CORRESPONDENCE

WILEY

Economic priorities over population health: A political dilemma in addressing noncommunicable diseases in developing countries

Baraka L. Max^{1,2,3} D | Harold L. Mashauri^{1,2,3,4} D

¹Department of Epidemiology and Biostatistics, Institute of Public Health, Kilimanjaro Christian Medical University College, Moshi, Tanzania

²Department of Community Health, Institute of Public Health, Kilimanjaro Christian Medical University College, Moshi, Tanzania

³Department of Internal Medicine, Kilimanjaro Christian Medical University College, Moshi, Tanzania

⁴Department of Internal Medicine, Kamanga Medics Hospital, Mwanza, Tanzania

Correspondence

Harold L. Mashauri, Kilimanjaro Christian Medical University College (KCMUCo), Kilimaniaro, Tanzania, Email: haroldneweinstein@gmail.com

Abstract

The world is observing a rapid shift in the burden of diseases with predominance of noncommunicable diseases (NCDs). NCDs contribute to 41 million deaths which is equivalent to 74% of all death globally per year. There is ongoing debate on the approaches to reduce public exposure to NCDs' modifiable risk factors which are of economic potential. As the World Health Organization and the World Bank recommend the implementation of taxation to these factors, still questions arise on the effectiveness, sustainability, and practicality of this strategy. With the ongoing transition globally from consumption of natural to processed foods, it is important to counter-check the best interventions on how to protect people from unhealthy eating behaviors. While taxation on unhealthy food and other products like tobacco has been recommended as one among interventional approaches, its effectiveness on sugar sweetened beverages is not reliable compared to approaches that increase self-control. Despite the perceived economic benefits of tobacco and sugar sweetened products, there is detrimental implication in terms of public health. The introduction of taxation which favors public health faces challenges due to conflict of interest from government authorities and other stakeholders. The intertwined relationship between public health and economic development becomes more obvious during implementation of preventive and control measures against modifiable risk factors for NCDs. It is evident that reaching a balanced rational decision on choosing between economic growth and public health is difficult. Countries should enhance both local and international intersectoral and multisectoral approaches in creating integrative policies which include health component in all non-health policies including economic policies so as to harmonize public health and economic growth during this era of extensive globalization.

KEYWORDS

economic priorities, globalization, noncommunicable diseases, political dilemma, public health

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made. © 2024 The Authors. Health Science Reports published by Wiley Periodicals LLC.

1 | INTRODUCTION

The world is observing a rapid shift in the burden of diseases with a transition from communicable diseases to noncommunicable diseases (NCDs).^{1,2} These diseases include cancer, cardiovascular diseases, chronic respiratory diseases, and diabetes as the commonest NCDs. NCDs contribute up to 41 million deaths which is equivalent to 74% of all death globally per year, with cardiovascular diseases leading with the highest proportion resulting into death. Increasing mortality is expected to occur if the situation is not counter checked.³ Unfortunately, both health and non-health policies including economic policies have direct or indirect influence to the public health and their interdependency is inevitable.^{4,5} The economic implications of NCDs are evident and have disproportional distribution according to the economic status and type of disease.⁶ The chronic character of NCDs cause catastrophic expenditure to patients and their families in the course of seeking care and managing their respective complications.⁶⁻⁸ While the number might be very low in developing countries, the World Bank estimated that by 2018, almost half the world lived on less than 5.5 USD while the cost for NCDs treatment in low and middle income countries was found to range between 1017.05 and 7386.81 USD.^{7,9} In India, the mean expenditure for out of pocket treatment cost in public hospitals by households with NCDs was found to be INR 13.170 which was more than twice when compared to non-NCDs' households.⁶

There is ongoing debate on the approaches to reduce the public exposure from modifiable risk factors which are of economic potential. These include discouraging the use of tobacco products and sugar sweetened beverages (SSB) like carbonated drinks which are from industries with a significant contribution to the gross domestic product of countries and employment opportunities while at the same time costing the health of consumers.^{10–12} As the World Health Organization and the World Bank recommend the implementation of taxation so as to increase the cost and discourage purchases among consumers, questions arise on the effectiveness, sustainability, and practicality of this recommendation to bring best results.^{13–17}

This article highlights the global political dilemma faced by countries, especially in low and middle income regions, in addressing the rapidly increasing burden of NCDs. It involves dilemmas that respective countries encounter in the implementation of different recommendations with economic implications in curbing the burden of NCDs.

2 | NCDS RISK FACTORS

NCDs cause devastating effects on both human health, healthcare expenditure, house hold expenditure, and national expenditure on health services.^{3,6,8} Most NCDs share risk factors, which can either be modifiable or non-modifiable.¹⁸ Example of non-modifiable risk factors are age, sex, ethnicity, and genetic factors whereas modifiable risk factors are diet, exercise, use of tobacco, and alcohol.¹⁸ There is a disproportional risk of developing NCDs depending on

socioeconomic status, immune system, occupation, physical activity, and age.¹⁹⁻²³ Among the aggravating factors for increased susceptibility are urbanization and transition in nutritional behaviors and the cooccurrence of multiple risk factors.^{19,21,24,25} As the food processing industry is growing in developing countries like in Africa, the use of foods with low nutritional value is likely to increase too. With the ongoing nutritional transition from consumption of natural to ultraprocessed food with low nutritional value, it is important counter-check means of protecting people from unhealthy eating behaviors.²⁶ Despite the current efforts in controlling the tobacco industry, such efforts are challenged by socioeconomic and political factors.^{27–30}

3 | ECONOMIC PRIORITIES OVER POPULATION HEALTH

The use of tobacco and SSB are products that predominate the debate on economic gain over public health. There has been an increase in production, demand, and use of these products that vary according to geographical regions. In East and Central Africa, the demand of SSB is progressively increasing and more companies are attracted to invest in the region. Some governments have set policies to enhance industry growth, set tax, and levies for these products with expectations to increase the national income.³¹

The tobacco industry has been the back-bone of some countries' economy in terms of employment and country's source of foreign currencies. These countries fail to control the tobacco industry despite knowing the adverse effects it cause on human health and environment.²⁷ While taxation has been used to discourage the use of tobacco products and SSB, this approach is not as effective as compared to approaches that increase selfcontrol.^{18,32,33} Some studies show that the public is in favor of such an approach and it can be effective in discouraging the use of such unhealthy products of NCDs concern.^{34,35} In South Africa where the government introduced the health promotion levy and a tax imposed on sugar to increase purchasing cost of SSB and discourage consumption, still citizens did not significantly reduce their demands. The study identified low awareness on the motives of the levy, and were influenced by addiction and branding effect to purchase SSB.^{36,37} Moreover, implementation of taxation in sugar based on sugar content might counteract this effect.³⁸

The introduction of taxation that can have a positive effect on the public health faces challenges due to the conflict of interest from government authorities and different globalization stakeholders.^{39,40} This is mainly due to lack of common understanding or agreement of the purpose or goal of taxation imposed to these products. Ultimately, when users develop NCDs they suffer long term direct and indirect health cost, increased absenteeism on work, and reduced ability to work. In the Latin America, more than 10% of death were caused by smoking and costing 26.9 United States dollar as direct health cost.⁴¹ Dental diseases to children, obesity and diabetes due to sugar-sweetened drinks and significant levels of absenteeism in Gulf countries occurred as a result of NCD illness.^{11,42} Despite the perceived economic benefits of tobacco and sugar sweetened products, implications on public health is of detrimental outcomes. If the increase in prevalence of NCDs is not controlled, countries will have to suffer both increased burden of NCDs and respective negative economic development as they have been reported in some countries including Fiji.^{8,43} Furthermore, in developing countries like those in Africa, despite the economic benefits such job creation and contribution to national GDP offered by rapidly growing processed food industries, there has been increasing burden of NCDs cases as the consequence.^{44,45}

It is evident that reaching rational decision in choosing between economic growth and population health is difficult. Any efforts to reduce one-third of premature death caused by NCDs at one point interferes with the achievement of measures to alleviate poverty and promote sustainable production and assurance to employment and descent work as per sustainable development goals.¹³ However, population health outweighs the effect of other factors, countries especially those in low and middle income regions should take urgent and bold measures instead for being blinded by cheap economic benefits of SSB and tobacco products (Table 1). Many tobacco and SSB industries are finding these countries as the new market hotspots for their products after having unstable market in high income countries.⁴⁶ It will be more beneficial for countries to diversify their income sources to reduce dependence on these industries.²⁷ In European countries, the implementation of SSB taxation policy have been found to be practical and useful toward reducing the demand for SSB as its intended goal despite the policy being opposed by food and beverage industries.^{40,47} Alongside the introduction of tax and levy on unhealthy products, the primary motive should be health and not economic gain.^{48,49} A good example

-WILEY

is Uganda that dedicates a percentage of the tax on sugar to cover HIV/AIDs health services.³¹ Philippines is also one among developing countries which has been successful in implementing health taxation products like tobacco and SSBs and use the revenues to fund healthcare services.^{50–52} This can serve as an alternative source of financing the health sector in limited resource settings.

4 | CONCLUSION AND RECOMMENDATION

Countries are facing dilemma on implementing economic interventions such as tax levy on SSB and tobacco product so as to reduce the use of unhealthy products and protect the health of the population. Majority of countries have used and relied on them to increase the national GDP instead of discouraging the use of SSB or tobacco products. Furthermore, due to perceived economic benefits, countries that have cooperative unions and tobacco boards face a contradictory effect in aborting tobacco cultivation and processing since these organs help to encourage and promote growth of tobacco industry. Countries should direct a significant percentage of revenues from tax obtained from SSB and tobacco products industries to NCDs preventive and control measures so as to compensate for the consequences.

The intertwined relationship of public health and economic development becomes more vivid when comes to prevention and control of modifiable risk factors for NCDs. Countries should raise their taxes to level that will pose constraints on purchasing unhealthy products and provide healthy education to enhance self-control. Moreover, countries should enhance both intersectoral and

 TABLE 1
 Challenges and respective recommended solution to address economic priorities over public health dilemma in addressing NCDs in developing countries.

Challenges	Recommended solution
 National and international economic policies which are not in favor of public health 	 Adapting and incorporation of health component in all national non-health policies including economic policies like policies related to free-marketing
• Lack of funds to finance prevention and treatment services for NCDs	• Dedication of a significant percentage of tax from SSB and tobacco products for financing preventive and treatment services for NCDs
 Inadequate public awareness on the essence of taxation of sugar sweetened beverages and tobacco products 	• Provision of public health education on the purpose of taxation approach and means for self-control
 Fear of loss of sources of income to people (e.g., tobacco planters and processed food MSMEs) Fear for national gross domestic product reduction 	Diversification of economic sources to peopleDiversification sources of national income
 Massive advertisement of sugar sweetened beverages (SSB) and tobacco products 	 Impose advertisement restrictions to reduce the purchase of SSB and tobacco products
 Easy accessibility and affordability of sugar sweetened beverages 	 Improve accessibility and affordability of other healthy drinks like milk and fresh fruit juice. Formulation of integrative policies including nutrition sensitive trade policies Insurance of equitable access to healthier options
 Presence of cooperative union and boards that promote tobacco cultivation 	Monitoring promotion of tobacco cultivation and its products

WILEY_Health Science Reports

multisectoral approaches, locally and internationally, in creating integrative policies with nutrition sensitive trade policies which harmonize both public health and economic growth during this era of globalization.

AUTHOR CONTRIBUTIONS

Baraka L. Max: Writing—original draft; data curation; conceptualization. **Harold L. Mashauri**: Conceptualization; writing—review and editing; data curation; project administration; supervision.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

TRANSPARENCY STATEMENT

The lead author Harold L. Mashauri affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

ORCID

Baraka L. Max D http://orcid.org/0009-0004-6999-651X Harold L. Mashauri D http://orcid.org/0000-0001-6012-234X

REFERENCES

- Metrics GH. Global burden of 369 diseases and injuries in 204 countries and territories 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. 2020;396.
- Benziger CP, Roth GA, Moran AE. The global burden of disease study and the preventable burden of NCD. *Global Heart*. 2016;11(4): 393-397.
- World Health Organization. Noncommunicable diseases [Internet]. 2023. https://www.who.int/news-room/fact-sheets/detail/ noncommunicable-diseases
- McCartney G, Hearty W, Arnot J, Popham F, Cumbers A, McMaster R. Impact of political economy on population health: a systematic review of reviews. *Am J Public Health*. 2019;109(6): e1-e12.
- Rigby E, Hatch ME. Incorporating economic policy into a "health-inall-policies" agenda. *Health Aff.* 2016;35(11):2044-2052. http:// www.pewtrusts.org/en/multimedia/data-visualizations/2015/
- Behera S, Pradhan J. Uneven economic burden of noncommunicable diseases among Indian households: a comparative analysis. PLoS One. 2021;16(12):e0260628. https://journals.plos. org/plosone/article?id=10.1371/journal.pone.0260628
- Kazibwe J, Tran PB, Annerstedt KS. The household financial burden of non - communicable diseases in low- and middle-income countries: a systematic review. *Heal Res Policy Syst.* 2021;19(1):96. doi:10.1186/s12961-021-00732-y
- Rijal A, Adhikari TB, Khan JAM, Berg-Beckhoff G. The economic impact of non-communicable diseases among households in South Asia and their coping strategy: a systematic review. *PLoS One* [*Internet*]. 2018;13(11):e0205745. doi:10.1371/journal.pone. 0205745

- World Bank. Nearly half the world lives on less than \$5.50 a day [Internet]. 2023. https://www.worldbank.org/en/news/pressrelease/2018/10/17/nearly-half-the-world-lives-on-less-than-550a-day
- Jha V, Narayanan BG, Wadhwa D, Tesche J. Economic and environmental effects of reduction in smoking prevalence in Tanzania. *Tob Control*. 2020;29(1):24-28. https://tobaccocontrol. bmj.com/content/29/1/24
- 11. Tahmassebi JF, BaniHani A. Impact of soft drinks to health and economy: a critical review. *Eur Archiv Paediatr Dentistr.* 2020;21(1): 109-117.
- Ahsan A, Handika R, Qureshi F, et al. Does tobacco affect economy? Asian Pacific J Cancer Prevention. 2022;23(6):1873-1878.
- Hangoma P, Surgey G. Contradictions within the SDGs: are sin taxes for health improvement at odds with employment and economic growth in Zambia. 2019:1-9.
- Ng SW, Colchero MA, White M. How should we evaluate sweetened beverage tax policies? A review of worldwide experience. BMC Public Health. 2021;21(1):1941. doi:10.1186/s12889-021-11984-2
- Chaloupka FJ, Powell LM, Warner KE. The use of excise taxes to reduce tobacco, alcohol, and sugary beverage consumption. *Annu Rev Public Health.* 2019;40:187-201. https://pubmed.ncbi.nlm.nih. gov/30601721/
- Thow AM, Downs SM, Mayes C, Trevena H, Waqanivalu T, Cawley J. Fiscal policy to improve diets and prevent noncommunicable diseases: from recommendations to action. *Bull World Health Organ.* 2018;96(3):201-210.
- 17. World Bank. Using taxation to address noncommunicable diseases. 2019.
- Budreviciute A, Damiati S, Sabir DK, et al. Management and prevention strategies for non-communicable diseases (NCDs) and their risk factors. *Front Public Health.* 2020;8(November):574111.
- Sommer I, Griebler U, Mahlknecht P, et al. Socioeconomic inequalities in non-communicable diseases and their risk factors: an overview of systematic reviews. BMC Public Health. 2015;15:914. doi:10.1186/s12889-015-2227-y
- Patil SS, Hiremath RN, Viswanath HMK, Kadam DB. Non-communicable disease risk factors among people living with HIV/AIDS (PLHA): a relook during the covid-19 pandemic. 2022:498-502.
- Patel P, Rose CE, Collins PY, et al. Noncommunicable diseases among HIV-infected persons in low-income and middle-income countries: a systematic review and meta-analysis. *AIDS*. 2018;32: S5-S20.
- Phaswana-mafuya N, Peltzer K, Chirinda W, Musekiwa A. Sociodemographic predictors of multiple non-communicable disease risk factors among older adults in South Africa. 2013;9716.
- Biswas T, Townsend N, Huda MM, et al. Articles prevalence of multiple non-communicable diseases risk factors among adolescents in 140 countries: a population-based study. *eClinicalMedicine*. 2022;52(August):101591.
- Allen L, Williams J, Townsend N, et al. Socioeconomic status and non-communicable disease behavioural risk factors in low-income and lower-middle-income countries: a systematic review. *Lancet Global Health.* 2017;5(3):e277-e289.
- 25. Aburto MJ, Romero D, Rezende LFM, et al. Prevalence and co-occurrence of lifestyle risk factors for non-communicable diseases according to sociodemographic characteristics among adults Chilean residents. *Sci Rep.* 2021;11(1):21702.
- Popkin BM. The nutrition transition to a stage of high obesity and noncommunicable disease prevalence dominated by ultra-processed foods is not inevitable. 2022;(July 2021):1-18
- Smith J. 'If you kill tobacco, you kill Malawi': structural barriers to tobacco 'If you kill tobacco, you kill Malawi': structural barriers to tobacco diversification for sustainable development. 2020.

- Bondurant S, Wedge R. Factors that influence tobacco use. 2009. Accessed October 3, 2023. https://www.ncbi.nlm.nih.gov/books/ NBK215329/
- Ranabhat CL, Kim CB, Park MB, Jakovljevic MM. Situation, impacts, and future challenges of tobacco control policies for youth: an explorative systematic policy review. *Front Pharmacol.* 2019;10:981.
- Banks C, Rawaf S, Hassounah S. Factors influencing the tobacco control policy process in Egypt and Iran: a scoping review. *Glob Heal Res Policy* [Internet]. 2017;2(1):1-11. https://ghrp.biomedcentral. com/articles/10.1186/s41256-017-0039-6
- Thow AM, Abdool Karim S, Mukanu MM, et al. The political economy of sugar-sweetened beverage taxation: an analysis from seven countries in sub-Saharan Africa. *Glob Health Action*. 2021;14(1).
- Schmacker R, Smed S. Sin taxes and self-control. SSRN Electron J [Internet]. 2020;1881. https://papers.ssrn.com/abstract=3661144
- Pfinder M, Heise TL, Hilton Boon M, et al. Taxation of unprocessed sugar or sugar-added foods for reducing their consumption and preventing obesity or other adverse health outcomes. *Cochrane Database Syst Rev [Internet]*. 2020;4(4):CD012333. doi:10.1002/ 14651858.CD012333.pub2
- Miller CL, Dono J, Wakefield MA, et al. Are Australians ready for warning labels, marketing bans and sugary drink taxes? Two crosssectional surveys measuring support for policy responses to sugarsweetened beverages. *BMJ Open [Internet]*. 2019;9(6):e027962. https://bmjopen.bmj.com/content/9/6/e027962
- Itria A, Borges SS, Rinaldi AEM, Nucci LB, Enes CC. Taxing sugarsweetened beverages as a policy to reduce overweight and obesity in countries of different income classifications: a systematic review. *Public Health Nutr.* 2021;24(16):5550-5560. https://pubmed.ncbi. nlm.nih.gov/34218837/
- Bosire EN, Stacey N, Mukoma G, Tugendhaft A, Hofman K, Norris SA. Attitudes and perceptions among urban South Africans towards sugar-sweetened beverages and taxation. *Public Health Nutr.* 2020;23(2):374-383. doi:10.1017/S1368980019001356
- 37. Essman M, Zimmer C, Carpentier FD, Swart EC, Taillie LS. Are intentions to change, policy awareness, or health knowledge related to changes in dietary intake following a sugar-sweetened beverage tax in South Africa? A before-and-after study. *Int J Behav Nutr Phys Act [Internet]*. 2022;19(1):1-11. https://ijbnpa.biomedcentral.com/ articles/10.1186/s12966-022-01370-5
- Ruhara CM, Abdool Karim S, Erzse A, Thow AM, Ntirampeba S, Hofman KJ. Strengthening prevention of nutrition-related noncommunicable diseases through sugar-sweetened beverages tax in Rwanda: a policy landscape analysis. *Glob Health Action [Internet]*. 2021;14(1).
- Ahaibwe G, Abdool Karim S, Thow AM, et al. Barriers to, and facilitators of, the adoption of a sugar sweetened beverage tax to prevent non-communicable diseases in Uganda: a policy landscape analysis. *Glob Health Action*. 2021;14(1):1892307. doi:10.1080/ 16549716.2021
- Thow AM, Rippin HL, Mulcahy G, Duffey K, Wickramasinghe K. Sugar-sweetened beverage taxes in Europe: learning for the future. *Eur J Pub Health*. 2022;32(2):273-280.
- 41. Pichon-Riviere A, Alcaraz A, Palacios A, et al. Articles: the health and economic burden of smoking in 12 Latin American countries and the

potential effect of increasing tobacco taxes: an economic modelling study. *Lancet Global Health*. 2020;8(10):e1282-94.

-WILEY

- 42. Finkelstein EA, Malkin JD, Baid D, et al. The impact of seven major noncommunicable diseases on direct medical costs, absenteeism, and presenteeism in Gulf Cooperation Council countries. J Med Economics. 2021;24(1):828-834.
- Chand SS, Singh B, Kumar S. The economic burden of noncommunicable disease mortality in the South Pacific: Evidence from Fiji. PLoS One. 2020;15(7):e0236068. doi:10.1371/journal.pone. 0236068
- Kruger P, Wynberg R, Mafuyeka M, et al. The ultra-processed food industry in Africa. *Nature Food*. 2023;4(7):534-536. https://www. nature.com/articles/s43016-023-00802-0
- Reardon T, Tschirley D, Liverpool-Tasie LSO, et al. The processed food revolution in African food systems and the double burden of malnutrition. *Global Food Security*. 2021;28:100466.
- Marquez PV. A novel tobacco market diversification: unsmoking rich countries while smoking low- and-middle income countries working paper. 1-33.
- Andreyeva T, Marple K, Marinello S, Moore TE, Powell LM. Outcomes following taxation of sugar-sweetened beverages: a systematic review and meta-analysis. JAMA Netw Open [Internet]. 2022;5(6):e2215276. doi:10.1001/jamanetworkopen.2022.15276
- Cuevas Garciá-Dorado S, Cornselsen L, Smith R, Walls H. Economic globalization, nutrition and health: a review of quantitative evidence. *Global Health [Internet]*. 2019;15(1):1-19. https:// globalizationandhealth.biomedcentral.com/articles/10.1186/ s12992-019-0456-z
- Chaloupka FJ, Powell LM, Warner KE. The use of excise taxes to reduce tobacco, alcohol, and sugary beverage consumption. *Annu Rev Public Health*. 2019;40:187-201. doi:10.1146/annurevpublhealth-040218-043816
- Saxena A, Koon AD, Lagrada-Rombaua L, Angeles-Agdeppa I, Johns B, Capanzana M. Modelling the impact of a tax on sweetened beverages in the Philippines: an extended cost-effectiveness analysis. Bull World Health Organ. 2019;97(2):97-107.
- United Nations Development Programme. How raising tobacco taxes can save lives and cut poverty across the Asia-Pacific. United Nations Development Programme. 2023. https://www.undp.org/ asia-pacific/blog/how-raising-tobacco-taxes-can-save-lives-andcut-poverty-across-asia-pacific-0
- Huse O, Backholer K, Nguyen P, et al. A comparative analysis of the cost-utility of the Philippine tax on sweetened beverages as proposed and as implemented. *Lancet Reg Heal-West Pacific* [Internet]. 2023;41:100912. doi:10.1016/j.lanwpc.2023.100912

How to cite this article: Max BL, Mashauri HL. Economic priorities over population health: A political dilemma in addressing noncommunicable diseases in developing countries. *Health Sci Rep.* 2024;7:e1974. doi:10.1002/hsr2.1974