services are undoubtedly helpful and beneficial to those who seek them out and use them, but this is generally a small proportion of those who might benefit. It is also generally the case that treatment is a last resort for those experiencing considerable harm. Treatment is not, by its nature, a preventive measure.

Self-exclusion

Self-exclusion from gambling venues is also a 'front-line' strategy for harm minimisation. However, it is also generally only implemented after individual gamblers have experienced serious gambling related harm. There is some modest evidence that this provides support for those with a commitment to address a harmful gambling habit. However, few people avail themselves of exclusion, and breaches of exclusion arrangements are commonly reported (Livingstone et al 2014). In summary, while they may support those already committed to addressing gambling, there is little-to-no evidence that self-exclusion regimes reduce gambling-related harm in aggregate.

Summary of other measures

None of these measures are preventive. They are focused on those who have reached a state where harm has invariably been suffered by individuals concerned and their families, friends and others. In many cases this means irrecoverable harms have occurred, including financial catastrophe, relationship breakdown, mental illness, neglect of children, and so on.

Effective public health oriented approaches to a problem such as gambling harm involve investigation of a wide range of interventions and regulatory settings with the intention of both preventing and minimising harm. At present, the approach taken in the ACT (as in most other jurisdictions) has been oriented towards 'downstream' harm minimisation activities and regulations which do little to prevent the onset of harm, but are intended to mitigate some aspects of its consequences. In most cases, however, detection of an established harmful situation comes too late to prevent serious consequences.

Options for preventing, minimising and mitigating harm

There are multiple regulatory options for preventing, minimising and mitigating harm. A number of these are canvassed below.

Accessibility of EGMs

The issue of high EGM accessibility provides multiple opportunities for effective harm prevention and minimisation.

EGM accessibility in the ACT is high. EGMs are available throughout the Territory, and EGM venues are often large and centrally located. They may operate until 4:00 am and provide EGMs set at high parameter values, increasing the intensity of gambling. The average size of club venues in the ACT in 2016-17, defined by EGM numbers, was 104, which is well above that for most other Australian jurisdictions. For example, the average number of EGMs in NSW EGM venues is 36 (clubs 62, hotels 15); in Victoria 53 (clubs 54, hotels 52); in Queensland 38 (clubs 57, hotels 38). It has been clearly established that large venues are associated with relatively high expenditure and greater levels of harm (Young et al 2012; Markham et al 2014). Certainly, there are multiple large EGM venues in NSW, but they (along with other aspects of the NSW regulatory regime) arguably provide a clear example of what is to be avoided.

Average venue size in the ACT is 104, but median size is 95. The median is the point at which there are equal numbers of venues (defined by EGM numbers) below this point, and equal number above. In the ACT, there are 22 venues with more than the median number of EGMs, and 23 at or below this size. The 22 above median size have 3,953 EGMs, generating \$154.7 million in GE. This is 92% of all club EGM revenue. The 23 below this have 625 EGMs, with GE of \$13.7 million (8% of total revenue) (2016-17). The revenue per EGM in above median clubs is \$39,143 p.a., and in those below median level, \$21,886. The average GE per venue in above median venues is over \$7 million p.a., and in those below median size, \$594 thousand.

Even more pointedly, the top quarter of venues (measured by EGM size) house 2,537 EGMs, generating over \$107 million in revenue (64% of total club GE) at an average of \$42,196 per EGM. The lowest quarter have 146 EGMs, making revenue of \$902 thousand (0.5%). Average GE per EGM in these venues is \$6,179. Simply reducing EGM numbers is arguably not likely to reduce harm as much as also reducing the average size of venues. On the data displayed above, the most harmful venues are those with the greatest number of EGMs. The current ACT government has announced a plan to reduce EGMs to 4,000 by 2020. The priority for such reductions should be large venues.

Table E: Distribution of venue size, ACT, 2016-17, by quartile of EGM size

Quartile	EGMs	Venues	EGM/venue	Agg. GE per quartile	GE/EGM	GE/venue	Share of total GE
Low	146	12	12	\$902,099	\$6,179	\$75,175	0.5%
Second	574	11	52	\$12,776,911	\$22,259	\$1,161,537	7.6%
Third	1,416	11	129	\$47,682,040	\$33,674	\$4,334,731	28.3%
Top	2,537	11	231	\$107,051,050	\$42,196	\$9,731,914	63.6%
Total	4,673	45	104	\$168,412,100	\$36,039	\$3,742,491	100.0%

Source: ACT Gaming and Racing Commission. Note: Agg. = aggregate

Reducing the number of EGMs permitted in venues is a regulatory option for reducing the intensity of gambling environments, and thus preventing or minimising harms. In Victoria, for example, both hotels and club venues are limited to a maximum of 105 EGMs – one

more than the *average* club venue in the ACT. Although this still allows for large and potentially high intensity venues, it avoids the ‘suburban casino’ environment common to parts of Sydney, and indeed the ACT, associated with high EGM expenditure and high concentrations of harm.

Operating hours also provide a key policy lever. It is unlikely that many recreational gamblers frequent EGM venues at 7:00 am or 3:00 am. The ACT’s largest venue (by EGM numbers) is open from 7:00 am (7:30 on weekends) until 4:00 am every day. The Canberra Southern Cross Club is open from 9:00 am until 4:00 am every day. Shift workers may be an exception, but it is far more likely that very late night and early morning operation is rendered profitable by the EGM expenditure of those at high risk of harm. Reductions in the hours of operation of EGM venues is likely to be effective in reducing the availability of high intensity gambling by those at greatest risk, thus preventing and minimising harm.

Although additional research would be helpful in determining optimum operating hours and venue size from a preventive or harm minimisation perspective, both these measures are feasible without significant investment from industry or government. Changes to operating hours can be regulated readily. Research to support such changes is straightforward, readily conceptualised, and relatively easy to implement.

Options for reform

1. Maximum EGM venue size (measured by EGM numbers), along with total EGM numbers in the ACT, should be reduced over a period of time to reduce the gambling intensity of large venues. Reductions should focus on larger venues (e.g., those with more than 90 EGMs) and those with high average EGM expenditure, and be expected to achieve a reduction in median venue size from 95 EGMs to 70 EGMs in 2023. This would represent an overall reduction of approximately 20% in EGM numbers.
2. Operating hours of EGM venues should be reduced to (for example) not more than 14 hours per day, and venues should be closed for EGM operations between (for example) 2:00 am and 10:00 am every day. The basis of such operating hours requires further research, although restriction of operating hours is an established harm minimisation measure in gambling regulation.

EGM Characteristics and parameter settings

The ACT continues to permit EGMs to be operated at parameter settings outside the Australasian regulatory mainstream. This is particularly the case with respect to load up limits, and maximum bets.

The ACT is also the only Australasian jurisdiction not to specify via the Gaming Machine Standards that a time display is required on EGMs.

Structural characteristics are key levers in determining the harmful potential of EGMs. This has been recognised by almost all Australian jurisdictions and in most cases regulatory reform has been implemented to some extent.

Adopting best practice in the Australian context would require the ACT to reduce maximum bet size to \$5 at least in the first instance, introduce a load up limit of \$100 or less, (the Productivity Commission recommended \$20 [PC 2010]), and prohibit Losses Disguised as Wins. Moving beyond these still relatively high parameter settings to more effective harm prevention interventions would involve further reduction in maximum bet size (to \$1 or less), removal of linked jackpots, removal of game ‘features’, and removal of bank note acceptors.

Options for reform:

3. EGM games should not be permitted to display reinforcement (visual or auditory) for a ‘loss disguised as a win’ – i.e., any game outcome where the result is an amount less than the amount wagered.
4. Maximum bet limits should be reduced to one dollar per bet. This can be implemented progressively, with an initial reduction to \$5 per spin in line with other Australian jurisdictions.
5. Establishment of a load up limit, preferably \$100 or less in line with current Australian best practice. Consideration should be given to removal of bank note acceptors and exclusive use of coins to load credits.
6. Abolition of jackpots, particularly linked jackpots.
7. Abolition of ‘game features’, or ‘bonus rounds’.
8. Requiring all virtual reels of a game to have an equivalent number of symbols in total.
9. Requiring as even as possible a distribution of winning symbols across all reels of a game.
10. Provision of accurate information about specific game characteristics via a clearly presented information screen which appears when a new user begins to operate the game. This should include the odds of winning the major prize, number of symbols on each reel, and number of winning symbols on each reel.

11. Provision of accurate average price information to game users, preferably via the information screen referred to above detailing average price of operation (e.g., 'if you bet two dollars per spin this game will cost an average of 25 cents per spin') and median time on device for a given stake (e.g., 'half of the users of this game will spend a \$50 stake in six minutes or less betting two dollars per spin').

Tax rates and community benefits

EGM tax rates in the ACT are, on average, the lowest amongst Australian jurisdictions. Table F summarises these. If EGMs in the ACT were taxed at the Australian average rate (29.9%), tax revenue would increase by over \$17 million. If taxed at the Victorian average rate, the tax revenue would increase by over \$30 million.

Table F: Average EGM gambling tax rates, Australian jurisdictions

	Revenue \$m	GE \$m	%
ACT	\$33.357	\$168.493	19.8%
NSW	\$1,474.248	\$6,102.629	24.2%
NT	\$28.649	\$87.032	32.9%
Qld	\$768.832	\$2,266.511	33.9%
SA	\$283.817	\$718.603	39.5%
Tas	\$31.514	\$114.244	27.6%
VIC	\$988.836	\$2,616.703	37.8%
WA	\$0.000	\$0.000	-
AUS	\$3,609.253	\$12,074.215	29.9%

Source: QGSO - Australian Gambling Statistics

This situation is partly a result of the structure of the EGM businesses operating in the ACT, the overwhelming majority of which are clubs. Australian jurisdictions tax club EGM operations at lower rates than hotels, on the basis that they are thought to contribute benefits to the community. However, there is reason to be sceptical about such benefits, a view articulated by the Productivity Commission amongst others. This is discussed further below.

The ACT EGM tax regime is mildly progressive, with a top rate of 23% applying to clubs with over \$7.5 million in annual GE. The first \$300,000 in GE is tax free. Thus, a club with GE of \$567,475 p.a. would pay tax of \$45,471, a little over 8% of GE. A club with GE of \$6.9 million would pay tax of \$1.37 million, about 19.9% of revenue. A club with GE of \$16.15 million would expect to pay tax of about \$3.5 million, about 21.6% of GE.

In contrast, clubs with similar revenue in other jurisdictions would pay differing amounts, depending on the tax regime. Table G provides some examples of differing tax rates for a selection of clubs, operating at different levels of annual GE.

Table G: EGM Tax estimates for specific annual GE, selected jurisdictions

GE	ACT Tax	ACT less 50% rebate	NSW Tax	Vic Tax*	Qld Tax	SA Tax
\$195,671	\$0	\$0	\$0	\$0	\$14,627	\$25,341
\$567,475	\$45,471	\$22,735	\$0	\$0	\$140,773	\$116,055
\$1,485,016	\$236,853	\$118,427	\$145,020	\$0	\$263,099	\$390,569
\$6,882,366	\$1,370,297	\$1,370,297	\$1,250,591	\$704,101	\$1,609,804	\$3,100,502
\$14,240,928	\$3,050,413	\$3,050,413	\$3,215,605	\$2,437,359	\$2,469,403	\$5,907,510

Source: State regulator websites, ACT Gaming & Racing Commission

*Victoria taxes EGMs on a 'per machine' basis. See text below for additional information.

The rate of tax applicable to EGM operations varies widely between states and territories. This is related to factors such as the average GE of EGMs, the size of venues, the extent to which clubs enjoy lower rates compared to hotels, the ratio of hotel venues to club venues, and progressivity of the tax system.

Note also that in Victoria, EGM tax rates apply on a per machine basis, so that venues with more EGMs will be taxed less than those with fewer EGMs producing the same GE. The application of the Victoria system to the ACT produces anomalies because of the comparatively large size of ACT club venues. Venues in Victoria are limited to a maximum of 105 EGMs. A Victorian club venue operating 100 EGMs with GE of \$14.2 million p.a. would pay over \$5 million in EGM tax.

From a harm prevention and minimisation perspective – as well as a public finance perspective – the major contribution of the tax system should be to discourage the pursuit of super profits from EGMs. Highly profitable EGM venues are linked to higher rates of harm. Although serious harm occurs in any EGM venue, less intense gambling environments are likely to be less harmful.

Super-profits also create a disincentive for EGM venues to diversify their revenue streams, as super profits (or ‘economic rents’) are not generally available in other sectors, meaning that venues would need to invest their capital in activities with lower rates of return. Instead, EGM venues are incentivised to undertake ‘rent seeking’ activities such as lobbying that waste economic resources in order to secure beneficial political outcomes.

The issue of community benefits provided by clubs operating EGMs is linked to the tax regime in place within a jurisdiction. In the ACT, clubs are required to contribute an amount equivalent to at least 8% of Net Gaming Machine Revenue (NGMR). NGMR is an amount calculated to take account of the operating expenses of clubs operating EGMs.

In Victoria, clubs are required to contribute 8.33% of Net Gaming Revenue (NGR). NGR is the total amount of user losses collected by the club, which in the ACT is described as Gross Gaming Machine Revenue (GGMR). In contrast, average NGMR is 56.2% of total user losses. The 8% community contribution requirement for ACT clubs is equivalent to 4.7% of GGMR.

Community benefits schemes operate throughout Australian jurisdictions. They have been subject to repeated criticism by critics including the Productivity Commission (2010), Livingstone et al (2012), Con Walker (2009), and Livingstone et al (2017).

The ACT scheme was also recently criticised by the ACT Auditor-General for lacking clarity and objectives, and for the wide interpretation of ‘community benefit’ allowed under the scheme. The Auditor-General’s report recommended a number of changes to the scheme, including clarity of objectives and benefits, improved transparency, and much better guidance for the interpretation and approval of community contributions. The Auditor-General’s report also identified multiple examples where the beneficiary and purpose of ‘contributions’ was not specified, and identified many ‘contributions’ which were effectively transferring funds from one element of an organisation to another within the same organisation. This included ‘contributions’ to professional sporting teams, etc.

Most community benefit schemes operating in Australia could be criticised for similar failings. However, there is ample scope for reform of such schemes to demonstrate that clubs are, in fact, providing some benefits to the community to offset the substantial harms associated with EGM gambling. This is by no means clear at present. As noted above, social

harms derived from gambling in the ACT can be estimated at about \$214 p.a. If 70% of these can be attributed to EGMs, this equates to \$150 million p.a. At present, on the most generous estimate, clubs contribute 'benefits' to the community valued at \$11.93 million (2015-16). Clubs, as mutual organisations, are exempt from corporation tax, so, as the PC argued, the costs associated with the community benefits they claim to provide may far outweigh their actual contributions. This represents a further net cost to the community.

Options for reform

12. EGMs should be subject to progressive tax systems intended to discourage operators from pursuing super-profits. This means that high revenue EGM venues should pay significantly more tax than venues generating below average revenue.
13. Current average gambling expenditure (GE) should be utilised as a benchmark in determining progressivity of the EGM tax regime, with significant increases in EGM tax rates above the average level and at increments above that level – e.g., 125%, 150%, 175% and 200%.
14. Additional revenue resulting from any progressive or expanded tax regime should be allocated to effective social marketing around gambling harm, stigma reduction, well-resourced counselling, support and recovery programs, and research funding.
15. Community benefit schemes should be characterised by transparency and clarity of purpose. The purposes and goals of the scheme should be clarified in legislation, and clear guidelines provided to EGM operators required to contribute. The beneficiaries of such schemes should be unrelated to the organisation providing the donation or benefit.
16. Beneficiaries of community benefit schemes should be registered charities, enjoy tax deductible status, or be incorporated associations promoting amateur sport or recreational purposes. Contributions to educational institutions for bursaries or scholarships independently selected by those institutions, or for the welfare of those harmed by gambling, or for the welfare of returned services personnel, should also be allowed. EGM operators who fail to make such contributions should be charged a premium of not less than 8% of their EGM tax obligations for the year in question.

Monitoring system, pre-commitment, self-exclusion and availability of cash

Australian jurisdictions generally operate a centralised monitoring system to ensure compliance with tax and other oversight requirements. This system links all gaming machines in all venues to a centralised monitor which records data on EGM operations.

The ACT does not currently operate such a system. This means that there is no capacity to implement a Territory-wide pre-commitment system, should such a system be legislated.

There is little doubt that a pre-commitment system would provide considerable harm prevention and minimisation benefits. In particular, it would enable gamblers wishing to self-exclude from venues to do so effectively. At present, self-exclusion, although centralised, relies on uncertain identification. Research evidence demonstrates that such systems are frequently breached and have little efficacy. A requirement to utilise a pre-commitment system would permit self-excluded gamblers to be effectively excluded by cancelling their access to the system, or by imposition of a zero limit on their account.

In addition, the lack of a centralised monitoring system greatly increases the risk that EGMs will be used for money laundering. While we are primarily discussing centralised monitoring systems in the context of harm minimisation, they may also be introduced with the objective of combatting organised crime.

Pre-commitment has been introduced in Victoria as a voluntary system. Because of the voluntary nature of this system, it reportedly has low take up rates. However, there are likely significant benefits for all gamblers with a universal pre-commitment system, including the capacity to limit gambling expenditure, monitor amounts spent on gambling, and exert effective control on gambling habits that may be trending towards harm.

Pre-commitment is not a panacea. However, it can provide an effective tool to prevent or minimise harm and allow gamblers to ensure they stay within limits set when they are away from a gambling venue, and wish to ensure that they remain within reasonable limits. Pre-commitment is a key mechanism that will assist gamblers to stay in control, a common slogan of the 'responsible gambling' regime. At present, there are few if any restraints on the capacity of EGM users to lose sight of their spending goals and generate significant harmful expenditure (Rintoul et al 2017). There is little evidence of the efficacy of self-exclusion, with evidence pointing to high rates of breaching and little enforcement of self-exclusion orders (Livingstone et al 2014).

In the ACT, automatic teller machines (ATMs) are permitted in EGM venues, with a capacity for withdrawing up to \$250 per account per day. Additionally, patrons are permitted to withdraw funds using EFTPOS facilities. A report produced by Access Canberra for the ACT Government in May 2017 indicated that there was widespread use of EFTPOS (and in some cases, availability of multiple ATMs) in clubs for the purpose of circumventing the harm minimisation intent of the \$250 per day ATM withdrawal limit. In a sense, limits on ATM or EFTPOS withdrawals in venues provide a form of pre-commitment, providing a daily upper limit on access to cash within the venue.

In Victoria and Tasmania (for example) ATMs are not permitted in gambling venues. When ATMs were withdrawn from Victorian venues, an evaluation demonstrated that there were significant harm minimisation benefits, particularly for 'problem gamblers' (Thomas et al

2013). To some extent these benefits have been eroded by the ready availability of EFTPOS facilities within venues. In recognition of this, the Victorian government has now imposed an EFTPOS limit of \$500 per account per 24-hour period, with maximum EFTPOS withdrawals capped at \$200 per transaction. This appears to be current best practice in Australian jurisdictions.

Options for reform:

17. An ACT EGM central monitoring system (CMS) should be introduced as soon as possible. The operator of this system should be chosen by public tender, and it should be funded by EGM operators via a levy. The CMS must enable implementation of a Territory-wide pre-commitment system, as well as ensuring the integrity of EGM tax revenue and compliance with all relevant provisions of ACT legislation and regulation.
18. Loyalty programs should not be used for pre-commitment purposes. Data generated by pre-commitment systems should not be available for marketing or promotional purposes.
19. Data generated by pre-commitment systems should be routinely provided in a de-identified unit record form to researchers, and subject to careful analysis by the Commission for harm prevention and minimisation purposes.
20. Users wishing to self-exclude from gambling should be required to either terminate their pre-commitment account or set a spending and time limit of zero.
21. Self-excluded users should be required to demonstrate that they have taken appropriate steps to address gambling harms before being able to reinstate their account.
22. ATMs should be phased out of ACT EGM venues, and suitable limits imposed on EFTPOS withdrawals on a per day/per account basis.

A harm prevention system

The ACT Gambling & Racing Commission has recently articulated a Gambling Harm Prevention Plan. The plan proposes adoption of a public health approach to gambling harm prevention and minimisation.

Unfortunately, although the goals of the plan are laudable, it does not provide significant details of any reforms likely to implement such an approach.

It is important to shift the focus on gambling harm prevention away from individuals towards consideration of the harm-causing attributes of gambling forms and the systems that allow their operation. This means that although identification and treatment of those experiencing harms is of continuing importance, considerable effort must be made to identify priorities for better, harm prevention oriented regulation of gambling products. There is little doubt that EGMs are a high priority for such regulation.

The Commission's Gambling Harm Prevention Plan acknowledges that research is a key element of the development and implementation of a public health approach to gambling harm. This is undoubtedly an accurate observation. However, it is also important to acknowledge that a great deal of evidence has now been assembled and can be brought to bear to illuminate priorities and effective responses. This brief report seeks to do so. However, the way gambling harm is understood is key to further development of effective policy. The work of Browne et al for the Victorian Responsible Gambling Foundation provides key insights into the extent of harm and its cost to the broader community (Browne et al, 2016, 2017). This is an essential starting point, as the Harm Prevention Plan acknowledges.

However, the implications of this have not been fully realised in the Harm Prevention Plan. Gambling harm is not a minor issue for the ACT. As this report seeks to indicate, a significant proportion of the ACT's population are affected by gambling harm at any one time. A large proportion of these people are children – the dependents of gamblers. Another significant proportion are the partners of gamblers. Until gambling harm prevention programs acknowledge that gambling harms are not trivial, and that they are much more widespread than previously acknowledged, successful harm prevention is likely to be less achievable.

A key aspect of this is the de-stigmatisation of people affected by gambling harm. Problems derived from gambling, are, for whatever reason, viewed as a source of significant stigma (Hing et al 2015; Carroll et al 2013). That is, gamblers blame their lack of self-control, and see themselves as shameful failures. Those affected by a loved one's gambling are often deeply embarrassed, as well as financially imperilled. This means that it is difficult for people so affected to articulate their experiences, and to gain understanding that the gambling system is often exploitative and can be highly predatory. It is only recently, as more information has become available about how, for example, EGMs operate, that some gamblers have been able to give voice to their experiences, and highlight the exploitative tendencies of some gambling venues (O'Malley 2018).

In one recent, well publicised case, this resulted in adverse findings against a significant Canberra gambling venue (Taylor 2018). That the venue was able to appeal this adverse finding and escape a significant penalty is not the consequence of error in the finding that the venue had failed to perform a basic requirement of the code of conduct.

Put simply, reliance on a code of conduct is completely ineffective as a harm prevention measure, and indeed as highlighted in the case above, as a harm minimisation measure (Livingstone et al 2014; Rintoul et al 2017).

If such measures are to have any efficacy then those affected by gambling harm must be encouraged to tell their stories and, importantly, help to ensure that gambling venues comply with regulations. Further, gamblers can provide an invaluable source of information and data about how gambling venues actually operate. If they are silenced by shame they are unable to shed light on this, and perhaps more importantly less likely to contribute to community debate about what should be done.

De-stigmatisation of gamblers is a critical step in the development of effective harm prevention and minimisation. As the Commission has acknowledged, this is a priority, along with changing the language around gambling harm. The terms ‘problem gambler’ and ‘responsible gambling’ were devised by industry and serve industry purposes. In practice, they devolve responsibility for harm on to individuals, and avoid discussion of the harm producing properties of gambling forms, especially EGMs.

Research, as noted above, is key to developing more effective harm prevention and minimisation measures. However, one of the effects of widespread industry involvement in gambling research agendas over many years has been that the evidence base for gambling harm and interventions to address it has been under-developed, and is in many crucial areas of poor quality (Cassidy et al 2013).

This is particularly so for even common interventions such as those deployed widely via ‘codes of conduct’. This situation is changing (Livingstone & Adams 2016; Livingstone et al 2018). However, it is important to ensure that the evidence base for gambling research is not further corrupted by industry interests. The VRGF now requires researchers seeking funds from its programs to declare previous funding sources. Similarly, the Victorian Health Promotion Foundation will not provide funding for researchers who have ever received funding from the tobacco, or alcohol industries (the latter within a specified period) (VicHealth 2017).

Adopting such a position for the funding of research is an important step to ensure that gambling research is not tainted by industry interests, and that research priorities and outcomes reflect a harm prevention approach.

Options for reform:

23. The term ‘responsible gambling’ moves responsibility from providers of harmful products to those experiencing harm from those products. As the Commission has foreshadowed, a shift from the ‘responsible gambling’ discourse to a discourse of gambling harm prevention and minimisation is warranted. Stigma has been significantly reinforced via the individualising, pathologising discourse of ‘responsible gambling’.
24. The concept of the ‘problem gambler’ represents an individualising and pathologising concept. Concepts related to gambling harm are more accurate and appropriate and should be adopted in legislation, regulation and otherwise.
25. Treatment or recovery programs for those experiencing gambling harm are essential and need to be expanded to enable access for all who require it.

26. Expanding uptake will require activities de-stigmatize the experience of gambling harm and encourage all those affected to seek assistance and support.
27. Social marketing, promotional materials, and campaigns to reduce gambling harms should focus on advice about how and where to seek assistance, accurate advice about the price and risks of gambling, and encourage the uptake of tools and techniques to monitor gambling activity and avoid, prevent or minimise harm. Terms such as 'responsible gambling' or 'problem gambler' should be avoided.
28. The principal objective of legislation and regulation governing gambling, and of agencies established to enact such legislation and regulation, should be the prevention and minimisation of gambling harm.
29. Applicants for gambling licenses should be required to address gambling harm prevention and minimisation as a criterion for being awarded such entitlements, etc.
30. 'The code of practice' should be (i) revised as 'The harm prevention and minimisation code of conduct'; and (ii) be mandatory and subject to clear regulatory requirements, and incorporate penalties for breaches of these up to and including loss or suspension of licence or EGM entitlements.
31. Mandatory warning signs and messages should be required on any materials associated with gambling, and should refrain from use of such terms as 'responsible gambling' or 'problem gambler', in favour of accurate messages about the harms of gambling and the risks of experiencing those for regular gamblers, e.g.: 'Gambling is associated with significant harms including increased risks of physical and mental health problems, separation, divorce, financial difficulties and bankruptcy, intimate partner violence and fraud' or 'up to 30% of weekly EGM users experience moderate or serious harm derived from gambling'.
32. Effective campaigns and messages to counter the stigma associated with experience of gambling harm are key to overcoming the harms of gambling. These must be adequately resourced, and developed in association with those affected by gambling harm, with measurable objectives.
33. Establishing user experiences as significant and expert contributions will greatly assist in developing more effective harm prevention and minimisation initiatives and policies.
34. It is important for the Commission to develop co-operative alliances between those affected by gambling harm, researchers, and the broader concerned community. This will assist in developing better research priorities and provide more balanced and informative advice to policy and decision makers.
35. Peer expertise in developing effective messages and programs for gambling harm prevention, minimisation, and treatment has been substantially underutilized. Provision of resources to better support such peer intervention and project

development, and to implement such interventions, is likely to produce much more effective interventions.

36. Interventions or policy changes intended to prevent or minimise gambling harm should be evidence based, and focused on those gambling sectors where risks of harm are demonstrated and significant. However, given the nature of the gambling system, and its complex determinants, clinical standards for evidence supporting interventions are untenable, and should not be adopted.
37. Interventions intended to be implemented in the gambling sector to prevent or minimise harm should be plausible, have face validity, and be evidence based. Where possible, trials of such interventions should be utilised in advance of their implementation. However, where evidence of harm is high, implementation of likely effective interventions should be expedited.
38. Evidence or critiques of evidence of the likely or actual effectiveness of proposed interventions produced by the gambling industry, or by researchers or consultants engaged by the gambling industry, should be subject to careful and independent re-analysis before consideration. Data used in support of submissions by the gambling industry or its agents should be made available for re-analysis in full before such material is considered by policy or decision makers.
39. Research into factors other than those at the individual level relating to gambling harms should be expedited, particularly in relation to the socio-economic and regulatory determinants of gambling harm.
40. Research commissioned by or on behalf of the Commission should be available only to researchers who disclose no financial or other research support from the gambling, alcohol or related sectors in the five years prior to seeking funding.
41. The Commission should ensure that all bona fide researchers undertaking research into gambling harm prevention or minimisation have access to relevant ACT gambling data (de-identified where appropriate), and are supported by the Commission to gain access to gamblers for research purposes (subject to normal ethics procedures).
42. Development of a systematic approach to harm prevention and minimisation should not delay adoption of likely effective interventions or policy innovations, but should proceed in tandem and produce a complementary system in which all effective interventions are accommodated.

References

- Australian Bureau of Statistics (2017). Australian Demographic Statistics. Tables 51-59. Estimated Resident Population by single year of age. Australia, and states and territories. Available at: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3101.0Mar%202018?OpenDocument>
- Barton, K. Yazdani, Y. Ayer N. Kalvabelle, S. Brown, S. Stapleton, J. Brown, D. Harrigan, K. (2017). The effect of losses disguised as wins and near misses in electronic gaming machines: a systematic review. *Journal of Gambling Studies* 33(4):1241-1260
- Brodie, M. Honeyfield, N. Whitehead, G. (2003) Change in bank note acceptors on electronic gaming machines in Queensland. Queensland Treasury, Brisbane. See: <https://catalogue.nla.gov.au/Record/4395803>
- Browne, M, Greer, N, Armstrong, T, Doran, C, Kinchin, I, Langham, E & Rockloff, M (2017) The Social Cost of Gambling to Victoria. Victorian Responsible Gambling Foundation, Melbourne. Available at: <https://responsiblegambling.vic.gov.au/resources/publications/the-social-cost-of-gambling-to-victoria-121/>
- Browne, M, Langham, E, Rawat, V, Greer, N, Li, E, Rose, J, Rockloff, M, Donaldson, P, Thorne, H, Goodwin, B, Bryden, G & Best, T (2016), Assessing gambling-related harm in Victoria: a public health perspective, Victorian Responsible Gambling Foundation, Melbourne. Available at: <https://responsiblegambling.vic.gov.au/resources/publications/assessing-gambling-related-harm-in-victoria-a-public-health-perspective-69/>
- Carroll, A. Rodgers, B. Davidson, T. Sims, S. (2013) Stigma and Help-seeking for gambling problems. Centre for Gambling Research, ANU, Canberra. Available at: https://www.gamblingandracing.act.gov.au/_data/assets/pdf_file/0005/745034/Stigma-and-help-seeking-for-gambling-problems-Report-November-2013.pdf
- Cassidy, R. Loussouarn, C. Pisac, A. (2013) Fair Game: producing gambling research. Goldsmith's University of London. Available at: <http://research.gold.ac.uk/11731/1/Fair-Game-Web-Final.pdf>
- Con Walker, B. (2009). Casino Clubs NSW: profits, tax, sport and politics. Sydney University Press, Sydney.
- Davidson, T. Rodgers, B. Taylor-Rodgers, E. Suomi, A. Lucas, N. (2015) 2014 Survey on gambling, health and wellbeing in the ACT. Centre for Gambling Research, Australian National University, Canberra. Available at: https://www.gamblingandracing.act.gov.au/_data/assets/pdf_file/0010/846901/2014-Survey-on-Gambling,-Health-and-Wellbeing-in-the-ACT-.pdf
- Goodwin, B. Browne, M. Rockloff, M. Rose, J. (2017) A typical problem gambler affects six others. *International Gambling Studies*, 17(2): 276-289
- Hare S. (2015), *Study of gambling and health in Victoria: findings from the Victorian Prevalence Study 2014*, Victorian Responsible Gambling Foundation and Victorian Department of Justice and Regulation, Melbourne. Available at: <https://responsiblegambling.vic.gov.au/resources/publications/study-of-gambling-and-health-in-victoria-findings-from-the-victorian-prevalence-study-2014-72/>
- Harrigan, K, Maclaren, V, Brown, D, Dixon, MJ & Livingstone, CH 2014, 'Games of chance or masters of illusion: multiline slots design may promote cognitive distortions'

- International Gambling Studies*, vol 14, no. 2, pp. 301 - 317. DOI: 10.1080/14459795.2014.918163
- Hing, N. Russell, A. Nuske, E. Gainsbury, S (2015) The stigma of problem gambling: Causes, characteristics and consequences. VRGF Melbourne. Available at: <https://responsiblegambling.vic.gov.au/.../Hing-Stigma-of-problem-gambling-2015.pdf>
- Livingstone, C. (2017). *How electronic gambling machines work*. (AGRC Discussion Paper 8). Melbourne: Australian Gambling Research Centre, Australian Institute of Family Studies. Available at: <https://aifs.gov.au/agrc/publications/how-electronic-gambling-machines-work>
- Livingstone, C. Adams, P. Cassidy, R. Markham, F. Reith, G. Rintoul, A. Schull, N.D. Woolley, R. Young, M. (2018) On gambling research, social science, and the consequences of commercial gambling. *International Gambling Studies* 18(1):56-68.
- Livingstone, C. H., Kipsaina, C. C. & Rintoul, A. (2012) Assessment of poker machine expenditure and community benefit claims in selected Commonwealth Electoral Divisions Canberra: Uniting Care Australia.
- Livingstone, C., Francis, L. & Johnson, M. (2017). *Benefits and costs associated with licensed clubs operating poker machines in the ACT, Australia*. Foundation for Alcohol Research and Education, Canberra. Available at: <http://fare.org.au/wp-content/uploads/Community-benefits-claimed-by-licensed-clubs-operating-poker-machines-in-the-ACT-FINAL.pdf>
- Livingstone, CH & Adams, PJ 2016, 'Clear principles are needed for integrity in gambling research' *Addiction*, vol 111, pp. 5 - 10. DOI: 10.1111/add.1291
- Livingstone, CH, Rintoul, A & Francis, LJ (2014), 'What is the evidence for harm minimisation measures in gambling venues?' *Evidence Base*, vol 2, pp. 1 - 24.
- Livingstone, CH, Woolley, R, Zazryn, TR, Bakacs, L & Shami, RG 2008, *The relevance and role of gaming machine games and game features on the play of problem gamblers*. Independent Gambling Authority, South Australia.
- Markham, F. Young, M. Doran, B. (2014) Gambling expenditure predicts harm: evidence from a venue-level study. *Addiction* 109(9):
- O'Malley, N. (2018) Woolworths admit pub staff collected personal data on pokies players. *Sydney Morning Herald*, 6 August. Available at: <https://www.smh.com.au/business/companies/woolworths-admits-pub-staff-collected-personal-data-on-pokies-players-20180806-p4zvpo.html>
- Productivity Commission (2010) *Gambling*. Productivity Commission, Canberra.
- Queensland Government Statisticians Office (2018) *Australian Gambling Statistics* (33rd edition) Available at: <http://www.qgso.qld.gov.au/products/reports/aus-gambling-stats/>
- Rintoul, A., & Thomas, A. (2017). *Pre-commitment systems for electronic gambling machines: Preventing harm and improving consumer protection* (AGRC Discussion Paper No. 9). Melbourne: Australian Gambling Research Centre, Australian Institute of Family Studies. Available at: <https://aifs.gov.au/agrc/publications/pre-commitment-systems-electronic-gambling-machines-preventing-harm-and-imp>
- Rintoul, A., Deblaquiere, J., & Thomas, A. (2017). Responsible gambling codes of conduct: Lack of harm minimisation intervention in the context of venue self-regulation. *Addiction Research and Theory*, 25(6): 451-461.

- Slade, T. Johnston, A. Oakley Browne, M. Andrews, G. Whiteford, H. (2009) 2007 Survey of Mental Health and Wellbeing: Methods and Key Findings. Australian and New Zealand Journal of Psychiatry. 43(7): 594-605
- Taylor, G. (2018) Raiders Club wins reprieve from \$120,000 fine imposed for breaking poker machine laws. ABC News, 19 June. Available at: <http://www.abc.net.au/news/2018-06-19/raiders-club-wins-reprieve-from-fine-for-breaking-pokies-laws/9883810>
- Thomas, A. Pfeifer, J. Moore, S. Meyer, D. Yap, L. Armstrong, A. (2013) Evaluation of the removal of ATMs from gaming venues in Victoria, Australia: final report. Victoria. Dept. of Justice. Office of Liquor, Gaming and Racing
- VicHealth (2017) VicHealth Innovation Research Grant Guidelines. Available at: <https://www.vichealth.vic.gov.au/-/media/FundingOpportunities/Innovation-Grants-2017/2017-VicHealth-Innovation-Research-Grant-Guidelines.pdf?la=en&hash=F251D6E0E22FE7EA5F3780CF9E281E9F07AD17BD>
- Young, M. Markham, F. Doran, B. (2012) Placing Bets: gambling venues and the distribution of harm. Australian Geographer 43(4): 425:444
- Yücel, M., Carter, A., Harrigan, K., van Holst, R. J. & Livingstone, C. (2018) Hooked on gambling: a problem of human or machine design. The Lancet Psychiatry. 5(1): 65-66.

ACT Legislation referred to.

- Gambling and Racing Control (Code of Practice) Regulation 2002.
Gambling and Racing Control Act 1999
Gaming Machine Act 2004

ACT Government Reports etc.

- ACT Auditor-General's Report (2018). ACT Clubs' Community Contributions. Report No. 5/2018. Available at: https://www.audit.act.gov.au/_data/assets/pdf_file/0003/1193610/Report-No-5-of-2018-ACT-clubs-community-contributions.pdf
- ACT Gambling & Racing Commission (2017) Community contributions made by Gaming machine licenses 2016-17. Available at: https://www.gamblingandracing.act.gov.au/_data/assets/pdf_file/0011/1132697/GRC-2016-17-Community-Contribution-Report.pdf
- ACT Gambling & Racing Commission (ND) Gambling Harm Prevention Plan 2017-18. A public health approach to gambling harm. Available at: https://www.gamblingandracing.act.gov.au/_data/assets/pdf_file/0006/1123197/Harm-Prevention-Plan-2017-20181.pdf
- ACT Government (2018) Pathway to 4,000 Gaming Machine Authorisations by 2020. Available at: <http://cdn.justice.act.gov.au/resources/uploads/JACS/PDF/Pathway to 4000 Gaming Machine Authorisations.pdf>
- Australian/New Zealand Gaming Machine National Standards (2016). Available at: <https://publications.qld.gov.au/dataset/a-nz-gaming-machine-national-standards>

