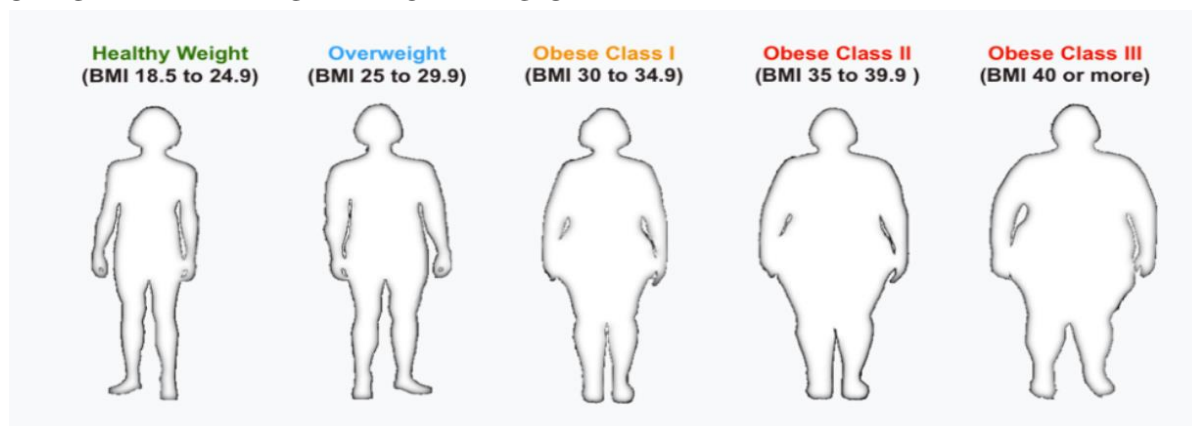


Policy Brief

OBESITY IN THE EAST AFRICAN REGION



Credit: Public Health.org

What is Obesity?

Obesity and Overweight are excessive fat accumulation and present health risks.¹ The standard way of measuring overweight is when the body mass index (BMI = weight / height squared) is 25 or higher and obesity is when the BMI is 30 or higher. Globally, 4 million people die of conditions related to obesity or overweight every year. In 2016, of people 18 years and above, more than 1.9 billion² were overweight, of which 690 million were obese. And over 340 million children and adolescents aged 5-19 are obese or overweight, a sharp rise of 12% from 4% in 1975 to 18% in 2016. In 2020, 39 million children under 5 years were obese or overweight. Once a high-income country problem, obesity is now on the rise in low- and middle-income countries, commonly in urban areas. In Africa, the proportion of children under 5 years who are overweight or obese has increased by 24%. In some cultures around the region, bigger body sizes and weight gain are considered a sign of prosperity, good health, and fertility.³ A study showed that the consumption of French fries (chips) increases weight by 1.5kg every 4 years⁴ yet vegetables cut weight by 0.09kg, and the figures might even be higher depending on the consumption rate in a year. In the East African region, little data is available to break down the obesity estimates. However, though only 30% of the East African region is urban-oriented which approximates to 81 million people, most urban centres host at least 1 million plus population and the type of residents is one of the risk factors driving the obesity epidemic.

The evidence in this report is based on meta-analysis reports, research studies published in medical journals, Global Nutrition Reports on country status, World Health Organization reports on global trends and facts of obesity and overweight, and where necessary, insights from media articles.

¹ WHO, (2021), Obesity and Overweight, <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight> (Accessed on 30th Oct 2022)

² By Mařincová L, Šafaříková S, Cahlíková R. Analysis of main risk factors contributing to obesity in the region of East Africa: meta-analysis. *Afr Health Sci.* 2020 Mar;20(1):248-256. doi: 10.4314/ahs.v20i1.30. PMID: 33402913; PMCID: PMC7750060.

³ By Kanter R, Caballero B. Global gender disparities in obesity: a review. *Adv Nutr.* 2012 Jul 1;3(4):491-8. doi: 10.3945/an.112.002063. PMID: 22797984; PMCID: PMC3649717.

⁴ By Duarte F., (2019), Seven Myths wey fit spoil your waka to lose weight, <https://www.bbc.com/pidgin/world-49983574> (Accessed on 4th Nov, 2022)

East African Countries and Global profiles and status

Indicator	Burundi ⁵	Kenya ⁶	South Sudan ⁷	Rwanda ⁸	Uganda ⁹	United Republic of Tanzania ¹⁰	Globally (194 countries worldwide) ¹¹
Childhood Stunting	No progress	On course	Some progress	Some progress	Some progress	Some progress	53 on course 74 some progress 28 no progress 39 no data
Anaemia	No progress	No progress	No progress	Some Progress	No progress	Some progress	1 on course 29 some progress 161 no progress 3 no data
Low Birth Weight	Some progress	Some progress	No data	Some progress	No data	Some progress	15 on course 49 some progress 82 no progress 48 no data
Childhood Weight	Off course	On gross	On course	On course	On course	Off course	105 on course 50 off course 39 no data
Childhood Wasting	On course	On course	No data	On course	On course	On course	57 on course 20 some progress 23 no progress 94 no data
Sodium intake, women & men	Off course	Off course	Off course	Off course	Off course	Off course	184 on course 10 no data
Raised blood pressure, women	Off course	Off course	No data	Off course	Off course	Off course	45 on course 145 off course 4 no data
Raised blood pressure, men	Off course	Off course	No data	Off course	Off course	Off course	23 on course 167 off course 4 no data
Obesity, Women	Off course	Off course	No data	Off course	Off course	Off course	190 off course
Obesity, Men	Off course	Off course	No data	Off course	Off course	Off course	190 off course
Diabetes, women	Off course	Off course	No data	Off course	Off course	Off course	19 on course 171 off course
Diabetes, Men	Off course	Off course	No data	Off course	Off course	Off course	8 on course 182 off course

Though nutrition information wasn't available for the Democratic Republic of Congo, the general outlook for the other 6 countries can provide a view of the states or region of the key nutrition aspects at the country or regional level. No country was on course for obesity for both men and women including the 183 others globally. All countries were off course for sodium intake in the East African region including 177 others around the world. Uganda, South Sudan, Rwanda & United Republic of Tanzania made some progress with the managing of child stunting as it usually leads to obesity. Stunting is having a height below the recommended level for a specific age. Almost all countries in East Africa with data

⁵ Global Nutrition Report, (2021), Country Nutrition Profiles: Burundi – The Burden of Malnutrition at a glance, <https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/bURUNDI/> (Accessed on 1st Nov 2022)

⁶ Global Nutrition Report, (2021), Country Nutrition Profiles: Kenya – The Burden of Malnutrition at a glance, <https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/kenya/> (Accessed on 1st Nov, 2022)

⁷ Global Nutrition Report, (2021), Country Nutrition Profiles: South Sudan – The Burden of Malnutrition at a glance, <https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/South-sudan/> (Accessed on 1st Nov 2022)

⁸ Global Nutrition Report, (2021), Country Nutrition Profiles: Rwanda – The Burden of Malnutrition at a glance, <https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/Rwanda/> (Accessed on 1st Nov 2022)

⁹ Global Nutrition Report, (2021), Country Nutrition Profiles: Uganda – The Burden of Malnutrition at a glance, <https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/Uganda/> (Accessed on 1st Nov 2022)

¹⁰ The Global Nutrition Report, (2021), Country Nutrition Profiles: United Republic of Tanzania – The Burden of Malnutrition at a glance, <https://globalnutritionreport.org/resources/nutrition-profiles/africa/eastern-africa/United-republic-tanzania/> (Accessed on 1st Nov 2022)

¹¹ Global Nutrition Report, (2021), The State of Global Nutrition, https://globalnutritionreport.org/documents/851/2021_Global_Nutrition_Report_aUfTRv0.pdf (Accessed on 1st Nov 2022)

were on course for child wasting. Besides, on a global scale, 53 others were on course, 20 made some progress, and 23 made no progress. Wasting is having a weight below the recommended level for a given height, sometimes referred to as acute malnutrition. From the general report per country, the EAC its targets in managing the obesity and overweight problem and more has to be done to realign efforts to manage the unfolding obesity epidemic. Another study reviewed obesity rates in the rural areas of Uganda, Kenya, and Tanzania and found the prevalence rates at 26%, 47%, and 42% respectively, and 38% for the entire region.¹² Though plant-based foods were commonest in the review, purchases of highly processed foods were dominant in the sample. The change in food intake commonly referred to as the food transition is believed to be the driver of obesity and overweight. Overweight and obesity don't only increase the risks of getting one of the non-communicable diseases, but they also result in reduced productivity, high health costs, and other dire economic consequences in low- and middle-income countries like Uganda, Kenya, United Republic of Tanzania, Rwanda, Burundi, Democratic of Congo and South Sudan.

How does one become obese or overweight?

Obesity or overweight is caused by an imbalance between consumed and burnt calories. Generally, there is an increased intake of energy-dense and calorie-rich foods that are high in fats and sugars. The high physical inactivity levels due to the increasingly sedentary nature of the work done by most East Africans, the modes of transportation like cars and motorbikes, and increased urbanization. The continuous shift in dietary patterns and physical activity comes as a sign of improved economic development, but their negative disease-causing capacity means that policies and regulations aren't doing enough through health, education, infrastructure development, urban planning, social marketing, distribution, and food processing to curb the hidden burden. The shift and increased consumption of processed energy-dense foods usually cause an increase in fat accumulation that in turn increases BMI. This burden doubles the challenge of malnutrition that is common within the region and strains the already vulnerable healthcare system within the East African states.

What are the possible consequences of obesity?

Most individuals confuse obesity as the fat under the skin that one can touch and feel, called subcutaneous fat. Though, fat is key to staying healthy for anyone, the visceral fat that builds around the internal organs is risky to the health of anyone and it usually manifests as obesity or overweight. The presence of obesity or overweight means higher chances of contracting one or more of these noncommunicable diseases (NCDs);

- a) **Heart disease or stroke** – Excess fat usually builds up around the heart specifically arteries, arteries carry blood to the organs. The presence of fat means they can get clogged and this is the cause of heart failure – a cardiovascular disease among the top 10 deadly NCDs.
- b) **Diabetes** – The cellular and physiological mechanisms responsible for the link between obesity and diabetes involve adiposity-induced alterations in β cell functions, high-fat tissue biology, and multi-organ tissue resistance which can all be normalized with weight loss.¹³
- c) **Highly disabling diseases of the joints** – Obesity alters the biomechanical patterns together with hormonal and cytokine dysregulation and excessive joint loading through a disease called osteoarthritis. It impacts on weight-bearing and non-weight-bearing joints, to the extent that one may need joint replacement or operations.¹⁴
- d) **Cancers like colon, liver, kidney, gallbladder, breast, ovarian, endometrial, and others** – Like heart disease, visceral fat surrounds these organs in obese people and this excess fat is usually low on oxygen. This shortage is the main cause of inflammation (the body's natural response to disease), however, in situations where inflammation continues, the body may produce excess

¹² By Sarfo J, Pawelzik E, Keding GB. Dietary Patterns as Characterized by Food Processing Levels and Their Association with the Health Outcomes of Rural Women in East Africa. *Nutrients*. 2021 Aug 20;13(8):2866. doi: 10.3390/nu13082866. PMID: 34445024; PMCID: PMC8399242.

¹³ By Klein S, Gastaldelli A, Yki-Järvinen H, Scherer PE. Why does obesity cause diabetes? *Cell Metab*. 2022 Jan 4;34(1):11-20. doi: 10.1016/j.cmet.2021.12.012. PMID: 34986330; PMCID: PMC8740746.

¹⁴ By King LK, March L, Anandacoomarasamy A. Obesity & osteoarthritis. *Indian J Med Res*. 2013;138(2):185-93. PMID: 24056594; PMCID: PMC3788203. <https://pubmed.ncbi.nlm.nih.gov/24056594/> (Accessed on 3rd Nov 2022)

insulin, as the extra fat cells produce estrogen. The combination of excess insulin and estrogen causes cells to divide which usually leads to the formation of cancerous tumors.¹⁵

The increased numbers of children within the region with obesity mean higher disease burdens, increased need for healthcare budgets, and premature death considering the impact of heart complications, hypertension, insulin resistance that manifests as type 1 diabetes, breathing difficulty, and others.

Risk factors contributing to obesity in the East African region

- a) **Gender:** A non-modifiable factor like gender was associated with the prevalence of obesity in the East African region. Notably, women were more likely to be obese than men considering their physical activity levels. With more women at risk, that exposes them as a vulnerable group due to their less access to employment, finances, and resources to access better health services.¹⁶
- b) **Type of residence.** Research indicates that those living in urban areas are more likely to be obese. The findings rhyme with the realities of no poverty, ease of access, and more consumption of processed energy-dense foods, and less energy expenditure that is common in developing countries like Uganda, Kenya, Tanzania, and other East African states.
- c) **Socio-economic status.** Also, a modifiable risk factor, though people with a lower socioeconomic status suffered from obesity, the level and prevalence for individuals with a higher socioeconomic status were higher, considering their easy access to processed foods, sedentary lifestyle, and ability to afford to eat in external food service points like restaurants that usually prepare highly processed foods.

Proposed solutions and Recommendations

1. National & Regional Level

- a) **Policies and regulations to limit fat, sugar, and salt in processed foods.** Regional and national governments should establish policies and regulations that limit the production of processed foods high in fat, sugar, and salt.
- b) **Ensure healthy and nutritious food is affordable and accessible.** The food distribution systems for fruits and vegetables should be seamless enough and receive government subsidies to ensure they're available at affordable prices in any market in rural or urban centres within the region.
- c) **Increase taxes on energy-dense foods and sweetened beverage companies and products.** Governments will profit and can divert the proceeds from taxing sweetened beverages and energy-dense foods to fund public health services that address challenges like overweight, obesity, or other non-communicable diseases.
- d) **Launch public health campaigns to increase awareness of obesity or overweight.** Regional institutions like the East African community and national governments can innovate public health campaigns that engage children, adolescents, youth, and other adults to know the dangers of obesity, its causes, and solutions at an individual level.
- e) **Restrict the marketing of processed foods high in fat, sugar, and salt to children and adolescents.** Advertising of highly processed foods that are verified to have high impacts on driving the obesity epidemic should be restricted from marketing to adolescents and children. Where one or more of the players breaches this restriction, they should be arraigned and asked to pay fines.

2. Organizational Level

- a) **Extensive research by academia, research organizations, and others.** Research organizations should carry out multiple studies to understand the key drivers of obesity and verify these facts in various research initiatives to help inform policy, regulation, and regional programmes that may help to curb the obesity epidemic.
- b) **Physical activity days.** Organizations like corporate players, schools, and others should organize physical activity days to encourage their staff, consumers, and the general public to stay physically

¹⁵ By Underferth D., (2017), How does obesity cause cancer?, <https://www.mdanderson.org/publications/focused-on-health/how-does-obesity-cause-cancer.h2721591413.html> (Accessed on 3rd Nov 2022)

¹⁶ By Mařincová L, Šafařiková S, Cahliková R. Analysis of main risk factors contributing to obesity in the region of East Africa: meta-analysis. Afr Health Sci. 2020 Mar;20(1):248-256. doi: 10.4314/ahs.v20i1.30. PMID: 33402913; PMCID: PMC7750060.

active. The activities should take place regularly to keep the population active and safeguard themselves from the dangers and impacts of obesity and overweight.

3. Individual level

- a) **Stay physically active.** Children within the region should be encouraged through their schools, communities, and other institutions to stay active for at least 60 minutes a day and adults should be encouraged to stay active for at least 150 minutes a week.
- b) **Increase consumption of fruits and vegetables.** Children and adults should be encouraged to consume at least 5 servings of fruits and vegetables daily and the fruits and vegetables should be accessible.
- c) **Reduce intake of energy-dense foods and drinks.** Individuals around the region should be aware of the impact their consumption of energy-dense foods can have on their overall health and well-being. Thus encouraging them to reduce their consumption of highly processed foods high in fat, salt, and sugar.

Conclusion

Though few studies exist that confirm the risk factors, prevalence levels, and health status of the East African countries, the few that exist provide a fair view of the problem. Also, it's important to note that it's generally hard to get individuals to expend more energy than it is to influence their intake of energy-dense foods through policies, regulations, and restrictions while ensuring the availability of affordable fruit and vegetable options. Within the region, a lot is yet to be discovered that research may unearth, however, the fact that almost all countries are off course including the East African community means a lot needs to be done to curtail the obesity epidemic. With a young and vibrant population, the development of more urban centres, proper urban planning, and various food system initiatives that subsidize fruits and vegetables will enable access to the most important foods to keep the general population healthy. Tools and strategies to help already obese individuals with weight loss or discourage further weight gain mostly targeting women without causing gender disparities will contribute to public health efforts. Also, methods that engage those with high socioeconomic statuses, and who live within urban areas will inform and cause change among these groups though intertwining the approaches at individual, organizational and national levels will play a significant role in curbing the obesity epidemic.