



Socio-ecological Factors and the Double Burden of Malnutrition Among Children and Adolescents in Low- and Middle-Income Countries

NICHD Global Health Conference October 19-20, 2022 | 12:30PM – 5:30PM EDT

#### Global and Regional Differences in the Double Burden of Malnutrition Among Children & Adolescents in LMICs

Francesco Branca Director, Nutrition and Food Safety

Elaine Borghi, Ph.D. Unit Head, Monitoring Nutrition and Food Safety

Department of Nutrition and Food Safety World Health Organization - Geneva, Switzerland





## Multiple forms of malnutrition



#### Stunting in children < 5 years of age: Low weight-for-height (< - 2SD of the WHO child growth standards)



#### Overweight in children < 5 years of age : Weight-for-height > + 2SD of the WHO child growth standards



Anaemia in women of reproductive age : Haemoglobin < 120 g/L (<110 g/L in pregnant women)



### Inadequate breastfeeding:

Not exclusive breastfeeding in children under 6 months of age



Anaemia in women of reproductive age : Haemoglobin < 120 g/L (<110 g/L in pregnant women)



# Wasting in children < 5 years of age :

Low weight-for-height (< - 2SD of the WHO child growth standards)



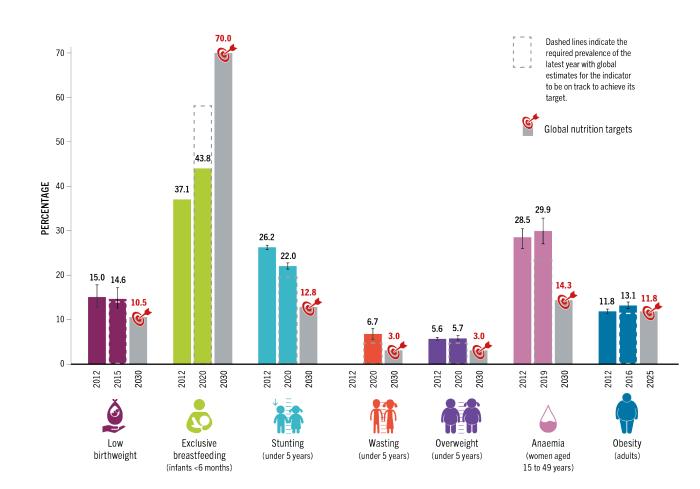
## Progress towards targets

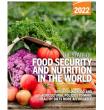
# Progress has been made towards 2030 global nutrition targets only for exclusive breastfeeding and child stunting

In 2020, 43.8 percent of infants under 6 months were exclusively breastfed – up from 37.1 percent in 2012.

Among children under 5 years of age, an estimated 22 percent were affected by stunting, 6.7 percent by wasting and 5.7 percent by overweight in 2020.

Nearly 30 percent of women aged 15 to 49 years were affected by anaemia in 2019.



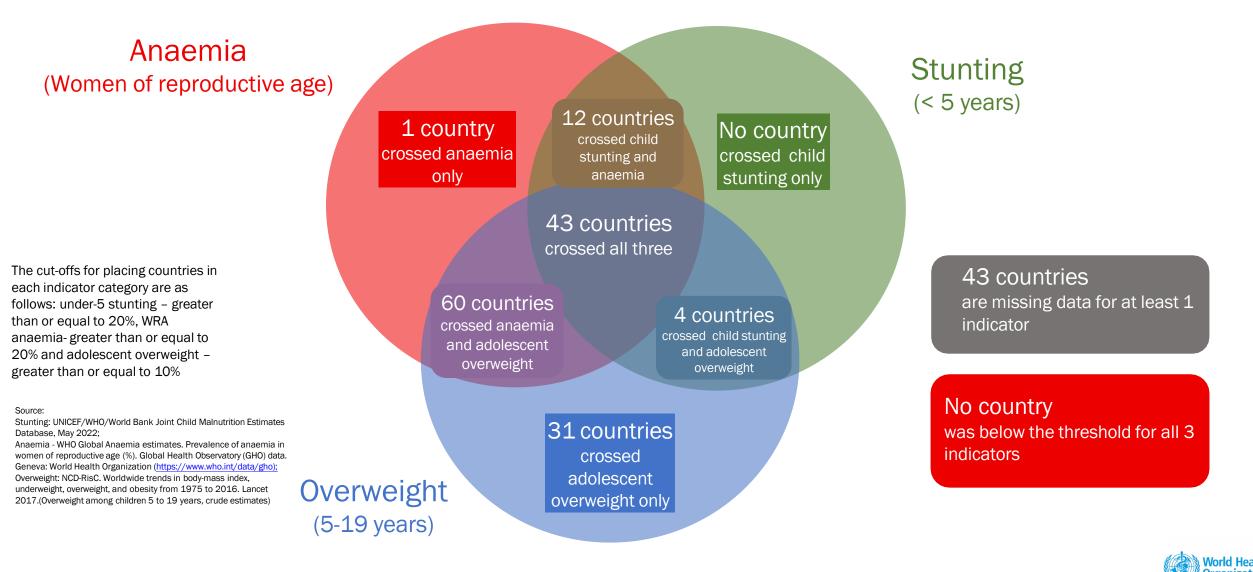


FAO, IFAD, UNICEF, WFP and WHO. 2022. The State of Food Security and Nutrition in the World 2022. Repurposing food and agricultural policies to make healthy diets more affordable. Rome, FAO





The coexistence of different forms of malnutrition is the new normal



### The "new normal"

The cut-offs for placing countries in each indicator category are as follows: under-5 stunting – greater than or equal to 20%, WRA anaemiagreater than or equal to 20% and adolescent overweight – greater than or equal to 10%

Source:

Stunting: UNICEF/WHO/World Bank Joint Child Malnutrition Estimates Database, May 2022; Anaemia - WHO Global Anaemia estimates. Prevalence of anaemia in women of reproductive age (%). Global Health Observatory (GHO) data. Geneva: World Health Organization (https://www.who.int/data/gho); Overweight: NCD-RisC. Worldwide trends in bodymass index, underweight, overweight, and obesity from 1975 to 2016. Lancet 2017.(Overweight among children 5 to 19 years, crude estimates)

#### © 2022 Mapbox © OpenStreetMap

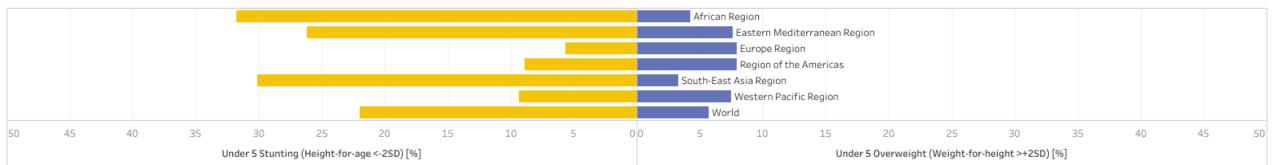
#### Legend

- 📕 Anaemia (WRA) only
- Anaemia (WRA) & Overweight (5-19 years)
- Overweight (5-19 years) only
  Stunting (<5) & Anaemia (WRA)</li>

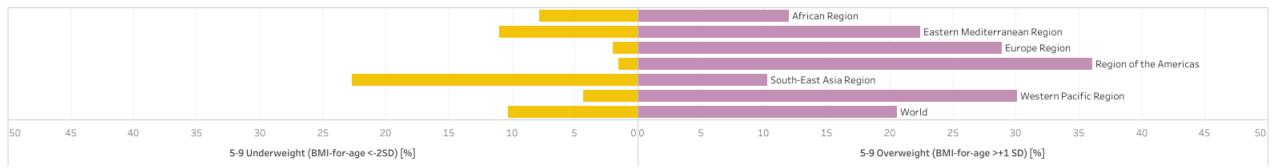
- Stunting (<5) & Overweight (5-19 years)
- Stunting (<5), Anaemia (WRA) & Overweight (5-19 y...
- Data missing for at least 1 indicator

## Regional/Global Levels of Malnutrition, Latest

Children under 5, 2020



Adolescents 5-9 years, 2016



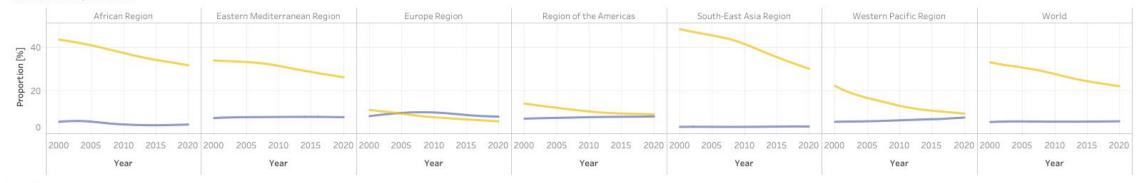






## Regional/Global Trend of Malnutrition, 2000-Latest

Children under 5, 2000-2020

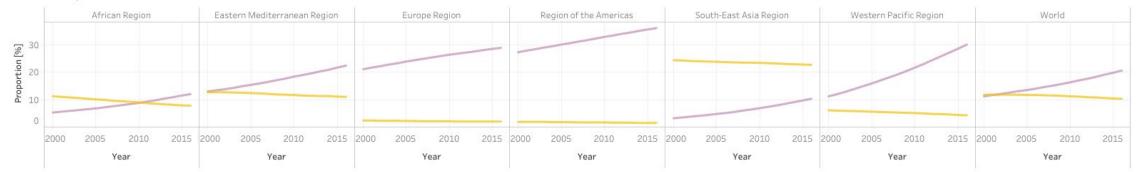


Legend

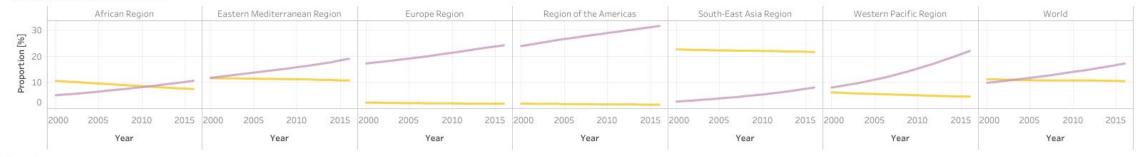
Stunting (Height-for-age <-2SD)</p>

Overweight (Weight-for-height >+2SD)

Adolescent 5-9 years, 2000-2016



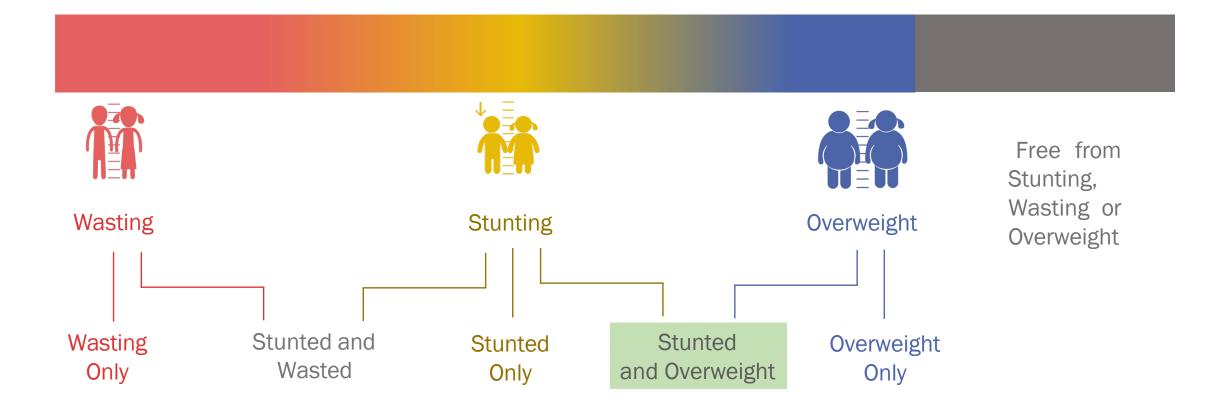
Adolescent 10-19 years, 2000-2016



Legend Underweight (BMI-for-age <-2 SD)

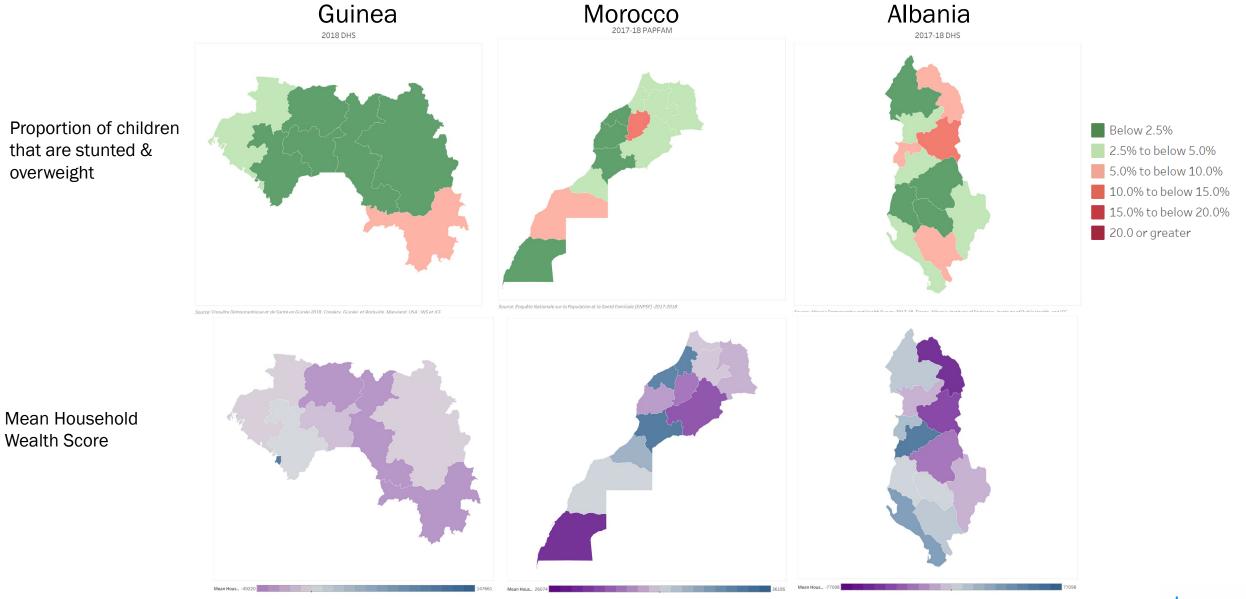


### Overlapping malnutrition (children < 5 years)



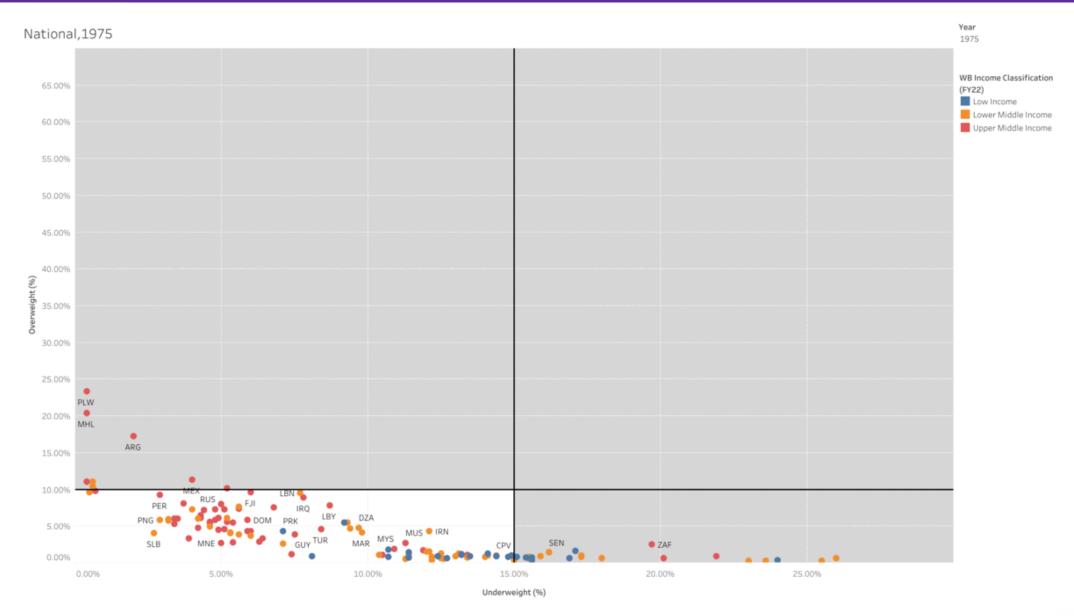


#### Overlapping malnutrition disparities (children < 5 years)



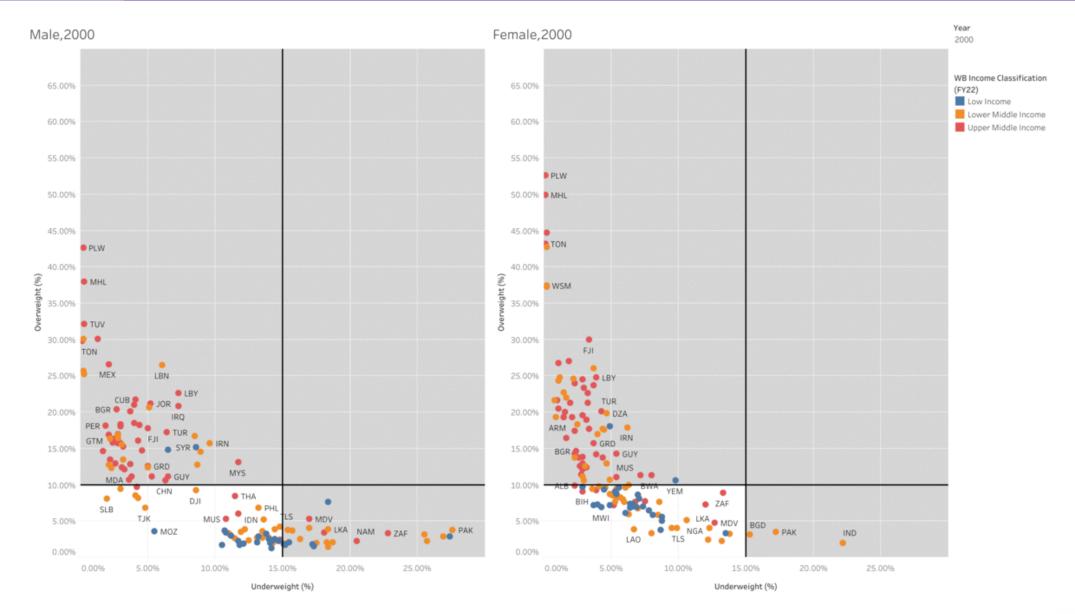


## Double burden tendency by income (5-19 years)



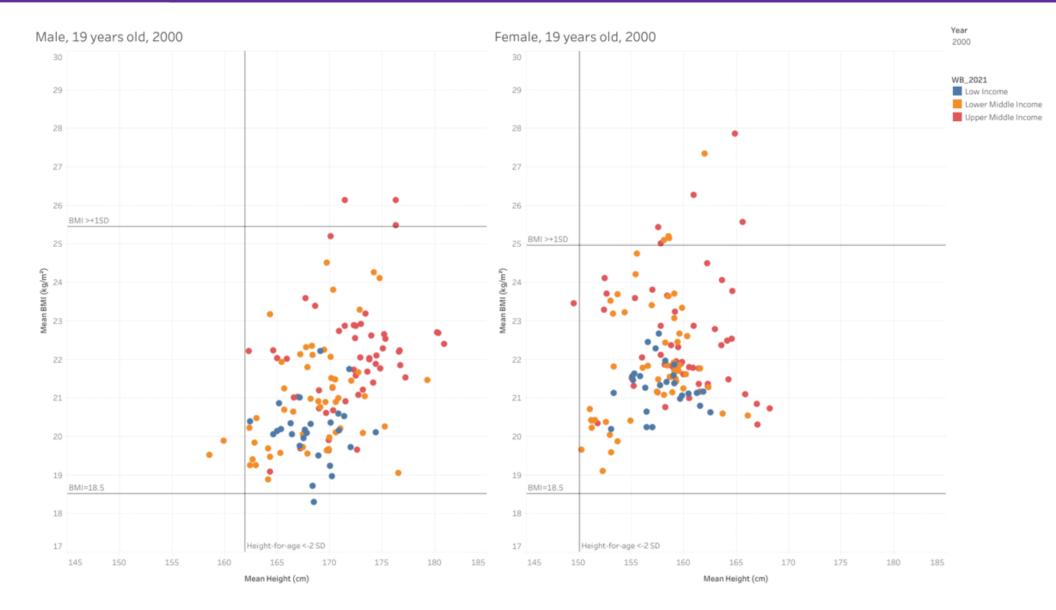


## Double burden tendency by sex and income (5-19 years)



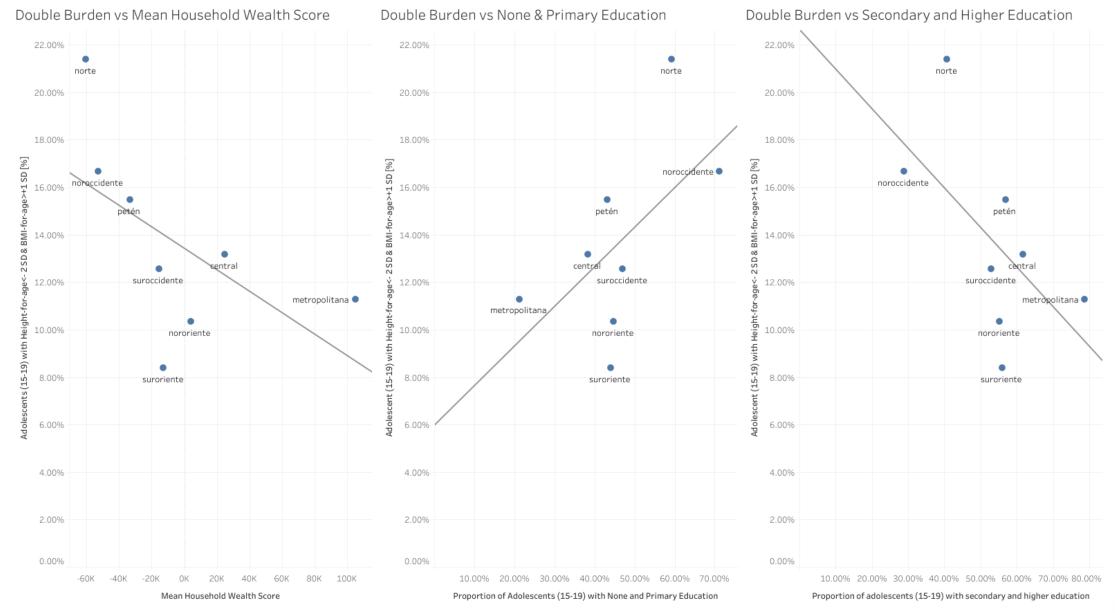


### Double Burden tendency – mean BMI vs mean height (NCD-RisC)





## Double Burden overlap % (Example – Guatemala 2014/2015 DHS)



Source: Ministerio de Salud Pública y Asistencia Social - MSPAS/Guatemala, Instituto Nacional de Estadística - INE/Guatemala, Secretaría de Planificación y Programación del la Presidencia - Segeplán/Guatemala and ICF International. 2017. Encuesta Nacional de Salud Materno Infantil 2014-2015: Informe Final. Rockville, Maryland, USA: MSPAS, INE, Segeplán and ICF International.



#### **10** DOUBLE-DUTY ACTIONS

There are 10 strong opportunities for double-duty actions which could address the double burden of malnutrition

introducing foods

alongside breast-

feeding to make

and salt.

mothers aware of the

risks of foods, snacks

and beverages high in energy, sugar, fat

#### THE LANCET

The Double Burden of Malnutrition



"Malnutrition is a global challenge that all countries need to address. Despite some progress, the world is not on track to meet globally agreed goals and targets for nutrition.

A Series by The Lance

#### • Health services

- Social safety nets
- Educational Settings
- Agriculture, food systems and food environments

Scaling up the antenatal care recommendations proposed by the World Health Organization.

Comprehensively implementing programmes to protect and promote breastfeeding.



Designing social support and welfare programmes to reduce risks from foods, snacks, and beverages high in energy, sugar, fat, and salt.

0



energy, sugar, fat and salt.

more efficiently (see Panel 2 in Hawkes et al. for full list). These are:

Redesigning school feeding programmes and devising new nutritional guidelines for food in and around educational institutions to ensure nutritious foods are available instead of foods, snacks, and beverages high in





monitoring

programmes.



Preventing undue harm from existing child growth energy-dense and micronutrient-forti fied foods and ready-to-use supplements.



Extending the number of agricultural development programmes which make nutritious foods available. affordable and appealing.



Implementing new large-scale food system policies with





agricultural and healthy diets as their primary goal. policies to improve food environments to malnutrition.





- Nutrition goals should not be considered in isolation, and strategies and solutions that address them together should be devised
- In LMIC's, undernutrition is declining while overweight is increasing in children and adolescents and patterns vary by sex
- The DBM in children and adolescents, although less visible compared to adults, presents a tendency to increase if actions are not taken to revert it
- The global food system makes less nutritious food cheaper and more accessible to families, affecting children and adolescents
- Effective policies that address the challenges of the DBM across the lifecycle are urgently needed



For more information visit: <u>www.who.int/teams/nutrition-and-food-safety/overview</u>



# Thank you!!