ScotPHN report

Scottish Public Health Network (ScotPHN)

Toward a public health approach for gambling related harm: a scoping document

Michelle Gillies

August 2016

Contents

Preface

Over the past few years the Scottish Public Health Network has been asked any number of times to “do something” on gambling and how it would be possible to take a public health – for which read a population – approach to reducing the harms that can occur as a result of gambling. We heard the calls, but trying to specify just “what” such an approach may entail proved elusive.

Now, building on the initial work undertaken in 2014 when ScotPHN looked at the evidence-base for population interventions in a systematic review, my colleague Michelle Gillies has sought to scope the elements of a public health approach to gambling in Scotland. In this scoping review she has set out the legislative framework(s) in which gambling occurs, explored the potential mechanisms for managing gambling, and drawn on what international policy evidence exists to identify the elements of a public health approach to prevent the harms which can accrue from gambling.

ScotPHN is indebted to her, and all those who she consulted, in helping create this scoping review. We hope that it can be used to create more local responses to gambling and the avoidance of the harms it can cause.

Perhaps this is not the sort of document that some hoped ScotPHN would create when they envisaged that “something” was needed. Clearly it not a complete public health package. But it is a start and helps set out what the public health approach should include.

Phil Mackie
Lead Consultant
Scottish Public Health Network

1. Background

This scoping document considers the rationale for framing gambling related harm as a public health issue in Scotland. The report summarises the findings of a rapid scan of the literature and informal discussions with key stakeholders undertaken over a short time period between late April and early May 2016. It builds upon a 2014 ScotPHN review of the literature on public health interventions in relation to gambling related harm. This document does not provide a comprehensive or systematic review of legislation, policy, research and practice in relation to gambling and gambling related harm in Scotland; this is sorely needed. Rather, the report provides a brief overview of the key challenges and opportunities in this area. It is hoped that the report will be used as a platform to stimulate debate among stakeholders at local, regional and national levels, around what a public health approach to preventing gambling related harm in Scotland could, and should, look like.

These are uncertain times. As this report was being finalised a narrow majority of the UK population voted in favour of leaving the European Union in a national referendum. It is difficult to predict the impact of, or chain of events that might arise from, Brexit when, if, it occurs. Within the European Union the regulation of the gambling markets and advertising is largely a matter reserved to member states. The UK Government is the primary legislator in the regulation of gambling across the UK. It is unlikely then that Brexit would result in a significant change in the regulatory landscape or UK Government policy in relation to gambling in the near future, unless used to deliver further devolved powers to Scotland; the Scottish Government has long maintained that the regulation of all aspects of gambling and betting should be devolved.

In a climate of uncertainty, some may caution against the allocation of scarce public health resource to a highly contentious area like gambling with which the public health community in Scotland has historically had minimal engagement. However this could be viewed as an opportune time for the public health community in Scotland to reflect upon, and through open, inclusive, informed critical debate, reach a consensus on the place of gambling in our society and their role and responsibility in contribution to preventing gambling related harm in our communities.

2. Key Messages and Recommendations

The key messages from this scoping review are:

- gambling is a popular recreational activity in Scotland, framed by successive UK Governments as a legitimate leisure activity;
- individuals, communities and wider society experience benefits as well as harms associated with gambling. These are unequally distributed;

- a small but significant proportion of people in Scotland that gamble experience harm; beyond the individual that gambles, harm associated with gambling affects friends, families and communities;
- gambling related harms are wide ranging, may be temporary or act cumulative across the life course and can be intergenerational. They are mediated through a complex and only partly understood interaction between an individual, a gambling product, the gambling environment and wider determinants of health and wellbeing;
- the 2005 Gambling Act liberalised the gambling market in the UK, “aiming to permit” gambling and removed many restrictions placed advertising of gambling products. In response there has been rapid and sustained expansion of gambling advertising and opportunity. There is little evidence of additional harm at population level, although measures of gambling related harm at population are, at best, crude;
- as has been brought into focus with the growing public concern over geospatial clustering of bookmakers housing fixed odds betting terminals (FOBT) in income deprived communities, the current regulatory framework leaves little scope for community participation in defining and addressing gambling related harm locally;
- in the absence of robust evidence the underpin policy the regulation of gambling is advocated on a continuum from maximum consumer choice to maximum state intervention, with a moral dimension to arguments. In the UK context there are elements of statutory, co and self-regulation of gambling framed within a responsible gambling narrative;
- government and academia have real (or perceived) conflicts of interest in relation to gambling;
- gambling research has been described as an insular and homogeneous field, reliant on industry funding and lacking in ethical transparency;
- a tri-partite alliance between the gambling industry, academic and government has maintained the focus of research, practice and policy on problem gamblers rather than gambling products, the gambling environment or the wider determinants of gambling related harm;
- there have been growing calls from academia, regulators of the gambling industry at a local and national level and local authorities acting on behalf of local communities across Scotland for gambling related harm to be considered a public health issue, approached from a public health lens;
- a lack of engagement of the public health community in Scotland with this agenda to date, is out of step with public health advocacy and action in relation to other unhealthy commodities such tobacco, alcohol and junk food;
- there is anecdotal evidence of local public health teams across Scotland being asked for evidence based advice from licensing bodies on the protection of vulnerable individuals from gambling related harm in local communities. There is no public health guidance to support local public health teams discharge their

duty of care although evidence of innovative approaches taken by local public health teams across the UK is emerging;

- a framework for a public health approach to gambling related harm operating across three levels of prevention aligned with the Ottawa Charter has been developed. This has not translated from theory to practice in the UK. This may, in part, be attributed to a lack of evidence base around which strategies and interventions are effective and should populate the framework that has allowed commentators with divergent views on the regulation of gambling to legitimately lay claim to adopting a public health approach. The result is a lack of conceptual clarity;
- nevertheless, despite a limited evidence base, some countries have developed and implemented policies to address gambling related harm articulated through a public health lens. Evaluations are sparse but there are opportunities to learn from these experiences;
- more widely there are opportunities to learn from public health approaches taken to other unhealthy commodities such as alcohol and tobacco;
- recently the gambling industry has shown an increasing willingness of engage in socially responsible gambling practices and policies. The Responsible Gambling Strategy Board, the authoritative independent voice on the minimisation of gambling related harm in the UK, have called for the public health community to contribute their skills, resource and influence to this agenda;
- the public health community in Scotland could apply their skills, attitudes and knowledge to make a valuable contribution to existing efforts to prevent of gambling related harm in Scotland. This will require a careful examination of the existing evidence base and where absent academic theory within the context of legal, regulatory and operational frameworks necessitating partnership working;
- a national health needs assessment would be a useful first step toward articulating a public health approach to gambling related harm in Scotland.

It is recommended that the Scottish Directors of Public Health:

- recognise gambling related harm as a public health issue;
- encourage an open, inclusive, informed and critical debate in Scotland toward reaching a consensus within the public health community on the place of gambling in our society.
- request that a national health needs assessment of gambling related harm in Scotland be undertaken as a useful step toward engaging key stakeholders in formulating a comprehensive, collective response to the prevention of gambling related harm in Scottish communities.

2. Gambling in Scotland

Gambling involves wagering something of value on an uncertain outcome in the hope of gain. The outcome may be determined entirely by chance or in part, by the skill of the gambler. It always involves a degree of risk taking.

Gambling activities including lotteries, scratchcards, bingo, sports betting, casino table games and electronic gambling machines (EGM) take place in a range of settings from local shops, to bingo halls and race tracks to traditional high street bookmakers and casinos, and remotely via multimedia platforms.

In the 2014 Scottish Health Survey, the majority of Scottish adults, 69% of men and 61% of women, reported spending money on gambling in the last 12 months, representing a fall in participation rates from previous years.[1] The National Lottery was the most popular form of gambling in Scotland with 54% of men and 48% of women participating in the last year. Excluding National Lottery only gamblers, a significant proportion of the population, 50% of men and 40% of women, gambled in the previous year. Just 5% of men and 2% of women did so remotely.

Scottish households spend an estimated £3.20 on gambling activities each week (compared to £2.90 across the rest of the UK).[2] Almost £8 million is spent on gambling across Scotland per week.

Despite the recession, the gambling industry has shown the strongest gains in productivity of any economic activity in Scotland in recent years. The Scottish Government estimate that the gambling industry contribute £1.1 billion to the economy annually, sustaining 13,300 full time equivalent jobs.[3] The most income-deprived communities in Scotland are more likely to host a gambling business and have a greater number of gambling jobs than the least income-deprived communities.[4]

For the year ending 31st March 2016, the National Lottery, a public monopoly, generated ticket sales totalling £7,595 million, of which £911 million was paid to the UK Government in duty and £1,901 million was allocated to National Lottery funded projects.[5] Each week an average of £36 million generated through National Lottery ticket sales is allocated to a diverse portfolio of projects in health, education, the environment, sports, arts and heritage.[3]

Regulation of betting, gambling and lotteries in Scotland is a matter reserved to the UK Parliament. Under the Gambling Act 2005, all commercial gambling and gaming in Britain is regulated by the Gambling Commission on behalf of the Department of Culture, Media and Sport (DCMS)[6]. The Gambling Commission regulates personal and operator licenses. In Scotland, Local Authorities, through licensing boards, retain powers over the licensing of premises for gambling. The objectives of the licensing

regime as stated in the 2005 Act are to prevent gambling from becoming a source of crime or disorder, to ensure that gambling is conducted in a fair and open way and to protect children and other vulnerable people from being harmed or exploited by gambling. Separate provisions are made for some forms of gambling. For example spread betting is regulated by the Financial Conduct Authority, and the National Lottery, by the National Lottery Commission.

3. Gambling related harm

People gamble for a variety of recreational, social and financial reasons[7]. Most do so without negative consequences; a small proportion experience harm as a result of gambling.

Participation in gambling occurs on continuum from abstinence to casual recreational gambling through to problem and pathological gambling.[8] Definitions vary. Problem gambling can be considered "*gambling to a degree which compromises, disrupts or damages family, personal or recreational pursuits.*"[9] Gambling disorder (previously known as pathological gambling) is a psychiatric diagnosis that shares features common in other substance related addictions.[10]

Problem gambling and gambling disorder are associated with poor physical and mental health and well-being, conflict and relationship breakdown, financial hardship, unemployment, homelessness and criminal activity which may lead to incarceration.[7,11]

The presence of reciprocal co-morbid mental health or substance related disorders and a lack of physical signs mean that problem gambling may be difficult to detect.[11,12] Despite being over-represented in health care settings, health and social care professionals may miss opportunities to directly engage and support problem gamblers.[12]

Harm from gambling may be temporary or occur cumulatively, across the life course.[11] Importantly, even when a problem gambler ceases to gamble, legacy harms, often inter-generational, may persist.[11] Moreover, harm is not just experienced by the person that gamblers, but affects their family, friends, community and wider society. For each person who develops a problem with gambling, an estimated 5 to 10 people will experience negative consequences.[13]
There is no agreed definition of gambling related harm.[11] Broadly speaking this can be considered any significant negative consequences that arise from excessive and disordered gambling behaviour. In Scotland, gambling related harm is estimated by measuring the prevalence of low to moderate risk problem gambling (referred to as 'at-risk' problem gambling) and problem gambling in the population, using the

Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association (DSMV-IV)[10], and the Problem Gambling Severity Index (PGSI)[14] in the annual Scottish Health Survey.[1] Neither tool has been validated for use in a general population survey in Scotland although both are internationally recognised, the latter having been validated for use in population based studies in Canada.[14] It is important to note that these are crude proxy measures that will underestimate the extent of gambling related harm at population level and provide no detail of the nature of harm or estimation of associated costs. Quantification of the burden of gambling related harm at population would be a useful tool for public health advocacy.[15] There is an urgent need to develop metrics that accurately measure gambling related harm at population level.

In 2014, the overall prevalence of problem gambling among adults in Scotland, as measured by DSM-IV and PSGI, was 0.6% and 0.7% respectively, equating to around 1 in 140 adults in Scotland, or in absolute terms, between 26,619 and 31,055 people.[1] A further 4.4%, around 195,209 Scottish adults, were identified as being 'at-risk' of problem gambling by the PSGI tool.

The prevalence of 'at-risk' and problem gambling was much higher in men than women; 7.7% of men were identified as being 'at-risk' of problem gambling compared to 1.3% of women, and 1.3% of men were identified as problem gamblers, compared to 0.2% of women.

In men, the prevalence of 'at-risk' and problem gambling were highest in the youngest age group, 16 – 24 year olds (16% and 2% respectively), decreasing with age. 'At-risk' and problem gambling were more common in the most socioeconomically deprived (13% and 2% respectively), compared to the least socioeconomically deprived (6% and undetectable respectively), men. In women, small numbers limited the ability to conduct and interpret subgroup analyses.

Further detailed analysis of data from the 2012 Scottish Health Survey identified an association between problem gambling, harmful patterns of alcohol consumption, mental health problems and socioeconomic deprivation although causal inferences cannot be made from these data.[16]
Cautious comparison of data from the Scottish Health Survey (2012-2014) and the British Gambling Prevalence Studies (1999, 2007 and 2010)[1], suggest that the

[1] Prior to 2012 information on gambling behaviour in the UK was collected in The British Gambling Prevalence Surveys (BGPS) published in 2000, 2007 and 2011, random population surveys of adults (16 years and over) living in private households in Britain. Since 2012, information on the gambling behaviours has been collected in the English, Scottish and Welsh Health Surveys. The SHeS, a continuous cross-sectional survey of the health and well-being of people living in private households in Scotland. Both the BGPS and SHeS may underestimate the gambling behaviours as they include only those living in private households and are therefore unlikely to capture those most at risk from or who have experienced gambling related harm. Non-response rates in the SHeS on gambling questions were around 10% between 2012-2014. The instruments used to measure

prevalence of 'at-risk' and problem gambling in Scotland has remained relatively stable over time[16,17]. It is unclear whether this should be considered a failure of the regulatory framework to minimise gambling related harm, or a success, given the dramatic increase in exposure to gambling and gambling opportunities in recent decades.[18]

It is illegal for children under the age of 16 years old to participate in commercial gambling in Scotland[2]. There is a lack of robust contemporary data examining the gambling behaviours of Scottish children. A 2015 survey of a nationally representative sample of school children in England and Wales reported that 17% of 11–15 year olds spent money on gambling in the previous week and 30% of children reported participating in gambling over the last year; this represents a fall in self-reported participation in gambling among children in England and Wales over time.[19] Children were as likely to gamble privately with friends (8%), as they were to gamble on commercial premises such as arcades, bookmakers or bingo halls (9%). The most frequently reported gambling activities were playing fruit machines (6%), betting with friends (5%) or playing cards for money with friends (5%). Around 5% reported playing the National Lottery or scratchcards, most in the company of their parent or guardian who purchased their tickets. In total, 11% of children reported having played a free gambling-style game, for example Roulette or poker, at some point, most commonly on a tablet or mobile devise, however gambling via the Internet was very uncommon. The increasing conflation between social gaming and gambling is cause for concern.[18-20] Participation in free to play gambling style games on the Internet has been shown increase the likelihood of subsequently gambling for money.

Using an adapted DSM-IV tool, the incidence of problem, 'at-risk' and social gambling in children aged 11–15 years old was found to be 0.6%, 1.2% and 13% respectively, which is unchanged from 2014.

Problem gambling in children and adolescence is more likely if gambling is initiated at an early age and the child has experienced an early 'big win'[7,19,20]. Adolescent problem gamblers are more likely to be male, socioeconomically disadvantaged, report substance use (smoking, drinking alcohol and drug use) and engage in other anti-social behaviours[7,19,20]. Gambling and problem gambling in adolescence is correlated with parental attitudes toward, and participation in, gambling[7,19,20]. Studies

---

gambling behaviour in the BGPS and SHeS were the same however the survey methods differ. Time trends comparison between these surveys should therefore be interpreted with caution.

[2] There are no age restrictions set on low stake prize slot machines found in family arcades or free to play gambling style games found online. The age limit for participation in the National Lottery (and related products) and football pools is 16 years old. All other gambling activities are restricted to those aged 18 years and above. Higher stake electronic gaming machines are found in adult only environments such as betting shops and casinos.

have consistently shown an association between gambling in adolescence and problem gambling in adulthood with few adolescent gamblers engage in treatment[7,19,20].

4. Contextualising gambling and gambling related harm in Scotland

The unprecedented speed and scale of the expansion of the global commercial gambling industry over the last three decades has dramatically changed the context of gambling in the UK.[21] Cultural acceptance of gambling has steadily increased since the introduction of the popular National Lottery in 1994. This was aided by legislative change, which sought to reframe gambling as a legitimate recreational activity,

> *"In the Government's view the law should no longer incorporate or reflect any assumption that gambling is an activity which is objectionable and which people should have no encouragement to pursue".*[22]

The 2005 Gambling Act liberalised the gambling markets.[21] It aimed to permit gambling and removed many restrictions on advertising of gambling products.[6] In response, the gambling industry extended the range, availability and accessibility of gambling opportunities, invested in technologies that encourage continuous rapid consumption of gambling products from multiple platforms, and engaged in aggressive advertising, marketing campaigns.

Gambling related harm is a result of a complex interplay between an individual and their vulnerabilities, a gambling product, the gambling environment and wider physical, social, cultural, political and economic determinants of health and wellbeing that is not fully understood.[23]

At an individual level parental attitudes toward and participation in gambling, young age at initiation, experience of an early win, skill or perceived level of skill, microeconomics (affordability, perceived odds of winning), sex, socioeconomic disadvantage, substance use, mental health issues and neurobiological factors are important.[7,19,20,23]

Whilst some types of gambling, for example lotteries, are considered relatively benign, others are strongly associated with gambling related harm, although definitive evidence to support causality is lacking.[24] Internet gamblers are more likely to be problem gamblers than those accessing land-based alternatives. Forms of gambling characterised by continuous rapid play that require skill or a perceived level of skill, for example, EGM and casino table games are strongly associated with problem gambling.

Across the UK there has been growing public concern about Fixed Odds Betting

Terminals (FOBT), EGM with fixed odds of return on which a player can stake up to £100 with 20 seconds between plays.[3],[25,26] In Scotland FOBT have been the subject of a Parliamentary Inquiry.[25] Whilst the number of highly profitable FOBT in licensed premises is restricted to four machines, the removal of the demand criterion in the 2005 Gambling Act has enabling the geospatial clustering of bookmakers, often in close proximity to credit facilities such as pay-day lenders, in the most income-deprived communities where those most vulnerable to gambling related harm live.[25-27]

A causal link between exposure to gambling opportunities and problem gambling has not been established; indeed there is no agreed definition or single objective measure of 'exposure' to gambling.[28] The exposure theory proposes that:

> "*the more the product is supplied in an accessible form, the greater the consumption and the greater the incidence and prevalence of harm."*[29]

An alternate theory, the adaptation theory, proposes that in a mature gambling market, such as that in the UK, the relationship between increasing exposure and increasing harm breaks down as a result of individual and societal adaptation[30]. International evidence supports both hypotheses.[28,31] The relationship is complex and likely to be multifactorial.[28]

Although evidence is lacking, it has been proposed that the significant increase in the volume of advertising in which gambling is portrayed in as a harmless, fun activity, associated with winning may have contributed to increasingly liberal public attitudes, normalising gambling.[32,33] From 2006 through to 2012 the number of television advertisement for gambling increased exponentially from 152,000 to 1.39 million.[34] In 2012 children and adolescents (aged 4 to 15 years old) were estimated to have experienced 1.8 billion commercial gambling 'impacts' through advertising of gambling on television.[4] The effect of gambling advertising on participation in gambling and propensity toward problem gambling has not been established.[28,32,33] Nevertheless, applying a precautionary principle, the level of exposure of children and adolescents to overwhelmingly positive gambling advertisements without counter exposure to raise awareness of the risk of gambling related harm, is cause for concern.[18,28]

---

[3] FOBT became regulated under the 2005 Gambling Act. They are considered Category B2 machines. Other category B2 gambling machines have a maximum stake of £2. Glasgow City Council undertook an extensive Sounding Board on the topic of FOBT available online at http://www.stopthefobts.org/wp-content/uploads/2014/06/Item-5-app-Council_Sounding_Board_on_the_Impact_of_FOBT_Main_Report.pdf.

[4] Ofcom determined the level of exposure to commercial gambling advertisements on television by measuring 'impacts' which captures the number of times that an advertisement is viewed; 10 impacts might be 10 people viewing an advertisement once or one person viewing an advertisement 10 times.

The Scottish and UK Governments have enjoyed economic benefits from the growth of the gambling industry.[3,4] Inevitably, Governments have a conflict of interest, real or perceived, between generating revenue, economic development and the need to safeguard vulnerable people from gambling related harm.[35,36] Somewhat out of step with Government policy nurturing localism in other areas, legislation in the UK has effectively limited the ability of local communities, and local authorities acting on their behalf, to participate in the regulation of gambling in their area.[29]

There is a genuine lack of empirical evidence on the comparative effectiveness of regulatory regimens for gambling to inform policy.[28] A recent review[28] identified just one relevant study that examined the association between national prevalence rates of disordered gambling in European countries and key features of the gambling regulatory regimen.[37] There are inherent limitations to this approach that must be borne in mind when interpreting the study findings. The study found no statistically significant association between national prevalence rates of disordered gambling and the extent of legal gambling opportunities, minimum age requirements for gambling, gambling licensing systems or prohibition against gambling.[37] The only statistically significant association found by the study was that the prevalence of sub-clinical disordered gambling was lower with a more restrictive policy for advertising of online games. The global nature of remote gambling presents an added challenge for regulators that requires an international response.

The regulation of gambling is a contentious issue that polarizes opinion.[28] Academic endeavor has focused on the relative merits of a regulatory regimen that maximizes state intervention versus one that maximizes consumer choice; in the absence of empirical evidence to support either position, a moral dimension to the debate has emerged.[28] Commentators in favour of a restrictive regulatory framework disapprove of the framing of gambling as a legitimate leisure activity. They argue that gambling is inherently harmful and expansion of the gambling industry will inevitably lead to an increase in gambling related harm (the exposure theory)[29,35,36]. Controversially, some invoke Geoffrey Rose's principle of prevention, calling for a reduction in participation in gambling at population level to achieve a population level reduction in problem gambling.[38] This group advocate an adversarial approach to industry, cautioning against tri-partite relationships between Government, industry and the health sector for fear they will disempower the health sector, placing it in "*moral jeopardy.*"[36]

In contrast, scholars that favour maximising individual choice, argue that gambling provides social and economic benefits to individuals and communities and is only harmful when consumption is excessive and disordered.[39] Legislative regulation of gambling is framed as paternalistic. Instead these commentators argue for self-regulation of the industry, typically through adherence to voluntary standards or codes of practice.[40] This group promote gambling as an individual choice, and focus on the deficiencies and vulnerabilities of the individual in harmful consumption.[39,40]

They challenge the validity of the exposure theory noting that despite the exponential growth in gambling exposure and opportunities, the population prevalence of problem gambling has remained relatively stable over time (the adaptation theory).[28] In the UK there is evidence of statutory, co- and self-regulation of the gambling industry within a responsible gambling framework that aims to minimise gambling related harm without disproportionately affecting those that chose to gamble, as a legitimate leisure activity, and do so without experiencing negative consequences. Increasingly, gambling operators have shown a willingness to engage with socially responsible business practices and policies, beyond those required through licensing as,

> "*there is now a realisation that problem-free players make for a better business, and that long-term customers are going to be those who continue to play, without problems, primarily for reasons of leisure".*[41]

Across the UK around 80% of gambling operators subscribe to a voluntary Code for Responsible Gambling (the ABB Code).[41] The impact of such measures has yet to be demonstrated.[41] Moreover, critics caution that partnership between Government and Industry and the framing of gambling operators as socially responsible is an "*attractive and convenient compromise*" allowing both parties to reconcile their need to appear invested in harm reduction whilst avoiding a significant reduction in consumption which would be commercially damaging.[42] A disconnect exists between the scientific and regulatory communities with an urgent need to move beyond ideological debate.[28]

In the UK the Gambling Commission and Responsible Gambling Trust (RGT), a national charity that almost exclusively funds research, education and treatment services for gambling related harm are funded by gambling revenue through a voluntary industry levy (totaling £6.5 million in 2014/15). Concerns have been raised over the independence of these bodies and degree of influence the gambling industry has in setting the research agenda and producing and interpreting scientific evidence to underpin policy.[29,35] A recent anthropological study from the UK explored how gambling research was produced and used described:

> "*an insular and uncritical homogenous field which suffers from unproductive repetition and rivalries. These weaknesses are reproduced by funding which rewards conformity and marginalizes critical voices"*.[43]

Academic gambling research is heavily dependent upon industry funding; systematic biases in the findings of industry-funded research in relation to other unhealthy commodities such as tobacco and alcohol are widely recognised.[44] Gambling research in the UK has been described as *safe*, of poor quality and lacking in ethical transparency.[43] A continued focus on problem gamblers rather than gambling products, the gambling environment or the wider determinants of gambling related harm, has enabled Government, academia and industry to meet public expectations

of conducting research without compromising their commercial interests.[43] This is exacerbated by a lack of relevant data; the current regulatory framework does not compel gambling operators to share their data on gambling products or provide access to the gambling environment.[43]

5. Framing gambling related harm as a public health issue

It has been said that the manner in which social issues are framed directly impacts on public policy debates.[45] There is a compelling argument for framing gambling related harm as a public health issue in Scotland. Individuals, communities and wider society may experience both benefits and harms associated with gambling; neither is equally distributed. At population level a significant minority of people in Scotland are at risk of, or are, problem gamblers. Many more experience negative consequences as a result of gambling[1,13,15,16]. The harms associated with gambling are diverse and mediated through a complex and only partly understood interaction between individual factors, the gambling product, the gambling environment and wider determinants of health and wellbeing. There is limited scope for local community involvement in defining and responding to gambling related harm within the current regulatory framework and a lack of empirical evidence to underpin policy development.[28] The UK Governments neoliberal approach has framed gambling as a legitimate leisure activity. The prevailing responsible gambling narrative promotes informed individual choice whilst leaving room to place the blame for gambling related harm with individuals that experience difficulty. This is exacerbated by a tri-partite alliance between the gambling industry, academia and the Government which has maintained the focus of research, practice and policy on the problem gambler with little consideration given to the wider determinants of gambling related harm or a holistic approach to addressing these harms.[39] The effect has been to stagnate research, stifle critical debate and impeding progress toward an integrated, coordinated, comprehensive approach to preventing gambling related harm in our communities.[38,39]

To date, there have been no specific statements from the UK Faculty of Public Health or devolved Public Health Agencies in the UK recognising gambling related harm as a public health issue. This is incongruent with the public health advocacy and action taken at local, regional and national level in relation to other unhealthy commodities such as tobacco, illicit drugs, alcohol and latterly junk food.

The devolvement of public health function to local authorities in England may allow the prevention of gambling related harm to be aligned with health, facilitating involvement of local public health teams in this agenda.[46] Public Health England have produced a briefing document on problem gambling to support councillors in local authorities but no specific guidance to support public health specialists.[47]

The Gambling Act requires licensing bodies to produce a gambling policy for their locality that sets out the principles of the gambling licensing as prescribed by the Gambling Commission. This may contain a statement reflecting the priorities of the local community. In Scotland, licensing boards may ask public health specialists to make an evidence based representation as a 'responsible authority', to advise on the protection of people who are vulnerable to harm in relation to licensed premises; there are anecdotal reports of this happening across Scotland. There is no specific guidance to support public health specialists discharging their duty of care in this area and the empirical evidence base to support public health advocacy and action is limited. Nevertheless there is a growing recognition of the potential value of a public health approach in preventing gambling related harm in Scotland. In written evidence to the Scottish Parliamentary Inquiry into FOBT, Glasgow City Council called for gambling related harm to be considered a public health issue, approached from a public health perspective.[26]

In September 2015 the RGT issued a position paper on problem gambling and gambling related harm as a public health issue formulated following discussions with a range of stakeholders including the British Medical Association, The Royal Society of Public Health, Public Health England and Public Health Wales stating:

> *"The nature, extent and causal relationship between gambling and gambling-related harm, taking into account the role of co-morbid mental health issues, is not yet well enough established in Great Britain to provide the compelling argument required for the commitment of public health resources to supplement the investment the gambling industry itself already makes via the RGT in research, education and treatment of problem gambling and its harmful effects. Relatively low and stable rates of prevalence of problem gambling compared to other issues in public health may undermine the case for public health investment, particularly in the absence of more sophisticated evidence of the direction of causality of harm or reliable projections of increased problems for the future."*[48]

Parallels between the RGT position paper and the main body of gambling research are noteworthy. Both focus on individual problem gamblers and the need to demonstrate a definitive causal links between gambling products, the gambling environment and problem gambling rather than acting upon what can reasonably be inferred. The RGT position paper acknowledged the potential role of public health in the surveillance of gambling related harm at population level. However, it marginalised further public health action to the design and delivery of treatment services noting:

> "*When the problem requires clinical intervention, the RGT believes this will be more effectively delivered in partnership with the wider public health system".*[48]

Disappointingly, the RGT do not acknowledge with wider (unequally distributed) social harms associated with gambling, recognise the wider determinants of gambling related harm or the potential role of a coordinated comprehensive public health approach in prevention and early intervention.

The position taken by the RGT is surprising, not least because it conflicts with that taken by the Responsible Gambling Strategy Board (RGSB) who have long maintained that gambling related harm should be considered a public health issue, approached through a public health lens.[18] The RGSB provide independent advise to the Gambling Commission on responsible gambling, articulated through the National Responsible Gambling Strategy. It is the role of the RGT to commission activity to implement the priorities within this strategy.[49] In the National Responsible Gambling Strategy 2016-2019, the RGSB call for:

> "*a wider range of organisations in the public and private sectors (including those with a remit for public health) of their responsibility to help address gambling-related harm, and to use their expertise and resources to work cooperatively in addressing them."*[18]

Given that the RGSB are the authoritative voice in the minimisation of gambling related harm in the UK, there may be increasing interest from academic, operators, regulators and policy makers engaging the wider public health community in advocacy and actions to address gambling related harm.

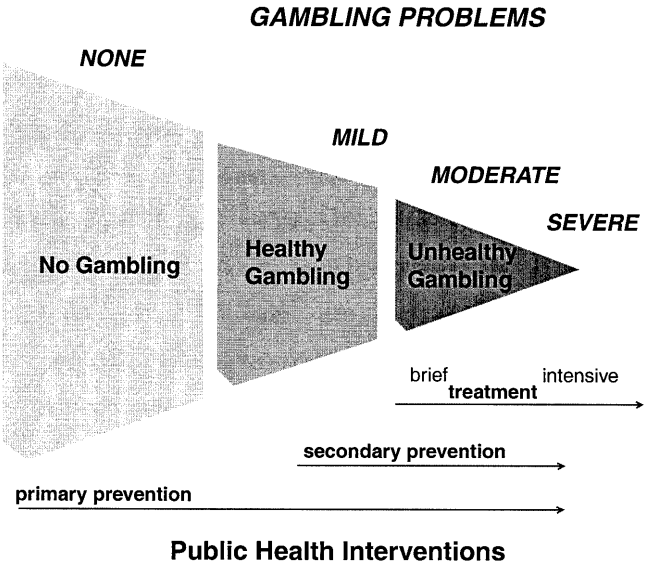
6. Public health frameworks for preventing gambling related harm

Over the past two decades there have been increasing calls in the academic literature for a public health response to the prevention of gambling related harm[41-43]. As early as 1993, the Canadian Public Health Association sought to recognise problem gambling as a public health issue.[18] The "meta-framework" illustrated in Figure 1 was proposed as a public health approach to gambling by Korn and Shaffer, Canadian public health physicians in 1999.[50]

The triangle represents the entire population, located along a continuum of gambling related harm with most of the population that do not experience harm associated with gambling on the left and those who experience severe harm on the right. Gambling behaviour occurs on a spectrum from no gambling to healthy gambling to unhealthy gambling. This asserts that individuals and wider society may experience

benefits, as well as harms, associated with gambling, which must be balanced. The framework accommodates harm minimisation initiatives that aim to reduce the negative consequences from gambling, without requiring abstinence or adversely impacting upon individuals that gamble safely and responsibly. The level of participation at which healthy gambling becomes unhealthy is not defined. Korn and Shaffer's goal of developing empirical healthy gambling guidelines, analogous to responsible drinking guidelines for alcohol have thus far proven elusive.

Figure 1. Linking public health interventions to gambling related harm[50]



A number of key features of the Korn and Shaffer model signalled a departure from the traditional medical model of conceptualising gambling and gambling related harm. Firstly, the model acknowledged vulnerable or 'at-risk' subgroups of the population. Secondly, the model identified the role of reciprocal co-morbid mental health and substance use issues and the need for a holistic approach prevention, early intervention and treatment. Thirdly, there was an explicit acknowledgement that people beyond the problem gambler experience gambling related harm. Fourthly, the model considered the wider determinants of gambling related harm beyond individual factors. Finally, the model advocated community participation in responding to gambling related harm.

The goals of the public health approach as described by Korn and Shaffer are (1) *preventing* gambling related problems through public awareness, early identifications and the provision of treatment services, (2) *promoting* informed and balanced attitudes and behaviours toward gambling through knowledge, responsible choice and community participation (3) *protecting* vulnerable groups from harm through responsible gambling policies and community support programmes.

Transposed on the model (Figure 1) are levels at which a range of structured primary, secondary and tertiary prevention interventions, aligned with the key

intentions of the Ottawa Charter[51], can be applied. Primary prevention interventions are generally universal, although may involve targeting of vulnerable groups within the population. These aim to prevent gambling related harm. Examples include public education and awareness campaigns about gambling and the potential for harm, responsible advertising and marketing, and actions that create resilience supportive communities including safe gambling environments. Secondary prevention interventions focus on early intervention targeting populations at risk of gambling related harm. Examples include limiting access to gambling venues, self-exclusion, pre-commitment tools which gamblers can use to set time or expenditure limits, warning messages, responsible gambling interventions by gambling operators and screening and brief interventions by health and social care staff. Tertiary prevention strategies target those experiencing harm associated with gambling. These include treatment and support services.

The Korn and Shaffer model has endured, being adapted and reinterpreted by successive researchers. The flexibility of the model is both a strength and weakness. The framework is only as effective as the strategies and interventions embedded within it. A lack of evidence base around which interventions are effective in prevention gambling related harm has enabled commentators to legitimately label divergent strategies as a public health approach to gambling related harm leading to a lack of conceptual clarity.

The 2014 ScotPHN literature review of population interventions to address gambling related harm identified very few studies that examined the effectiveness of public health approaches to problem gambling and highlighted the methodological limitations of the available literature[7]. The review surmised that an effective public health approach to gambling related harm would be:

- policy based,
- promote responsible gambling and corporate social responsibility,
- recognise the wider determinants of gambling related harm,
- improve population level knowledge and awareness of gambling related harms,
- include targeted interventions to identify and support those at risk of problem gambling with a holistic approach to reciprocal co-morbid conditions such as substance use,
- develop treatment services to meet individual needs,
- facilitate surveillance and evaluation to inform future development of policy and practice.

More recently, an Australian study reviewed public health frameworks for preventing gambling related harm to inform policy development.[15] In addition to examining public health approaches to gambling related harm the authors studied the relevance and validity of models of prevention developed in closely affiliated areas including

substance use and mental health,[5] presenting a synthesis of the key components of a public health approach to the prevention of gambling related harm:

- a comprehensive and co-ordinated strategy developed from an ecological perspective as a whole community response to gambling related harm
- contain graduated, complementary primary, secondary and tertiary interventions
- include an understanding of risk and protective factors to elucidate causal relationships allowing interventions to be targeted and tailored
- provide a holistic and integrated approach to identifying and addressing multiple gambling related harms and comorbid mental health and substance use issues

7. International perspectives on a public health approach to gambling related harm

Despite a limited evidence base, several countries, including New Zealand[52], Australia[53], and Sweden[54], have developed policies to prevent gambling related harm through a public health lens. In general, these policies adopt a harm minimisation approach, accommodating personal and socially responsible gambling practice and policy that balances the rights of individuals to safely access legal gambling opportunities against the need to prevent, minimise and mitigate harms associated with gambling. Policies move beyond the individual problem gambler to examine the wider determinants of gambling related harm, thus enabling gambling to be located within a wider framework of actions to address health inequalities and reciprocal comorbidities. Importantly, they recognise groups within the population, often indigenous, that are vulnerable to gambling related harm and target resources and interventions to meeting their needs. Action across the continuum of gambling behaviours thereby addressing prevention, early intervention and treatment, acknowledging that harm may be experienced beyond the individual that gambles is advocated. Aligned with the principles of the Ottawa Charter[45], policies endeavour to build personal and community resilience and capacity, ensuring that people and communities have the requisite skills and knowledge to make truly informed decision about gambling in a supportive environment. Arguable this latter approach offers a stainable solution to the issue of gambling related harm given the rapidity with which the gambling industry has been able to adapt and innovate and the challenges of regulating remote gambling in a global market.

[5]The authors identified six frameworks for prevention that have been applied in related fields of mental health and substance use including harm minimisation, the pathways model, the strategies of change/trans-theoretical model, mental health literacy, socio-ecological models and social marketing. In addition they explored lessons that could be derived from the public health approach to tobacco control.

Published evaluations of these policies are sparse. A critique of the public health approach to the prevention of gambling related harm in New Zealand noted "initial enthusiasm" for the approach, followed by "subsequent disillusionment."[55] The authors cited a lack of independent accountability and conflicting economic interests of local communities, industry and Government as factors impeding the public health approach, cautioning that:

> "*once governments and communities become vested in the profits from gambling, in the absence of some form of strong and independent accountability, well-intentioned public health strategies will gravitate towards token and superficial programmes that give the impression of addressing issues but in reality cover up and disguise the true extent of harm from gambling.*"[55]

8. Learning from public health approaches to other unhealthy commodities

The lack of evidence base to underpin policy development has led commentators to look more widely at opportunities to learn from public health strategies in relation to other unhealthy commodities, such as tobacco and alcohol.[56,57] These commodities share a great deal in common with gambling. They are legal; readily available and accessible to adults; consumption is framed as a culturally acceptable recreational activity; they are associated with potential harms which are unequally distributed throughout the population; operators are driven by commercial interest; consumption is framed as personal choice and harm as personal responsibility; public health action is framed as 'nanny state' intervention; the Government have expanding economic interests in consumption; tripartite relationships exist between industry, academia and Government that influence the research agenda and public policy; and ultimately the responsibility for prevention harm from consumption requires cooperation between Government, the industry, academia and local communities. There are however important differences. The evidence base in relation to gambling related harm is, at best, emergent. Tobacco consumption is considered harmful at even low levels and public health guidance has been developed to define a safe level of alcohol consumption. There is no agreed level of participation at which gambling is considered harmful; the level at which one person might experience gambling as a fun leisure activity may for another person result in significant harm. There are no evidence-based guidelines on responsible gambling. We are unaware of any studies examining potential lessons from the public health approaches to other unhealthy commodities that could be applied to the prevention of gambling related harm in the UK context. However, a number of Australian studies were identified from a rapid scan of the literature. The generalisability of the findings of these studies to the Scottish context is unclear.

A 2015 Australian review of public health approaches to preventing gambling related harm examined potential lessons that could be drawn from tobacco control.[15] The most promising interventions as applied to gambling, although the evidence of effectiveness is limited, are likely to be education campaigns highlighting the potential harms associated with gambling delivered as part of a package of wider initiatives. Beyond targeting those at risk it was noted that health promotion messages might influence the attitudes and expectations of the wider community, thereby influencing behaviour. A related issue is a restriction on the promotion of gambling for which a regulatory framework is already in place in the UK. In the UK context there is limited scope to further limit access to gambling opportunities. Statutory minimum age restrictions already exist in relation to gambling and are enforced. Spatial restriction of gambling premises through the licensing system may be desirable but is not permitted within the current UK licensing system. Moreover, these measures do little to protect those that gamble remotely. Whilst increasing the unit price of tobacco through taxation was effective in tobacco control, this appears less valid in relation to gambling and could potentially increase harm. A requirement for industry to reduce the harmfulness of its products has been successful in tobacco control and already been adopted relation to gambling in New South Wales, Australia where a number of characteristics of EGM which encourage continuous play are prohibited.[15] In tobacco control, e-cigarette, though controversial, are viewed as a harm minimisation measure. There is no obvious analogous measure in relation to gambling although there may be interest in exploring how the psychological rewards experienced through gambling can be replicated in a less harmful way when consumption becomes disordered.[15]

A 2013 Australian publication examined whether evidence based alcohol policies had face validity and could be extrapolated to inform the development of gambling policies.[56] The authors suggest that the most effective policy interventions would be to strictly enforce a raised legal age for gambling of at least 18 years, preferably 21 and up to 25 years with programmes for parental education about the risks of gambling at a young age, and a licensing system that includes requirements for responsible gambling and consumer protection strategies with gambling operators required to share relevant data to inform research. Other public health policies that were considered potentially less effective included pricing and taxation policies to reduce consumption[6], restricting the operating times at gambling venues and reducing outlet density, and brief interventions for those at risk of or experiencing gambling related harm. Many of these policies have already been implemented through the statutory or voluntary regulatory frameworks for gambling in the UK.[41,57]

[6] for example increasing taxation, obliging operators to provide gamblers with an option to enforce maximum limits on the time and money that they spend in advance maximum bet limits and limiting prize money

Minimum age restrictions are generally enforced by gambling operators.[41,57] The voluntary industry code of practice includes pre-commitment tools, self-exclusion options and staff training on brief interventions. The current licensing framework prevents attempts by licensing boards to reduce outlet density.[25,26] Although not currently an element of the licensing conditions, it would be desirable for the gambling industry to be compelled to share relevant data.

Rather than focusing on policy initiatives from unhealthy commodities that may have face validity in gambling, a small qualitative study from Australia explored tactics commonly used by the gambling, and other unhealthy commodity industries, to prevent reform and the role of public health advocacy in responding to these.[58] The study described the gambling industry as developing influential relationships with Government aimed at protecting their mutual commercial interests, framing the public debate about gambling as an issue of personal responsibility and influencing the research agenda undermining an ability to build evidence based health policies to prevent gambling related harm. The generalisability of these findings to the Scottish context is unclear.

9. Toward a public health approach to gambling related harm in Scotland

There is evidence of a growing need and desire for the adoption of a public health approach to the prevention of gambling related harm in Scotland. A conceptual framework for a public health approach to the prevention of gambling related harm has been developed. Empirical evidence around which strategies and intervention are effective and cost-effective and should populate this framework is lacking. There is however an opportunity to extrapolate learning from countries that have adopted a public health approach to the prevention of gambling related harm and from successful public health initiatives to address other unhealthy commodities. A national health needs assessment of gambling related harm would not only allow a systematic, comprehensive review of relevant research, practice and policy from this, and affiliated fields, but would, for the first time in Scotland, bringing together key stakeholders allowing them to define the nature of the problem and commit their collective expertise and resource to addressing it.

The section that follows briefly identifies areas of potential public health action and advocacy in relation to the prevention of gambling related harm in the Scottish context that warrant further exploration according to three levels of prevention, primary, secondary and tertiary. Further exploration of these areas requires not just a theoretical understanding of academic principle, but also a broader understanding of legal, regulatory and operational issues necessitating consultation and collaboration with a broad range of stakeholders.

Primary prevention

Interventions include universal public education programmes, delivered through mass media or social marketing campaigns, or targeted interventions aimed at preventing the onset of at-risk gambling behaviours in vulnerable groups such as adolescents. Evidence suggests that effective interventions are integrated within a wider programme of initiatives to create a supportive environment.[59] Initiatives typically focus on imparting knowledge or life skills, increasing awareness of risks and harms, or changing the social acceptability 'denormalising' of an activity. There has been considerable academic interest in young gambling and school-based programmes to minimise gambling related harm. However there is little evidence to support a general school education programmes and some suggestion that while these may increase knowledge and understanding of gambling and its associated risks, they also increase risk taking behaviour.[7,15] Research suggests that initiatives that take a holistic approach, focusing on multiple problem behaviours, are likely to be more effective in the longer term.[15] An alternative approach might be selective interventions in the school setting aimed at young people experiencing other problem behaviours.[15] Some parents have permissive attitudes toward and even facilitate their children participation in age-restrictive gambling activities. Evidence suggests that gambling operators in the UK adhere to age restrictions.[60] There is scope to educate parents about the vulnerability of young people to gambling related harms, although evidence as to which approach is most effective is lacking.[60]

Gambling advertising can be considered an environmental factor that shapes social norms and may therefore influence gambling behaviours.[60] In the UK regulation of gambling advertising is through self and co-regulatory frameworks. This includes statutory oversight by the DCMS, Ofcom and the Gambling Commission, as well as supplemental initiatives such as the Code for Socially Responsible Advertising from gambling operators. As a requirement of licensing conditions gambling operators must comply with advertising codes of practice[7] (BCAP and CAP) administered by the Advertising Standards Authority (ASA), which include targeted content restrictions[8]. A series of linked reviews into the advertising regulatory framework in 2014-2015 concluded this is effective in protecting people from harms related to

[7] the UK Code of Broadcast Advertising (BCAP Code) applies to all advertising and programme sponsorship credits on radio and television services licensed by Ofcom; the UK Non-Broadcast Advertising, Sales Promotion and Direct Marketing Code (the CAP Codes) applies to non-broadcast advertising, sales promotions and direct marketing communications

[8] The Codes use targeted content restrictions to ensure that gambling advertisements do not portray, condone or encourage gambling behaviour that is socially irresponsible or could lead to financial, social or emotional harm; exploit the susceptibilities, aspirations, credulity, inexperience or lack of knowledge of children, young persons or other vulnerable persons; suggest that gambling can be a solution to financial concerns; link gambling to seduction, sexual success or enhanced attractiveness; be of particular appeal to children or young persons, especially by reflecting or being associated with youth culture; feature anyone gambling or playing a significant role in an advert if they are under 25 years old (or appear to be under 25).

gambling advertising and is aligned with public opinion, although the limitations of the available evidence base were noted.[61,62]

Exposure to gambling advertising has increased dramatically in recent years.[34] It is almost impossible to measure the independent impact of advertising on the propensity toward problem gambling and under-aged participation in gambling; overall this is thought to be limited.[33] Overwhelmingly positive representations of gambling in advertising normalise gambling without acknowledging the potential risks associated with gambling behavior. While there is an argument for counter-advertising it is unlikely that this would be a cost-effective public health intervention to raise awareness of gambling related harm given the present volume of gambling advertising.[28] Nevertheless the extent to which people are able to make an informed choice about gambling, if they are not presented with information about the potential harms associated with gambling, is debatable.[57]

The gambling industry's Code (revised in August 2015 following) includes a requirement to have socially responsible gambling messages at the end of all television and radio advertisements with prominence given to gambleaware.co.uk in all print and broadcast adverts, the inclusion of 'no under 18s' message on all print and television advertisements, further restrictions on pre-watershed advertisements and new provisions relating to social media.[63] The Senet Group, founded by a consortium of major independent bookmakers including William Hill, Ladbrokes, Coral and Paddy Power, to promote responsible gambling standards and socially responsible marketing of gambling have committed to a voluntary ban on advertising sign up offers (free bets and free money) before the 9pm watershed, the withdrawal of all advertising of gambling machines from bookmakers windows, dedicating 20% of shop window advertising to responsible gambling messages, prominently featuring responsible gambling messages in straplines of advertisements and a responsible gambling social media campaign #BadBetty.[64] The effectiveness of these measures has yet to be demonstrated.

A considered review of international evidence on gambling related advertising concluded that the impact of advertising on problem gambling was likely to be "relatively small" in a mature market such as in the UK[9].[33] Consequently, it would be

[9] Binde notes that most gambling advertising is for forms of gambling that are typically not associated with gambling related harm, for example lotteries. He argues that a linear association between increasing advertising and increasing gambling participation is unlikely and that the effect of advertising on gambling behavior will be experienced differently in different markets. The combination of these factors means that the interaction between advertising and other normative and environmental factors will result in a small, but not negligible impact.

> "*unrealistic to expect that general advertising restrictions would in themselves have a great preventive effect on problem gambling*."[33]

Nor are 'play responsibly' messages embedded in gambling advertisements likely to greatly reduce any negative effects of advertising, although they may have an important role as part of a wider strategic approach to prevention and minimisation of gambling related harm.[33,60]

Limiting the expansion of gambling premises within communities, the density and spatial distribution of licensed premises, could be considered an action to create a supportive community as a primary prevention measure. The gambling licensing system in the UK as defined in the 2005 Gambling Act "aims to permit" gambling.[6] The Act is clear that demand, ergo existing provision, should not be considered in decisions regarding licensed premises. The public concern raised over geospatial clustering of FOBT in licensed premises has highlighted the limited powers available to licensing boards and the limited scope for community participation in the regulation of gambling through the current regulatory system.[25,26]

A number of groups have sought innovative solutions to this issue although as yet none have been tested. The London Health Inequalities Network have produced a framework for those licensing boards considering introducing cumulative impact statements to their local gambling licensing policies, a highly successful measure in the public health approach to alcohol control, to address the issue of clustering of licensed gambling premises.[65] The legality of this approach is unclear. From April 2016, gambling operators are required to undertake local area risk assessments to identify factors that may create a risk and demonstrate how these will be mitigated.[66] The Gambling Commission has encouraged licensing boards to produce local area profiles that could be embedded in licensing statements. A recent study successfully produced local area risk indices for vulnerability to gambling related harm in Westminster and Manchester using spatial analysis based on the characteristics of the people that live in each area and the types of services available in the area that might attract vulnerable people.[46] Demand and pre-existing supply of gambling operators was not considered. Modelling was dependent upon not just the empirical evidence around which groups are vulnerable to gambling related harm but also the availability of accessible local data for modelling. This is a promising approach because it operates out with the demand-supply paradigm. However it is likely that local public health departments in Scotland would need support developing such models, although a useful starting point would be considering what data is currently available and identifying the steps that could be taken to fill data and evidence gaps.
The Scottish Government has maintained that all powers in relation to gambling should be devolved, which would enable a strategic national approach to be taken to preventing gambling related harm. A recent Scottish Parliamentary Inquiry into FOBT supported this view.[25] The Parliamentary Inquiry noted that while licensing was

typically concerned with protecting the public health, a lack of devolved powers limited the utility of this approach. Opportunities to use devolved planning legislation to prevent further clustering gambling premises (and payday lenders) were identified. However these would require Scottish Ministers to place betting shops into a new planning class, an action that was consulted on, and rejected, by the Scottish Government in 2014.[67] In England, changes to planning legislation have reducing the number and type of premises that can be converted into licensed premises without planning consent. Without legislative change, scope for public health action to limit the expansion of gambling within local communities in Scotland within the existing licensing and planning regulatory frameworks may be limited to advocacy.

Secondary prevention

Secondary prevention interventions include a range of early intervention measures to prevent escalating risk and subsequent harm. Measures may include increasing awareness about harmful consumption, product based approaches to reduce the speed of play, prizes or stakes, measures to facilitate control such as pre-commitment tools, or measures to restrict access such as self-exclusions.

A recent UK based study examined the effectiveness of a range of product, operator and environmental harm minimisation measures.[57] The study noted that there is some evidence that the presentation of information that interrupts play and requires a gambler to engage in actions leading to self-awareness were relatively effective in modifying gambling behaviour compared to the provision of general information. However those most at risk gambling related harm are least likely to notice, engage with and use this information to modify play. A reluctance for gambling operators to proactively engage with customers exhibiting problematic gambling behaviour was noted with staff training in responsible gambling practice described as "inadequate".[57] Voluntary pre-commitment tools were identified as being of value to a minority of people experiencing gambling problems although uptake is currently low. The review found little evidence of the effectiveness of self-exclusion in the UK setting, with most self-excluders breaching their agreement and challenges in excluding from multiple operators. The review recommended a detailed examination of the technical, legal and operational issues around implementation of self-exclusion policies. The issue of restricting access to cash within gambling venues was considered although fell short of reaching an actionable recommendation. As of April 2016, The Gambling Commission requires all operators to have robust self-exclusion policies in place, and time and money limits offered on all FOBT in licensed premises.[65]

The review did not consider product specific features related to speed of play, prizes or stakes. A recent attempt to reduce the maximum prize money on FOBT using the 2007 Sustainable Communities Act was rejected by the UK Government.[67] In April 2015, implemented the Gaming Machines (Circumstances of Use) (Amendment) mandating that stakes of over £50 can only be made on a FOBT following discussion

with counter staff in a licensed premises, or through account based play.[68] Evaluation of the initiative demonstrated low uptake of verified player with players opting instead to reduce their stake but increase the duration of play.[69]

In the UK the ABB Code is a voluntary industry harm minimisation policy that commits to issuing clear, accessible information on responsible gambling, the use of pre-commitment voluntary time and money based limits, mandatory time and money-based pop up reminders, enhanced age verification, voluntary self-exclusion schemes and staff training in detecting problem gambling and brief interventions.[41] An evaluation of the ABB Code was carried out in the first 15 weeks following implementation on 1st March 2014, using data from FOBT in participating bookmakers.[41] The evaluation described a typical FOBT session of 9 minutes, with 33–39 consecutive plays in which approximately £45 was staked and around £7 lost. Uptake of voluntary time and money-based limits was extremely low; just 0.27% of session included the use of pre-commitment tools in the first week that the ABB Code was implemented, falling to 0.04% of sessions in week 15. AT the level of an individual bookmakers, the average number of voluntary money limits in the first week was 1.3, falling to 0.19 in week 15; corresponding figures for voluntary time limits were 0.68 and 0.10 respectively. Voluntary time limits ranged from 38–48 minutes and voluntary spend limits £350 - £450; only 12–15% of players reached their pre-set time limit and 20 -25% of players their pre-set money limit. On reaching their voluntary money limit approximately half of players stopped playing immediately compared to up to 80% of player who reached their time limit. Approximately 95% of sessions were within mandatory spend limits and 90% within mandatory time limits. On reaching mandatory money limits just 4% of people stopped playing immediately, 6% on reaching their mandatory time limit. A customer reaching a voluntary or mandatory pre-set limit often triggers a staff-customer interaction. Between December 2013 and June 2014 a 3,800% increase in customer interactions was observed, from 12,349 to 482,078. A 35% increase in the number of voluntary self-exclusions was observed over the same period from 4,700 to 6,328. Awareness of responsible gambling initiatives increased after the ABB Code was launched, however most players felt these were not relevant to them, but applied only to problem gamblers. Whilst the evaluation was able to demonstrate some early impact, uptake was extremely poor and the perception that responsible gambling strategies were only relevant to problem gambling was a significant barrier to engaging customers. The medium and long-term impacts of the ABB Code have yet to be described.

In summary there are a range of secondary prevention measures which have been adopted either through licensing requirements of voluntary codes of practice by gambling operators. The effectiveness of these measures remains to be proven. A voluntary agreement or statutory requirement for gambling operators to share their data would allow robust independent evaluation to inform practice and policy.

Tertiary prevention

In Scotland, support and treatment services for those experiencing problems with gambling are almost exclusively provided via the third sector, largely funded through the RGT; 77% of the RGT budget is allocated to the commissioning of support and treatment services.[18,49] The largest service providers include Gamblers Anonymous, a self-help group network, GamCare, which provides services through partner agencies, and Gamble Aware, an Internet based resource. The RGSB note that waiting lists for RGT treatment services are short which may indicate limited demand for services. Many people who experience problems with gambling do not identify themselves are problem gamblers.[18] Among those that do, self-management strategies are common and for some, treatment directed at reciprocal comorbidities, may be sufficient to address issues related to problem gambling.[18] The level of unmet need for support and treatment services in unknown; it is anticipated that a significant number of people who would benefit from treatment are not currently receiving it.[18] There are limitations to current treatment provision, namely lack of a defined model of care, lack of integrated pathways to care and limited engagement with other services, for example primary care, specialist addictions and mental health services.[70] A 2007 report by the British Medical Association called for the provision of treatment for problem gambling to be brought into the National Health Service although there has been little progress toward this goal.[71] Screening tools to identify problem gamblers are available for use in primary care. The Lie/Bet tool is recommended by the Royal College of General Practitioners, who have also produced an e-learning resource to support colleagues in primary care.[72] The recent implementation of a data reporting framework to capture core information from all treatment services funded through the RGT National Problem Gambling Service will allow independent evaluation of the reach, effectiveness and cost-effectiveness of support and treatment services to guide the development of equitable, sustainable services and drive quality improvement.[18] This is an area where the skills and expertise of the public health community could provide add considerable value to existing efforts.[18]

10. Conclusions and recommendations

Individuals, communities and wider society experience a range of benefits, as well as harms associated with gambling; neither is equally distributed. There is a compelling argument, and growing support for, framing gambling as a public health issue in Scotland. Progress toward this has been hampered by a number of factors. There is a lack of conceptual clarity among key stakeholders around what a public health approach to gambling in the UK context could, and should, look like. The evidence base to inform practice and policy is limited and gambling research has been described as an "*insular and uncritical homogenous field*" reliant on industry funding and lacking ethical transparency. Tripartite alliances between the gambling industry, academia and Government have maintained the focus of research, practice and

policy on the individual problem gambler rather than gambling products, gambling environments or the wider determinants of gambling related harm whilst promoting a responsible gambling narrative underpinned by limited evidence base that risks stigmatising those experiencing harm from gambling.
Legislation has liberalised the gambling market in Scotland, and normalised gambling as a legitimate recreational activity. The expansion in exposure to, and availability of, gambling has been rapid and sustained. There is little evidence that this has resulted in additional harm, although the metrics used to estimate gambling related harm at population level are, at best, crude and are likely to underestimate the true extent and nature of gambling related harm.

The place of gambling in our society is a contentious, emotive issue. In the absence of robust evidence base to underpin policy the regulation of gambling is advocated on a continuum from maximum consumer choice to prohibition largely with a moral dimension to arguments. The way the social issues are framed direct affects public policy debates. As an important actor, the public health community in Scotland must, through open, inclusive, informed and critical debate, reach a consensus on where its position lies in order to be an effective advocate.

Whilst there are parallels with public health approaches adopted to address the harmful consumption of other unhealthy commodities such as tobacco and alcohol, it is unlikely that policy initiatives from these areas will be directly applicable to gambling. More promising is the opportunity to learn from the approach that other unhealthy commodity industries, academic and Government have taken to protecting their commercial interests and the corresponding actions from the public health community that have achieved change.

Despite a limited evidence base some countries have developed policies for the prevention of gambling related harm articulated through a public health lens. Evaluations are rare and the applicability of these approaches in the Scottish context is questionable. Nevertheless opportunities to learn from our international colleagues should be sought.

Public health is an empirical, evidence based science. The absence of evidence does not negate action, rather necessitates interpretation of nuance, reasonable inference and ethical decision-making followed by careful monitoring and evaluation of practice and policy and adaptive learning. Perhaps the most important role of the public health community in the current context will be in acting as an independent voice advocating evidence-based or evidence generating where theory based policy, transparency in setting research priorities, access to relevant industry data and independent funding, rigour in the conduct and interpretation of research and evaluation, supporting community participation in the regulation of gambling, developing interventions, programmes and services aligned with local needs,

preferences and priorities, and reframing the public discourse that has focused on the problem gambler. In a whole system population approach individuals, communities, professionals, academics, industry and government work as equal partners with shared responsibilities toward achieving goals. Partnership working will be central to the success of public health approach given the need to interpret theory and academic evidence in the context of the legal, regulatory and operational frameworks within which the gambling operators work. Crucially, the gambling industry has shown an increasing willing to engage with social responsibility practices and policies and the RGSB have called for the public health community to contribute their skills, resources and influence to work collaboratively with partner agencies to deliver this agenda.[18] Whilst the public health community must be mindful of the competing interests of others, this should not preclude building relationships to create inter-sectoral capacity and commitment to advance policy, research and practice in preventing gambling related harm.
We recommend that:

- The Scottish Directors of Public Health recognise gambling related harm as a public health issue
- The Scottish Directors of Public Health encourage an open, inclusive, informed and critical debate in Scotland toward reaching a consensus within the public health community on the place of gambling in our society.
- A national health needs assessment of gambling related harm in Scotland would be a useful step toward engaging key stakeholders to formulate a comprehensive, collective response to the prevention of gambling related harm in our communities, articulated through a public health lens.

11. Acknowledgements

The following individuals were consulted in the preparation of this document. Their essential contributions is gratefully acknowledged.

- Phil Mackie, Lead Consultant, Scottish Public Health Network
- Gabe Docherty, Health Promotion Manager, NHS Lanarkshire
- Elizabeth Smart, Consultant in Public Health, NHS Highland
- Dr Catherine Chiang, Consultant Public Health, NHS Greater Glasgow & Clyde
- Cllr. Paul Rooney, Glasgow City Council
- Mhari Millar, Licensing Board, City of Glasgow
- Prof Gerda Reith, University of Glasgow
- Prof Jane Rigbye, Director of Commissioning (Treatment and Harm Minimisation), Responsible Gambling Trust

12. References

1. The Scottish Health Survey 2014. The Scottish Government, Edinburgh. September 2015. Accessed online at http://www.gov.scot/Publications/2015/09/6648 on 30/06/16
2. Family Spending, 2013 Edition. The Office for National Statistics. Accessed online at http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/rel/family-spending/family-spending/2013-edition/index.html on 30/6/16.
3. .Input-Output Tables 1998-2011. The Scottish Government, Edinburgh. August 2014. Accessed online at http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/InputOutput/Downloads/IO1998-2011All on 30/6/16.
4. The Financial Scrutiny Unit SPICe Briefing: Gambling in Scotland. The Scottish Parliament, Edinburgh. December 2014. Accessed online at http://www.parliament.scot/ResearchBriefingsAndFactsheets/S4/SB_14-89_Gambling_in_Scotland.pdf on 30/6/16
5. Information accessed at http://www.lotterygoodcauses.org.uk/ on 30/6/16.
6. The Gambling Act 2005. Accessed online at http://www.legislation.gov.uk/ukpga/2005/19/pdfs/ukpga_20050019_en.pdf on 30/6/16.
7. Gambling related harm: a review of the scope for population health intervention. Thorpe, A., Miller, C. The Scottish Public Health Network, June 2014. Accessed online at http://www.scotphn.net/wp-content/uploads/2015/09/2014_06_30_ScotPHN_Gambling_Related_Harm_FINAL1.pdf on 30/6/15.
8. Problem Gambling Institute of Ontario. Accessed at https://www.camh.ca/en/hospital/health_information/a_z_mental_health_and_addiction_information/problemgambling/Pages/default.aspx on 30/6/16.
9. Pathological gambling: A review of the literature (prepared for the American Psychiatric Association Task Force on DSM-IV Committee on disorders of impulse control not elsewhere classified). Lesieur H.R, Rosenthal M.D. Journal of Gambling Studies. 1991;7(1):5-40.
10. American Psychiatric Association. *Substance-related and Addictive Disorders.* 2001. Accessed online at http://www.dsm5.org/Pages/Default.aspx. on 30/6/16.
11. Understanding gambling related harm: a proposed definition, conceptual framework, and taxonomy of harms. *Langham E., et al. BMC Public Health 2016;16:80.*
12. Problem Gambling in the UK: Implications for Health, Psychosocial Adjustment and Health Care Utilization. Cowlishaw, S., Kessler, D. European Addiction Research. 2016;22(2):90-98.
13. Productivity Commission. Gambling: Productivity Commission Inquiry Report. Canberra (AUST): Commonwealth of Australia. 2010.
14. Introducing the Canadian Problem Gambling Screen. Edmonton, Canada: Wynne Resources. Wynne H.J. 2003.
15. Preventive interventions for problem gambling: A public health perspective. Rodgers, B., *et al.* February 2015. Accessed online at http://www.gamblingandracing.act.gov.au/__data/assets/pdf_file/0009/745047/Formatted-Final-PI-Report-for-publication.pdf on 30/06/16.
16. The Scottish Health Survey 2012. The Scottish Government, Edinburgh. Accessed online at http://www.gov.scot/Publications/2013/09/3684/16 on 30/6/16.
17. Gambling behavior in England and Scotland: Findings from the Health Survey for England 2012 and the Scottish Health Survey 2012. Wardle, H., *et al*. NatCen on behalf of The Gambling Commission. 2014. Accessed online at http://www.gamblingcommission.gov.uk/pdf/gambling%20behaviour%20in%20england%20scotland%2010072014.pdf on 30/6/16.
18. The National Responsible Gambling Strategy 2016-17 to 2018-19. The Responsible

Gambling Strategy Board. London. April 2016. Accessed online at http://www.rgsb.org.uk/ on 30/06/16.
19. The Prevalence of Underage Gambling: A research study among 11 to16 year-olds. Ipsos MORI on behalf of the Gambling Commission Young People Omnibus 2014. Accessed online at http://www.natlotcomm.gov.uk/assets-uploaded/documents/The%20Prevalence%20of%20Underage%20Gambling%20December%202014.pdf on 30/6/16.
20. Children and Young People's Gambling: Research Review. The Responsible Gambling Trust, London. Valentine G. 2016. Accessed online at http://www.responsiblegamblingtrust.org.uk/media/1274/1-june-update-children-young-people-literature-review.pdf on 30/6/16.
21. Gambling in Britain: the application of restraint erosion theory. Orford J. Addiction. 2012; 107:2082–2086.
22. DCMS response to the Gambling Review Body recommendations, A Safe Bet for Success, Section 7.1.
23. Conceptual Framework of Harmful Gambling: An International Collaboration. Abbott, M., et al. The Ontario Problem Gambling Research Centre (OPGRC), Guelph, Ontario, Canada. 2013.
24. What are the most harmful forms of gambling? Analyzing problem gambling prevalence surveys. Binde P. CEFOS Working Paper 12. 2011. Accessed online at http://www.utbildning.gu.se/digitalAssets/1327/1327132_cefos-wp12.pdf on 30/6/16.
25. Local Government and Regeneration Committee Inquiry into Fixed Odds Betting Terminals. The Scottish Parliament, Edinburgh. December 2015. Accessed online at http://www.parliament.scot/S4_LocalGovernmentandRegenerationCommittee/Reports/LGRS042015R06.pdf on 30/6/16.
26. Glasgow City Council Call for Written Evidence on Inquiry into Fixed Odds Betting Terminals. August 2015. Accessed at http://www.parliament.scot/S4_LocalGovernmentandRegenerationCommittee/Inquiries/12_-_GlasgowCityCouncil.pdf on 30/6/16.
27. 'Risky Places?': Mapping Gambling Machine Density and Socio-Economic Deprivation. Wardle, H., *et al*. Journal of Gambling Studies. 2014;30(1):201-212.
28. The comparative effectiveness of regulatory approaches and the impact of advertising on propensity fro problem gambling. Planzer, S., Wardle, H. The Responsible Gambling Fund, London. 2011.
29. Disabling the public interest: gambling strategies and policies for Britain. Orford J. Addiction. 2005;100:1219-1225.
30. Laying the foundation for quantifying regional exposure to social phenomena: Considering the case of legalized gambling as a public health toxin. Shaffer, H. J., *et al*. Psychology of Addictive Behaviors. 2004;18(1):40–48.
31. The population prevalence of problem gambling: Methodological influences, standardized rates, jurisdictional differences, and worldwide trends. Williams, R. J., *et al*. Guelph: Ontario Problem Gambling Research Centre, Canada.
32. Selling dreams – causing nightmares? On gambling advertising and problem gambling. Binde P. Journal of Gambling Issues. 2007;20:167-192.
33. Gambling advertising: A critical research review. Binde P. The Responsible Gambling Trust, London. 2014.
34. Trends in advertising activity – gambling. Ofcom. November 2013. Accessed online at http://stakeholders.ofcom.org.uk/binaries/research/tv-research/Trends_in_Ad_Activity_Gambling.pdf on 30/06/16.
35. Regulatory containment and market control. Light R. The Modern Law Review. 2007;70(4):636-653.
36. Vested interests in addiction research and policy poisonous partnerships: Health sector buy-in to arrangements with Government and addictive consumption industries. Adams, P., *et al*. Addiction. 2010;105(4):585-590.

37. Associations between national gambling policies and disordered gambling prevalence rates within Europe. Planzer, S., *et al.* Int J Law Psychiatry. 2014;37(2):217-29
38. A public health perspective for youth gambling. International Gambling Studies 4 Messerlian, C., *et al*. 2004;4:147-160.
39. A science-based framework for responsible gambling: The Reno Model. Blaszczynski, A., *et al.* Journal of Gambling Studies. 2004;20:301-317.
40. Minimising harm from gambling: what is the gambling industry's role? Griffiths, M.D. Addiction. 2009;104:696-697.
41. Responsible gambling initiatives and preliminary evaluation of the ABB Code of Conduct. Griffiths, M.D. Nottingham Trent University. Accessed online at http://abb.uk.com/wp-content/uploads/2014/09/Responsible-Gambling-Initiatives-Preliminary-Evaluation-of-the-ABB-Code-of-Conduct.pdf on 30/06/16.
42. Gambling beneficiaries re having their cake and eating it: The attractions of avoiding responsible gambling regulation. Adams, P., *et al*. Addiction. 2009;104:697-698.
43. Fair game: producing gambling research. The Goldsmith Report. Cassidy, R., et al. University of London. 2013.
44. Industry sponsorship and research outcome. Lundh, A., *et al*. The Cochrane Database of Systematic Reviews. 2012. Issue 12.
45. Framing public policy toward a public health paradigm for gambling. Korn, D., *et al.* Journal of Gambling Studies. 2003;19(2):235-256.
46. Exploring area-based vulnerability to gambling-related harm: Developing the gambling-related harm risk index. Wardle, H., *et al*. Geofutures. 2016. Accessed online at http://www.geofutures.com/research-2/gambling-related-harm-how-local-space-shapes-our-understanding-of-risk/ on 30/06/16.
47. Problem gambling Frequently Asked Questions: Briefing for councillors. Public Health England. London. 2013. Accessed online at http://www.local.gov.uk/documents/10180/11463/Problem+gambling+-+frequently+asked+questions+-+briefing+for+councillors/21f6fef7-8d62-4edd-a535-a42244d4e50f on 30/06/16.
48. Public health and gambling related harm – A public health issue? Responsible Gambling Trust position paper. September 2015. Accessed online at http://www.responsiblegamblingtrust.org.uk/media/1076/position-paper-public-health-for-website.pdf on 30/6/16.
49. New arrangements for prioritising, commissioning, funding and evaluating research, education and treatment: Statement of intent. Gambling Commission, Responsible Gambling Trust, Responsible Gambling Strategy Board, August 2012.
50. Gambling and the health of the public: adopting a public health perspective. Korn, D. A., Shaffer, H. J. Journal of Gambling Studies. 1999;15:289-365.
51. World Health Organisation. Ottawa Charter for health promotion. Health Promotion. 1986;1(4):i-v.
52. Preventing and Minimising Gambling Harm: Six-year strategic plan 2010/11–2015/16. Ministry of Health, Wellington. 2010. Accessed online at http://www.health.govt.nz/system/files/documents/publications/gambling-harm6yr-plan-12may.pdf on 30/6/16.
53. Using a public health approach in the prevention of gambling related harm. Victorian Responsible Gambling Foundation, Australia. May 2015. Accessed online at https://www.responsiblegambling.vic.gov.au/__data/assets/pdf_file/0017/27071/Copy-of-CD-16-116002-Part-C-Public-health-approach-Background-Paper.PDF on 30/6/16.
54. Gambling Policy in Sweden. Accessed online at http://www.government.se/government-policy/gambling-policy/objective-of-gambling-policy/ on 30/6/16.

55. A tale of missed opportunities: pursuit of a public health approach to gambling in New Zealand. Adams, P. J., Rossen, F. Addiction 2012;107:1051-1056.
56. Recommendations for international gambling harm-minimisation guidelines: comparison with effective public health policy. Gainsbury, S.M., *et al*. J Gambling Studies. 2014 Dec;30(4):771-88.
57. Operator-based approaches to harm minimisation in gambling: Summary, review and future directions. Blaszczynski A., et al. The Responsible Gambling Trust, London. 2014.
58. Gambling advocacy: lessons from tobacco, alcohol and junk food. Thomas, S.L., *et al*. Australian and New Zealand Journal of Public Health. 2016;40(3):211-217.
59. Social capital and health. Campbell, C.S., *et al.* Health Education Authority, London. 1999.
60. Gambling advertising Review of the ASA's application of the UK Advertising Codes October 2014. Accessed online at https://www.asa.org.uk/News-resources/Media-Centre/2014/~/media/Files/ASA/Reports/Review%20of%20the%20ASA's%20application%20of%20the%20UK%20Advertising%20Codes%20to%20gambling%20advertising.ashx on 30/06/16.
61. CAP and BCAP Gambling Review An assessment of the regulatory implications of new and emerging evidence for the UK Advertising Codes. 2014. Accessed online at https://www.cap.org.uk/News-reports/Media-Centre/2014/~/media/Files/CAP/Reports%20and%20surveys/CAP%20and%20BCAP%20Gambling%20Review.ashx on 30/06/16.
62. Gambling industry code for socially responsible gambling advertising. August 2015. Accessed online at http://www.gamblingcommission.gov.uk/pdf/Industry-code-of-practice.pdf on 30/06/16.
63. The Senet Group Responsible Gambling Standards. Accessed online at https://senetgroup.org.uk/responsible-gambling/ on 30/06/16.
64. Responding to the cumulative impact of betting shops A practical discussion guide for London boroughs. London Health Inequalities Network. July 2013. Accessed online at http://www.lho.org.uk/Download/Public/18207/1/LHIN%20CIPS%20for%20betting%20shops%20July%202013.pdf on 30/06/16.
65. Gambling Commission (2015) *Licence conditions and codes of practice*. Birmingham: Gambling Commission. Accessed online at http://www.gamblingcommission.gov.uk/pdf/Latest-LCCP-and- Extracts/Licence-conditions-and-codes-of-practice.pdf. On 30/06/16.
66. Planning Controls, Pay Day Lending and Betting Offices - Analysis Report. The Scottish Government, Edinburgh. 2014. Accessed online at http://www.gov.scot/Publications/2015/02/8755on 30/06/16.
67. Newham's Sustainable Communities Act proposal and betting shop campaign. Accessed online at https://www.newham.gov.uk/Documents/Misc/SustainableCommunitiesActBettingShopCampaign.pdf on 30/06/16.
68. Gaming Machine (Circumstances of Use) (Amendment) Regulations 2015 (SI 2015/121)
69. Evaluation of Gaming Machine (Circumstances of Use) (Amendment) Regulations 2015 Department for Culture, Media & Sport. London. 2016. Accessed online at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/493714/Evaluation_of_Gaming_Machine_Circumstances_of_Use_Amendment_Regulations_2015.pdf om 30/06/16.
70. Problem gambling treatment within the British National Health Service. Rigbye, J., Griffiths, M.D. Journal of Mental Health and Addiction. 2011;9;276-281.
71. Gambling addiction and its treatment within the NHS. Griffiths, M.D. The British Medical Association. 2007.

72. Royal College of General Practitioners Gambling Related Harm e-learning available online at www.rcgp.org/revalidation-and-cpd/substance-misuse-and-assoicated-health/gambling-related-harm.aspx accessed on 30/06/15.

ScotPHN report

For further information contact:
ScotPHN
c/o NHS Health Scotland
Meridian Court
5 Cadogan Street
Glasgow
G2 6QE

Email: nhs.healthscotland-scotphn@nhs.net
Web: www.scotphn.net
Twitter: @NHS_ScotPHN