Commentary

GLOBALISATION AND RISING OBESITY IN LOW-MIDDLE INCOME COUNTRIES

ABSTRACT

In 2017, the WHO reported that over 4million people died from being overweight or obese. In the last four decades, the rates of obesity, especially in children and adolescents, have quadrupled from 4%-18% globally; in 2016, over 340 million children were either overweight or obese.Socioeconomic and political environments play a huge role in modifying individuals' material circumstances and behavioural activities.These modifications, in turn, lead to the disease's physical or psychological expression.

This paper argues that the increasing economic integration from globalisation,with the aid of the current global health governance landscape, drives the current obesity pandemic by worsening the social determinants of health, perpetuating inequality, and promoting unhealthy changes in the population's economic and socio-cultural environment.

Keywords: Obesity, Global Health, Public Health, Global Health Governance

INTRODUCTION

Obesity is characterised by abnormal and excessive fat deposition and is a significant cause of associated ill-health[1]. In 2017, the WHO reported that over 4million people died from being overweight or obese. In the last four decades, the rates of obesity, especially in children and adolescents, have quadrupled from 4%-18% globally; in 2016, over 340 million children were either overweight or obese. Childhood Obesity, once thought to be a problem in high-income countries, is now rising in Sub-Saharan Africa and Asia, increasing by 25% in

Comment [AP1]: Add whole term, World Health organisation (WHO). Subsequently use abbreviations

Africa since 2000 and over 50% in Asia by 2019[1]. Adults are not left out. In 2016, 1.9 billion adults were overweight; 650 million were obese[1].

Obesity is due to an imbalance between calorie consumption and energy expenditure, and policies initially targeted obesity by focusing on individual choices. However, evidence shows that obesity is not wholly dependent on individual choices but is an interaction between health's social determinants and individuals' choices[2]. Factors like poor sleep, high-stress levels, and sedentary behaviour with weight gain are now known to be associated with the aetiology of obesity[3-5]. These "obesogenic" factors are closely related to an individual's socio-political and socioeconomic environments, e.g., race, ethnicity, social class, income, education, and gender.[6-8]

This paper will argue that the increasing economic integration from globalisation drives the current obesity pandemic by worsening the social determinants of health, perpetuating inequality, and promoting unhealthy changes in the population's economic and socio-cultural environment. The paper will also show how current global health governance systems aid the increasing prevalence of obesity and proffer ways to strengthen global health governance to arrest the growing obesity pandemic.

WHAT IS GLOBALISATION?

Globalisation is a complicated term to define. Many scholars argue about what the term connotes and how it frames research and policy regarding Global health[9]. However, all scholars on globalisation agree that it is characterised by deepening and widening connections worldwide.

Words like internationalisation, liberalisation, westernisation and Universalisation have been used to describe ~~globalisation~~globalization [10]., Scholte argues that these words limit Globalisation research because it does not "*generate new understanding that is not attainable with other concepts*"[10]. Scholte proposes using Globality instead and argues that this is more appropriate for discussions regarding globalisation. His assertion is based

on the fact that Globality better serves to relate globalisation to its effect on the social space where humans live and operate. However, as Sparke argues, globalisation has two forms- political/economic and ideational- framing its influence on global public health[11]. Hence, in Sparke's view, globalisation may be described as:

1. Broader economic integration to extend trade values or economic policies[11]- Political/Economic
2. Solidarity when a pandemic needs to be tackled or drug access needs to be improved among the poor[11]-Ideational

Comment [AP2]: Add space before writing reference

Comment [AP3]: Clarify what does poor ideational mean

For this paper, Sparke's argument of globalisation as a political/economic form will be adopted because, irrespective of the term used to describe globalisation, global health governance and outcomes do not lie outside the influence of politico-economic decisions or activities but are driven by it.

Jenkins' definition of globalisation sums up the politico-economic nature of globalisation.

"... a process of greater integration within the world economy through movements of goods and services, capital, technology and (to a lesser extent) labour, which lead increasingly to economic (and health) decisions being influenced by global conditions...[12]."

HOW GLOBALISATION DRIVES THE OBESITY PANDEMIC

Socioeconomic and political environments play a huge role in modifying individuals' material circumstances and behavioural activities. These modifications, in turn, lead to the disease's physical or psychological expression[13, 14]. These inequalities result from government policies (actions and inactions) which, as the world grows more interconnected, become more dependent on external factors rather than driven by local contexts.

Reduction in trade boundaries and increasing interdependence of economies have been hallmarks of globalisation exemplified by the 2008 economic crisis. However, relating the effects of globalisation to population health only recently became mainstream, and while it may be argued that globalisation has brought about wealth and improvement in the lives and

economies of many countries[15, 16], it is also known to increase inequalities within and amongst countries, especially among the socio-economically vulnerable population. Globalisation directly influences the distal/structural determinants of health and indirectly influences the proximal/intermediate determinants of health[13, 17], producing the observed population health characteristics, or in this case, obesity.

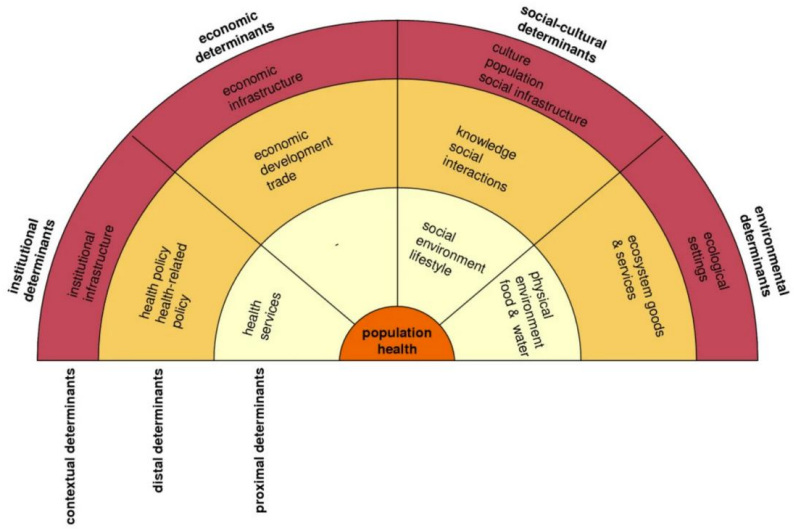

Figure 1: Conceptual framework for the effect of globalisation on population health[17]

Firstly, multilateral and bilateral agreements, e.g., the Trans-Pacific Partnership agreement, facilitate globalisation. However, these agreements thinly veil power imbalances that favour the more developed party, leading to an influx of foreign trade and goods at lower prices that put local businesses and local food producers in danger by weakening their bargaining powers[18, 19]. This translates to reduced income for these small business owners and an inability to afford healthy food choices for their families.

Next, the resulting trade liberalisation leads to an influx of imported foods and the technology to set up manufacturing hubs in the host countries, leading to a broader range of food options[20]. However, in LMICs, which are majorly net importers, there is a net increase in the availability of processed food compared to local produce. Furthermore, the rapid change

Comment [AP4]: Low middle-income countries (LMIC)

in diet to highly processed fast foods ~~provides~~provide business opportunities, especially in fast-growing populations like Sub Sharan Africa. This "gold mine" (a McKinsey report put the food processing and handling sector at 100 billion USD in 2018[21]) is exploited through the various trade agreements to set up wholesale and retail manufacturing hubs of highly processed food all over the region.

With the rapid influx of highly processed foods and big food companies' set-up of manufacturing hubs locally, the food ecosystem and the resultant goods provided are irreversibly altered. Also, the services provided by these companies and the allure of western-styled jobs cause the migration of farmers previously involved in the farming of whole foods to these companies, leading to a net reduction in the availability and a resultant increase in the prices of healthy food options. This price increase further puts the reach of healthy food options out of the poor, who are forced to consume the cheaper unhealthy options.

Furthermore, with increasing globalisation and the possibility of an untapped market, especially in sub-Saharan Africa, b~~B~~ig food companies successfully lobby governments to pass legislation favouring the continued dominance of their products. For example, despite anti-advertising laws in South Africa, lobbyists succeeded in watering down the regulation, allowing direct TV advertisements to children[22, 23]. Other LMICs are not left out. In Mexico, 75% of advertisements were tailored toward influencing children to consume unhealthy foods and beverages. These companies can also influence health policy by providing industry-sponsored research as a basis for making policies. In China, for example, Coca-Cola shaped health policy for obesity by shifting focus from a population health approach to an individual-based approach[24].

Trade liberalisations and economic globalisation may provide the background for the proliferation of unhealthy food and even directly influence policies. However, an indirect modification of population habits and lifestyles, like the participation of these companies in corporate social responsibilities in an attempt to clean up their image before the

public,makes the final piece of the puzzle come together. These companies embark on providing their products to school children under the guise of nutrition or even sponsoring sports activities known to be good for health[25, 26]. Therefore, this indirect modification promotes the idea that the consumption of ultra-processed foods is timesaving, cheaper, and connotes a particular classist appearance. They target the working class with how easy it is to make a meal using these products, children by how palatable and sweet the food is, and adolescents and teens by how "hip" consumption of these meals makes them[27, 28]. The "westernisation" of these meals feeds into the class anxiety already present and further shapes the lifestyle of the targeted population leading to the view that locally produced healthy meals are inferior.

Finally, with increasing economic integration, knowledge and technology transfer options between nations become easy and flow alongside trade. However, this flow of technology does not come without its dangers.[29, 30] Technological advances have provided the means to prepare meals from stores easily. Microwaves and ultra-fast ovens mean that pre-packaged meals can be ready in a few minutes. Technology has provided ways to get any meal or grocery delivered to your doorstep at the click or touch of a screen. Companies advocate that we put our feet up and let them bring our meals to us. Technology also means that little labour is needed to produce outputs that would have taken one hundred people in the past to produce. In addition, with the growth of technology, population growth, and migration towards urban areas associated with globalisation, housing has sprung up without designing areas necessary for physical activity or recreation. Therefore, the increasing "economic boom" comes at the cost of physical activities leading to more sedentary lifestyles.

CURRENT GLOBAL HEALTH GOVERNANCE RESPONSE TO OBESITY

Like globalisation, global health governance (GHG) has varying definitions. With the explosion of interest in the role of governance in global health in determining global population health[31], the change in recent decades from terms like international health

governance and the involvement of non-traditional actors like the WTO, IMF and World Bank in the global health space, the boundaries of GHG have become blurred[31, 32]. Lee attempts to discuss this by providing three conceptual forms used to discuss GHG in academic literature.[33] Frenk and Moon also argue that GHG's meaning depends on the lens with which it is viewed [34]. Despite the several ways used to describe GHG, it is clear that governance in the global health space affects population health.

The WHO acting as the leader in global health has repeatedly called for a response to the obesity pandemic[1]. It commissioned the "*WHO Global Strategy on Diet, Physical Activity and Health*"in 2004 and restated its commitment to this goal in 2011, recognising and endorsing the role of personal choice in an environment conducive to making these choices and recognising the private sector as an ally in its drive to control obesity[35].

The *"Global action plan on physical activity 2018–2030: more active people for a healthier world" advocates* for the provision of functional spaces via the deliberate creation of enabling laws. The plan calls for purposeful attempts at creating active societies by changing the prevailing socio-cultural norms regarding processed foods[36].

Also, it developed *"The 2030 Agenda for Sustainable Development"*, an ambitious project to cut the mortality from NCDs by 30% by 2030. It aimed to get national governments committed to SDG 3.4 by setting up policies to improve food choices and environments[37]. Despite these actions, obesity is still on the rise.

In the period the WHO commissioned various projects to combat obesity, free trade agreements (FTAs) which the WTO oversees, increased to 270 in 2017 in less than 30 years, and obesity rose from 4% to over 18% in the corresponding period[38]. While evidence shows that the proliferation of FTAs is associated with increased sugar and calorie consumption[38, 39],~~this illustration~~it also shows the disconnect in policy agendas between the actors in GHG. It would be right to assume that since these bodies are extensions of the United Nations and should share the same purpose, policies should align. In reality, the heavy influence of the global north in the governance and set up of these bodies push ideas

Comment [AP5]: What are these abbreviated of?

Comment [AP6]: Write full form and NCD in bracket

Comment [AP7]: Write full form

and policies that further the global north ideologies without concern for the health of the global south. While the WHO's policy actions against obesity may have called for inter/multi-sectoral cooperation, the reality is that cooperation among the major players in the GHG space has been anything but that.

The WTO may not be a traditional actor in GHG. However, its policies and activities indirectly affect global health. Its organisation and set-up put it outside the influence of the WHO while allowing it to wield power and influence over population health through the various trade agreements. While the WTO has been empowered to enforce trade regulations and promote free trade alongside the World Bank and the IMF, the WHO has no power to enforce its recommendations, nor does it have the mandate to force countries to carry out its decisions. The perceived inability of the WHO to translate its decisions to action has created an avenue for non-traditional actors like the WTO, IMF, and World Bank with powers of enforcement to step in with policies targeting population health.

A key component in the various actions of the WHO was the recognition of the private sector. This fact shows the relevance of the private sector aided by the trade agreements overseen by the WTO and other non-traditional actors in the current GHG landscape. Against the backdrop of the WTO FTAs, Big food companies have grown in their influence and ability to sway public policy indirectly or directly.

HOW CAN GLOBAL HEALTH GOVERNANCE BE IMPROVED TO TACKLE OBESITY?

GHG in obesity is mainly affected by intersectoral challenges[34]. The crisscrossing of the WTO, IMF, and World Bank policies and agendas creates a confusing atmosphere for GHG and obesity. To tackle this, the WHO must become a key player in the governance of these bodies. Currently, the WHO has only an observer role in these bodies and does not have the power to vote. In order for policies to align, this needs to change. The WHO must be able to have its say on policies affecting population health overall, and its policies regarding health should serve as foundations for policies driving trade or economic discussions.

Comment [AP8]: All of this is personal opinion. Do you have any backing of data or reference. If its opinion you may rephrase as it can be speculated/ it is possible..

Comment [AP9]: Again, a very biased opinion. If nits opinion it should be phrased in non judgmental and as a possibility

The global north's role in the governance and constitution of these increasingly critical non-traditional actors and the WHO in GHG needs to be revisited. The influence of these countries has consistently been reflected in the trade agreements and economic policies being pushed, especially to the global south, without consideration for local contextual factors that may make these policies ineffective or harmful.

Finally, to effectively champion GHG in tackling obesity, the WHO must ramp up its efforts in advocacy and calls for change to deliver the four goods of global health[34]-providing knowledge, mitigating externalities, marshalling global solidarity, and providing stewardship. While it unarguably provides knowledge for global health, it has been unsuccessful in mitigating externalities and marshalling global solidarity. This has been due to a lack of enforcement powers and the current governance set up in the UN and other non-traditional global health actors. The WHO should be given the powers necessary to enforce adherence to its guidance and regulations in matters adjudged to pose a severe danger to population health. The success of the FCTC treaty lends credence to the fact that the WHO can function as the leader in GHG.

CONCLUSION

The continued power of the global north in shaping the decisions of actors in GHG will continue to fuel the current intersectoral challenges unless attempts are made to overhaul their governance structures. The current governance structures and increasing economic integration and trade liberalisationsfavour the creation of inequalities and a widening of economic classes, which fuel the present rise in obesity numbers globally by reducing financial ability and replacing locally available healthy food options. Restructuring the current GHG by empowering the WHO to make its policies a basis for future trade or economic policies is one of the ways the current GHG can better combat the risingobesity pandemic

REFERENCES

1. World Health Organisation. Obesity and Overweight 2021 [Available from: https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight.

2. Medvedyuk S, Ali A, Raphael D. Ideology, obesity and the social determinants of health: a critical analysis of the obesity and health relationship. Critical Public Health. 2018;28(5):573-85.

3. Patel SR, Hu FB. Short sleep duration and weight gain: a systematic review. Obesity (Silver Spring). 2008;16(3):643-53.

4. Hu FB, Li TY, Colditz GA, Willett WC, Manson JE. Television watching and other sedentary behaviours in relation to risk of obesity and type 2 diabetes mellitus in women. Jama. 2003;289(14):1785-91.

5. Block JP, He Y, Zaslavsky AM, Ding L, Ayanian JZ. Psychosocial stress and change in weight among US adults. Am J Epidemiol. 2009;170(2):181-92.

6. Lakerveld J, Mackenbach J. The Upstream Determinants of Adult Obesity. Obes Facts. 2017;10(3):216-22.

7. World Health Organisation. Obesity and Inequalities. WHO regional office for Europe; 2014.

8. Monteiro CA, Moura EC, Conde WL, Popkin BM. Socioeconomic status and obesity in adult populations of developing countries: a review. Bull World Health Organ. 2004;82(12):940-6.

9. Held D, McGrew A, Goldblatt D, Perraton J. Global transformations: Politics, economics and culture. Politics at the Edge: Springer; 2000. p. 14-28.

10. Scholte JA. Defining Globalisation. The World Economy. 2008;31(11):1471-502.

11. Sparke M. Globalisation and the Politics of Global Health. Colin McInnes KL, Jeremy Youde, editor: Oxford University Press; 2018.

12. Jenkins R. Globalization, production, employment and poverty: debates and evidence. Journal of International Development. 2004;16(1):1-12.

13. Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health: final report of the commission on social determinants of health. Geneva: World Health Organization; 2008.

14. World Health Organisation. Social Determinants of Health Geneva: World Health Organization; 2021 [Available from: https://www.who.int/health-topics/social-determinants-of-health.

15. Schrecker T, Labonté R, De Vogli R. Globalisation and health: the need for a global vision. Lancet. 2008;372(9650):1670-6.

16. Dorling D, Shaw M, Smith GD. Global inequality of life expectancy due to AIDS. BMJ. 2006;332(7542):662-4.

17. Huynen MMTE, Martens P, Hilderink HBM. The health impacts of globalisation: a conceptual framework. Global Health. 2005;1(1):14.

18. Rodrik D. Has globalisation gone too far? Challenge. 1998;41(2):81-94.

19. Friel S, Gleeson D, Thow A-M, Labonte R, Stuckler D, Kay A, et al. A new generation of trade policy: potential risks to diet-related health from the trans pacific partnership agreement. Global Health. 2013;9(1):46.

20. Thow AM, Hawkes C. The implications of trade liberalisation for diet and health: a case study from Central America. Global Health. 2009;5(1):5.

21. McKinsey. Food Processing and Handling-Ripe for disruption? ; 2018.

22. Yamoah DA, De Man J, Onagbiye SO, Mchiza ZJ. Exposure of Children to Unhealthy Food and Beverage Advertisements in South Africa. International Journal of Environmental Research and Public Health. 2021;18(8):3856.

23. Théodore FL, Tolentino-Mayo L, Hernández-Zenil E, Bahena L, Velasco A, Popkin B, et al. Pitfalls of the self-regulation of advertisements directed at children on Mexican television. Pediatric Obesity. 2017;12(4):312-9.

24. Greenhalgh S. Making China safe for Coke: how Coca-Cola shaped obesity science and policy in China. BMJ. 2019;364:k5050.

25. South African Government. Basic education on Nestle for healthier kids initiative 2018 [Available from: https://www.gov.za/speeches/basic-education-nestl%C3%A9-healthier-kids-initiative-15-may-2018-0000.

26. FIFA. Partners: Coca-Cola [Available from: https://www.fifamuseum.com/en/about-the-museum/partners/coca-cola/.

27. Watson JL, Caldwell ML. The cultural politics of food and eating: a reader: Blackwell Publishing; 2005.

28. Ram U. Glocommodification: How the Global Consumes the Local - McDonald's in Israel. Current Sociology. 2004;52(1):11-31.

29. Lakdawalla D, Philipson T. The growth of obesity and technological change. Economics and Human Biology. 2009;7(3):283-93.

30. Philipson T, Posner RA. The long-run growth in obesity as a function of technological change. 1999.

31. Julio Frenk OG-D, Fernando Chacon. Global Health in Transition. In: Richard Parker Ms, editor. Routledge Handbook of Global Public Health. Madison Avenue, New York: Taylor and Francis; 2011. p. 11-7.

32. Ng NY, Ruger JP. Global Health Governance at a Crossroads. Glob Health Gov. 2011;3(2):1-37.

33. Lee K, Kamradt-Scott A. The multiple meanings of global health governance: a call for conceptual clarity. Global Health. 2014;10:28-.

34. Frenk J, Moon S. Governance Challenges in Global Health. New England Journal of Medicine. 2013;368(10):936-42.

35. Chopra M, Galbraith S, Darnton-Hill I. A global response to a global problem: the epidemic of overnutrition. Bulletin of the World Health Organization. 2002;80(12):952-8.

36. World Health Organization. Global action plan on physical activity 2018-2030: more active people for a healthier world: World Health Organization; 2019.

37. Desa U. Transforming our world: The 2030 agenda for sustainable development. 2016.

38. Barlow P, McKee M, Stuckler D. The Impact of US Free Trade Agreements on Calorie Availability and Obesity: A Natural Experiment in Canada. American journal of preventive medicine. 2018;54(5):637-43.

39. Ravuvu A, Lui JP, Bani A, Tavoa AW, Vuti R, Win Tin ST. Analysing the impact of trade agreements on national food environments: the case of Vanuatu. Global Health. 2021;17(1):107.