



Drivers of the Growing Non-Communicable Disease Epidemic in East Africa: A Narrative Review of Behavioural, Socioeconomic, Environmental and Health-System Factors

Benjamin Wathum Oromcan ^{1*}, Habert Mabonga ², Ronald Kareodu ³

¹⁻³ Mengo Hospital Training Institute (MHTI), Kampala, Uganda, East Africa

* Corresponding Author: Benjamin Wathum Oromcan

Article Info

ISSN (Online): 2582-7138

Impact Factor (RSIF): 8.04

Volume: 07

Issue: 05

Received: 15-07-2026

Accepted: 13-08-2026

Published: 11-09-2026

Page No: 425-431

Abstract

Background: Non-communicable diseases (NCDs) are an increasing cause of morbidity, mortality and healthcare burden in East Africa. Their growing prevalence is influenced not only by behavioural risk factors but also by socioeconomic, environmental and health-system conditions. This narrative review synthesised evidence on the behavioural, socioeconomic, environmental and health-system factors contributing to the increasing NCD burden in East Africa.

Methods: Relevant peer-reviewed literature and authoritative reports on NCDs in East African countries were reviewed and thematically synthesised across four domains: behavioural factors; socioeconomic and social determinants; environmental factors; and health-system factors affecting NCD prevention, diagnosis, treatment and control.

Results: The evidence indicates that the NCD epidemic results from interconnected determinants. Physical inactivity, Unhealthy diets, tobacco use and harmful alcohol consumption contribute to major metabolic and cardiovascular risks. Poverty, education, employment, income, food insecurity and social inequalities influence exposure to these risks and access to healthcare. Environmental factors, including urbanisation, air pollution, occupational exposures and climate change, further increase NCD risks. Health-system challenges, including limited screening and diagnostic capacity, inadequate medicines and supplies, and workforce shortage, fragmented chronic care and limited financing, constrain effective prevention and management.

Conclusion: The rising NCD burden in East Africa requires integrated and multisectoral responses that address immediate behavioural and metabolic risks alongside their underlying socioeconomic, environmental and health-system determinants. Strengthening primary healthcare, early detection, continuity of care and equitable access to NCD services is critical for effective regional NCD control.

DOI: <https://doi.org/10.54660/IJMRGE.2026.7.5.425-431>

Keywords: Non-communicable diseases, East Africa, behavioural factors, socioeconomic determinants, environmental factors, health systems, NCD prevention

Introduction

Non-communicable diseases (NCDs), especially cardiovascular diseases (CVDs), cancers, diabetes and chronic respiratory diseases (CRDs) are emerging as a significant public health problem in the world and now in East Africa. The impact of these conditions is significant in terms of premature death, disability, and economic loss, and disproportionately hard on countries with low to middle incomes (World Health Organization [WHO], 2025) ^[22]. NCDs were responsible for about 37% of all deaths

in the WHO African Region in 2019, which was significantly higher than the 24% in 2000, marking a significant change in the disease burden of the African Region (WHO Regional Office for Africa, 2024).

The increase of NCD burden in East Africa is the result of a complex epidemiological transition that involves rapid demographic changes, changing lifestyles, demographic change and population growth, and rapid urbanization. Metabolic conditions (hypertension, obesity, diabetes and dyslipidaemia) are linked to behavioural risk factors (unhealthy diet, physical inactivity, tobacco use and harmful alcohol consumption) and are drivers of increased risk of major NCDs (WHO, 2025). For instance, evidence from Uganda has been found to indicate that adults are accumulating multiple NCD risk factors and so there is a need to address clustered risk behaviours not individual risk factors (Mayega *et al.*, 2016) [15]. Evidence from East Africa suggests a significant burden of hypertension and links to obesity, diabetes, alcohol intake and tobacco smoking, too (Nwankwo *et al.*, 2025) [17]. But, there is a problem with the NCD epidemic – individual behaviours don't explain it. Socioeconomic inequalities and poverty affect exposure to NCD risk factors and the capacity of people to prevent and manage chronic diseases (Allen *et al.*, 2017) [1]. Household and ambient air pollution, occupational exposures and urban changes, are additional drivers of NCD risk (WHO, 2025). Influences such as these interact with commercial and social environments which are increasingly affecting dietary patterns and physical activity, as well as tobacco and alcohol consumption. Health-system capacity is also influenced by the availability of effective leadership, workforce planning, professional development, and succession mechanisms. Evidence from public-health systems indicates that contextually tailored human-resource and leadership-development strategies can strengthen health-system performance, workforce retention, and equity, with capacity disparities remaining particularly important in low- and middle-income settings (Ansari *et al.*, 2023) [3].

In addition, the effects of the epidemic are magnified by limitations in the health system. Poor surveillance of NCDs, low levels of screening and early diagnosis, weak access to essential medicines and technologies and weak capacity for long-term disease management continue to limit effective NCD prevention and control across Africa (WHO Regional Office for Africa, 2025). But, the continued existence of communicable diseases and the rising NCD burden also puts pressure on already stretched health systems.

While East Africa has seen an increase in studies of individual NCD risk factors, evidence is disjointed within countries, between diseases and determinant categories. There is therefore a need for an integrated synthesis that takes into account the interplay between behavioural, socioeconomic, environmental, as well as health-system factors in contributing to the escalating NCD epidemic.

Rationale

In East Africa, non-communicable diseases (NCDs), including cardiovascular diseases, cancers, diabetes and chronic respiratory diseases are becoming a growing threat to morbidity and premature mortality. In the region, communicable diseases still impose a high burden and the epidemiological transition is driven by population growth, urbanisation and the changes in life expectancy and lifestyles. As such, East African health systems are facing a double

burden of disease (World Health Organization [WHO], 2024a) [23].

The challenges of the escalating NCD epidemic are multifaceted – behavioural, socioeconomic, environmental and health-system factors all play a role. Metabolic risk factors like obesity, hypertension and diabetes are caused by unhealthy eating habits, sedentary lifestyle, tobacco consumption and excessive alcohol intake. Rapid urbanisation and the change in food, transport and work environments might exacerbate exposure to these risks (WHO, 2025). Simultaneously, poverty, inequities and inadequate access to health prevention and essential health services make people vulnerable to NCDs and complications. Household and ambient air pollution are also important environmental exposures that significantly drive NCD morbidity and mortality (WHO 2025).

Although there is growing awareness of the issue, evidence about the factors underlying NCDs in East Africa is still very unevenly distributed across countries and individual risk factors. Further, weak surveillance, early detection, access to medicines and technologies, and integration of NCD services into primary health care remain a challenge to the prevention and control of NCDs (WHO Regional Office for Africa, 2025). A more thorough analysis of these interdependent drivers is thus required to inform context-specific approaches to prevention, enhance health-system responses and to inform regional policy. This narrative review paper aims to summarize and integrate available evidence on the behavioural, socioeconomic, environmental and health system factors that are contributing to the current East African NCD crisis.

Review Questions

The review questions include: What behavioural factors are driving the increasing burden of non-communicable diseases in East Africa? What socioeconomic and social determinants are contributing to the increasing burden of non-communicable diseases in East Africa? What environmental factors are contributing to the rising epidemic of non-communicable diseases in East Africa? And what health-system factors are influencing the prevention, diagnosis, treatment and control of non-communicable diseases in East Africa?

Methods and Materials

The Study Design and Scope

The evidence synthesis was done using a narrative literature review to compile evidence on the key drivers of the increasing burden of non-communicable diseases (NCDs) in East Africa. The review was conducted on cardiovascular diseases, diabetes, cancers, chronic respiratory diseases, and other major non communicable diseases. Evidence was reviewed in four main areas: behavioural, socioeconomic and social, environmental, and health-system factors. The review was conducted with a socio-ecological approach, acknowledging the interaction between individual, social, environmental, economic and health system factors that may affect the risk of developing NCDs.

Literature Search Strategy

PubMed/MEDLINE, Scopus, Web of Science, and Google Scholar were searched for literature. The contributions of relevant reports and policy documents from various organisations, such as the World Health Organization, World

Bank, African Union, East African Community and national Ministries of Health were also taken into account. Boolean queries were used to search for NCDs, risk factors, determinants, drivers, and the various countries in East Africa. Specific terms that were mentioned were 'non-communicable diseases', 'cardiovascular disease', 'diabetes', 'cancer', 'chronic respiratory disease' and 'risk factors', 'determinants', 'behavioural factors', 'socioeconomic factors', 'environmental factors', and 'health systems'. Relevant articles were also searched in reference lists for identifying further studies.

Eligibility Criteria

The literature reviewed was mainly from 2016 to 2026, unless they were seminal studies prior that provided historical or conceptual background. The studies included in this review were observational, qualitative, mixed methods, intervention, systematic and narrative reviews, and papers reporting on relevant policy and institutional publications in East Africa that examined NCD determinants. Studies were not included if they dealt with issues related to drivers of NCDs outside East Africa and contained no evidence relevant to those drivers or if there was no information provided about the region where the study took place, which was relevant to the review objectives. English language publications were included.

How Studies Were Selected and Data Extracted

The literature retrieved was initially screened by title and abstract and subsequently evaluated for possible relevance by reading full text of the articles. A structured framework was used to extract relevant information with regards to author and year of publication, country, study population, study design, NCD or outcome examined, determinant investigated, key findings, and implications for prevention and control. Evidence was classified based on the four domains of determinants: behavioural, socioeconomic/social, and environmental and health-system.

Data Synthesis

The nature of the literature was so diverse in the study design, population, exposure, outcome and geographical settings that it was not possible to use a meta-analysis to synthesise results; instead a thematic narrative approach was used. Evidence was aggregated by country and population groups to detect patterns; identify emerging risk factors; detect differences; detect interactions between risk factors; and evidence gaps. The impact of urbanisation, change in lifestyles, socioeconomic inequities, environmental exposures and capacity of health systems on the increasing burden of NCDs were given particular attention.

Quality and Ethical Considerations

The findings were interpreted by taking into account methodological quality and relevance of individual studies with higher weight on studies with good methodological designs, suitable samples, appropriate measuring techniques and clear analytical methods and procedures. There was no causal interpretation of cross-sectional associations. Ethical approval and informed consent were not required for this review, because no identifiable primary data or humans were used, nor was any new data collected. The review was conducted with integrity, by citing and presenting the evidence available to them.

Literature Review

Behavioural Factors Driving the Increasing Burden of Non-Communicable Diseases in East Africa

The disease burden from NCDs is growing in East Africa, partly as a result of modifiable behavioural risk factors such as a poor diet, lack of physical activity, smoking, and harmful drinking. These behaviours are associated with metabolic diseases, like obesity, hypertension, hyperglycaemia and dyslipidaemia. Eastern Uganda demonstrates that these risk factors frequently are interacting and are different by socioeconomic, geographic and sex-related factors (Gibson *et al.*, 2024; Kibria *et al.*, 2024) ^[9, 11]. Thus, the increased burden of NCDs not only is attributable to individual choices but also to the overall social, environmental and economic context, indicating the necessity of comprehensive prevention approaches.

Rapid urbanisation and lifestyle change are affecting the food habits in East Africa. Traditional diets which are rich in fruits and vegetables as well as whole grains are being substituted by processed high salt, high sugar and unhealthy high fat foods (Juma *et al.*, 2019) ^[10]. Fast food and sugar sweetened drinks are more available in urban areas, and are associated with increasing levels of overweight and obesity. At the same time, the adoption of mechanisation, the shift to sedentary jobs and the decrease in physical activity have led to increased sedentary lifestyle in adults and youth (WHO, 2025).

Tobacco and risky alcohol intake continue to be important contributors to the risk of NCDs. National data from low and lower-middle income countries indicate that the poorest and most vulnerable groups are at higher risk of using tobacco and alcohol than are higher-income groups, which increases their risk of NCDs (Allen *et al.*, 2017) ^[1]. A few countries have tobacco and alcohol control policies in place in East Africa, but they are not consistently applied and tobacco and alcohol products continue to influence the consumption of tobacco products (Kraef *et al.*, 2020) ^[13]. The major risk factors that are linked to NCD mortality in the East African Community (EAC) include air pollution, high blood pressure, unhealthy diets, harmful alcohol use and low physical activity (Kraef *et al.*, 2020) ^[13]. The clustering of behavioural risk factors also contributes to an enhanced risk for disease, with a study in Uganda showing that many people have multiple behavioural risk factors (Mayega *et al.*, 2016) ^[15]. The results indicate that behavioural interventions should not be aimed at specific behaviours, but at several factors.

Socioeconomic and Social Determinants Contributing to The Growing Ncd Burden

The growing burden of NCDs in East Africa is greatly influenced by social and economic determinants. The risk factors for NCDs as well as access to prevention and treatment services are linked to poverty, low education, unemployment, food insecurity and income inequality. The social determinant of health framework implies that the health of individuals is not only influenced by their personal decisions, but also by the economic and social environment (Allen *et al.*, 2017) ^[1].

In East Africa, there has grown a new social determinant of NCDs: urbanisation. In addition to providing opportunities for economic development, urbanisation also fosters unhealthy lifestyles, physical inactivity and the consumption of processed foods (Juma *et al.*, 2019) ^[10]. Overcrowding, inadequate sanitation, insufficient infrastructure and

environmental pollution are some of the problems that the people living in urban slums encounter, which puts them at risk for a number of health issues (Rabkin *et al.*, 2015) ^[18]. The correlation between food insecurity and poverty with the consumption of poor-quality low nutrient food items (low cost, high energy), can be linked with obesity and metabolic disorders.

Socio-economic inequalities are also a factor affecting behavioural risk factors. Tobacco consumption tends to be higher in poor populations of low-income countries, while the intake of fruits and vegetables is lower, whereas physical inactivity is more prevalent among higher-income populations and may also be associated with processed-food consumption (Allen *et al.*, 2017) ^[1]. Recent spatial evidence from the East African Community demonstrates that NCD mortality is strongly spatially structured and associated with socioeconomic conditions. Chinembiri *et al.* (2026) ^[8] found that GDP per capita, healthcare expenditure, urbanisation and population density were significantly associated with patterns of NCD mortality across seven East African countries, with persistent high-risk clusters identified in Rwanda, Uganda and Tanzania. The findings indicate that approaches to addressing NCDs must therefore be multisectoral, incorporating interventions that address poverty, education, employment, food systems, urbanisation and broader social inequalities.

Environmental Factors Contributing to the Rising NCD Epidemic

The NCD epidemic in East Africa is more and more influenced by environmental factors. The region is experiencing changes to patterns of chronic disease caused by rapid urbanisation, environmental degradation, air pollution, exposures in the workplace and climate change. African evidence in recent years suggests that climate change and urbanisation can intensify vulnerabilities of populations towards NCDs, especially cardiovascular and respiratory diseases, resulting from a complex interplay with other factors such as food systems, environmental exposures and socioeconomic conditions (Siiba *et al.*, 2024; Kamkuemah *et al.*, 2024) ^[20, 12]. The increased exposure to environmental factors is of special concern in the context of East Africa due to the concurrent socioeconomic inequities, risks to environmental health and environmental exposure risks, and rapid urbanization (Atuyambe *et al.*, 2024; Siiba *et al.*, 2024) ^[4, 20].

Cooking with biomass fuel (firewood and charcoal) is still very common in East Africa, making household air pollution a significant problem. Smoke from these fuels is known to cause chronic respiratory diseases and cardiovascular conditions (Rabkin *et al.*, 2015) ^[18]. However, the most recent evidence indicates that household air pollution continues to play a significant role as an environmental risk factor for NCDs in Africa, as inhalation of particulate matter and other pollution components are associated with cardiovascular and respiratory mortality and morbidity (Atuyambe *et al.*, 2024; Baharane & Shatalov, 2024) ^[4, 6]. The effects of ambient air pollution due to industrialisation, transport activities, waste burning and urbanization are further heightened on cardiovascular and respiratory risks. The evidence from Kampala shows that exposure to high PM_{2.5} levels is a real concern for the health of the population; while evidence from other countries in East Africa indicates that air-pollution exposure poses a significant health risk (Atuyambe *et al.*,

2024; Baharane & Shatalov, 2024) ^[4, 6].

The physical environment in the urban setting may also affect physical activity and dietary behaviours. Lack of urban planning, insufficient recreational space, traffic congestion, unsafe neighbourhoods can limit opportunities for physical activity and encourage inactivity (Juma *et al.*, 2019) ^[10]. Indirect impacts of climate change on NCDs may occur due to food insecurity, heat stress, altered physical activity and higher air pollution levels. Environmental exposures are important contributors to the NCD burden, although some studies have indicated socioeconomic factors are more strongly associated with NCD mortality than environmental factors (Mukunya *et al.*, 2026). A coordinated policy approach across the health, transport, energy and agriculture and urban planning sectors is necessary when addressing the environmental determinants.

Health-System Factors Influencing NCD Prevention, Diagnosis, Treatment and Control

Health-system factors are critical determinants of the increasing NCD burden in East Africa. Limited surveillance systems, early diagnosis, access to medicines and technologies, and the management of chronic diseases are still prevalent in many countries in the region. In the past, health systems in East Africa have prioritized communicable diseases, maternal and child health, and services have been underdeveloped for the treatment of NCDs (Rabkin *et al.*, 2015) ^[18].

There are significant gaps in the preparedness of the WHO African Region with regard to NCDs, such as limited mortality data, limited population risk-factors surveys and weak national NCD strategies implementation (WHO Regional Office for Africa, 2025). Data-driven workforce planning and HR analytics may provide additional mechanisms for improving workforce allocation, identifying staffing and retention risks, strengthening competency development, and supporting patient-centered care, particularly in resource-constrained healthcare environments (Tasleem, 2026) ^[21]. There is a limited supply of essential medicines and diagnostic technologies that limit the management of hypertension, diabetes, asthma and cancers (WHO Regional Office for Africa, 2025). Moreover, lack of good screening programmes in many health facilities leads to delayed diagnosis and treatment.

While several countries in East Africa have NCD policies and strategic plans, the implementation is weak due to lack of investment in resources, including funds, available for their implementation, as well as the lack of human resources and competing health priorities (Kraef *et al.*, 2020) ^[13]. It has become more widely understood that embedding NCD care into primary health-care systems and using infrastructure built for HIV and other communicable diseases to coordinate NCD care may improve NCD management (Rabkin *et al.*, 2015) ^[18]. Effective NCD prevention and control requires strengthening surveillance, ensuring continued access to medicines, expanding screening and multisectoral policies.

Discussions

The evidence reviewed indicates that the increasing burden of NCDs in the East African region is driven by a combination of behavioural, socioeconomic, environmental and health system risk factors, rather than any single group of risk factors. This multidimensional pattern reflects the global model of NCDs, where behavioural exposures lead to

metabolic risks that interact with social, environmental and health-system factors and can affect the incidence and outcomes of NCDs (World Health Organization [WHO], 2025) ^[22]. Evidence from Uganda also indicates rising prevalence of significant NCD risk factors such as sedentary lifestyle, alcohol consumption and obesity (Kusolo *et al.*, 2025) ^[14]. Thus, multisectoral and integrated interventions targeting not only proximal need for behavioral and metabolic risk factors, but also their underlying determinants in all social, economic, environmental and health system sectors are necessary for effective NCD control in East Africa (WHO, 2024, 2025).

Behaviour is still at the heart of the epidemic. Tobacco use and harmful alcohol consumption, as well as unhealthy diets and physical inactivity are on the rise in populations experiencing a rapid urbanisation and socioeconomic transformation. The shift toward more processed, energy-dense foods is of special concern as it has been seen to be a factor in the increases in obesity, hypertension and diabetes (Juma *et al.*, 2019) ^[10]. Likewise, mechanisation and sedentary jobs limit the daily physical activity. Many of these risk factors exist simultaneously in individuals, such as in the Ugandans observed by Mayega *et al.* (2016) ^[15] and can lead to a much higher risk of NCDs. So a specific behaviour-based intervention may have little impact on the population level. There is also evidence at a social level that influences behaviour. Poverty and food insecurity, education, employment and income all have an impact on people's ability to live healthy and access to preventive and curative services. Importantly, the relationship between socio-economic and risk for NCDs is complicated. Allen *et al.* (2017) ^[1] have demonstrated that some factors, such as inadequate diet and smoking, may be more likely to affect lower income groups in LIMCs, and physical inactivity and processed food more likely to affect higher income groups. Recent studies in Eastern Uganda also reveal significant socioeconomic differences in the distribution of NCD risk factors, with higher levels of physical inactivity and obesity among higher wealth and education groups and some dietary risk factors (Kibria *et al.*, 2024) ^[11]. Further evidence from Ghana suggests that the socioeconomic relationship is heterogeneous, as various factors such as household wealth, education, employment and urban residence are important predictors of NCD outcomes (Avogo, 2023) ^[5]. The message from this is that NCD interventions in the East African region should not be limited to only targeting poor people.

The determinant of urbanisation is particularly important and has had a cross-cutting impact. It has a simultaneous impact on diet, physical activity, employment, transport, housing, pollution and access to health services. Rapid urbanization outpaces rapid growth in cities in East Africa, particularly in infrastructure and health services provision (Juma *et al.*, 2019) ^[10]. Elements of poverty, poor housing, environmental exposures to pollution and physical inactivity can be linked together in informal settlements, facilitating multiple NCD risks. Urbanisation cannot, therefore, be considered merely a demographic phenomenon, but also a significant change in the social and physical contexts in which the risk factors of NCDs are created.

The epidemic is complicated by environmental exposures. The reliance on biomass fuels in houses contributes to indoor air pollution, and more traffic, industrial activity and urbanization leads to ambient air pollution. Large populations are vulnerable to indoor air pollution due to the use of

biomass fuels in homes, and ambient air pollution is caused by more traffic, industrial activity and urbanization. This is particularly important because these exposures can be associated with the risk of cardiovascular and respiratory diseases but are not associated with the typical lifestyle exposures. Cleaner household energy, the better public transport, urban planning and regulating pollution must hence be considered as integral components of broader NCD prevention programs and not as stand-alone environmental-health issue.

The review also pinpoints areas of the health system which are identified as important amplifiers of the burden of NCD morbidity and mortality. Health systems face significant challenges in detecting and managing chronic diseases because of lack of surveillance, low rate of screening, limited access to essential medicines, and limited diagnostic capacity, as well as under-resourced health personnel (WHO Regional Office for Africa, 2025). Importantly, NCDs are not episodic diseases which require treatment once. Health systems that are not able to provide continuity of follow-up, adherence to treatment, and effective medicine supply are unlikely to be able to achieve effective disease control.

Among the key take-home messages from this study is that the health sector can't prevent NCDs. Behavioural risk factors are affected by food systems, commercial marketing, transport policies, urban design and education, employment and household economic factors. Likewise, policies of energy and transport, housing and industrial policies have an impact on environmental exposures. Governments of East Africa should thus support multisectoral efforts whereby health ministries collaborate with other ministries to build healthier environments and decrease the risk of exposure to preventable conditions.

The evidence that is available, however, has several limitations. Most of the literature is based on cross sectional studies and specific NCD risk factors, and is not able to clearly establish causal links or be representative across East Africa. The comparability of the regions is also restricted due to differences in the surveillance systems and the definition of risk factors. As such, national and multi-country long-term and representative studies focusing on the interactions between the behavioural, socioeconomic and environmental determinants and the health-system determinants are needed. There is also a need to conduct more research on the effectiveness and cost-effectiveness of interventions in the context of the health system in East Africa.

Conclusions

The combined effect of interconnected behavioral, socioeconomic, environmental and health-system factors is responsible for the increasing NCD epidemic in East Africa. Poverty, socioeconomic inequalities, urbanisation and the food and employment environment are important modifiable proximal drivers of exposure to unhealthy diets, physical inactivity, tobacco use and harmful alcohol consumption. Diseases are more likely to occur from environmental pollution and dependence on biomass fuels. Meanwhile, poor surveillance, screening, diagnosis, and access to meds and continuity of care restrict health systems' ability to prevent complications and premature deaths. Evidence indicates that tackling individual behaviours is not going to be enough. There is a need for a comprehensive population-based, multi-sectoral approach to NCD intervention in East Africa, which will involve risk factor prevention and the strengthening of

primary health care, early detection and treatment, and cost-effective disease management. Regional strategies should also highlight the variability of socioeconomic and epidemiological situation in East Africa countries and advocate for context-specific interventions with informed surveillance and research.

Recommendations

- East African governments should intensify population-level interventions addressing unhealthy diets, physical inactivity, tobacco use and harmful alcohol consumption through health education, fiscal measures, regulation and community-based prevention programmes.
- Governments should promote healthier urban environments by incorporating walkways, cycling infrastructure, recreational and green spaces, and accessible public transport into urban planning to encourage physical activity and reduce dependence on motorised transport.
- Governments should strengthen policies regulating the marketing of unhealthy foods, particularly to children, promote healthier food production and availability, and implement measures such as food reformulation standards, clear nutrition labelling and taxation of products high in sugar, salt and unhealthy fats.
- East African countries should accelerate the transition from biomass fuels to cleaner household energy and strengthen measures to control air pollution from transport, industry and other urban sources.
- NCD screening, diagnosis and management, particularly for hypertension, diabetes and cardiovascular diseases, should be integrated into primary healthcare services and supported by effective referral systems and continuity of care.
- Health systems should strengthen procurement and supply-chain mechanisms to ensure uninterrupted availability of essential NCD medicines, diagnostic technologies and other required health commodities at primary healthcare facilities.
- East African countries should invest in standardised, population-based NCD surveillance systems to monitor risk factors, disease incidence, mortality, treatment coverage and socioeconomic inequalities, while promoting multicountry longitudinal research on the interaction of behavioural, socioeconomic, environmental and health-system determinants.
- Governments should strengthen multisectoral NCD governance by integrating NCD prevention and control into policies and programmes covering health, education, agriculture, transport, energy, urban development, trade and finance, with clear accountability for implementation.
- NCD policies and interventions should prioritise vulnerable and disadvantaged populations experiencing poverty, food insecurity, limited access to healthcare and unhealthy living environments to reduce inequalities in NCD risk and outcomes.

Abbreviations and Acronyms

CVDs: Cardiovascular Diseases

EA: East Africa

NCDs: Non Communicable Diseases

WHO: World Health Organisation

Declaration

The authors declare no conflict of Interest.

References

1. Allen LN, Williams J, Townsend N, Mikkelsen B, Roberts N, Foster C, *et al.* Socioeconomic status and non-communicable disease behavioural risk factors in low-income and lower-middle-income countries: a systematic review. *Lancet Glob Health.* 2017;5(3):e277-e289. doi:10.1016/S2214-109X(17)30058-X.
2. Anand TN, Joseph LM, Geetha AV, Prabhakaran D, Jeemon P. Assessment of barriers and facilitators to delivery of care for non-communicable diseases by nonphysician health workers in low- and middle-income countries: a systematic review. *JAMA Netw Open.* 2019;2(12):e1916545. doi:10.1001/jamanetworkopen.2019.16545.
3. Ansari MN, Tasleem N, Afrin F, Mahapatra T. Leadership development pathways in public health through HR initiatives. *Int J Multidiscip Res Growth Eval.* 2023;4(5):1160-1169. doi:10.54660/IJMRGE.2023.4.5.1160-1169.
4. Atuyambe LM, Arku RE, Naidoo N, Kapwata T, Asante KP, Cissé G, *et al.* The health impacts of air pollution in the context of changing climate in Africa: a narrative review with recommendations for action. *Ann Glob Health.* 2024;90(1):76.
5. Avogo WA. Community characteristics and the risk of non-communicable diseases in Ghana. *PLOS Glob Public Health.* 2023;3(1):e0000692. doi:10.1371/journal.pgph.0000692.
6. Baharane V, Shatalov AB. Assessment of the health impacts of air pollution exposure in East African countries. *Environ Monit Assess.* 2024;196:413.
7. Bollyky TJ, Templin T, Cohen M, Dieleman JL. Fighting non-communicable diseases in East Africa: assessing progress and identifying the next steps. *BMJ Glob Health.* 2020;5(12):e003982. doi:10.1136/bmjgh-2020-003982.
8. Chinembiri TS, Mutanga O, Kowe P. Spatial and temporal inequalities in non-communicable disease mortality across the East African community: a Bayesian spatio-temporal analysis. *Front Public Health.* 2026;14:1831129. doi:10.3389/fpubh.2026.1831129.
9. Gibson DG, Meghani A, Ssemagabo C, Wosu A, Kibria GMA, Nareeba T, *et al.* The epidemiology of behavioral risk factors for noncommunicable disease and hypertension: a cross-sectional study from Eastern Uganda. *PLOS Glob Public Health.* 2024;4(6):e0002998. doi:10.1371/journal.pgph.0002998.
10. Juma K, Juma PA, Shumba C, Otieno P, Asiki G. Non-communicable diseases and urbanization in African cities: a narrative review. In: *Urban Health.* London: IntechOpen; 2019. doi:10.5772/intechopen.89507.
11. Kibria GMA, Meghani A, Ssemagabo C, Wosu A, Nareeba T, Gyezaho C, *et al.* Geographical, sex, and socioeconomic differences in non-communicable disease indicators: a cross-sectional survey in Eastern Uganda. *PLOS Glob Public Health.* 2024;4(6):e0003308. doi:10.1371/journal.pgph.0003308.
12. Kamkuemah M, Ayo-Yusuf O, Oni T. Future proofing health in response to climate change and rapid

- urbanisation in Africa. *BMJ*. 2024;385:e076476.
13. Kraef C, Juma PA, Mucumbitsi J, Ramaiya K, Kallestrup P, Yonga G. Fighting non-communicable diseases in East Africa: assessing progress and identifying the next steps. *BMJ Glob Health*. 2020;5(11):e003325.
 14. Kusolo R, Mutungi GN, Mbuliro M, Kajjura R, Wesonga R, Bahendeka SK, *et al*. Changes in the prevalence of the common risk factors for non-communicable diseases in Uganda between 2014 and 2023: informed by nationally representative cross-sectional surveys. *PLOS Glob Public Health*. 2025;5(4):e0003755. doi:10.1371/journal.pgph.0003755.
 15. Mayega RW, Guwatudde D, Makumbi F, Nakwagala FN, Peterson S, Östenson CG, *et al*. Burden of cumulative risk factors associated with non-communicable diseases among adults in Uganda. *Int J Equity Health*. 2016;15:105. doi:10.1186/s12939-016-0486-6.
 16. Mucheru AK. Socioeconomic impacts of non-communicable diseases in Kenya: systematic review. *Afr J Health Sci*. 2021;34(5):604-619.
 17. Nwankwo M, Makena W, Idris A, Okamkpa CJ, Umoren EB, Owembabazi E. Hypertension in East Africa: a systematic review and meta-analysis of prevalence and associated risk factors. *J Clin Hypertens*. 2025;27(9):e70140. doi:10.1111/jch.70140.
 18. Rabkin M, Mutiti A, Chung C, Zhang Y, Wei Y, El-Sadr WM. Missed opportunities to address cardiovascular disease risk factors amongst adults attending an urban HIV clinic in South Africa. *PLoS One*. 2015;10(10):e0140298.
 19. Siddharthan T, Ramaiya K, Yonga G, Mutungi GN, Rabin TL, List JM, *et al*. Noncommunicable diseases in East Africa: assessing the gaps in care and identifying opportunities for improvement. *Health Aff (Millwood)*. 2015;34(9):1506-1513. doi:10.1377/hlthaff.2015.0382.
 20. Siiba A, Kangmennaang J, Baatiema L, Luginaah I. The relationship between climate change, globalization and non-communicable diseases in Africa: a systematic review. *PLoS One*. 2024;19(2):e0297393.
 21. Tasleem N. Data-driven human resource strategies for smarter healthcare management. *Rawal Med J*. 2026;51(1):219-223. doi:10.5455/rmj.20250907012402.
 22. World Health Organization. Noncommunicable diseases. Geneva: World Health Organization; 2025.
 23. World Health Organization Regional Office for Africa. Trends in communicable and noncommunicable disease burden and control in Africa. Brazzaville: WHO Regional Office for Africa; 2024.
 24. World Health Organization Regional Office for Africa. Noncommunicable diseases and mental health in the WHO African Region progress report 2024. Brazzaville: WHO Regional Office for Africa; 2025.
 25. World Health Organization. Urban health. Geneva: World Health Organization; 2025.
 26. World Health Organization. Compendium report on multisectoral actions for the prevention and control of noncommunicable diseases and mental health conditions: country case studies. Geneva: World Health Organization; 2024.
 27. World Health Organization. Catalyzing country action for noncommunicable diseases and mental health governance and investment. Geneva: World Health Organization; 2024.

How to Cite This Article

Oromcan BW, Mabonga H, Kareodu R. Drivers of the growing non-communicable disease epidemic in East Africa: a narrative review of behavioural, socioeconomic, environmental and health-system factors. *Int J Multidiscip Res Growth Eval*. 2026;7(5):425-431. doi:10.54660/IJMRGE.2026.7.5.425-431.

Creative Commons (CC) License

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution NonCommercial-ShareAlike 4.0 International (CC BYNC-SA 4.0) License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.