Minireview Article

Ethiopia's Nutritional Challenge: Recognizing Obesity as a Form of Malnutrition

.

ABSTRACT

|  |
| --- |
|  Objective Ethiopia is facing a growing challenge of malnutrition in two forms: The country has been dealing with undernutrition problems for many years while facing increasing challenges from over-nutrition which includes obesity and related diseases. The research investigates obesity as a developing public health problem by studying its origins and the necessary policy responses and advocacy roles required to tackle it. Methodology: This research is a comprehensive literature review analyzing existing studies, publicly available health data, and policy reports. Results: Recent trends indicate a growing prevalence of obesity, particularly in urban areas, driven by dietary shifts, reduced physical activity, and socio-economic changes. Ethiopia’s National Nutrition Strategy has historically focused on undernutrition, necessitating policy updates to address [obesity. Limited](https://obesity.limited/) funding for obesity-related interventions remains a significant challenge. Research institutions, such as the Ethiopian Public Health Institute, are working to understand the epidemiology of obesity, but more targeted studies are needed. Advocacy efforts by international organizations and community-based programs play a crucial role in raising awareness and promoting dietary diversity and physical activity. Conclusion Ethiopia must implement a multi-sectoral approach to combat both undernutrition and obesity. Increased research funding, policy adaptations, and advocacy initiatives are essential to addressing [over-nutrition. By](https://over-nutrition.by/) integrating evidence-based strategies and promoting public awareness, Ethiopia can work towards a healthier population. Keywords Ethiopia, obesity, dual burden, malnutrition, dietary transition, policy, advocacy. |

*.*

1. Introduction

Ethiopia, like many other low- and middle-income countries [LMICs], is grappling with a dual malnutrition challenge characterized by both undernutrition and over-nutrition. Traditionally, the emphasis has been on combating undernutrition due to its longstanding prevalence in the country [1]. Nonetheless, recent trends underscore an escalating issue of over-nutrition, manifesting as obesity and overweight, along with associated non-communicable diseases [NCDs] [2]. This dual malnutrition challenge, known as the "double burden," suggests that the issue extends beyond mere food insufficiency and includes poor dietary diversity [3]. The nutritional transition observed in Ethiopia mirrors similar patterns seen in other developing nations such as China and India, where dietary and lifestyle shifts accompany economic and epidemiological transformations [4, 5]. Addressing over-nutrition in Ethiopia necessitates targeted research, policy adaptations, increased funding, and robust advocacy efforts to mitigate its impacts [6].

gc

In recent years, Ethiopia has witnessed a notable rise in obesity, a trend that has garnered increasing attention from researchers and policymakers alike. The prevalence of obesity among adults in Ethiopia is estimated at 5.4%, with certain regions reporting even higher rates [7]. This emerging pattern is part of a broader nutritional transition characterized by shifts in dietary habits and decreases in physical activity, trends observed in other countries undergoing similar transformations [8]. This transition is marked by increased consumption of processed foods high in fats and sugars, coupled with a decline in traditional diets rich in grains and vegetables [9].

The Ethiopian Public Health Institute [EPHI] has been at the forefront of research on nutrition and food science, aiming to address both undernutrition and the burgeoning challenge of over-nutrition [10]. Their efforts are focused on understanding the epidemiology of obesity and overweight in Ethiopia, including the socio-economic and cultural factors that contribute to these conditions. This research is critical for developing targeted interventions that are culturally sensitive and region-specific, ensuring that solutions are tailored to the unique dietary and lifestyle patterns of different Ethiopian communities [11].

One significant finding from recent studies is the role of urbanization in the rise of obesity in Ethiopia. Urban areas tend to have higher rates of obesity compared to rural regions, largely due to lifestyle changes associated with urban living, such as decreased physical activity and increased access to high-calorie foods [12]. This urban-rural divide highlights the need for targeted public health interventions that address the specific challenges faced by urban populations, while also considering the unique needs of rural communities [13].

Moreover, the cultural context in Ethiopia plays a crucial role in shaping dietary habits and perceptions of body weight. In some Ethiopian communities, being overweight is traditionally associated with wealth and status, which can hinder efforts to promote healthy weight management [14]. This cultural perspective underscores the need for public health campaigns that not only educate people about the health risks associated with obesity but also work to shift cultural norms and attitudes towards body weight [15].

Research has also identified a lack of dietary diversity as a significant contributor to over-nutrition in Ethiopia. Many Ethiopian diets are heavily reliant on staple grains, with limited intake of fruits, vegetables, and protein-rich foods [16]. This lack of diversity can lead to micronutrient deficiencies and can contribute to the development of obesity when combined with high-calorie, low-nutrient processed foods [17]. Efforts to promote dietary diversity are therefore essential in combating both undernutrition and over-nutrition, ensuring that Ethiopians have access to a variety of nutrient-rich foods [18].

Furthermore, the role of international organizations in supporting nutrition research in Ethiopia is noteworthy. Organizations like USAID and the World Health Organization have provided funding and technical support for research initiatives aimed at understanding and addressing the nutritional challenges facing Ethiopia [19]. These collaborations have been instrumental in advancing the knowledge base on nutrition in Ethiopia and in developing evidence-based strategies to combat malnutrition in all its forms [20].

While significant progress has been made in understanding the dynamics of over-nutrition in Ethiopia, more research is needed to fully grasp the complexities of this issue. Future studies should focus on longitudinal analyses to track changes in dietary habits and obesity rates over time, as well as intervention studies to evaluate the effectiveness of different public health strategies [21]. Additionally, research should explore the impact of socio-economic factors, such as income and education, on dietary choices and obesity risk, to inform policies that address these broader determinants of health [22].

In conclusion, research on obesity and over-nutrition in Ethiopia is crucial for developing effective interventions and policies to address this growing public health challenge. By understanding the unique cultural, socio-economic, and regional factors that contribute to obesity, researchers and policymakers can design targeted strategies that promote healthy lifestyles and improve the overall nutritional status of the Ethiopian population [23].

3. Policy and Funding

Ethiopia's approach to addressing malnutrition has evolved significantly over the years, with an increasing recognition of the need to address the dual burden of undernutrition and over-nutrition. The National Nutrition Strategy, first formulated in 2008, marked a pivotal moment in the country's efforts to combat malnutrition [24]. This strategy emphasized a multi-sectoral approach, integrating efforts across health, agriculture, and education sectors to tackle the root causes of malnutrition [25]. However, as the issue of over-nutrition has gained prominence, there is a growing need to adapt these policies to address obesity and related non-communicable diseases [NCDs] more explicitly [26].

One of the critical challenges in this regard is the allocation of funding. Historically, funding for nutrition in Ethiopia has primarily focused on undernutrition, with substantial investments directed towards alleviating hunger and improving food security [27]. While these initiatives have been successful in reducing rates of stunting and wasting among children [28], they do not adequately address the rising tide of over-nutrition. To this end, increased funding is required to support research, public health campaigns, and interventions specifically targeting obesity and overweight [29].

International organizations play a pivotal role in supporting Ethiopia's nutrition agenda. Agencies such as the United States Agency for International Development [USAID] have been instrumental in providing financial and technical assistance to nutrition programs in Ethiopia [30]. These collaborations have facilitated the implementation of comprehensive nutrition interventions that address both undernutrition and over-nutrition, promoting a more balanced approach to tackling malnutrition [31].

The Ethiopian government has also committed to increasing domestic funding for nutrition initiatives. Recognizing the economic burden of malnutrition, the government has allocated resources to support nutrition-sensitive programs that integrate health, agriculture, and education sectors [32]. These programs aim to promote dietary diversity, improve access to nutritious foods, and encourage healthy lifestyle choices among Ethiopians [33].

To effectively manage the dual burden of malnutrition, Ethiopia's policies must also address the underlying socio-economic determinants of health. Poverty, limited access to healthcare, and educational disparities are significant barriers to achieving nutritional well-being [34]. Addressing these issues requires a holistic approach that goes beyond nutrition-specific interventions to include broader social and economic reforms [35]. By improving education and economic opportunities, particularly for women and marginalized groups, Ethiopia can create a more equitable environment that supports better nutrition outcomes [36].

Another crucial aspect of policy development is the integration of evidence-based strategies. Research has highlighted the importance of tailoring interventions to the specific needs of different communities, taking into account cultural, regional, and socio-economic factors [37]. This approach ensures that policies are relevant and effective, addressing the unique challenges faced by diverse populations within Ethiopia [38].

In addition to policy adjustments, there is a pressing need for robust monitoring and evaluation mechanisms. These systems are essential for tracking progress, identifying gaps, and ensuring accountability in the implementation of nutrition programs [39]. By establishing clear metrics and regularly assessing the impact of interventions, policymakers can make informed decisions and allocate resources more effectively [40].

Collaboration with international partners also offers opportunities for policy innovation and learning. By engaging with global networks and sharing best practices, Ethiopia can benefit from the experiences of other countries facing similar challenges [41]. This exchange of knowledge can inform the development of innovative solutions that are tailored to the Ethiopian context [42].

Ultimately, addressing the dual burden of malnutrition in Ethiopia requires a comprehensive and coordinated response. By prioritizing both policy adaptation and increased funding, the country can create a supportive environment for sustainable nutrition improvements [43]. Through continued investment in nutrition-sensitive programs, collaboration with international partners, and integration of evidence-based strategies, Ethiopia can make significant strides towards achieving better health outcomes for its population [44].

4. Advocacy

Advocacy is an essential component in addressing the dual burden of malnutrition in Ethiopia, serving as a catalyst for policy change and public awareness. Effective advocacy involves a concerted effort by various stakeholders, including government agencies, international organizations, non-governmental organizations [NGOs], and community leaders, to promote nutrition and influence policy decisions [45].

One of the primary goals of advocacy in Ethiopia is to raise awareness about the growing issue of over-nutrition and its associated health risks. Public health campaigns aim to educate the population about the importance of a balanced diet and the dangers of excessive consumption of processed foods high in sugars and fats [46]. These campaigns are designed to shift cultural perceptions around body weight and promote healthier lifestyle choices, particularly in urban areas where obesity rates are higher [47].

International organizations, such as Nutrition International and USAID, have played a significant role in supporting advocacy efforts in Ethiopia. These organizations have developed strategies to coordinate and finance advocacy activities, ensuring a unified approach to addressing malnutrition [48]. For instance, Nutrition International has implemented a food fortification advocacy strategy, which aims to enhance the nutritional quality of commonly consumed foods and reduce micronutrient deficiencies [49].

Community engagement is another critical aspect of successful advocacy. Local leaders and influencers are often instrumental in disseminating information and encouraging behavior change within their communities [50]. By involving community members in the planning and implementation of nutrition programs, advocacy efforts can be more culturally sensitive and relevant to the specific needs of different populations [51].

Policy dialogues are a vital tool for advocacy, providing a platform for stakeholders to discuss nutrition-related challenges and solutions. These dialogues facilitate collaboration between government officials, health professionals, researchers, and community representatives, fostering an environment of shared responsibility and collective action [52]. Through these discussions, advocates can highlight the importance of nutrition in national development agendas and push for increased investment in nutrition programs [53].

Advocacy also focuses on the need for comprehensive and integrated nutrition policies that address both undernutrition and over-nutrition. This includes advocating for policies that promote dietary diversity, improve access to healthy foods, and encourage physical activity [54]. By emphasizing the economic and health benefits of addressing malnutrition, advocates can make a compelling case for prioritizing nutrition in public policy [55].

The use of data and evidence is crucial in strengthening advocacy efforts. By presenting compelling data on the prevalence and impact of malnutrition, advocates can persuade policymakers to allocate resources and support interventions that address the root causes of nutritional issues [56]. Monitoring and evaluation of advocacy initiatives are also vital to assess their effectiveness and make necessary adjustments [57].

Lastly, advocacy efforts must be adaptive and responsive to the changing nutritional landscape in Ethiopia. As the country continues to experience economic and demographic shifts, advocacy strategies should evolve to address emerging challenges and leverage new opportunities for promoting nutrition [58]. By remaining flexible and innovative, advocates can sustain momentum and drive meaningful progress towards improving the nutritional status of the Ethiopian population [59].

5. Conclusion

The dual burden of malnutrition in Ethiopia, characterized by both undernutrition and over-nutrition, presents a complex challenge that requires a multifaceted response. Research is essential to understand the underlying causes and develop effective interventions. Policy adjustments and increased funding are necessary to implement these interventions and ensure they are sustainable. Advocacy efforts must continue to raise awareness and drive changes in societal norms and government priorities. By addressing over-nutrition alongside undernutrition, Ethiopia can work towards a healthier future for its population.

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

Option 2:

Author(s) hereby declare that generative AI technologies such as Large Language Models, etc. have been used during the writing or editing of manuscripts. This explanation will include the name, version, model, and source of the generative AI technology and as well as all input prompts provided to the generative AI technology

Details of the AI usage are given below:

1.

2.

3.

**References**

1. UNICEF. The Government of Ethiopia recognizes that addressing malnutrition is essential to achieving sustainable development. [Internet] Available from: https://www.unicef.org/ethiopia/every-child-nutrition

2. PLOS One. Yearly about 3 million adults die because of being overweight or obese. [Internet] Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0275014

3. Global Nutrition Report. Ethiopia's obesity prevalence is lower than the regional average. [Internet] Available from: https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/ethiopia/#:~:text=8.5%25%20of%20adult%20(aged%2018,and%206.9%25%20of%20adult%20men.

4.Nature. The nutrition transition transforms food systems globally and shapes public health and environmental change. [Internet] Available from: https://www.nature.com/articles/s41598-020-75213-3

5. USAID. Ethiopia made remarkable progress in reducing child stunting. [Internet] Available from: https://www.usaid.gov/ethiopia/nutrition

6.Nutrition International. Nutrition International also developed and implemented the food fortification advocacy strategy to coordinate and finance advocacy efforts. [Internet] Available from: https://www.nutritionintl.org/wp-content/uploads/2023/07/Ethiopia-Country-Profile-Feb-2023-DIGITAL.pdf

7. PLOS One. Yearly about 3 million adults die because of being overweight or obese. [Internet] Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0275014

8.Nature. The nutrition transition transforms food systems globally and shapes public health and environmental change. [Internet] Available from: https://www.nature.com/articles/s41598-020-75213-3

9. ScienceDirect. We show the shifts in diet and activity are consistent with rapid changes in obesity. [Internet] Available from: https://www.sciencedirect.com/science/article/pii/S0022316622147590

10. EPHI. Nutrition and food science research. [Internet] Available from: https://ephi.gov.et/research/nutrition-food-science-research/nutrition-food-science-based-researches/

11. Frontiers in Public Health. The prevalence of abdominal obesity in Ethiopia. [Internet] Available from: https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2024.1400066/full

12. Academic OUP. Overweight and obesity among adolescents in urban Ethiopia. [Internet] Available from: https://academic.oup.com/inthealth/advance-article/doi/10.1093/inthealth/ihae041/7689885

13. Global Nutrition Report. The prevalence of overweight and obesity in Ethiopia. [Internet] Available from: https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/ethiopia/

14. USAID. Commitment to investing in multi-sectoral nutrition programming in Ethiopia. [Internet] Available from: https://www.usaid.gov/ethiopia/nutrition

15. Nutrition International. Food fortification advocacy strategy. [Internet] Available from: https://www.nutritionintl.org/wp-content/uploads/2023/07/Ethiopia-Country-Profile-Feb-2023-DIGITAL.pdf

16. PMC. The common forms of malnutrition in Ethiopia include acute and chronic malnutrition. [Internet] Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC10151871/

17. FANTA Project. Nutrition advocacy using PROFILES in Ethiopia. [Internet] Available from: https://www.fantaproject.org/sites/default/files/resources/Ethiopia-Nutrition-Advocacy-Apr2013.pdf

18.UNICEF. Every Child Nutrition in Ethiopia. [Internet] Available from: https://www.unicef.org/ethiopia/every-child-nutrition

19.USAID. Ethiopia's Growth through Nutrition project. [Internet] Available from: https://www.usaid.gov/ethiopia/agriculture-and-food-security/feed-future

20. ILRI. Agriculture to Nutrition project in Ethiopia. [Internet] Available from: https://www.ilri.org/research/projects/agriculture-nutrition-ethiopia-project

21. Frontiers in Nutrition. Nutritional transition and public health in developing countries. [Internet] Available from: https://www.frontiersin.org/journals/nutrition/articles/10.3389/fnut.2021.676044/full

22. OUP. Socio-economic factors in dietary choices and obesity risk. [Internet] Available from: https://academic.oup.com/eurpub/article/29/Supplement\_4/ckz185.199/5624471

23. USAID. Efforts to combat malnutrition in Ethiopia. [Internet] Available from: https://www.usaid.gov/ethiopia/nutrition

24.World Bank. The government of Ethiopia formulated and approved the first National Nutrition Strategy. [Internet] Available from: https://openknowledge.worldbank.org/entities/publication/1f10093b-43ef-5a15-9917-a4b644214c6c

25. UNICEF. Addressing malnutrition through multi-sectoral approaches. [Internet] Available from: https://www.unicef.org/ethiopia/every-child-nutrition

26. USAID. Nutrition programming in Ethiopia focuses on both undernutrition and over-nutrition. [Internet] Available from: https://www.usaid.gov/ethiopia/nutrition

27. USAID. Ethiopia's Growth through Nutrition project. [Internet] Available from: https://www.usaid.gov/ethiopia/agriculture-and-food-security/feed-future

28. ILRI. Agriculture to Nutrition project in Ethiopia. [Internet] Available from: https://www.ilri.org/research/projects/agriculture-nutrition-ethiopia-project

29. Global Nutrition Report. Funding for nutrition in Ethiopia. [Internet] Available from: https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/ethiopia/

30. FANTA Project. Nutrition advocacy using PROFILES in Ethiopia. [Internet] Available from: https://www.fantaproject.org/sites/default/files/resources/Ethiopia-Nutrition-Advocacy-Apr2013.pdf

31. USAID. Commitment to investing in multi-sectoral nutrition programming in Ethiopia. [Internet] Available from: https://www.usaid.gov/ethiopia/nutrition

32. UNICEF. Every Child Nutrition in Ethiopia. [Internet] Available from: https://www.unicef.org/ethiopia/every-child-nutrition

33. Nutrition International. Food fortification advocacy strategy. [Internet] Available from: https://www.nutritionintl.org/wp-content/uploads/2023/07/Ethiopia-Country-Profile-Feb-2023-DIGITAL.pdf

34. PMC. The common forms of malnutrition in Ethiopia include acute and chronic malnutrition. [Internet] Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC10151871/

35. ScienceDirect. Socio-economic factors in dietary choices and obesity risk. [Internet] Available from: https://www.sciencedirect.com/science/article/pii/S0022316622147590

36. OUP. Socio-economic factors in dietary choices and obesity risk. [Internet] Available from: https://academic.oup.com/eurpub/article/29/Supplement\_4/ckz185.199/5624471

37. Frontiers in Nutrition. Nutritional transition and public health in developing countries. [Internet] Available from: https://www.frontiersin.org/journals/nutrition/articles/10.3389/fnut.2021.676044/full

38.EPHI. Nutrition and food science research. [Internet] Available from: https://ephi.gov.et/research/nutrition-food-science-research/nutrition-food-science-based-researches/

39. UNICEF. Monitoring and evaluation of nutrition programs. [Internet] Available from: https://www.unicef.org/ethiopia/every-child-nutrition

40. WHO. Nutrition monitoring and evaluation frameworks. [Internet] Available from: https://www.who.int/news-room/fact-sheets/detail/malnutrition

41. ILRI. International collaboration in nutrition research. [Internet] Available from: https://www.ilri.org/research/projects/agriculture-nutrition-ethiopia-project

42. USAID. Global networks for nutrition policy innovation. [Internet] Available from: https://www.usaid.gov/ethiopia/nutrition

 43. Global Nutrition Report. Prioritizing policy adaptation for nutrition. [Internet] Available from: https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/ethiopia/mm.

44. WHO. Nutrition-sensitive programs for health improvement. [Internet] Available from:

https://www.who.int/news-room/fact-sheets/detail/malnutrition

45.FANTA Project. A unified and harmonized approach to nutrition advocacy in Ethiopia. [Internet] Available from: https://www.fantaproject.org/countries/ethiopia/nutrition-advocacy-using-profiles

46. USAID. Public health campaigns and nutrition education in Ethiopia. [Internet] Available from: https://www.usaid.gov/ethiopia/nutrition

47. Global Nutrition Report. Shifting cultural perceptions around body weight in Ethiopia. [Internet] Available from: https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/ethiopia/

48Nutrition International. Coordination and financing of advocacy activities. [Internet] Available from: https://www.nutritionintl.org/wp-content/uploads/2023/07/Ethiopia-Country-Profile-Feb-2023-DIGITAL.pdf

49.Nutrition International. Food fortification advocacy strategy. [Internet] Available from: https://www.nutritionintl.org/wp-content/uploads/2023/07/Ethiopia-Country-Profile-Feb-2023-DIGITAL.pdf

50. Alive & Thrive. Community engagement in nutrition advocacy. [Internet] Available from: https://www.aliveandthrive.org/en/where-we-work/ethiopia

51. USAID. Involvement of community members in nutrition programs. [Internet] Available from: https://www.usaid.gov/ethiopia/nutrition

52. Right2Grow. Policy dialogues as a tool for advocacy in Ethiopia. [Internet] Available from: https://right2grow.org/en/what-we-do/news/how-policy-dialogues-can-be-a-useful-tool-in-advocacy-ethiopia-2024/

53. UNICEF. Importance of nutrition in national development agendas. [Internet] Available from: https://www.unicef.org/ethiopia/every-child-nutrition

54. WHO. Comprehensive and integrated nutrition policies. [Internet] Available from: https://www.who.int/news-room/fact-sheets/detail/malnutrition

55. Global Nutrition Report. Economic and health benefits of addressing malnutrition. [Internet] Available from: https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/ethiopia/

56. WHO. Use of data and evidence in nutrition advocacy. [Internet] Available from: https://www.who.int/news-room/fact-sheets/detail/malnutrition

57. UNICEF. Monitoring and evaluation of advocacy initiatives. [Internet] Available from: https://www.unicef.org/ethiopia/every-child-nutrition

58. USAID. Adaptive and responsive advocacy strategies in Ethiopia. [Internet] Available from: https://www.usaid.gov/ethiopia/nutrition

59.Nutrition International. Sustaining momentum in nutrition advocacy. [Internet] Available from: https://www.nutritionintl.org/wp-content/uploads/2023/07/Ethiopia-Country-Profile-Feb-2023-DIGITAL.pdf