Public Health 184 (2020) 56–59

Contents lists available at ScienceDirect

Public Health

journal homepage: www.elsevier.com/locate/puhe

Themed Paper — Review

Gambling and gambling-related harm: recent World Health Organization initiatives

M.W. Abbott

Auckland University of Technology, Faculty of Health and Environmental Sciences, North Campus, AG Building, 90 Akoranga Drive, Northcote, Auckland, 0627, New Zealand

ARTICLE INFO

Article history:
Received 18 September 2019
Accepted 2 April 2020
Available online 30 April 2020

Keywords:
Gambling
Gambling-related harm
WHO public health

ABSTRACT

Objectives: There has been unprecedented growth in commercial gambling. Increasingly gambling has migrated to the Internet and become readily accessible via mobile devices. Gambling disorder and gambling-related harm present a significant global public health challenge. To date, few jurisdictions have included gambling in health policies and addressed gambling-related harm within a comprehensive public health framework. The purpose of this study is to examine recent developments at the global level that may change this.

Study design: This is a narrative review and examination of meeting content and outcomes.

Methods: Relevant literature was reviewed, and the content and outcomes of recent International Think Tank on Gambling Research, Policy and Practice and World Health Organization (WHO) meetings were identified, summarised and discussed.

Results: Although gambling disorder was included in the International Statistical Classification of Diseases in 1975, relatively little attention has been given to assessing wider gambling-related harms and addressing them within a public health framework. In recent years, this has changed with the first gambling studies to use burden of disease methodologies and the development of harm classifications and conceptual frameworks. This research has strengthened calls for gambling to be included in public health agendas. While few member states have done this, in the past few years gambling has received increased attention from the WHO. This includes its placement alongside alcohol and drugs in 2017 and 2019 WHO global forums and annual WHO meetings on public health implications of addictive behaviours. These and planned WHO meetings and activities are laying the groundwork for a WHO international gambling programme and work plan.

Conclusion: A significant start has been made to address gambling disorder and gambling-related harm as an important global health issue. This has potential to encourage member states to explicitly include gambling in national and subnational public health plans. However, this progress may be precarious and is likely to require concerted advocacy and support from academic and other civil society organisations to sustain.

Gambling availability, participation and expenditure have increased in unprecedented ways. Commercial gambling has been a major growth industry for over three decades.[1] While plateauing in some jurisdictions, in others gambling markets are rapidly expanding. Around 80% of global gambling expenditure (consumer losses) is on land-based activities. However, online participation and expenditure have increased markedly. In some countries, for example, Sweden, half the market is now online.[2] Gambling forms and ways of promoting and accessing them are rapidly changing. Online gambling is increasingly accessed via smart phones. Gambling is now heavily promoted online in social media. During the past few years, there has been a rapid convergence of gambling and gaming.[3] Gambling increasingly includes gaming themes, and games increasingly include gambling and gambling-like elements. Approximately half of Facebook games contain gambling content.[4] Convergence is particularly marked in online social casino games ('gambling' not for money) and in online sports betting that is being integrated with virtual and eSports, immersive reality, fantasy sports, sports media and in-venue betting.

E-mail address: max.abbott@aut.ac.nz.

https://doi.org/10.1016/j.puhe.2020.04.001
0033-3506/

Increased gambling availability and participation have been associated with substantial increases in the prevalence of gambling disorder, associated morbidities and other gambling-related harm.[2] Adult past year rates of current gambling disorder range from 0.2% to 5.3%, with around two to three times as many people experiencing less serious subclinical problems.[5,6] The first gambling studies to use burden of disease methodologies concluded that the gambling-related burden of harm significantly exceeds harm attributed to drug dependence and a number of common chronic physical diseases.[7,8] A substantial body of research indicates that gambling disorder and harms are disproportionately experienced by particular groups including those that are economically and socially disadvantaged.[9] It is likely that gambling and problem gambling also exacerbate other health and social disparities and inequities.

Gambling is regulated by governments to varying degrees, and many jurisdictions support measures to promote responsible gambling and assist problem gamblers. Gambling industries have also introduced some measures intended to assist, or give the impression of assisting, at-risk and problem gamblers. Recent reviews of government and industry strategies concluded that although a number of measures have some effectiveness, most research is of poor quality and the evidence base is weak.[10,11] A recent review and critique concluded that for the most part, governments have generally failed to implement regulatory and public health measures that effectively reduce gambling-related harm.[12] They attribute this largely to inherent conflicts involved when the state is the gambling provider (directly or by allowing others to provide gambling), the regulator and a significant beneficiary. Reviews of responsible gambling and prevention and measures are consistent with this assessment.[13–15] They conclude that the most commonly implemented interventions are the least effective.

In recent years, gambling has increasingly been considered within a public health framework. Large-scale prospective studies have been completed in a number of jurisdictions, and epidemiological research has extended beyond a focus on clinical and subclinical gambling disorder to include a wide spectrum of gambling-related harm at individual, family, community and societal levels.[2,16–18] Growing awareness of the extent of gambling-related harm has contributed to calls for the adoption of formal legislative and public health policies that address the major determinants of gambling-related harm.[12,19] Given likely barriers to widespread adoption of strong consumer protection and public health interventions, Hancock and Smith[12] called for the establishment of an international coalition to champion and drive change. Because of the transnational and corporate interests in the gambling industries, they suggested that a World Health Organization (WHO) instrument with reference to the Sustainable Development Goals (SDGs) could assist in promoting this approach.

Gambling disorder (then referred to as pathological gambling) has been included in the WHO International Statistical Classification of Diseases and Related Health Problems (ICD) since 1975. It was included in the American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders (DSM) in 1980. Despite this early recognition and substantial bodies of research from ensuing decades indicating the extent of problem gambling, it is only in the past few years that the WHO has begun to focus attention on gambling and gambling-related harm. With few exceptions, member states have not, to date, formally addressed gambling within a public health framework.

New Zealand is an exception. Since 2004, harm reduction, broadly defined, has been a legislative requirement.[20] The Ministry of Health is responsible for developing and implementing a strategy to prevent and minimise gambling-related harm. The strategy must include measures to promote public health and prevent and minimise harm from gambling, support and treatment services; independent scientific research and evaluation. The Department of Internal Affairs has responsibility for the regulatory aspects of gambling-related harm prevention and minimisation. The annual government budget for the strategy from 2019 to 2022 is $NZ 20 million per annum.[20] This is more than double UK expenditure on gambling treatment, education and research.[21] The UK has a population of 65 million, and New Zealand, 4.7 million. In the UK, gambling policy is the responsibility of the Department for Digital, Culture, Media and Sport, not the Department of Health and Social Care. Services are rudimentary, and their funding comes from voluntary gambling industry contributions. This year, the Gambling Commission has produced the National Strategy to Reduce Gambling Harms.[22] This new strategy takes a public health approach and aims to reduce adverse impacts from gambling on the health and well-being of individuals, families, communities and society. The National Health Service (NHS) long-term plan, also released this year, refers to increasing treatment provision for gambling.[23] Currently, there is only one NHS clinic.

Recent WHO interest in gambling disorder and gambling-related harm coincided with the revision of the ICD-10 and decision to move gambling disorder from the Habit and Impulse Disorders category to the new Substance Use and Related Disorders chapter. In the ICD-11, gambling disorder and the new diagnostic entity gaming disorder are the only two behavioural addictions included in this chapter.[24] Before this, the DSM-5 also included gambling disorder with substance use disorders.[25] While it did not include gaming disorder here, Internet gaming disorder was considered in a section on 'conditions for further study'. The decision to group gambling disorder alongside substance use disorders in the DSM-5 and ICD-11 was based on extensive research, indicating many commonalities between problem gambling and substance use disorders. This included substantial bodies of epidemiological, clinical, neurobiological, neuropsychological, biochemical and genetic research.[26] The DSM-5 committee considering addictions was of the view that the research base for internet gaming disorder was not sufficiently robust to accept it as a diagnostic entity. In contrast, over a decade later, the relevant ICD-11 working group concluded that there were sufficient grounds to both recognise it as a diagnostic entity and include it alongside gambling disorder and substance use disorders.[26] This decision was contested by gaming industry organisations and a number of academicians.[27] Both gambling disorder and gaming disorder are subdivided into two types, predominantly offline and predominantly online.

In 2017, behavioural addictions were for the first time included in what was previously the WHO Global Forum on alcohol and drugs. The WHO Forum on alcohol, drugs and behavioural addictions was held at the WHO headquarters in Geneva (26–28 June 2017).[28] The Forum's primary goal was to enhance public health actions in relation to alcohol, drugs and addictive behaviours by strengthening partnerships and collaboration among public health–oriented organisations, networks and institutions in the era of Sustainable Development Goals (SDG 2030). Three targets of SDG goal 3 were seen as relevant. Target 3.5 sets a commitment by governments to strengthen the prevention and treatment of substance abuse. Target 3.4 involves a similar commitment to prevent and treat non-communicable diseases and promote mental health. Target 3.8 is achieving universal health coverage. The Forum opening and closing sessions made reference to gambling. The gambling presentation in the opening plenary included a call to place gambling disorder and gambling-related harm on global and national public health agendas and strengthen evidence-based policy and prevention strategies. It also called for greatly extending early intervention and treatment provision. This call was

amplified in a related background paper distributed before the Forum.[29]

While not previously considered together with alcohol and drugs, from 2014 to 2018, WHO convened separate annual meetings on public health implications of addictive behaviours. These meetings were initiated primarily in response to WHO collaborating centres, clinicians, academicians and others concerned about public health impacts of excessive use of the Internet, computers and similar electronic devices. Internet gaming disorder became the major focus of these deliberations.[27] This contributed to the decision to include gaming disorder in the ICD-11. Following the WHO Global Forum on alcohol, drugs and behavioural addictions, the fourth WHO meeting on public health implications of addictive behaviours (Istanbul, 29 November – 1 December 2017) included gambling.[30] It focussed predominantly on gambling and gaming and their growing convergence. Major topics, apart from convergence, included public health impacts of gambling and gaming, field testing of the addictive behaviours diagnostic categories in the draft ICD-11, the conceptual and clinical validity of gambling and gaming disorders, assessment, screening and diagnostic tools for gaming and gambling disorders. The meeting also discussed a plan to develop screening and diagnostic instruments under WHO auspices, international collaborations and public health–oriented partnerships and potential additional WHO-supported international activities.

Dr Vladimir Poznyak, the senior WHO addictions official, gave a keynote address at the International Gambling Conference (Auckland, 12–15 February 2018) and participated in the following International Think Tank on Gambling Research, Policy and Practice (Auckland, 16–17 February 2018).[31] International Think Tanks have been held annually since 2004, involving 50–70 invited participants from 10 to 15 countries. Initially the focus was on developing gambling policy, services and research in relation to presenting gambling populations. In 2008, the focus shifted from early intervention and treatment to increasing knowledge and collaboration with respect to the understanding of gambling as an issue for public health and social and economic development. At this stage, participation was open to members of major stakeholder groups including 'socially concerned' gambling industry participants.

In 2017, the Think Tank vision changed to provide a more explicit public health emphasis.[31] The current Think Tank vision is 'an international network of researchers, policy makers, service providers and interested others collaborating to advance understanding of gambling and to reduce gambling-related harm.' This was formally adopted at the 2018 Think Tank. The Think Tank purpose was also modified at that meeting. Its purpose is to (1) address globally significant issues and developments in gambling policy, services and research; (2) foster international collaboration; and (3) identify, develop and promote evidence-informed legislative frameworks, policies and practices to reduce gambling harm.[31] At the 2018 meeting, it was decided not to include gambling industry participants. This does not preclude separate meetings with industry representatives to discuss particular issues relevant to the Think Tank, e.g., host responsibility and consumer protection.

Major topics covered at the 2018 Think Tank included strategies to get gambling onto the WHO and member states' public health agendas, low-risk gambling guidelines, recent gambling harms research, broadening gambling studies, critiques of the Reno responsible gambling model and online interventions. Outcomes included the Auckland Code, an ethical framework for gambling research. Working groups were also established for gambling public health advocacy, ethical issues, critical gambling studies and early career research networking. A further working group was set up to foster knowledge exchange and translation. This included developing a clearing house linked to the Gambling Research Ontario Conceptual Framework of Harmful Gambling.

The fifth WHO Meeting on the public health implications of addictive behaviours (Changsha, 22–24 November 2018)[30], similar to the 2017 Istanbul meeting, had significant coverage of gambling disorder and gambling-related harm. A number of participants, including the convenor, had taken part in the 2017 and 2018 International Gambling Think Tanks. As with the 2017 Istanbul meeting, the meeting focussed predominantly on gaming and gambling. Major topics included developments in behavioural addictions in represented jurisdictions, the diagnostic validity of gaming disorder, clinical description and diagnostic guidelines for disorders due to addictive behaviours, the public health implications of gaming and gambling and the convergence of gambling and gaming. It also included an update on the WHO project on the development of new international screening and diagnostic instruments for gaming disorder and gambling disorder. In addition, there was discussion on the development of other potential WHO-led initiatives on the public health implications of addictive behaviours.

The World Health Assembly (Geneva, 20–26 May 2019) adopted the ICD-11.[23] This includes the new addictive disorders section that groups substance and behavioural addictions together. Despite strong opposition and lobbying from industry and other groups, gaming disorder was included alongside gambling disorder.

The second WHO Forum on alcohol, drugs and addictive behaviours was held in Geneva from 27 to 28 June 2019.[32] It built on deliberations and outcomes of the 2017 Forum and sought to increase impetus to international activities led or implemented by the WHO in reducing the health and social burden associated with substance use and addictive behaviours. Most Forum sessions were plenaries. While alcohol, drug use and addictive behaviours were addressed separately in the plenaries, emphasis was placed on cross-cutting issues and commonalities. There were also three separate parallel sessions on alcohol, drugs and gambling and gaming. The gambling and gaming stream included a seminar on the public health implications of gambling-gaming convergence. Reports from the three parallel sessions were presented at the Forum closing plenary.

The sixth WHO Meeting on the public health implications of addictive behaviours will be held in Abu Dhabi (8–10 November 2019). Significantly, for the first time, gambling will be addressed separately in a WHO meeting in Istanbul in early December 2019. The major purpose of this meeting will be to explore possibilities for the development of a WHO gambling disorder and gambling-related harm work plan. This would build on work already being undertaken to develop screening and diagnostic instruments.

Recent WHO activities are important. The inclusion of gambling and gaming disorder in the same category as substance use disorders in the ICD-11 and their placement alongside alcohol and drugs at the two WHO international forums has profiled gambling and gambling-related harm as a globally significant public health issue. This is reinforced by the plan to develop internationally validated screening and diagnostic measures for gambling disorder. It signifies that gambling is part of the global health agenda. WHO recognition is likely to assist in getting member states to include gambling in national public health policies and plans. Given that gambling is rapidly migrating to the digital world and converging further with gaming, national boundaries become less relevant. Effective public health interventions will need to be international as well as national in scope. It would be timely to consider developing a WHO Framework Convention on Gambling Control, similar to the Convention on Tobacco.

While a start has been made and the upcoming Istanbul meeting is expected to result in a WHO gambling work plan, there is a long

way to go. The WHO significantly engages with wider civil society including non-governmental organisations and academic, professional and consumer organisations. These groups can and do influence policy. However, the WHO is an intergovernmental body. To sustain significant new policy initiatives, it will require support from member states. This presents a challenge in that governments in many parts of the world derive significant revenue from gambling and typically fail to recognise the significant costs and harm associated with this activity. The gambling industries are influential at both national and international levels.[12] Ongoing advocacy from civil society organisations will be critical in moving the global gambling public health agenda forward.

Author statements

Acknowledgements

Giulia Lowe assisted with article formatting, referencing and submission.

Ethical approval

Not required (does not include human subjects).

Funding

None.

Competing interests

None declared.

References

1. The Data Team. *The world's biggest gamblers*. The Economist; 2017 Feb 9. Available from: https://www.economist.com/graphic-detail/2017/02/09/the-worlds-biggest-gamblers.
2. Abbott M, Binde P, Clark L, Hodgins D, Johnson M, Manitowabi D, et al. *Conceptual framework of harmful gambling: an international collaboration*. 3rd ed. Gambling Research Exchange Ontario; 2018 Nov 22. https://doi.org/10.33684/CFHG3.en.
3. Abbott MW, Kolandai-Matchett K, King D. *Gaming -gambling convergence: a review of trends, emerging public health issues and implications*. Geneva: World Health Organisation; 2020.
4. Jacques C, Fortin-Guichard D, Bergeron PY, Boudreault C, Lévesque D, Giroux I. Gambling content in Facebook games: a common phenomenon? *Comput Hum Behav* 2016;**57**:48–53. https://doi.org/10.1016/j.chb.2015.12.010.
5. Williams RJ, Volberg RA, Stevens RM. *The population prevalence of problem gambling: methodological influences, standardized rates, jurisdictional differences, and worldwide trends*. Ontario Problem Gambling Research Centre; 2012 May 8. https://hdl.handle.net/10133/3068.
6. Calado F, Griffiths MD. Problem gambling worldwide: an update and systematic review of empirical research (2000–2015). *J Behav Addict* 2016;**5**:592–613. https://doi.org/10.1556/2006.5.2016.073.
7. Browne M, Langham E, Rawat V, Greer N, Li E, Rose J, et al. *Assessing gambling-related harm in Victoria: a public health perspective*. Victorian Responsible Gambling Foundation; 2016 Apr. https://doi.org/10.11575/PRISM/9419.
8. Browne M, Bellringer M, Greer N, Kolandai-Matchett K, Langham E, Rockloff M, et al. *Measuring the burden of gambling harm in New Zealand*. New Zealand Ministry of Health; 2017. Available from: https://openrepository.aut.ac.nz/bitstream/handle/10292/12451/NZ_harms_final_report%202017.pdf?sequence=2.
9. Sharman S, Butler K, Roberts A. (2019) Psychosocial risk factors in disordered gambling: a descriptive systematic overview of vulnerable populations. *Addict Behav* 2019;**99**:1–15. https://doi.org/10.1016/j.addbeh.2019.106071.
10. Ladouceur R, Shaffer P, Blaszczynski A, Shaffer HJ. Responsible gambling: a synthesis of the empirical evidence. *Addict Res Theory* 2017;**25**:225–35. https://doi.org/10.1080/16066359.2016.1245294.
11. Tanner J, Drawson AS, Mushquash CJ, Mushquash AR, Mazmanian D. Harm reduction in gambling: a systematic review of industry strategies. *Addict Res Theory* 2017;**25**:485–94. https://doi.org/10.1080/16066359.2017.1310204.
12. Hancock L, Smith G. Critiquing the Reno Model I-IV international influence on regulators and governments (2004–2015)—the distorted reality of "responsible gambling". *Int J Ment Health Ad* 2017;**15**:1151–76. https://doi.org/10.1007/s11469-017-9746-y.
13. Williams RJ, West BL, Simpson RI. *Prevention of problem gambling: a comprehensive review of the evidence*. Prepared for the Ontario Problem Gambling Research Centre; 2008 Dec. https://hdl.handle.net/10133/414.
14. Williams RJ, West BL, Simpson RI. *Prevention of problem gambling: a comprehensive review of the evidence and identified best practices*. Ontario Problem Gambling Research Centre and the Ontario Ministry of Health and Long Term Care; 2012 Oct. https://hdl.handle.net/10133/3121.
15. Drawson AS, Tanner J, Mushquash CJ, Mushquash AR, Mazmanian D. The use of protective behavioural strategies in gambling: a systematic review. *Int J Ment Health Addict* 2017;**15**:1302–19. https://doi.org/10.1007/s11469-017-9754-y.
16. Langham E, Thorne H, Browne M, Donaldson P, Rose J, Rockloff M. Understanding gambling related harm: a proposed definition, conceptual framework, and taxonomy of harms. *BMC Publ Health* 2015;**16**:80. https://doi.org/10.1186/s12889-016-2747-0.
17. Wardle H, Reith G, Best D, McDaid D, Platt S. *Measuring gambling-related harms: a framework for action*. Gambling Commission UK; 2018. Available from: http://eprints.lse.ac.uk/89248/.
18. Latvala T, Lintonen T, Konu A. Public health effects of gambling—debate on a conceptual model. *BMC Publ Health* 2019;**19**:1–6. https://doi.org/10.1186/s12889-019-7391-z.
19. Wardle H, Reith G, Langham E, Rogers RD. Gambling and public health: we need policy action to prevent harm. *BMJ* 2019;**365**:l1807. https://doi.org/10.1136/bmj.l1807.
20. The Ministry of Health. *Strategy to prevent and minimise gambling harm 2019/20 to 2021/22*. Wellington: Ministry of Health; 2019. Available from: https://www.health.govt.nz/system/files/documents/publications/hp7137-strategy-minimise-gambling-harm-jun19.pdf.
21. Gamble Aware. *Gamble aware: annual review 2017/18*. Available from: https://about.gambleaware.org/media/1836/gamble-aware-annual-review-2017-18.pdf.
22. Gambling Commission. *National strategy to reduce gambling harms*. Birmingham, UK: Gambling Commission; 2019. Available from: https://www.reducinggamblingharms.org/asset-library/national-strategy-to-reduce-gambling-harms.pdf.
23. NHS. *The NHS long term plan*. NHS UK; 2019. Available from: https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf.
24. World health organisation. *ICD 11*. Geneva: WHO; 2019. Available from: https://icd.who.int/browse11/l-/en#/http%3a%2f%2fid.who.int%2ficd%2fentity%2f1041487064.
25. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders (DSM-5®)*. American Psychiatric Pub; 2013.
26. Saunders JB. (2017) Substance use and addictive disorders in DSM-5 and ICD 10 and the draft ICD 11. *Curr Opin Psychiatry* 2017;**30**:227–37. https://doi.org/10.1097/YCO.0000000000000332.
27. Rumpf HJ, Achab S, Billieux J, Bowden-Jones H, Carragher N, Demetrovics Z, et al. Including gaming disorder in the ICD-11: the need to do so from a clinical and public health perspective: commentary on: a weak scientific basis for gaming disorder: let us err on the side of caution (van Rooij et al., 2018). *J Behav Addict* 2018;**7**:556–61. https://doi.org/10.1556/2006.7.2018.59.
28. The World Health Organisation. *WHO forum on alcohol, drugs and addictive behaviours*. 2017. https://www.who.int/substance_abuse/activities/fadab/event/en/;2017. [Accessed 18 September 2019].
29. Abbott M. Public health and diagnostic considerations of gambling disorder. In: *Invited paper presented at the WHO Forum on alcohol, drugs and addictive behaviours*. Geneva, Switzerland: WHO headquarters; 2017 Jun. p. 26–8.
30. The World Health Organisation. *Public health implications of excessive use of the internet and other communication and gaming forms*. 2018. https://www.who.int/substance_abuse/activities/addictive_behaviours/en/. [Accessed 18 September 2019].
31. Gambling and Addictions Research Centre. *International gambling Think Tank*. 2019. https://niphmhr.aut.ac.nz/research-centres/gambling-and-addictions-research-centre/international-gambling-think-tank. [Accessed 18 September 2019].
32. The World Health Organisation. *WHO forum on alcohol, drugs and addictive behaviours*. 2019. https://www.who.int/substance_abuse/activities/fadab/2019/en/;2019. [Accessed 18 September 2019].