



Original Research

Regulation of gambling in Sub-Saharan Africa: findings from a comparative policy analysis



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ABSTRACT

Objectives: Commercial gambling markets have undergone unprecedented expansion and diversification in territories across Sub-Saharan Africa (SSA). This gambling boom has popularised the uptake of gambling products in existing circuits of popular culture, sport and leisure and raised concerns about the extent to which state legislation is equipped to regulate the differentiated impacts of gambling on public health.

Study design: Comparative policy analysis.

Methods: This article provides a systematic mapping of the regulatory environment pertaining to gambling across SSA. The review was conducted by obtaining and triangulating data from a desk review of online materials, consultation with regulatory bodies in each territory and the VIXIO Gambling Compliance database.

Results: Gambling is legally regulated in 41 of 49 (83.6%) SSA countries, prohibited in 7 (14.3%) and is not legislated for in 1 (2.0%). Of those countries that regulate gambling, 25 (61.0%) countries had dedicated regulators and 16 (39.0%) countries regulated via a government department. Only 2 of 41 (4.9%) countries have published annual reports continuously since the formation of regulatory bodies, and 3 (7.3%) countries have published an incomplete series of reports since the formation. In 36 (87.8%) countries, no reports were published. Enforcement activities were documented by all five regulators that published reports.

Conclusion: The review uncovered a lack of coherence in regulatory measures and the need for more transparent public reporting across SSA territories. There are also variations in regulating online products and marketing, with most countries lacking apt guidelines for the digital age. Our findings suggest an urgent need to address the regulatory void surrounding online forms of gambling and the promotion of gambling products. This underlines the importance of a public health approach to protect against an increase in gambling-related harms.

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Introduction

With the advent of the internet and digital technologies, the global gambling landscape has been transformed in recent decades.

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In the majority of the world, it is now possible to access casinos, sports books, lotteries, e-gaming and online slots via smartphone technologies that enable rapid forms of real-time play around the clock.¹ This unprecedented expansion and diversification of commercial gambling markets has, however, engendered public health concerns, with many academics, politicians and policymakers cautioning against the detrimental consequences associated with gambling harms.^{2,3} As public debate and scrutiny over the regulation of the gambling industry in the 'Global North' has increased,

researchers have also raised concerns about industry expansion into new markets in the ‘Global South’, and Sub-Saharan Africa (SSA) in particular, noting the similarities between these trends with those of the tobacco industry when faced with tobacco control.^{4,5}

According to VIXIO Gambling Compliance reporting, Africa has become the only continent where sports games account for the majority of all lottery group sales: in 2017, sports made up 52.2% of the turnover of all African lottery operators.⁶ Across SSA, the democratisation of access to mobile app and money technologies has provided a viable platform and model for commercial gambling operators to popularise cellular-based vending.⁷ New products are frequently driven by European sporting events⁸ and technologies provided by companies based in Europe, whereas models of operation enlist local community members in ways that resemble indirect rule strategies from the colonial era. All these trends suggest that the gambling industry in SSA has neocolonial characteristics⁹ but also becoming increasingly embedded in local/global gambling markets and infrastructures.¹⁰

Research examining the public health impacts of commercial gambling activities across the continent has proliferated in recent years. Such work has predominantly focused on the differentiated impacts among young people,^{11–14} including how gambling has become embedded in the rhythms of everyday life and sociability for many young people,^{15–18} as well as how it is bound up with relations of work, notably with un- and under-employment, precarious work and the absence of viable livelihood opportunities.^{19,20} Others have shed light on the sociocultural consumption of gambling; how it is closely tied to the popularity of European football,^{21,22} has strong associations with the French horse racing industry,²³ its association with alcohol consumption,²⁴ how gambling has become normalised particularly in urban environments due to high visibility both in everyday spaces and in media^{7,10} and how this may have a range of harmful impacts on mental health, household budgets and interpersonal relationships.^{9,25,26}

A recent systematic review of youth gambling practices and problems in SSA noted a paucity of robust studies that assess the prevalence of problem gambling but found high levels of lifetime gambling (57%–73%) among the reviewed study populations.¹¹ The limited data on gambling problems uncovered by the review reported that 9.6% of a sample of 261 urban Ethiopian adolescents were compulsive gamblers²⁷ and that 91% of gamblers in a sample of 246 urban Ugandan youths had at least one gambling problem²⁸ as measured by South Oaks Gambling Scale-Revised for Adolescents.²⁹ The systematic review echoed a previous review study, which noted the need for policy interventions to limit exposure to and density of outlets, among other suggestions, to reduce gambling harm among young people in SSA.¹⁸ Beyond this systematic review, and in Francophone Africa, Berrada et al. surveyed 200 young male gamblers in Morocco and found that 53% of gamblers were classified as problem gamblers (SOGS 5+).³⁰

A body of literature has also explored the prominence of state-sponsored lotteries and horse racing (for French-speaking countries) across the region.^{23,31} This literature has noted that these lotteries often emerged in postcolonial states against the backdrop of racist colonial legislation that had previously prohibited or limited ‘Africans’ from gambling,³² have provided a source of steady income for states with limited tax bases,³³ but have also become entangled in corrupt political practices.³⁴ The lotteries literature gives important insight into the gambling policy environments in which contemporary SSA states are situated, but no systematic overview of these environments exists.

Although social sciences and public health research on gambling have responded rapidly to the developments of the last two

decades, research on gambling regulation and public health in SSA remains in its infancy. This mirrors wider global concerns that although many countries increasingly recognise the importance of a public health approach to gambling, this often lacks action. As Van Schalkwyk et al. lament, ‘no jurisdiction has yet created a gambling regulatory system that explicitly tackles public health concerns and confronts the dependencies and conflicts of interest that undermine the public good while embracing gambling liberalisation’.³⁵

In this article, we seek to address this void, as it relates to SSA and to respond to the observation that legislation across the region may not sufficiently control the industry and prevent harm, particularly in a rapidly changing digital age.⁴ Specifically, we set out to analyse and compare gambling laws and policies in SSA countries, assess the regulation of gambling in the SSA region, assess the extent of gambling revenues and problems in SSA, identify strengths and weaknesses of gambling policies across SSA and potential areas for policy development.

Methods

We conducted a comparative policy review focused on the regulation of gambling across the SSA region.³⁶ The review was conducted by obtaining and triangulating data from a desk review of online materials, consultation with regulatory bodies in each territory and the VIXIO Gambling Compliance database.³⁷

Desk review

We conducted a desk review of gambling policies across SSA via structured internet searches to characterise the policy environment in each country (see [Appendix 1](#)). SSA territories generally publish their laws online, and some regulatory bodies have websites. Wherever available, we sought out these resources to characterise the gambling policy environment in each country. The desk review sought to answer the following 13 questions:

1. What is the legal status of gambling (are there variations by product type)?
2. What legislation is in place and what approach to regulation does it set out?
3. What age restrictions, if any, exist?
4. Does legislation cover online gambling?
5. Does legislation cover marketing/advertising of gambling products?
6. Is there a regulatory body, if so what is it called?
7. Does the regulatory body publish public reports?
8. Do regulatory bodies report on enforcement?
9. Are financial/market data available from regulatory bodies? If so, what do they indicate?
10. Are gambling participation statistics available from regulatory bodies? If so, what do they indicate?
11. Are problem gambling prevalence statistics available from regulatory bodies? If so, what do they indicate?
12. What services for problem gamblers, if any, are publicised by regulatory bodies?
13. Do regulatory bodies use ‘responsible gambling’ discourse in their reports?

We used a data extraction template in Excel to record summary findings for each of these questions. In all cases, but especially where online laws and regulatory body websites are unavailable, we supplemented our review using Google searches for grey literature using structured terms (see [Appendix 1](#)). A snowballing process was applied to identify any potential references of interest

cited in sources that provided answers to our questions and these were also obtained.

Consultation with regulatory bodies and/or experts in each country

In seeking a collaborative and transparent approach, we attempted to contact either the regulatory body or government department responsible for regulation in each country examined.³⁸ When contact was established, we shared findings from the desk review with regulators or government officials, asked for comments relating to accuracy and invited the submission of any additional resources they deemed instructive, for example, data not in the public domain. Where we had partial information compiled, we shared this with them and requested that they help us fill in missing information. Where we obtained feedback and some information was still unclear; we used phone calls and emails to seek clarification.

The following timeline was applied: first, we emailed regulatory bodies requesting assistance and asking for a reply within 3 weeks; then after 2 weeks from the date of the first email, we sent a reminder email and/or made a telephone call about our request; and finally, after 3 weeks from the date of the first email/contact, we sent another reminder email that offered an additional 2 weeks to respond, together with an explanation that after this period, we will treat their contribution as missing/unavailable.

We attempted to contact 28 regulatory authorities for which contact details were available. However, only eight (28.6%) authorities acknowledged receipt of our email, 14 (50.0%) did not respond to our contacts, and 6 (21.4%) listed inactive email addresses. Of the eight regulators we established contact with, we received feedback from six (21.4%). Among the regulators that responded to us, several thanked the research team for seeking their perspectives and input before publishing findings.

Review of regulatory database

We managed to access country profiles for 29 (59.2%) countries on the VIXIO Gambling Compliance database for SSA territories.³⁷ The profiles were then triangulated with the data summaries from the desk review and consultation stages by the lead author.

Analysis

We triangulated and summarised data from all three sources in a single Excel spreadsheet. The lead researcher then shared this spreadsheet with each of the authors along with files containing the underpinning evidence to generate the triangulated summary spreadsheet. Each researcher took responsibility for reviewing a subset of countries, cross-checking the summaries with the evidence provided by the lead researcher, making amendments, additions and suggestions before returning these to the lead researcher. The Excel spreadsheet was divided by language (French, English, Spanish and Portuguese) and region (SADC, East Africa, West Africa and Central Africa). The final summary spreadsheet was read by all researchers to check for consistency and accuracy. The summary spreadsheet was then analysed descriptively to construct discrete tabulations of key variables that we present in the findings section.

Results

Legalities of gambling

Of 49 countries within the SSA region, gambling is legally regulated in 41 (83.6%), prohibited in the remaining 7 (14.3%) and is

not legislated for in 1 (2.0% see [Table S1](#)). One common feature in the seven countries where gambling is illegal is the dominance of the Islamic religion. Islam prohibits the consumption of many products that are not considered ‘halal’, including gambling.^{39,40} We secured legislation and/or equivalent data for all 41 countries where the practice is legal. Of the 41 countries, we obtained contacts (email address and/or phone numbers for regulatory bodies) for 28 (68.3%) countries.

Legal ages of participation in gambling varied between 18 and 25 years. In 37 of 41 (90.2%) countries, the legal age for participation is 18 years. In Botswana and Mauritius, the legal age of participation is 21 years, whereas in Uganda, it is 25 years. No data on age restrictions were found for Central African Republic.

Legislation coverage: products, online and advertising

Legislation covering gambling products varied, with many countries having explicit legislation for some products and none for other products (see [Table S2](#)). We found explicit legislation for lotteries in 39 of 41 (95.1%) countries, casinos in 39 of 41 (95.1%) and sports betting in 33 of 42 (80.5%). By contrast, we only identified explicit legislation for electronic gaming machines in 13 of 41 (31.7%) countries and for slot machines in 9 of 41 (22.0%). Legislation explicitly addressing online products was identified in 15 of 41 (36.6%) countries and in 18 of 41 (43.9%) for advertising. This finding on online legislation is in line with Gambling Compliance reporting from 2019 according to which only 20% of African jurisdictions regulate online gambling.⁴¹

Regulating gambling

Of the 41 countries, we found 25 (61.0%) countries that had formed dedicated regulators, and in the remaining 16 (39.0%) countries, regulation was conducted either by a government department or a collaboration between a semi-independent board and government department. Public reporting of regulatory activities was often sporadic and incomplete, with very few regulators publishing regular annual reports. Across the 41 countries, only two (4.9%) published annual reports continuously since formation, and 3 (7.3%) published an incomplete series of reports since formation. In 36 (87.8%) countries, no reports were published. Enforcement activities were documented by all five regulators that published reports (see [Data supplement](#)).

Gambling market size, participation and harms

From the reports of the five regulatory bodies for which we accessed reports, limited information was available about market sizes, participation, gambling harms and gambling harm prevention (see [Table S4](#)). Market size (gross gambling yield) was reported in Malawi and South Africa, which represent emerging and mature markets, respectively. South Africa's regulatory reporting dates to 2001 include thorough data and has improved in quality over time. Malawi's regulatory reporting, by contrast, only began in 2013. Botswana's regulator was the only one to offer participation statistics, recording that 14,271 used licensed services in the financial year 2019–2020. The rates of harmful gambling, as measured by requests to self-exclude, were reported by Botswana and South Africa, with both signposting harm reduction programmes in their reports. Through consultation with the Malawi Gaming Board, we learnt that they partner with a local mental health service provider to offer free programmes and care to those who approach the Board. This is not advertised in their report, however. Finally, all five regulators made use of ‘responsible

gambling’ discourse in their reports, often in their mission statements or aims.

Discussion

This review has examined the regulatory measures and structures that are applied to gambling products across SSA. It has demonstrated that regulations exist for all 41 SSA countries in which gambling is legal and that the vast majority require bettors to be at least 18 years. Where gambling was prohibited, this coincided with the dominance of Islamic religious groups. Legislative provision for lottery and casino products was near universal; provision for sports betting was in place for most countries, but with notable gaps; and provision for electronic gaming machine and slots was limited. Legislation addressing online products and marketing varied significantly, with most countries lacking appropriate guidelines for a digital age. The most common organisational approach to regulation was to form a dedicated agency; however, a substantial number of the countries we surveyed nested regulation within a range of government departments. This mirrors the status quo in mature gambling markets such as the United Kingdom, where long-standing calls to recognise gambling as a public health issue have been undermined by a lack of policy coherence and regulatory accountability.^{2,42} Public reporting from regulators is also extremely limited both in coverage and content, with only two regulators reporting gross gambling yield, one reporting participation rates, two reporting self-exclusions and three providing information on support services for gamblers in need of help. All the regulatory bodies that produced public reports made use of ‘responsible gambling’ discourse. This industry-friendly⁴³ framing also underlies regulatory practice in mature markets such as those of Britain and France.

These concerns about the coherence of regulatory measures are further exacerbated by the lack of transparent public reporting across SSA territories, many of which fail to evidence formal mechanisms of industry monitoring or regulatory enforcement. It is vital that state authorities address this lack of accountability and establish robust preventative controls and reporting measures with the capacity to reduce the risk factors of gambling harm across the continent.

Failure to address the ‘upstream’ regulatory void could result in a range of ‘downstream’ implications for public health as commercial gambling markets expand and diversify across the region. This includes a potential increase in the detrimental effects of gambling harms on mental health and well-being and the normalisation of gambling practices among youth demographics.

Particularly urgent, our findings suggest, is the need to address the regulatory void surrounding online and digital forms of gambling, as a primary driver of future industry growth. In heeding lessons from the expansion of commercial tobacco and alcohol industries,^{44,45} such measures must be designed and implemented independently of industry actors using evidence-based approaches that suitably acknowledge the technological flexibilisation of gambling practices and the associated potential for harms. Such critical attention to the commercial and technological determinants should extend to assessing the harmful potential of gambling products as part of administering effective prevention-centred controls.

Allied to this, our findings also raise acute concerns about the lack of legislative measures relating to the promotion of gambling products across SSA. Limits on when and where gambling advertising is permitted should be an essential component of any harm prevention policy, particularly as it pertains to children and young people.⁴⁶ Furthermore, the content of gambling adverts also demands stringent evaluation to avoid misleading messaging that

overstates the probability of winning and/or depicts gambling in ways that glamorise or normalise its appeal. Evidence from other territories suggests that prevention strategies controls are vital to denormalising and counteracting industry messages depicting gambling not only as a fun, risk-free leisure form but as a ‘quick fix’ route to wealth creation, particularly in contexts of labour precarity and youth un(der)employment.^{47,48}

Contrary to the ubiquitous use of ‘responsible gambling’ discourse by those regulators that published public reports, it is imperative that state authorities move beyond a policy focus on the diagnosis and containment of ‘problem gambling’, which tends to stigmatise and shame individuals for a lack of self-control,⁴⁹ to rigorously appraise the environmental and structural drivers of gambling harms.⁵⁰ This systematic policy shift, from individual responsibility to commercial accountability, is fundamental to ensuring appropriate safeguards for those experiencing gambling harms.

Overall, given the mounting evidential basis for a public health approach to regulating gambling in the Global North,^{2,42} and the emerging research from SSA, our findings underline the potential for an increase in gambling-related harms as the industry intensifies its activities across the continent. Of foremost importance, then, is the need for a collective reckoning at the national and regional levels with the regulatory gaps that, if left unchecked, will enable the acceleration of commercial gambling expansion, and further exacerbate existing health inequalities across SSA. This will require concerted effort from civil society, policy actors and service providers to establish the expansion of the gambling industry in the region as a pressing social and political concern at a time when governments across SSA face multiple catastrophic challenges, for example, climate change, food precarity, COVID-19–related economic fallout.

Vital consideration must also be given to socio-economic and cultural factors, including the potential effects of high rates of labour precarity and unemployment, including youth unemployment, on the risk and appeal of industry discourses promoting gambling as a source of income and wealth. Further research is merited in a number of areas: including the relationship between gender and gambling, including the extent to which traditional norms impact on consumption habits and domestic attitudes towards gambling; the salience of religious, spiritual and folk religion practices in the uptake of gambling by particular groups; and the role of sport, particularly football, as a cultural vehicle closely aligned with the promotion and advertising of gambling products.

Finally, the policy review also revealed that the expansion of commercial gambling to African countries often followed a neocolonial logic in that we uncovered French products, such as horse racing, being pushed to the French-speaking market²³ and English products, such as English football, was pushed to English-speaking markets.⁹ Similarly, the regulatory choices also appear to be heavily influenced by former colonial relations. For example, the legislations in the French-speaking African countries had taken practices from France, whereas the English-speaking African countries modelled their legislation practices to those of the United Kingdom. It was the same case for the Portuguese-speaking African countries. The fact that both commercial and regulatory practice so closely mirror the former colonial relationships ultimately emphasises the enduring hegemonic power of neo-colonialism. In turn, this potentially has huge implications for how gambling is framed and dealt with across SSA, going forward.

As a point of departure for reform, our findings also shed light on how particular territories could lead to policy sharing on harm reduction strategies. Current examples of ‘best practice’ include increasing age limits on participation (in Uganda, the legal age is 25

years); stringent restrictions of advertising (as in Mauritius); remuneration for counselling services (as in Malawi); and the endorsement of regular and transparent reporting mechanisms.

Finally, several study limitations should be noted. First, this desk-based review study was unable to assess the veracity of reporting mechanisms nor the degree of enactment and enforcement of regulatory policies on gambling. Addressing this gap should be a priority for further research. Second, while the project team was expanded to add linguistic diversity, the project was conducted by a majority of Anglophone speakers. Third, owing to logistical realities, the project team did not have the capacity to visit regulators in person but acknowledge that this may have provided a more complete data set and ameliorated the low response rate from regulators in a high number of SSA territories.

These limitations notwithstanding, the study is, to our knowledge, the first comprehensive mapping of regulatory and legislative policy on gambling across SSA territories, using an innovative participatory approach that actively engaged with state authorities and regulators and triangulated multiple data sources that were reviewed and coded across the project team.

Author statements

Ethical approval

Ethical approval was obtained from the Research Ethics Approval Committee for Health (REACH) at University of Bath (Ref number: EP 20/21 009).

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Competing interests

None declared.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.puhe.2022.07.018>.

References

- Reith G. *Addictive consumption: capitalism, modernity and excess*. Routledge; 2018.
- Wardle H, Reith G, Langham E, Rogers RD. Gambling and public health: we need policy action to prevent harm. *BMJ* 2019;**365**(11807).
- Sulkunen P, Babor TF, Ornberg JC, Egerer M, Hellman M, Livingstone C, et al. *Setting limits: Gambling, science and public policy*. Oxford University Press; 2019.
- Reith G, Wardle H, Gilmore I. Gambling harm: a global problem requiring global solutions. *The Lancet* 2019;**394**(10205):1212–4.
- Brandt A. *The cigarette century*. New York, NY: Basic Books; 2007.
- Compliance G. *African lotteries expand fixed odds sports betting*. 2019.
- Bunn C, Mtema O, Songo J, Udedi M. The growth of sports betting in Malawi: corporate strategies, public space and public health. *Publ Health* 2020;**184**: 95–101.
- Akanle O, Fageyinbo KT. European football clubs and football betting among the youths in Nigeria. *Soccer Soc* 2019;**20**(1):1–20.
- Bunn C, Mtema O, Nkhwazi L, Reith G, Lwanda JL. "They say 'easy money', telling you to predict the games": an interview study with sports bettors in Lilongwe, Malawi. In: Nikkinen J, Marionneau V, Egerer M, editors. *The global gambling industry: structures, tactics and networks of impact*. Springer; 2022.
- Fall A, Koffi-Didia M, Redon M. L'irrésistible essor des jeux d'argent dans les villes d'Afrique de l'Ouest. *Afr Contemp* 2019;**1**:323–55.
- Bitanihirwe BK, Ssewanyana D. Gambling patterns and problem gambling among youth in sub-Saharan Africa: a systematic review. *J Gamb Stud* 2021;**1**–23.
- Glozah FN, Tolchard B, Pevalin DJ. Participation and attitudes towards gambling in Ghanaian youth: an exploratory analysis of risk and protective factors. *International Journal of Adolescent Medicine and Health* 2019;**33**(4). 2018-0175.
- Odame SK, Quarshie EN-B, Oti-Boadi M, Andoh-Arthur J, Asante KO. Adolescent problem gambling in rural Ghana: prevalence and gender differentiation. *J Gamb Stud* 2021;**37**(1):83–105.
- Tagoe VN, Yendorok JS, Asante KO. Gambling among youth in contemporary Ghana: understanding, initiation, and perceived benefits. *Afr Today* 2018;**64**(3): 53–69.
- Adebisi T, Alabi O, Arisukwu O, Asamu F. Gambling in transition: assessing youth narratives of gambling in Nigeria. *J Gamb Stud* 2021;**37**(1):59–82.
- Akanle O, Fageyinbo K. The social phenomenon of football: football betting in Nigeria. *Misc Anthropol Sociol* 2015;**16**:46–63.
- Schmidt M. 'Almost everybody does it' gambling as future-making in Western Kenya. *J East Afr Stud* 2019;**13**(4):739–57.
- Ayandele O, Popoola O, Obosi AC. Influence of demographic and psychological factors on attitudes toward sport betting among young adults in Southwest Nigeria. *J Gamb Stud* 2020;**36**(1):343–54.
- Olaore GO, Adejare BO, Udofia EE. The nexus between the increasing involvement of youth in betting games and unemployment: the Nigerian perspective. *Journal of Humanities and Applied Social Sciences* 2020;**3**(3): 163–81.
- Aguocha CM, Duru CB, Nwefoh EC, Amadi KU, Olose EO, Igwe MN, et al. Determinants of gambling among male students in secondary schools in Imo State, Nigeria. *Journal of Substance Use* 2019;**24**(2):199–205.
- Chiweshe MK. Playing the odds: the rise of soccer betting houses as a livelihood option in Harare, Zimbabwe. *Soccer Soc* 2020;**21**(3):344–55.
- Owonikoko SB. Game of hope; game of addiction: rising football betting among Nigerian youths and its implications for peace, security and stability. *Soccer Soc* 2020;**21**(7):821–33.
- S B, Marionneau V. The establishment and strategies of gambling providers in French-speaking Africa: the case of Pari Mutuel Urbain (PMU). In: Nikkinen J, Marionneau V, Egerer M, editors. *The global gambling industry: structures, tactics, and networks of impact*. Springer; 2022.
- Nabifio SC, Izudi J, Bajunirwe F. Alcohol consumption and sports-betting among young male motorcycle taxi boda boda riders in urban southwestern Uganda. *BMC Public Health* 2021;**21**(1):363.
- Sichali JM, Dube A, Kachiwanda L, Wardle H, Crampin AC, Bunn C. Case report: a gambling-related suicide in rural Malawi. *Wellcome Open Res* 2021;**6**(308): 308.
- Dellis A, Spurrett D, Hofmeyr A, Sharp C, Ross D. Gambling participation and problem gambling severity among rural and peri-urban poor South African adults in KwaZulu-Natal. *J Gamb Stud* 2013;**29**(3):417–33.
- Abdi TA, Ruiter RA, Adal TA. Personal, social and environmental risk factors of problematic gambling among high school adolescents in Addis Ababa, Ethiopia. *J Gamb Stud* 2015;**31**(1):59–72.
- Kiwujja V, Mugisha JF. Sexual risk associated with gambling among the youth in Rubaga Division, Kampala. *Int J Health Plann Manag* 2019;**34**(4):1456–68.
- Winters KC, Stinchfield RD, Fulkerson J. Toward the development of an adolescent gambling problem severity scale. *J Gamb Stud* 1993;**9**(1):63–84.
- Berrada S, Rachidi L, El Gnaoui S, Agoub M, Moussaoui D, Battas O. Fréquence et facteurs de risque du jeu pathologique chez une population de joueurs à Casablanca. *Encéphale* 2009;**35**(6):554–9.
- Van Wyk I. Postcolonial Africa and its lotteries. *Crit Gamb Stud* 2021.
- Roberts R. Towards a history of gambling in Zimbabwe, with special reference to betting and greyhound racing. *Herit Zimb*; 26: 1–8.
- Brenner GA, Servet J-M. Proximity, confidence, and the tapping of savings: the case of African lotteries. *Afr Rev Money Financ Bank* 1995:47–59.
- Louw S. African numbers games and gambler motivation: 'Fahfee' in contemporary South Africa. *Afr Aff* 2018;**117**(466):109–29.
- Van Schalkwyk MC, Petticrew M, Cassidy R, Adams P, McKee M, Reynolds J, et al. A public health approach to gambling regulation: countering powerful influences. *The Lancet Public Health* 2021;**6**(8):e614–9.
- Lodge M. Comparative public policy. In: *Handbook of public policy analysis*. Routledge; 2017. p. 299–314.
- VIXIO. *VIXIO gambling compliance database*. 2021. <https://vixio.com/gamblingcompliance/2021>.
- Tricco AC, Zarin W, Rios P, Nincic V, Khan PA, Ghassemi M, et al. Engaging policy-makers, health system managers, and policy analysts in the knowledge synthesis process: a scoping review. *Implementation Science* 2018;**13**(1):31.
- Ba ASA, Niang NB. Gestion des conflits entre valeurs religieuses et organisationnelles: les stratégies contre la dissonance cognitive chez les travailleurs de la LONASE (Loterie Nationale Sénégalaise). *Manag Avenir* 2019;**3**:127–46.
- Diop F. Religion musulmane et comportement du consommateur: Cas du Sénégal. *Rev Sci Gest* 2012;**3**:191–9.
- Compliance G. *Special report: Africa gambling outlook 2019*. 2019.
- van Schalkwyk MC, Cassidy R, McKee M, Petticrew M. Gambling control: in support of a public health response to gambling. *Lancet* 2019;**393**(10182):1680–1.
- Livingstone C, Rintoul A. Gambling-related suicidality: stigma, shame, and neglect. *Lancet Public Health* 2021;**6**(1):e4–5.
- Thomas SL, David J, Randle M, Daube M, Senior K. Gambling advocacy: lessons from tobacco, alcohol and junk food. *Aust N Z J Public Health* 2016;**40**(3):211–7.
- Petticrew M, Katikireddi SV, Knai C, Cassidy R, Hessari NM, Thomas J, et al. 'Nothing can be done until everything is done': the use of complexity

- arguments by food, beverage, alcohol and gambling industries. *J Epidemiol Community Health* 2017;**71**(11):1078–83.
46. Messerlian C, Derevensky J, Gupta R. Youth gambling problems: a public health perspective. *Health Promot Int* 2005;**20**(1):69–79.
 47. Newall PW, Moodie C, Reith G, Stead M, Critchlow N, Morgan A, et al. Gambling marketing from 2014 to 2018: A literature review. *Current Addiction Reports* 2019;**6**(2):49–56.
 48. Torrance J, Roderique-Davies G, Thomas SL, Davies N, John B. 'It's basically everywhere': young adults' perceptions of gambling advertising in the UK. *Health Promot Int* 2021;**36**(4):976–88.
 49. Reith G. Techno economic systems and excessive consumption: a political economy of 'pathological' gambling. *Br J Sociol* 2013;**64**(4):717–38.
 50. Reith G. Beyond addiction or compulsion: the continuing role of environment in the case of pathological gambling. *Addiction* 2012;**107**(10):1736–7.