LETTER



Africa needs stricter vaping regulations to protect its young people from nicotine dependence

Raphael Adesiyan¹, Kehinde Kazeem Kanmodi^{2,3,4,5}

¹Department of Kinesiology and Health Promotion, University of Kentucky, Lexington, USA ²School of Dentistry, University of Rwanda, Kigali, Rwanda ³Faculty of Dentistry, University of Puthisastra, Phnom Penh, Cambodia ⁴Campaign for Head and Neck Cancer Education (CHANCE) Programme, Cephas Health Research Initiative Inc, Ibadan, Nigeria ⁵School of Health and Life Sciences, Teesside University, Middlesbrough, UK

Dear Editor,

E-cigarettes, also known as vapes, are electronic devices that supply nicotine in the form of vapor.¹The liquid in e-cigarettes contain addictive flavours that are particularly appealing to youths.²E-cigarettes are marketed as less harmful than combustible cigarettes³; however, research evidence shows that vaping (e-cigarette use) may lead to higher risk of nicotine addiction, continued use, and myriads of debilitating health conditions including cancer, cardiovascular diseases, brain diseases, and lung diseases.^{4,5,6}

Nicotine has harmful effects, especially on the developing brains of young people.⁴Globally, the rate at which youths, especially in Africa, are vaping calls for stricter vaping regulations to address this public health crisis.⁷Worrisomely, recent reports

from Africa have posited that African countries may eventually have a disproportionate share of the current global burden of vaping 'epidemic'.⁸This therefore underscores the need for immediate and stricter regulatory measures on e-cigarettes in Africa. Unlike many African countries, the United States, Australia, and several European and Asian countries currently have stringent measures that regulate the contents, advertisements, sales, and use of e-cigarettes in their countries; these measures have profoundly restricted their youths from ecigarette use.³

The youths form about 60% of the African population.⁹Unfortunately, the current lack of strict regulations on e-cigarettes in several African countries poses a significant threat to the well-being of this population group. To curb this threat, stricter regulations on e-cigarettes, including bans on sales to youth under the age of 21 years should be enacted as a protective measure in every African country.⁹

Keywords: Africa, e-cigarette, global health, health protection, regulation, youth

This article is available online at: http://www.mjz.co.zm, http://ajol.info/index.php/mjz, doi: https://doi.org/10.55320/mjz.51.1.465 The Medical Journal of Zambia, ISSN 0047-651X, is published by the Zambia Medical Association

© This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.



Corresponding author

Assoc. Prof. Kehinde Kazeem Kanmodi, BDS, MPH, PGDE, PGDPSCR. Faculty of Dentistry, University of Puthisastra, Phnom Penh,

Cambodia Email: <u>kanmodikehinde@yahoo.com;</u> kkanmodi@puthisastra.edu.kh

Other strict regulations such as outright ban on ecigarettesales in school premises and residential areas should also be enforced in order to prevent youth from gaining easy access to e-cigarettes. This, perhaps, is an effective strategy that can be used in reducing the initiation and continued use of ecigarettes among youths in Africa.^{1,10} Furthermore, stricter approaches such as flavour restrictions, heavy taxations, and highly restricted marketing can also be adopted, as these approaches have been found to be also effective in combating the rise of vaping.¹¹

Overall, African governments need to adopt more comprehensive laws and policies to protect their youths. Additionally, robust efforts should be made to curb the trend of illicit trade of e-cigarettes, such as the criminalization of such trades.

In conclusion, the implementation of the aboveidentified comprehensive measures requires a collaborative approach between the government and public health organizations. It is important to prioritize the health of the continent's young people to curb the spread of vaping and prevent them from getting addicted to nicotine. The prosperity of Africa lies in the energy and creativity of its youth.

REFERENCES

- Brown CJ, Cheng JM. Electronic cigarettes: product characterisation and design considerations. Tob Control. 2014 May; 23 Suppl 2(Suppl 2): ii4-10. doi: 10.1136/tobaccocontrol-2013-051476. PMID: 24732162; PMCID: PMC3995271.
- Goldenson NI, Leventhal AM, Simpson KA, Barrington-Trimis JL. A Review of the Use and Appeal of Flavoured Electronic Cigarettes. Curr Addict Rep. 2019 Jun;6(2):98-113. doi: 10.1007/s40429-019-00244-4. Epub 2019 May 17. PMID: 31453046; PMCID: PMC6709993.
- 3. Huang J, Duan Z, Kwok J, Binns S, Vera LE, Kim Y, Szczypka G, Emery SL. Vaping versus JUULing: how the extraordinary growth and

marketing of JUUL transformed the US retail e-cigarette market. Tob Control. 2019 Mar;2 (2):146-151. doi: 10.1136/tobaccocontrol-2018-054382. Epub 2018 May 31. PMID: 29853561; PMCID: PMC6274629.

- Cobb NK, Byron MJ, Abrams DB, Shields PG. Novel nicotine delivery systems and public health: the rise of the "e-cigarette". Am J Public Health. 2010 Dec;100(12):2340-2. doi: 10.2105/AJPH.2010.199281. PMID: 21068414; PMCID: PMC2978165.
- 5. Daiber A, Kuntic M, Oelze M, Hahad O, Münzel T. E-cigarette effects on vascular function in animals and humans. Pflugers Arch. 2023 Jul; 475(7):783-796. doi: 10.1007/s00424-023-02813-z. Epub 2023 Apr 21. PMID: 37084087; PMCID: PMC10264525.
- Glantz SA, Bareham DW. E-Cigarettes: Use, Effects on Smoking, Risks, and Policy Implications. Annu Rev Public Health. 2018 Apr 1; 39:215-235. doi: 10.1146/annurevpublhealth-040617-013757. Epub 2018 Jan 11. PMID: 29323609; PMCID: PMC6251310.
- Gaiha SM, Lempert LK, Halpern-Felsher B. Underage Youth and Young Adult E-Cigarette Use and Access Before and During the Coronavirus Disease 2019 Pandemic. JAMA Netw Open. 2020 Dec 1;3(12): e2027572. doi: 10.1001/jamanetworkopen.2020.27572. PMID: 33270127; PMCID: PMC7716191.
- Erinoso O, Oyapero A, Amure M, Osoba M, Osibogun O, Wright K, Osibogun A. Electronic cigarette use among adolescents and young adults in Nigeria: Prevalence, associated factors and patterns of use. PLoS One. 2021 Oct 22;16(10): e0258850. doi: 10.1371/journal.pone.0258850. PMID: 34679087; PMCID: PMC8535460.
- 9. African Development Bank (AfDB). African economic outlook 2020: Developing Africa's workforce for the future. Abidjan, Cote d'Ivoire: African Development Bank Group.
 2 0 2 0 . A v a i l a b l e f r o m :

 $\label{eq:https://www.afdb.org/sites/default/files/docu ments/publications/african_economic_outloo k_2020\text{-en.pdf}$

- Wasowicz A, Feleszko W, Goniewicz ML. E-Cigarette use among children and young people: the need for regulation. Expert Rev Respir Med. 2015 Oct;9(5):507-9. doi: 10.1586/17476348.2015.1077120. Epub 2015 Aug 7. PMID: 26290119.
- Yan D, Wang Z, Laestadius L, Mosalpuria K, Wilson FA, Yan A, Lv X, Zhang X, Bhuyan SS, Wang Y. A systematic review for the impacts of global approaches to regulating electronic nicotine products. J Glob Health. 2023 Aug 25; 13:04076. doi: 10.7189/jogh.13.04076. PMID: 37622721; PMCID: PMC10451104.