



CHILDREN NUTRITION FOR BETTER LIFE: EVIDENCE FROM AFRICA

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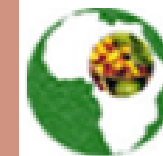
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DEPARTMENT OF NUTRITION AND DIETETICS

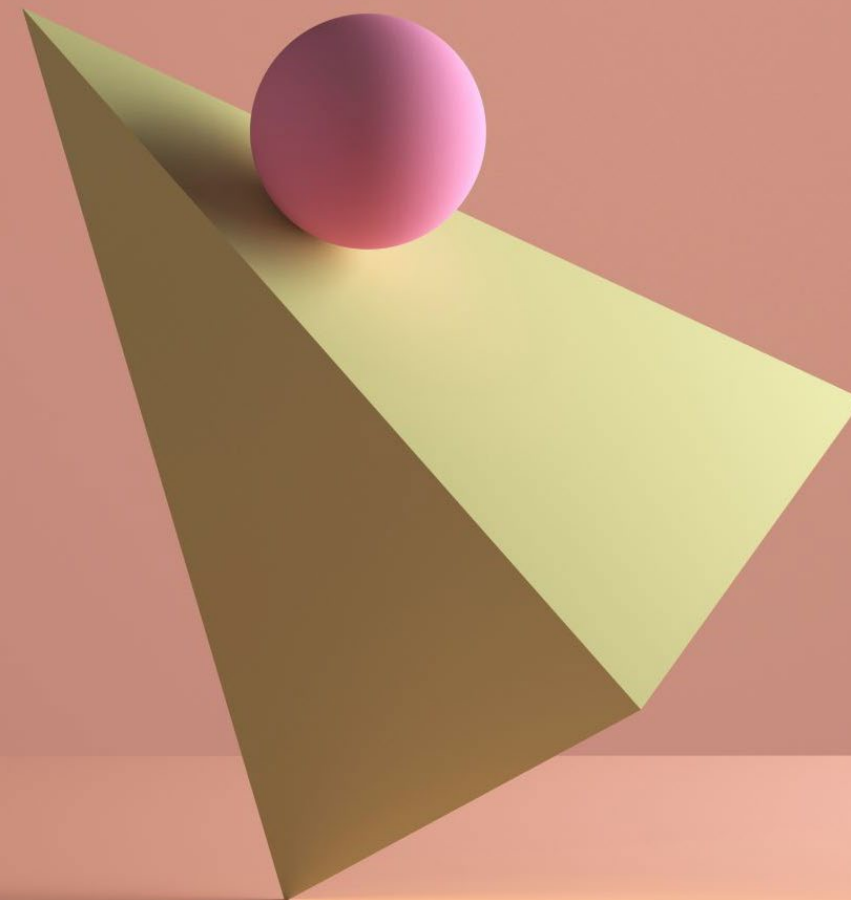
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NUTRITION CRITICAL FOR HEALTHIER LIFE

- Good nutrition is the foundation of child survival and development.
- The first 1000 days of life is a window of opportunity for adequate nutrition to enhance children's ability to grow, learn, have a healthier life and participate effectively in the society.
- Nutrition in the first 1000 days is critical for children to have a healthier life because it is a period of rapid development of cells, tissues and organs including the brain.





NUTRITION CRITICAL FOR HEALTHIER LIFE

- The first 1000 days of life counts from start of a woman's pregnancy to her child's second birthday.

□ Breakdown shows:

- Period of intrauterine nutrition (pregnancy) 0-280 days
- Period of exclusive breastfeeding (0-6months) 281-260days
- Period of complementary feeding (6months-2nd birthday) 461-1000days





PERIOD OF INTERUTERINE NUTRITION (PREGNANCY) 0-280 DAYS

- The mother is the source of nutrition for the foetus.
- Mother supplies nutrients to the foetus through the placenta.
- Mother should be in a state of good nutrition to supply the foetus adequate amount of proteins, vitamins (folic acid, vitamins A, B12, C, D and K) and minerals (iron, zinc, copper, calcium, selenium, iodine and magnesium) needed for proper growth and development of cells, tissues and organs especially the brain.





PERIOD OF EXCLUSIVE BREASTFEEDING (0-6MONTHS) 281-460DAYS

- Breast milk alone should be the source of infant nutrition for the first 6 months of life outside the womb. Nothing else INCLUDING WATER should be given to the infant except drops of syrup consisting of vitamins, minerals supplement or medicines when medically prescribed.
- Breast milk provides all the nutrients, energy and immunological factors that an infant needs to grow and for the organs to develop well including the brain.
- Breastfeeding should be initiated within 1 hour of birth.



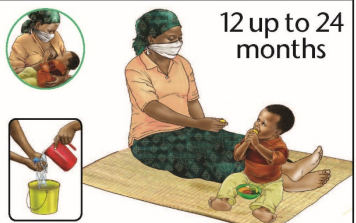
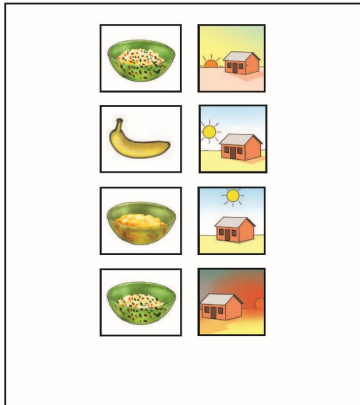
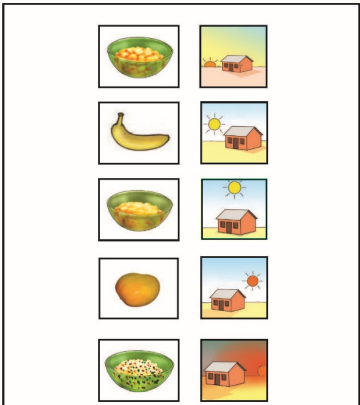
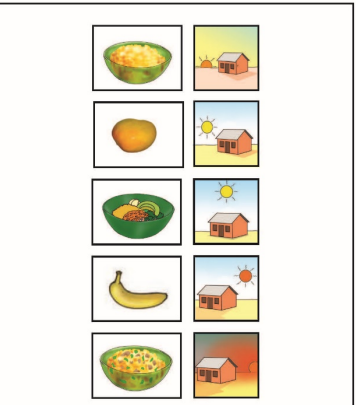




PERIOD OF COMPLEMENTARY FEEDING (6MONTHS-2ND BIRTHDAY) 461-1000DAYS

- The source of nutrition at this period is nutritionally adequate and safe complementary food with continued breastfeeding.
- Complementary foods should provide sufficient energy, protein and micronutrients to cover a child's energy and nutrient gaps because breast milk alone can no longer supply the energy and nutrient requirements of the infant.
- Adequate and safe complementary food together with breastfeeding will meet all the child's needs.

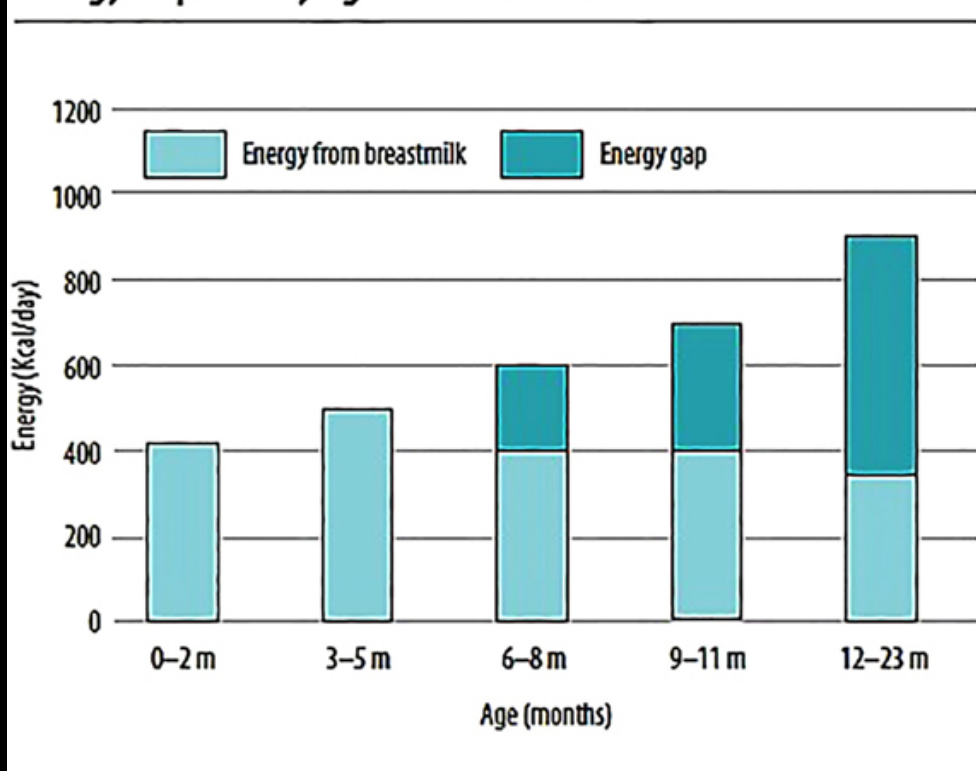
Practice safe complementary feeding

6 up to 9 months	9 up to 12 months	12 up to 24 months
		
		



NUTRIENT GAP

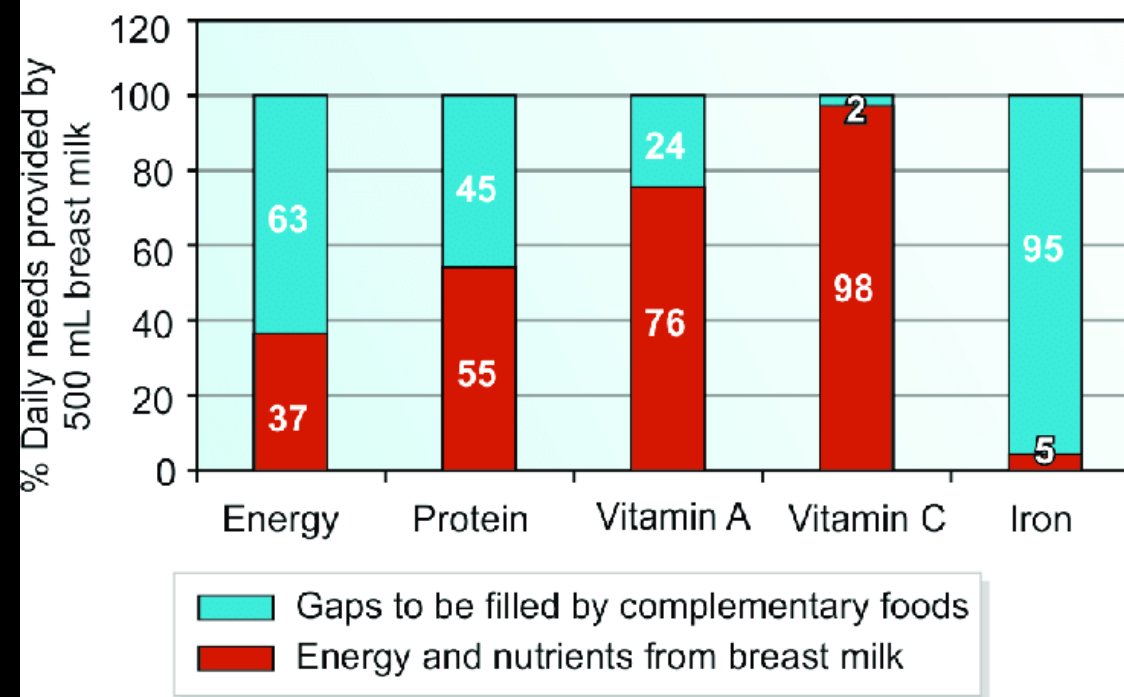
Energy required by age and the amount from breast milk



Source: Adimasu, Azeb and Bekesho (2016). Complementary Feeding: Review of Recommendations, Feeding Practices, and Adequacy of Homemade Complementary Food Preparations in Developing Countries – Lessons from Ethiopia. *Frontiers in Nutrition* 3.

Breast milk in second year

How much energy, protein, Vitamin A and Vitamin C it provides



Source: Dadhich (2016). Breastfeeding. Book Chapter in IAP Textbook of Pediatrics.



NUTRIENT GAP

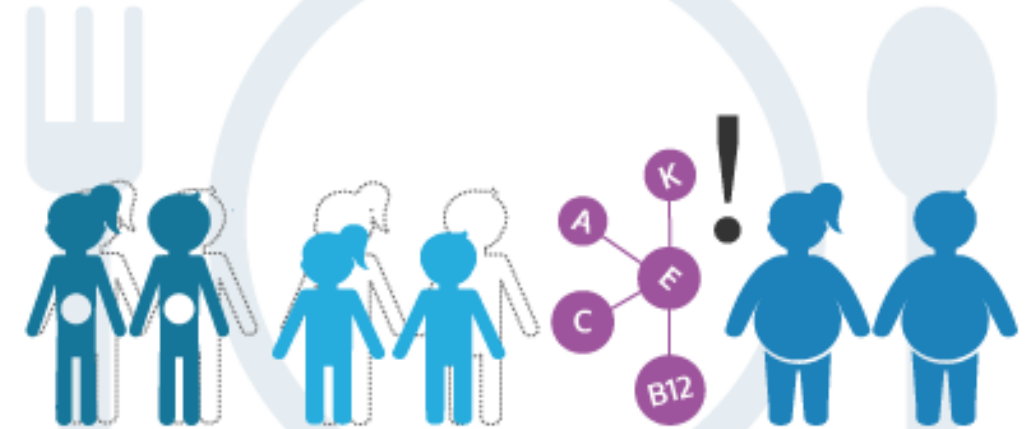
	Iron	Vit A	Zinc	Vit B ₁₂	Folate	Ca	Iodine	Niacin	Vit B ₁	Vit C	Vit B ₆
Ethiopia	++	++	++	+	+	+	++	+	+	+	+
Tanzania	++	++	+	+	+	+	+	+	+	+	+
South Africa	++	++	+	+	+	+	+	+	+	+	+
Uganda	++	+++	+	+	+	+	+	+	+	+	+
Mozambique	++	+	+	+	+	+	+	+	+	+	+
Zambia	+	+	+	+	+	+	+	+	+	+	+

Gap burden and certainty of evidence for 11 micronutrients among children aged 6–23 months in 6 countries in Eastern and Southern Africa. Nutrient gap burden is signified by color: **red** (high burden), **orange** (moderate burden), **yellow** (low burden), or **green** (negligible burden). The number of plus signs (+) represents the certainty of evidence for the nutrient gap burden: 3 (high certainty), 2 (moderate certainty), or 1 (low certainty) evidence. Abbreviations: Vit, vitamin, Ca, calcium



FEEDING PRACTICES

- Nutritionally adequate and safe complementary foods and poor feeding practices results to growth faltering which manifests as stunting, wasting, underweight, overweight and severe acute malnutrition (SAM)



Undernutrition (wasting, stunting & micronutrient deficiencies) along with overweight and obesity



CHILD NUTRITION IN AFRICA

- The traditional complementary food in many African countries is mainly porridges made from cereals (maize, sorghum, millet) and family foods consisting mainly of cassava, yam, cocoyam, potatoes, maize, sorghum and millet.
- With increasing nutrition education and community awareness programmes in nutrition, animal source of foods, fruits, and vegetables are increasingly integrated into the traditional complementary food resulting in reduced incidence of stunting, wasting, and underweight in African regions over the years.
- Infant and young child feeding practices across the African regions shows that Eastern African region have good breastfeeding practices, but poor complementary feeding practices.
- This translates to high incidence of stunting in the region over the years. High correlation between infant and young child feeding practices and the indices of malnutrition (see middle Africa)

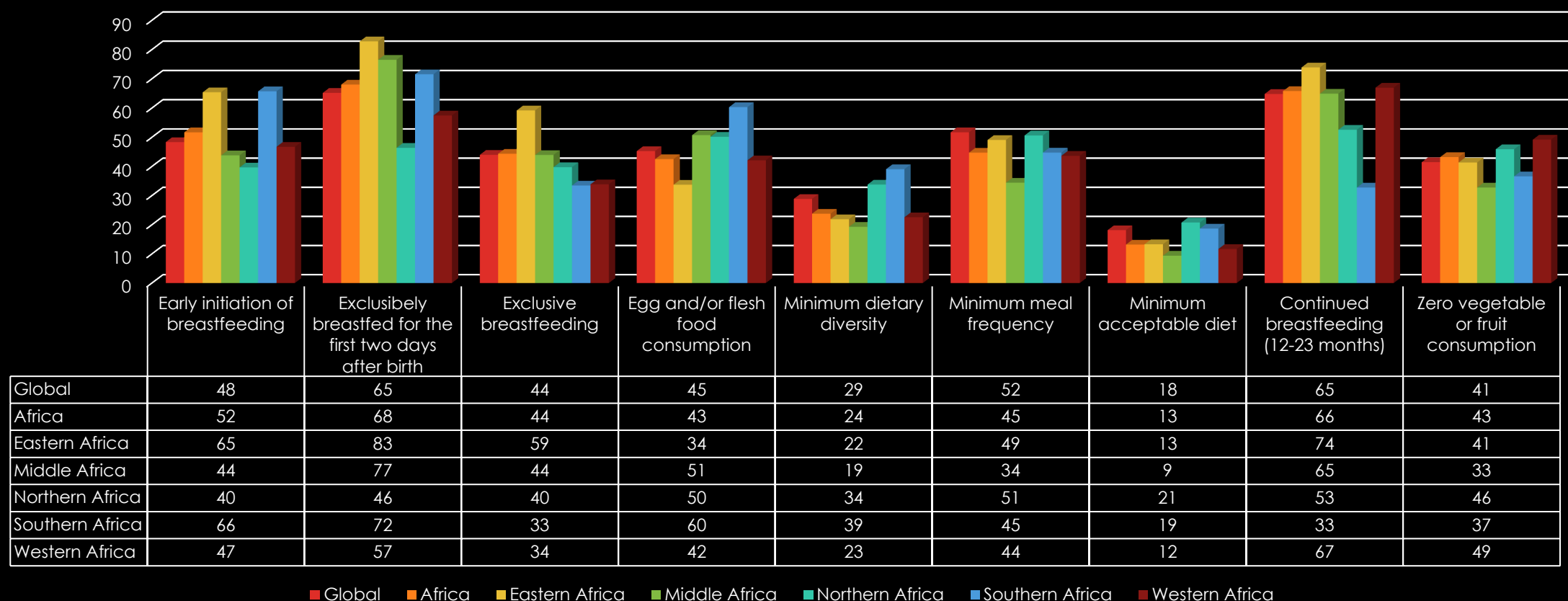


Ogi, AKAMU OR PAP



CHILDREN NUTRITION IN AFRICA

INFANT AND YOUNG CHILD FEEDING CHARACTERISTICS OF AFRICAN CHILDREN

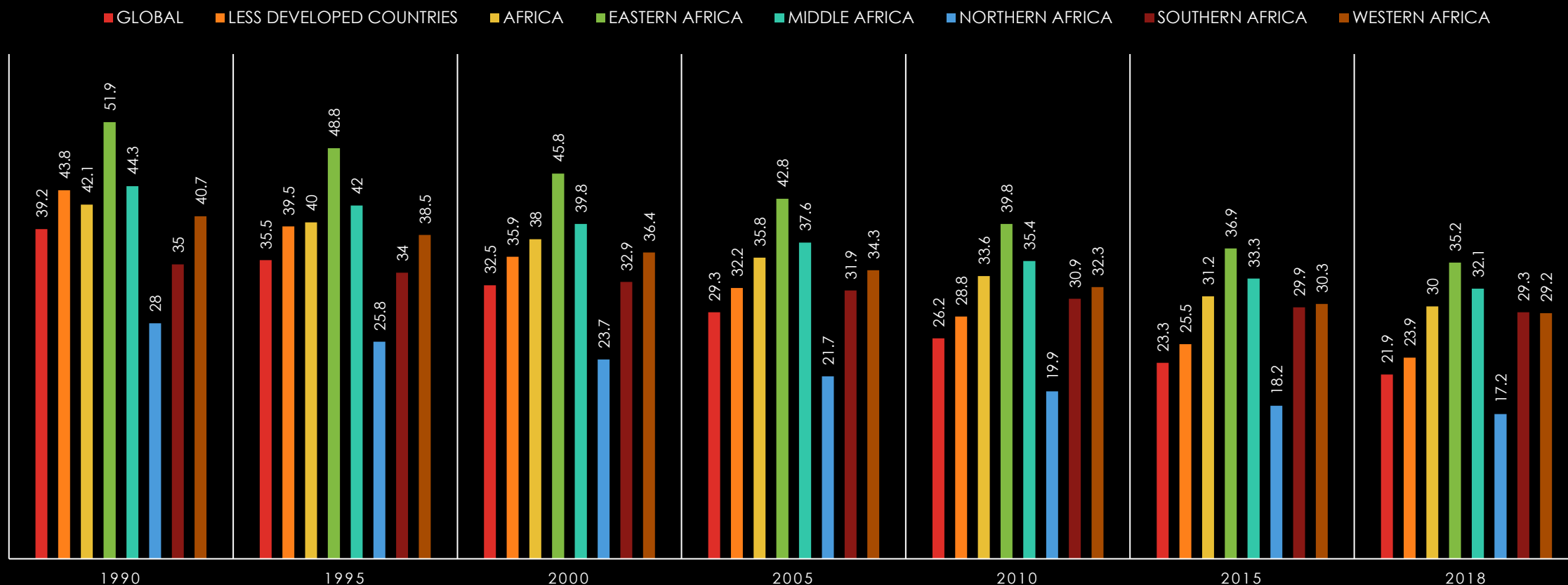


SOURCE: UNICEF (2021). Infant and young child feeding- UNICEF DATA



STUNTING IN AFRICA

TRENDS IN THE PREVALENCE OF UNDER FIVE STUNTING IN AFRICA



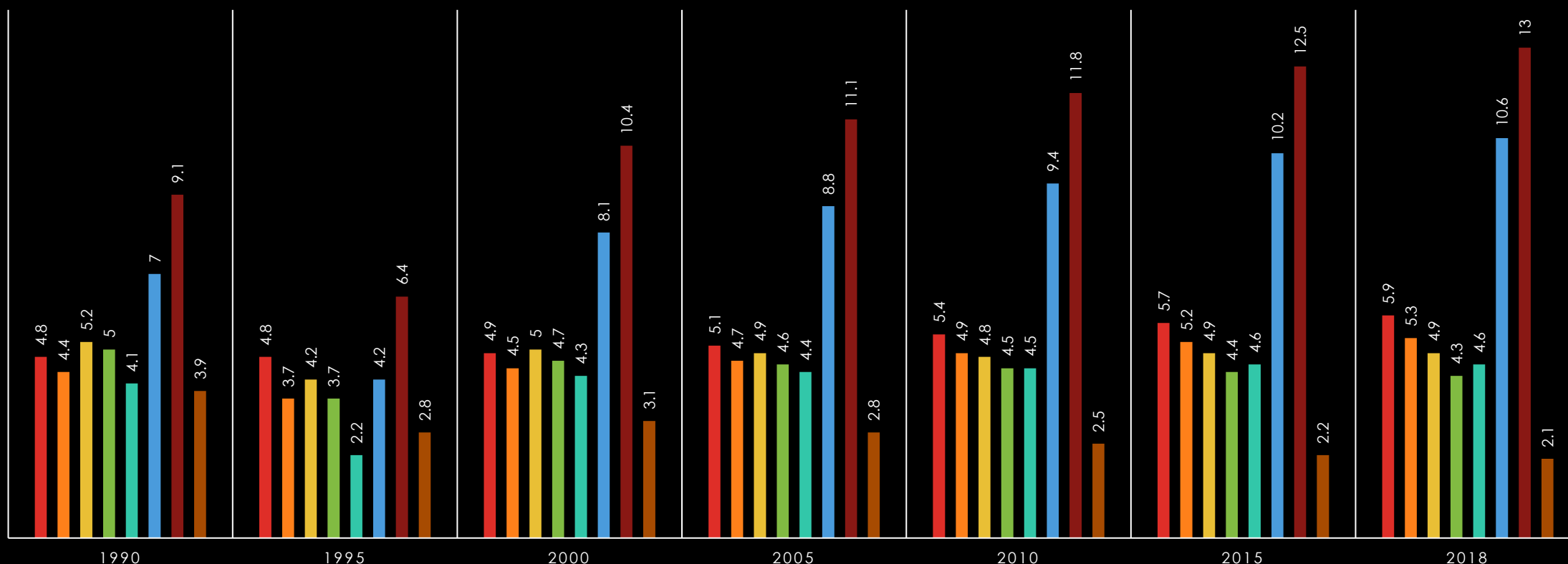
UNICEF, WHO, World Bank Group Joint Malnutrition Estimates (2019) Stunting prevalence 1990-2018.



OVERWEIGHT IN AFRICA

TRENDS IN THE PREVALENCE OF UNDER FIVE OVERWEIGHT IN AFRICA

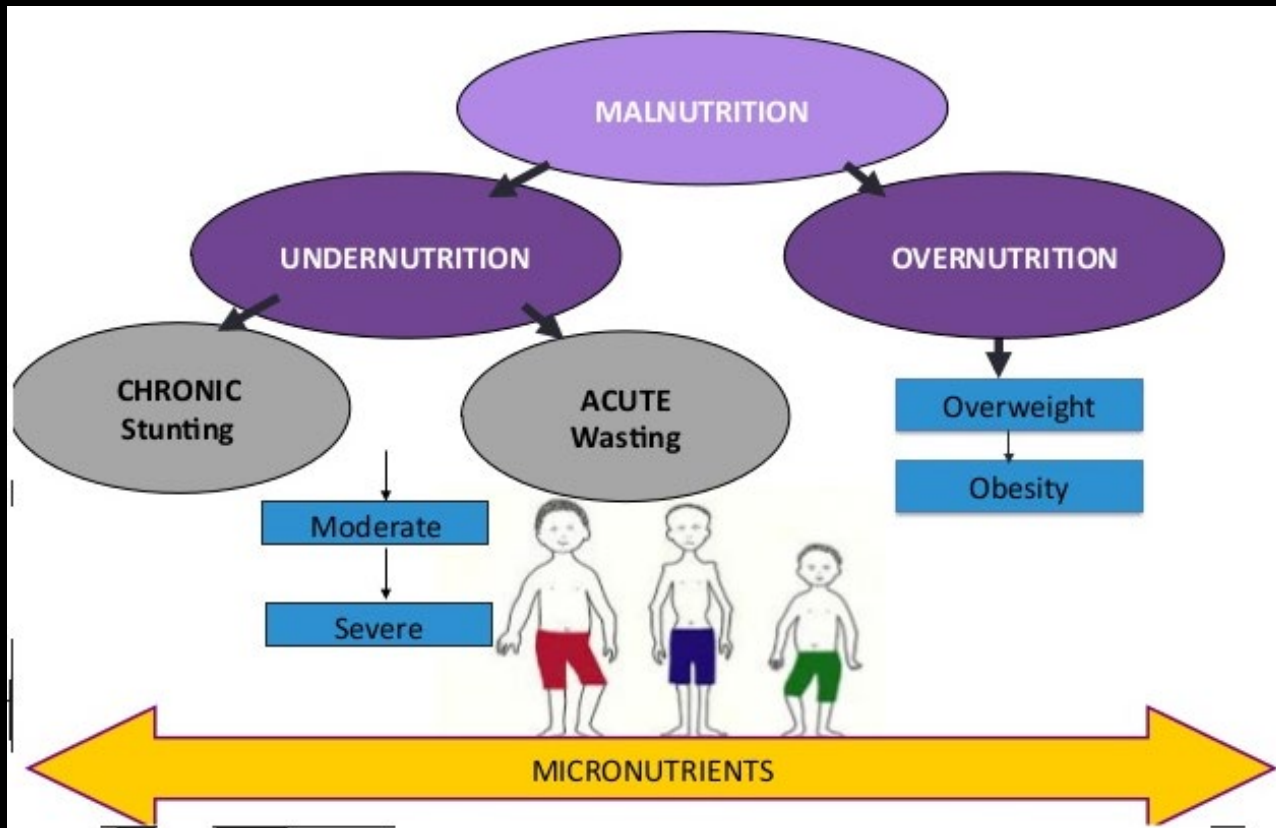
■ GLOBAL ■ LESS DEVELOPED COUNTRIES ■ AFRICA ■ EASTERN AFRICA ■ MIDDLE AFRICA ■ NORTHERN AFRICA ■ SOUTHERN AFRICA ■ WESTERN AFRICA



UNICEF, WHO, World Bank Group Joint Malnutrition Estimates (2019)



MALNUTRITION



- This various forms of malnutrition is existing in all parts of Africa especially among children.
- In Africa, it is common to see an obese mother with a stunted or wasted child (Co-existence of double burden of malnutrition in the family)



NUTRITION FOR SEVERE ACUTE MALNOURISHED CHILDREN

- In some African countries, children nutrition is inadequate resulting to severe acute malnutrition (SAM)
- Children suffering from SAM (severely malnourished children) are treated with ready to use therapeutic food (RUTF)
- RUTF is made up of milk powder, sugar, peanut butter, vegetable oil, vitamins, and minerals. Some locally available foods like maize, groundnut, sesame, soybeans are used to reduce cost. RUTF is usually made according to a standard energy-rich composition (WHO).
- Ingredients vary depending on local availability, cost and acceptability.
- Studies conducted in some African countries – Malawi, Kenya, Zambia – showed that standard RUTF improved recovery from SAM and increased rate of weight gain.
- RUTF produced in Nigeria has been successfully used in treatment of children with SAM in Ebonyi state of Nigeria





CASE STUDY ON TREATMENT OF SAM

At first visit, she was 18 months, weighing 8kg with MUAC measurement of 10cm



On discharge, she weighed 9.8kg with MUAC measurement of 14cm





CONCLUSION

- Infant and young child feeding practices should be scaled up in all the African regions to bring children in the continent out of different forms of malnutrition to enjoy a healthier life



**THANKS FOR YOUR
ATTENTION**