A Snapshot of Food Security and Nutrition in Africa

Human Capital, Youth and Skills Development Department (AHHD)

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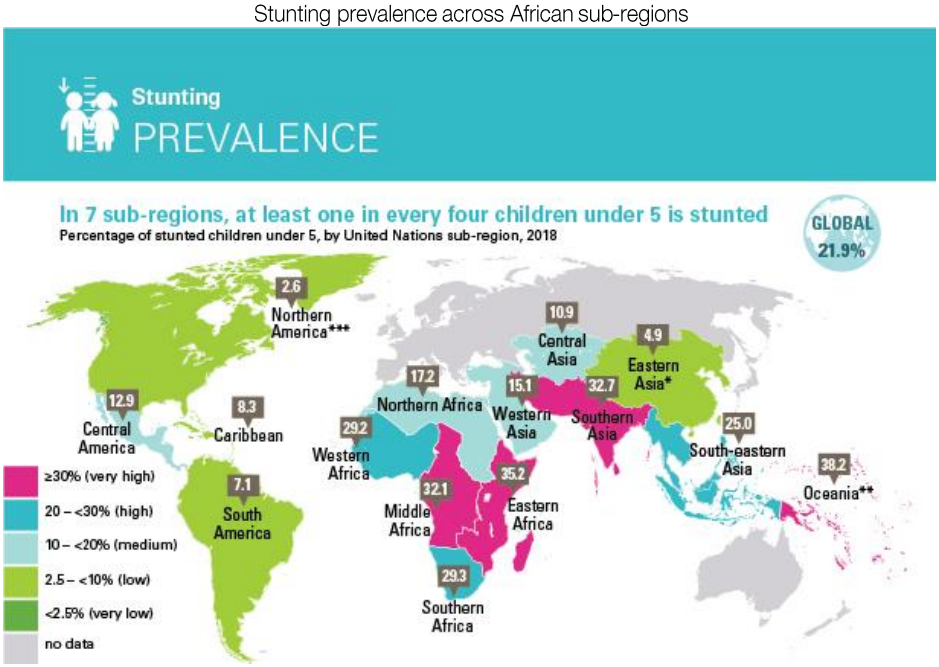
The Burden of Malnutrition in Africa

The current burden of malnutrition in Africa is unacceptably high. Hunger is on the rise in almost all sub-regions of Africa; East Africa, Central Africa, Northern Africa, Southern Africa and Western Africa- making Africa the region with the highest prevalence of undernourishment at almost 20%.[1] Total food insecurity (moderate or severe) is much higher in Africa—affecting more than half of the population—than in any other part of the world. Despite concerted efforts to address food security and nutrition in Africa, the burden of malnutrition continues to increase. Malnutrition is linked across the life cycle, with undernutrition in foetal and early life contributing to both immediate and long-term health problems such as stunted physical growth, coronary heart disease, stroke, diabetes, and obesity, as well as economic costs due to loss of human capital. African economies are losing 11% of their annual gross domestic product to malnutrition-related costs. The Cost of Hunger in Africa (COHA) studies in 14 countries concluded that **malnutrition costs governments and households at least US$2.1 billion** every year in avoidable health and education costs[2].

Poor nutrition severely impacts the physical and cognitive development of children under the age of five and is linked to nearly half of the deaths in this age group. Children can experience multiple forms of malnutrition: 3.62% of children under five (15.95 million) are both stunted and wasted, while 1.87% of under-fives globally (8.23 million children) experience both stunting and overweight.[3] Wasting and stunting are associated with increased mortality, especially when both are present in the same child. Added to this, it is becoming increasingly clear that children who are wasted are more likely to become stunted and children who are stunted are more likely to become wasted. Children who are moderately or severely wasted have a higher risk of mortality.

Stunting in children under five is a form of growth failure which develops over time when children have limited access to food, health and care. While the prevalence of stunting is decreasing in almost every region, the extent of progress varies considerably, with Africa seeing the least progress in reducing stunting prevalence since 2012. Furthermore, Africa is the only region in the world where the number of stunted children has risen. From 2000-2018, the number of stunted children in sub-Saharan Africa increased by 16.8%, reaching 58.8 million.[4] Children suffering from stunting experience a range of serious and costly health problems, from cognitive impairments such as delayed motor development, impaired brain function and poor school performance to illness, disease and death. However, the implications extend far beyond health outcomes, affecting educational attainment, workforce capacity and productivity, political stability and economic progress. In 2018, more than one-third of the world's stunted children under the age of five lived in Africa with stunting rates ranging from 35.2% in East Africa, to 32.1%, 29.3%, 29.2%, and 17.2% in Central Africa, Southern Africa, Western Africa, and Northern Africa respectively (see Figure 1).

Figure 1
Stunting prevalence across African sub-regions

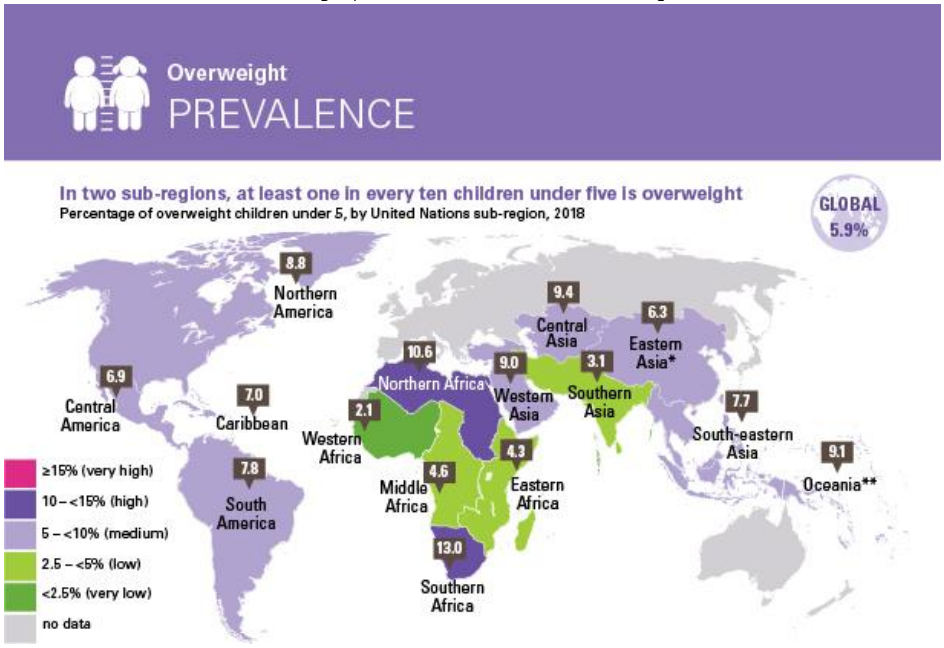


Source: UNICEF/WHO/World Bank Group: Nutrition | Joint Child Malnutrition Estimates 2019 edition

[1] FAO, IFAD, UNICEF, WFP, WHO 2019: The State of Food Security and Nutrition in the World
[2] African Union Commission et al. 2014. Cost of Hunger in Africa report.
[3] Global Nutrition Report 2018
[4] UNICEF/WHO/World Bank Group Joint Child Malnutrition Estimates: Levels and trends in child malnutrition. Key findings of the 2019 edition.

In 2018, almost one-quarter of all overweight children under the age of five lived in Africa. Africa has seen a significant increase in the number of overweight children rising from 6.6 million in 2000 to 9.5 million in 2018. At the sub-regional level, the prevalence ranges from 13% in Southern Africa to 10.6%, 4.6%, 4.3% and 2.1% in Northern Africa, Central Africa, Eastern Africa and Western Africa respectively (see Figure 2). This suggests that Northern and Southern Africa regions are faced with an emerging double burden of child malnutrition. Double burden of child malnutrition is characterised by the coexistence of undernutrition along with overweight and obesity, or diet-related non-communicable diseases **within individuals, households and populations, and across the life course[5].** Overweight and obesity during childhood often persist into adulthood with adverse health problems throughout the life cycle. According to The State of Food Security and Nutrition in the World 2019 edition, the prevalence of overweight increases over the life course and is highest in adulthood.

Figure 2
Overweight prevalence across African sub-regions



Source: UNICEF/WHO/World Bank Group: Nutrition | Joint Child Malnutrition Estimates 2019 edition

Micronutrient deficiencies—suboptimal nutritional status caused by a lack of intake, absorption or use of one or more vitamins or minerals—form an important global health issue with malnutrition affecting key development outcomes including poor physical and mental development in children, vulnerability to (or exacerbation of) disease, mental retardation, blindness and general losses in productivity and potential. Unlike protein-energy undernutrition, the health impacts of micronutrient deficiency are not always acutely visible; it is therefore sometimes termed "hidden hunger" (the two terms can be used interchangeably). The World Health Organization (WHO) estimates that more than two billion people suffer from micronutrient deficiency globally. Although any individual can experience micronutrient deficiency, pregnant women and children are at greatest risk of developing deficiencies. This is not only as a result of low dietary intake, but also from higher physiological requirements; pregnancy and childhood development often increase demand for specific vitamins and minerals. The nutritional status of pregnant women is not only relevant for a woman's own health and also makes a vital impact on the development of her child. Monitoring and addressing micronutrient deficiencies in both pregnant women and children in early childhood is therefore essential for optimal development and health within a population.

The international community has focused on several micronutrients that remain global issues including iron, zinc, vitamin A, folate and iodine, as they are the most difficult to satisfy without diverse diets. Anemia is one of the most important indicator of micronutrient deficiencies, as this is caused by the deficiency of many of them, and its effects are exacerbated by several diseases. The WHO estimates that 20% of maternal deaths are attributed to anaemia alone.[6] A total of 38 African countries have anaemia prevalence of more than 30.3%, which is higher than the 2012 global baseline. This has important implications for general productivity and development, as it reduces the work capacity of individuals by up to 20%. In more serious cases, anaemia can lead to exacerbation of disease and illness.

[5] WHO | Double burden of malnutrition: https://www.who.int/nutrition/double-burden-malnutrition/en/
[6] WHO. The global prevalence of anaemia in 2011. Geneva: World Health Organization; 2015.

Large-scale food fortification is a means to address micronutrient deficiencies by adding essential vitamins and minerals to foods that must undergo processing to get to market. Micronutrient surveys were recently conducted in Gambia and Ghana. They are expensive but important and could be considered for funding as part of nutrition smart lending requests made to the African Development Bank. Iodine deficiency results in a spectrum of diseases collectively named as Iodine Deficiency Disorders (IDD) which has **far-reaching effects on both maternal health during pregnancy and mental development during early childhood. Severe iodine deficiency in pregnant women can result in lower IQ scores in children by the time they are school-aged.** Though a lot of progress has been made to prevent iodine deficiency through universal salt iodization (USI) resulting in **a sharp drop in the number of iodine-deficient countries, from 113 in 1993 to only 15 in 2016. However, approximately 28% of the global population (~1.8 billion people), including 240 million school-aged children, continue to be at risk of iodine deficiency and its consequences due to insufficient dietary iodine.**[7], [8] **Continuous monitoring and support to USI programs is needed ensure successful USI globally.**

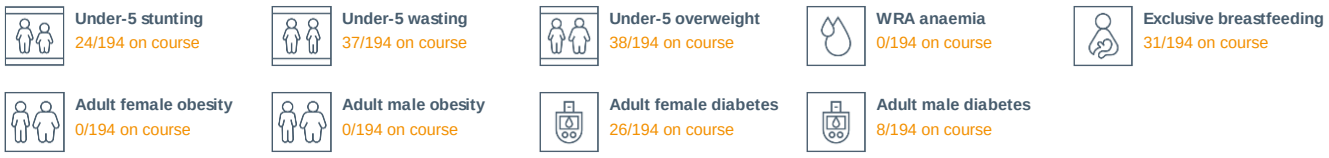
African Countries on Course to Achieve the WHO Nutrition Targets

Recognizing that accelerated global action is needed to address the pervasive and corrosive problem of the double burden of malnutrition, the World Health Assembly (WHA) Resolution 65.6 endorsed a comprehensive implementation plan on maternal, infant and young child nutrition in 2012. The Resolution specified the following six global nutrition targets to reach by 2025:

1. Achieve a 40% reduction in the number of children under-five who are stunted;
2. Achieve a 50% reduction of anaemia in women of reproductive age (WRA);
3. Achieve a 30% reduction in low birth weight;
4. Ensure that there is no increase in childhood overweight;
5. Increase the rate of exclusive breastfeeding in the first six months up to at least 50%, and
6. Reduce and maintain childhood wasting to less than 5%.

Very few African countries are on course to meet these six nutrition targets by 2025, as indicated in Figure 3. Of particular concern are anaemia in WRA, adult obesity (female and male) and adult diabetes (female and male) because no African country is currently on track to meet the WHA 2025 targets. There is an urgent need to further investigate the country-specific determinants of anaemia in WRA, followed by the adoption of recommendations for effective implementation of nutrition smart interventions. In addition, the monitoring of the implementation of interventions will be essential to ensure their efficacy.

Figure 3
Number of African countries on course to achieve the WHO nutrition targets



Source: Global Nutrition Report, 2018

Major Drivers of Malnutrition in Africa

The drivers of malnutrition in Africa are interrelated factors closely associated with poverty. Well over 30% of government spending in Africa is allocated to five sectors that serve as underlying drivers of nutrition: agriculture; health; education; social protection; and water, sanitation and hygiene (WASH).[9] Policies and programmes in these areas can be adjusted to improve nutrition outcomes in many ways, such as focusing on women's empowerment and building nutrition targets and nutrition behaviour change components into programme design. Direct undernutrition interventions, even when scaled up to 90% coverage rates, have been estimated to address only 20% of the stunting burden.[10] The following drivers stand out as requiring particular political attention and investments: food security in a context of climate change and demographic change; gender dynamics; conflict, climate and political instability; and poor access to basic services.

Food insecurity in a context of climate change and demographic growth. Providing nutritious and environmentally sustainable food to all people at all times is one of the greatest current global challenges. This problem

[7] Addressing the Challenge of Hidden Hunger | Chapter 03 | 2014 Global Hunger Index.
8 http://www.ign.org/cm_data/IGN_Global_Scorecard_AllPop_and_PW_May2017.pdf (accessed March 22, 2017)
[9] Global Nutrition Report 2016, From Promise to Impact: Ending Malnutrition by 2030.
[10] Bhutta et al. 2013

is particularly acute in Africa where it is estimated that one in every four people still lacks adequate food to sustain an active and healthy life. Estimates suggest that Africa is the fastest growing region in the world, with the population predicted to soar from 1.1 billion today to 2.4 billion in 2050.[11] Furthermore, it is expected that more than half of children born between 2019 and 2050 will be born in Africa. Such a dramatic increase in population will make it even more difficult to eradicate poverty, inequality, hunger and malnutrition. Climate change and the deterioration of natural resources (including fish stocks, forests and soil) are growing threats to food security and nutrition in Africa especially for countries that rely heavily on agriculture, livestock and fisheries. Climate change is a leading cause of severe food crises that regularly affect the continent and it is compounded by the growing number of individuals requiring healthy diets, decent employment and basic services.

The number of undernourished people has been increasing steadily in Africa where it reached almost 260 million people in 2018, with more than 90% living in sub-Saharan Africa.[1]

Gender dynamics. The demographic situation is closely related to gender issues—adolescent fertility rates are higher in Africa than any other continent, with 24% of girls giving birth before reaching 18 years.[12] Teenage pregnancy is a high risk factor for low birth weight children and malnutrition because a growth spurt during adolescence and pregnancy at the same time creates competition in the body for nutritional resources, which is not healthy for the young mother or her baby. Adolescent mothers also tend to be shorter and are more likely to be underweight and anaemic than adult mothers. The health of the adolescent mother and her child/children is further compromised if the space between births is short. Adolescent mothers are less likely to access health services and also less likely to provide their children proper complementary foods along with breastfeeding.

Investments in girls' education provides opportunities for improving nutrition outcomes. Schools can be a platform for delivering nutrition interventions, but increasing girls' participation and attendance in schooling can protect girls from adolescent pregnancy. Pregnancy in adolescents can often mean that girls leave school early, limiting future education and economic opportunities. Raising the age of marriage is expected to reduce total fertility rate. Using schools as a platform for nutrition education and other nutrition-related services encourages healthy eating and exercise with the aim of preventing obesity. Investment on nutritious school meals offers the opportunity to explore diet diversity. Overall, education is an important way of empowering women and of changing norms about nutrition.

Women's empowerment incorporates multiple aspects, including the decision-making power related to income, time, labour, assets, and knowledge or preferences of female community members. Studies have found that discretionary income has a greater impact on nutrition and food security for children rather than for men. When women have more control over household resources, families are healthier, better educated and have more access to more nutritious foods.[13] Often, the best way for women to influence household spending is by earning their own income. For women in rural areas, an agriculture-related livelihood is the most common way a family makes a living. Women's decision-making also affects what is produced on the farm, and women's control of income and assets can affect productivity based on their spending decisions and on the social networks and cultural norms that influence those decisions. Training female and male farmers in farm management and business skills can optimize the income earned with the available time, labour, assets and capital.

Conflict, climate and political instability have multiple influences on food availability, access, utilization as well as feeding practices, caregiving and access to health services. Insufficient access to food and uncertain access to adequate quality and/or quantity of food can affect dietary intake, with adverse impact on nutrition and vulnerability to poor health. Food insecurity has multiple pathways contributing to different forms of malnutrition, including overweight and obesity. Humanitarian emergencies could be an opportunity for nutrition smart investments to address malnutrition. The impact of climate change—for example drought—can threaten local food security and nutrition, and also intensify the likelihood of conflict. Examples include:

- Cattle raiding leads to conflict during drought in the Great Horn of Africa; and
- A region-wide drought in northern Mali in 2012 wipes out thousands of livestock and devastates the livelihoods of pastoralists, in turn swelling the ranks of armed rebel factions and forcing others to steal and loot for survival.

[11] United Nations (UN), 2015.
[12] Development Initiatives, 2018. Shining a light to spur action on nutrition. Bristol, UK: Development Initiatives
[13] Committee on World Food Security (CWFS), 2011. Policy Roundtable: Gender, Food Security and Nutrition, 37th Session, Rome, Italy.

Poor access to basic health and WASH services contribute to the persistence of diseases that lead to malnutrition and limit individuals' capacity to secure the income, knowledge and resources they need to achieve good nutrition. Only eight African countries currently meet the recommended threshold of above 85% access to clean drinking water for their general population. Recognition of the key role that low-quality WASH practices play in initiating and perpetuating malnutrition has grown substantially in the past 10 years.[14] For children, WASH programmes are typically designed to either prevent faeces from getting into the child's environment or prevent pathogens in the environment from being ingested. Consequently, these programmes achieve a host of health outcomes (infectious disease control, maternal and newborn health, child health and nutrition) by breaking this chain of enteric disease transmission.

[14] Bhutta et al. 2013; Ngure et al. 2014.

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