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International
Human
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Dushanbe, May 16 - 18



Can Malnourished Children Learn and Earn enough to build human capital?

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**Good nutrition in
the first 1,000 days
is critical for brain
development and
for building human
capital**



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Laying the foundation of human capital through interventions across sectors



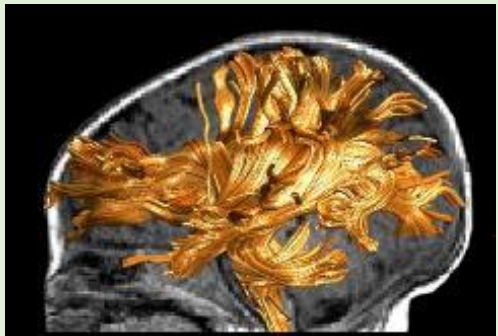


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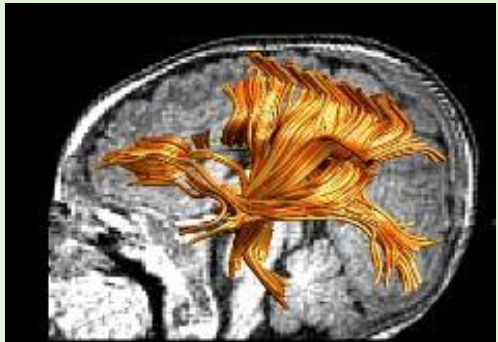


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Good nutrition in the first 1,000 days is critical for brain development and for building human capital

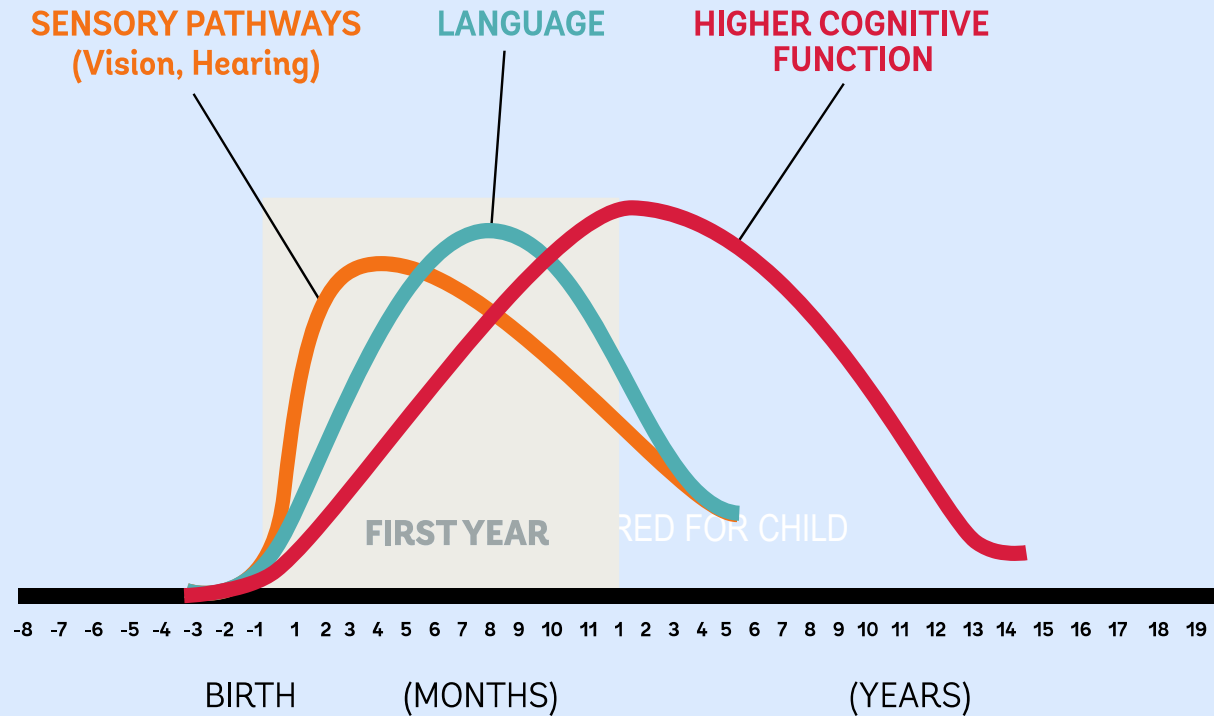


HEALTHY, CARED FOR CHILD



CHILD WITH STUNTED BRAIN

Source: Nelson, 2017





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Investments in nutrition during the first 1000 days build human capital and boost prosperity



SCHOOLING

Early nutrition programs can increase school completion by **one year**

EARNINGS

Early nutrition programs can raise adult wages by **5-50%**

POVERTY

Children who escape stunting are **33%** more likely to escape poverty as adults

ECONOMY

Reductions in stunting can increase GDP by **4-11%** in Asia & Africa

Malnourished children learn less; And they earn less!

Source: [Shekar et al. Investment Framework for Nutrition, 2017](#)



Nutrition is a key component of the human capital index (HCI)

HUMAN CAPITAL INDEX

NUTRITION

SURVIVAL TO AGE FIVE

(Under-five mortality [U5MR])

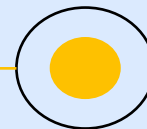
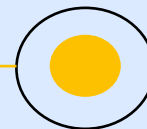
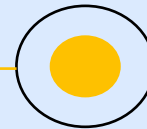
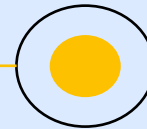
QUALITY OF LEARNING

Expected years of school learning

HEALTH

Stunting rate: Fraction of kids under 5 more than 2 reference standard deviations below median height for age

Adult survival rates (ASR): Fraction of 15-year-olds who survive to age 60



UNDERNUTRITION

Underlies 45% of U5MR

STUNTED/ANEMIC CHILDREN LEARN LESS

and are more likely to drop out of school;
Iodine deficient kids lose 7.4 IQ points

STUNTING is a key marker of undernutrition

RISING OBESITY RATES contribute to Non-Communicable Disease (NCDs) and lowers ASRs



Investing in nutrition is not only a moral imperative—it is an economic imperative

Stunting costs to individuals & society

Stunting results in tangible income losses, impacting a country's human capital and economic activity

In Ethiopia, Nepal and Pakistan, private sector workers lose significant personal income due to stunting...

Country	Average monthly income lost (USD) per stunted worker	Total monthly income lost for private sector workforce (USD millions)	Total annual income lost for private sector workforce (USD billions)
Ethiopia	\$9-\$21	\$214-\$475	\$2.6-\$5.7
Nepal	\$20-\$29	\$87-\$125	\$1.05-\$1.49
Pakistan	\$18-\$26	\$620-\$885	\$7.4-\$10.6

Source: Akseer et al, 2022 (EClinMed)

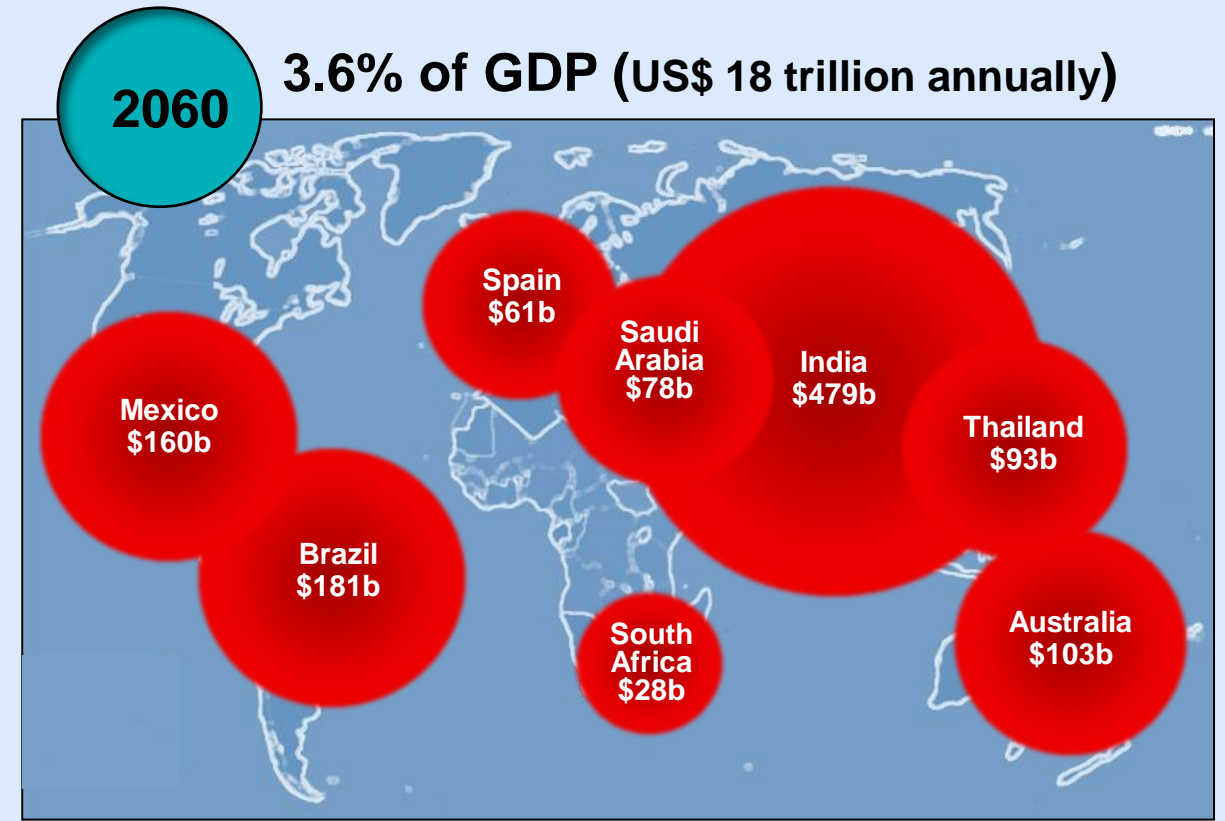
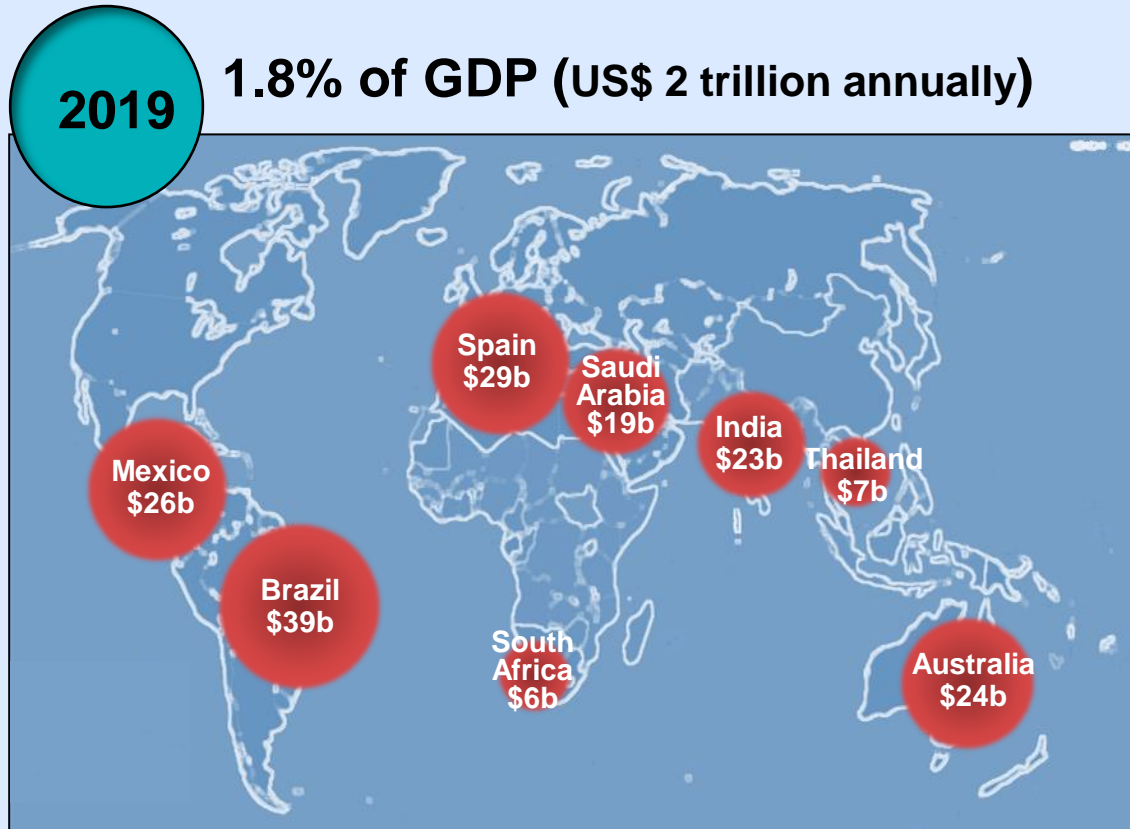


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Without global investment, average economic losses due to overweight and obesity are predicted to double



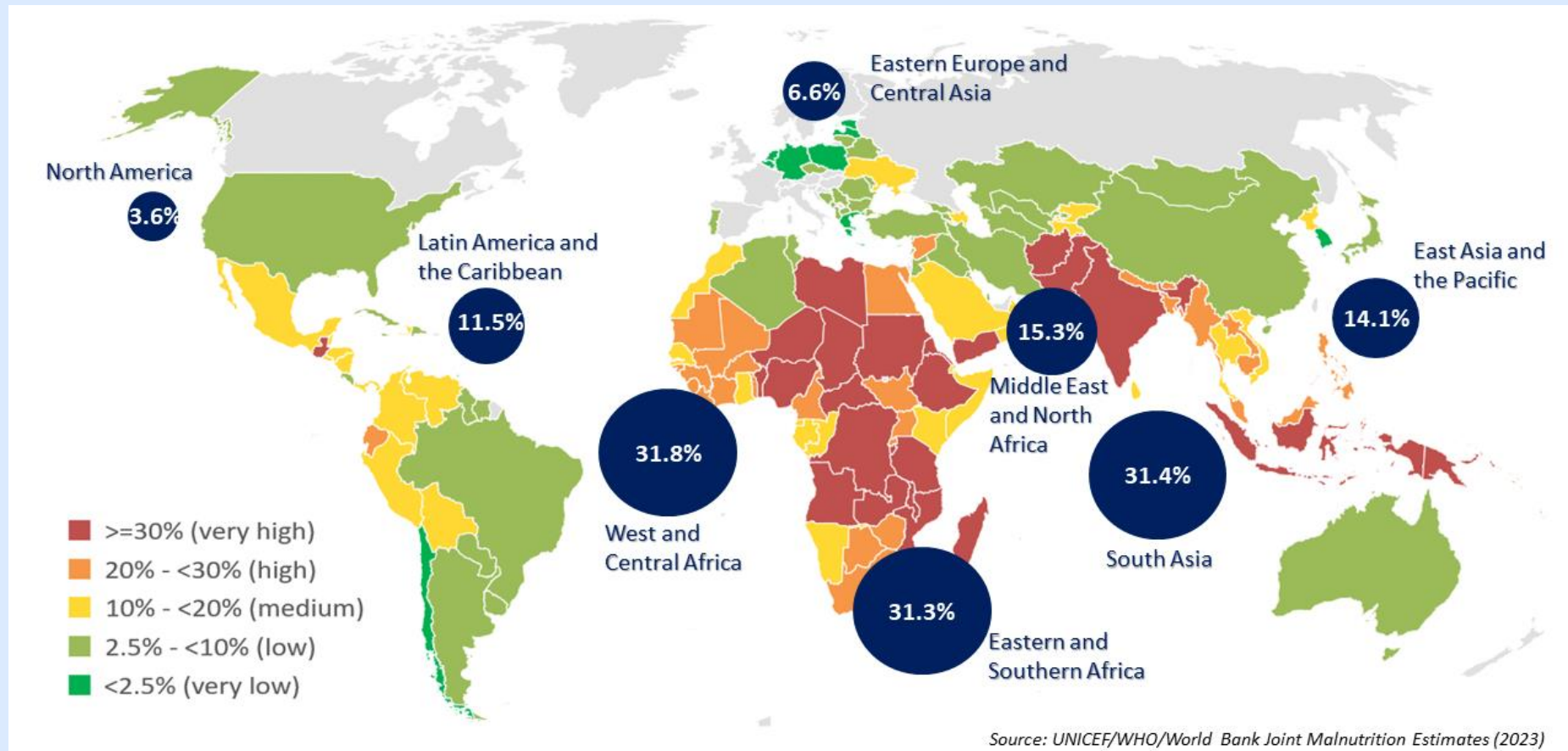
Source: World Obesity Federation, 2021. Available at: <https://data.worldobesity.org/publications/>



Progress toward
global nutrition
targets



Globally, ~148M children are chronically undernourished (stunted)

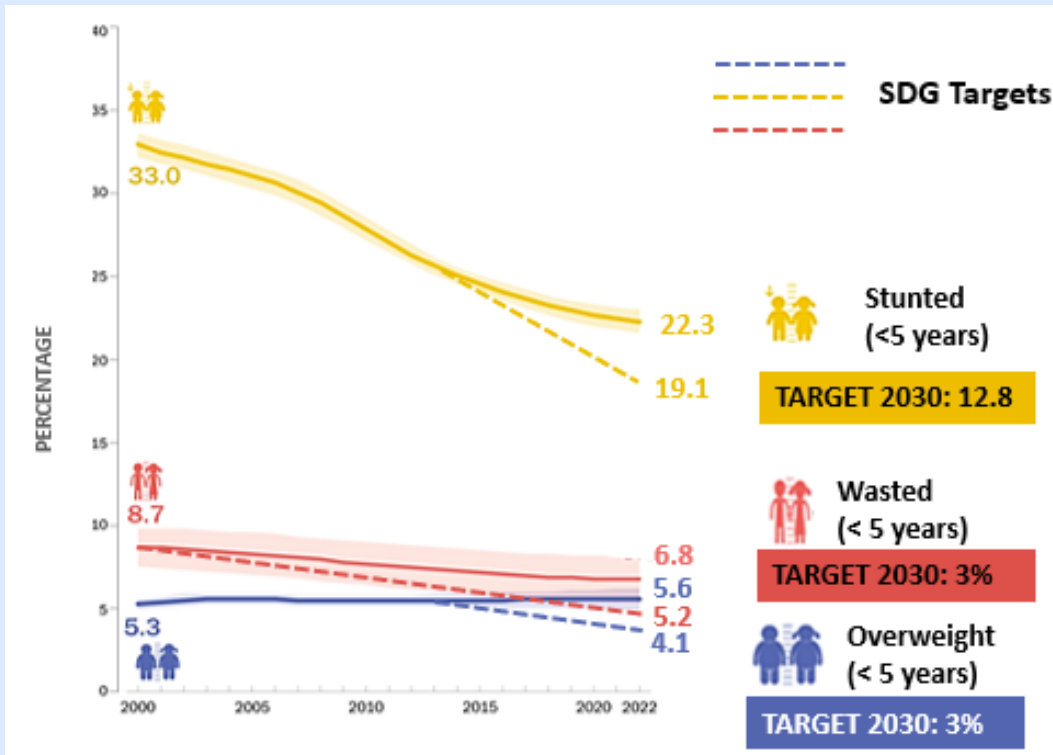




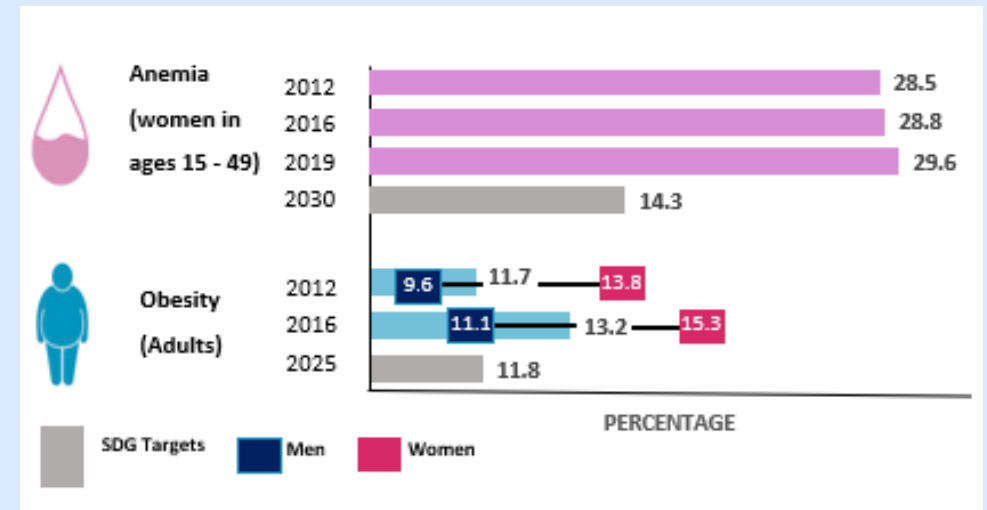
The World is Off track on SDG 2.2 (Hunger and Malnutrition):

Progress in child undernutrition has stagnated, and obesity and NCDs are increasing.

Reductions in stunting and wasting have slowed and obesity is increasing.



Anemia among women is increasing; Adult Obesity has increased dramatically.



Source: Data for stunting, wasting and overweight for children under 5 is based on UNICEF, WHO, World Bank Group Joint Child Malnutrition Estimates, 2023; data for anemia is based on WHO Global Health Observatory (GHO), 2021; data for adult obesity are based on WHO Global Health Observatory (GHO), 2017.



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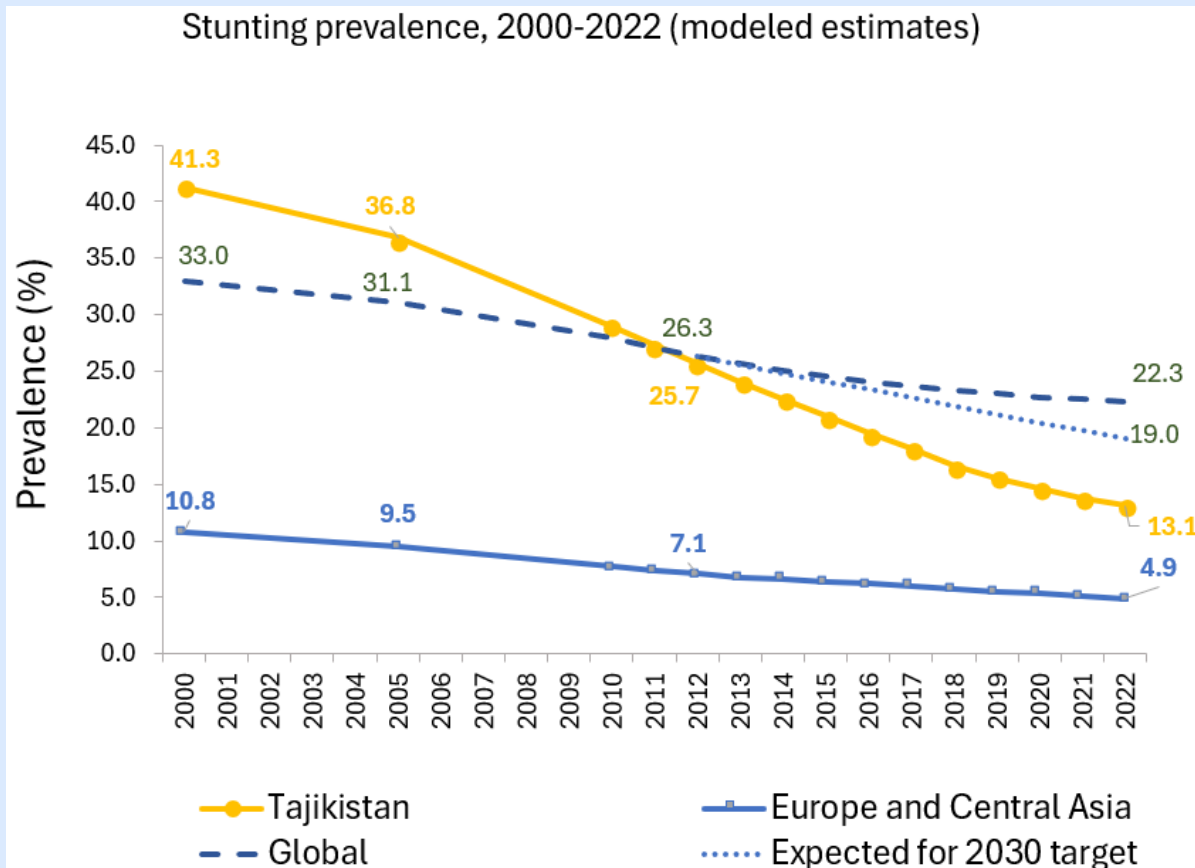
The Challenge of Malnutrition in ECA

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Child Stunting in ECA Region

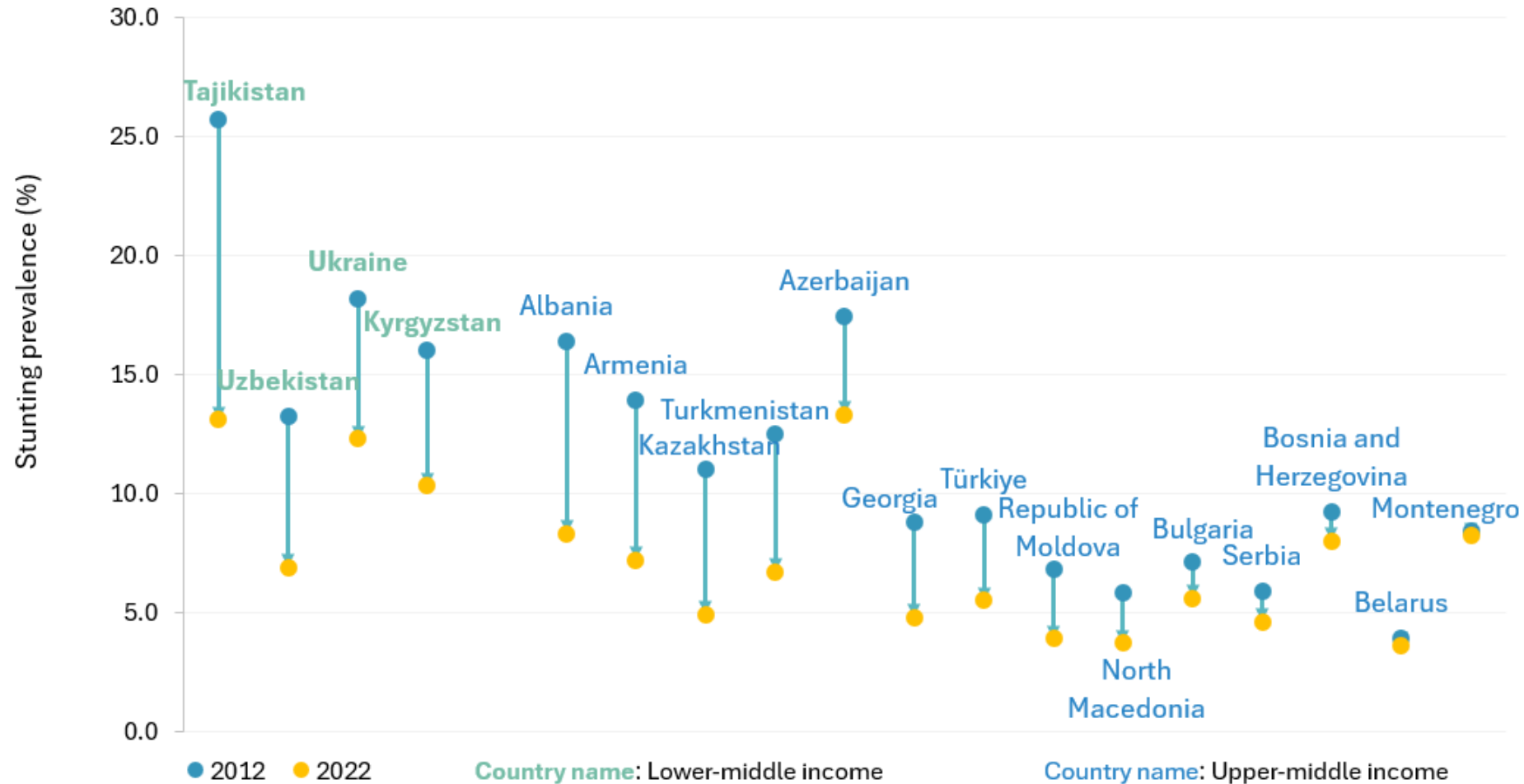


- Over recent decades, the Europe & Central Asia region has consistently reduced stunting prevalence
- Starting with a high prevalence in 2000, Tajikistan has made very impressive progress in stunting reduction
- Yet, as of 2022, stunting prevalence in Tajikistan is higher than the regional average, suggesting that more can be done

Data source: UNICEF / WHO / World Bank Group Joint Child Malnutrition Estimates, 2023.



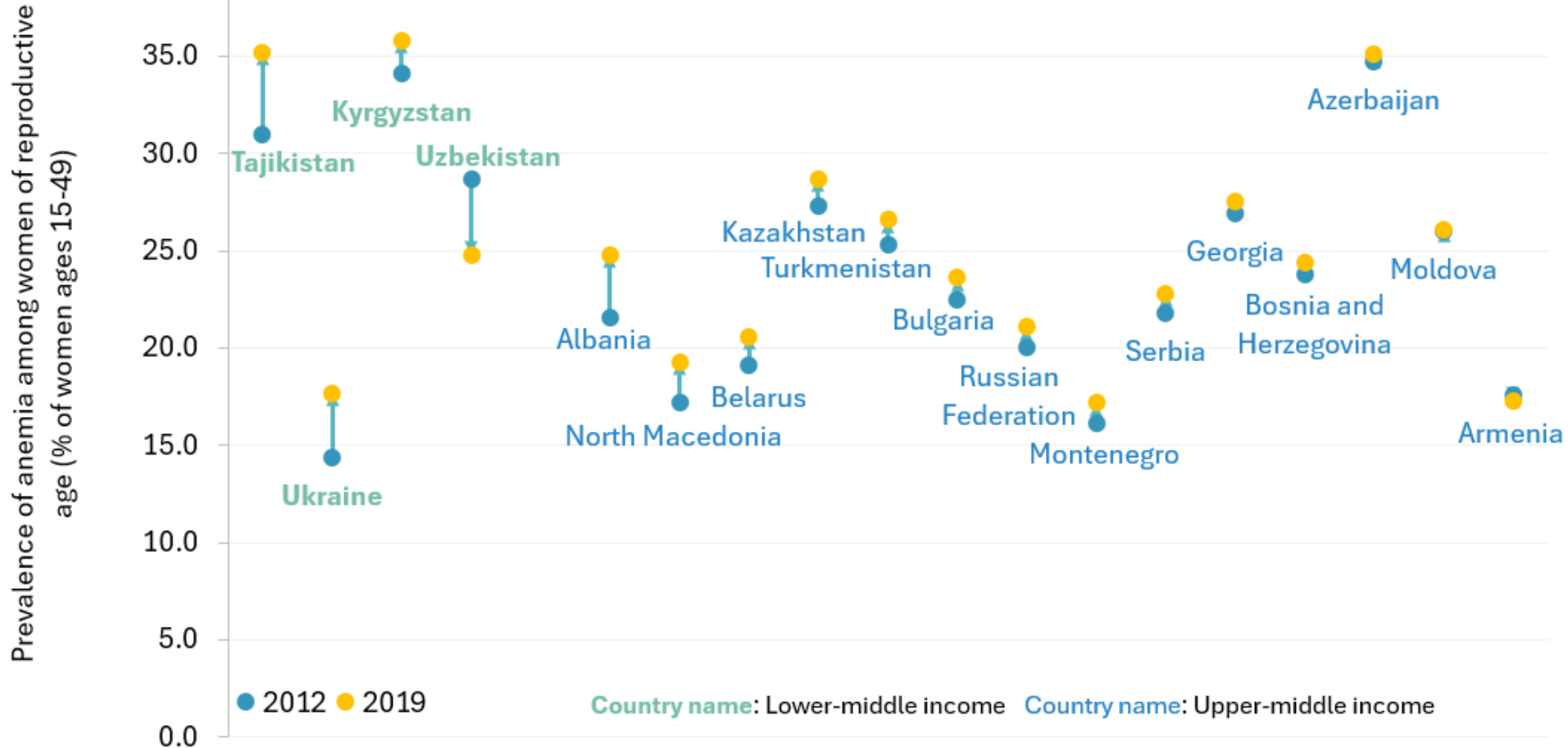
Change in stunting prevalence in ECA Region , 2012-2022



Data source: UNICEF / WHO / World Bank Group Joint Child Malnutrition Estimates, 2023.



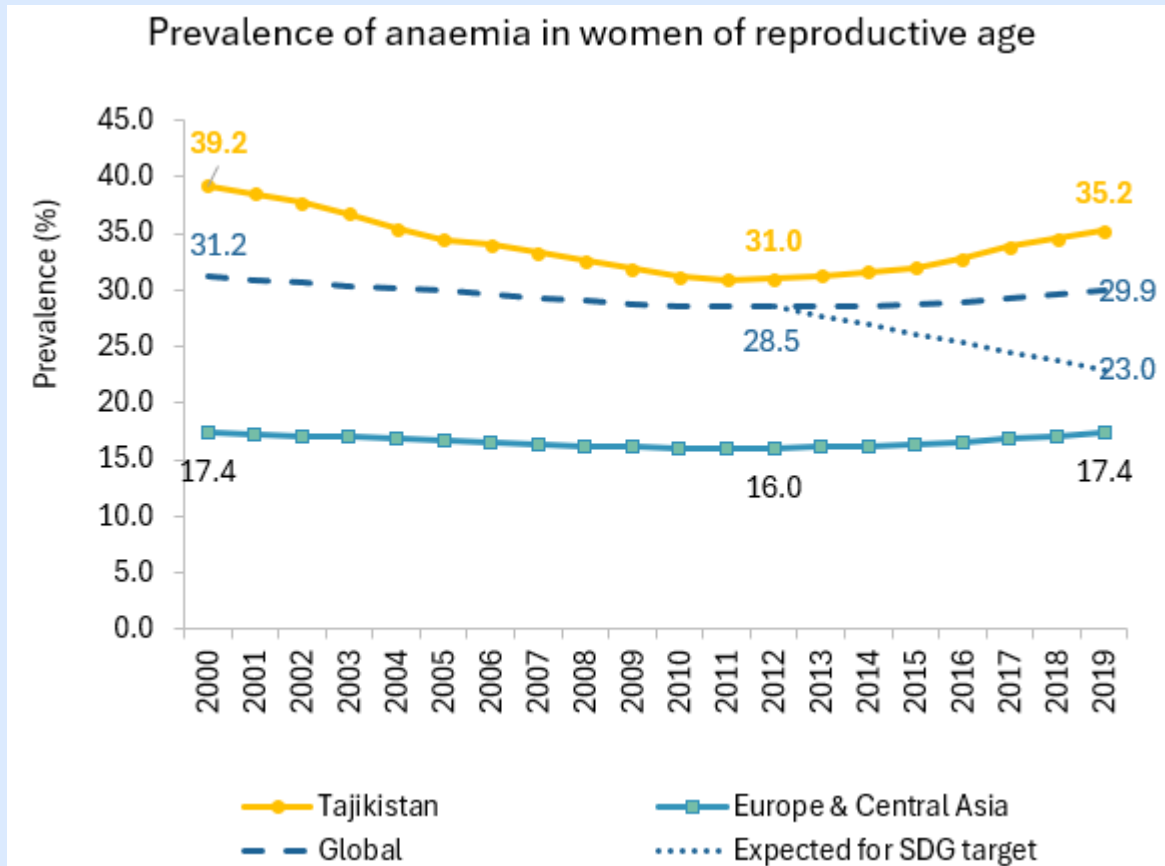
Change in anemia prevalence among women of reproductive age in ECA region, 2012-2019



Data source: WHO. The Global Health Observatory. Anemia in women and children, 2023.



Anemia among Women of Reproductive Age

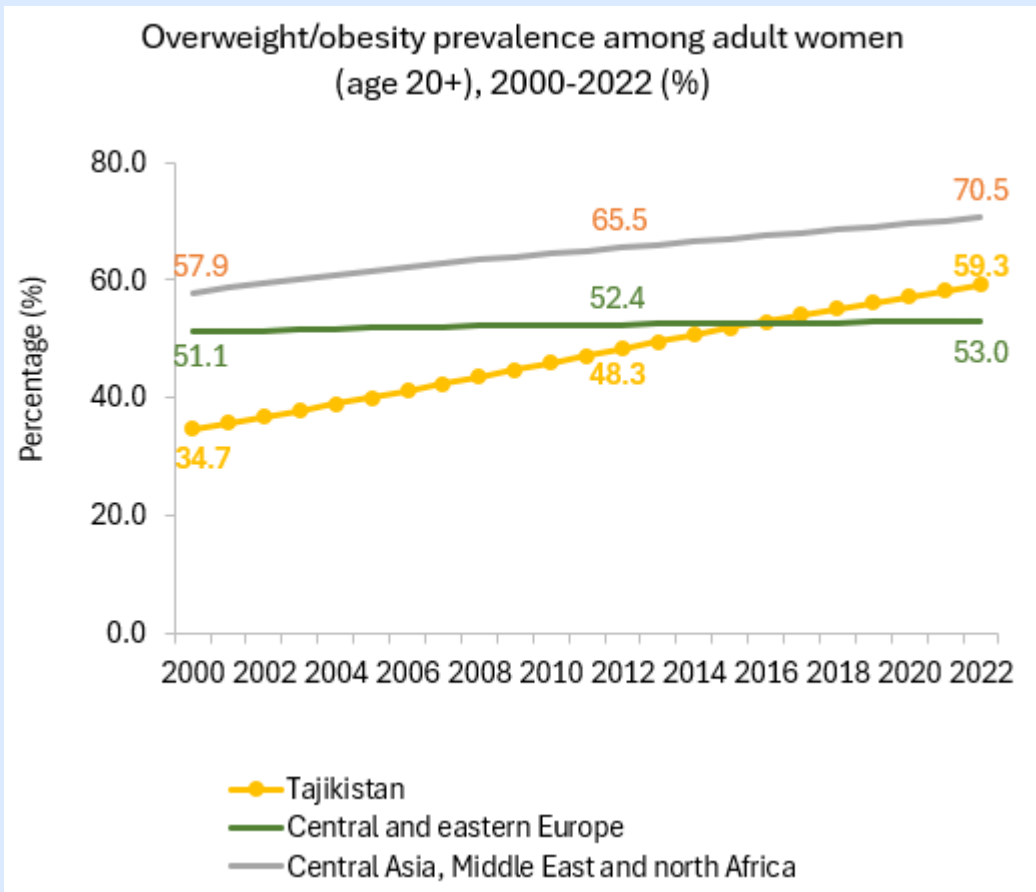


- The prevalence of anemia among women of reproductive is lower in the ECA region than the global average
- The prevalence in Tajikistan, however, is not only higher than the global average but also shows a rising trend over the last decade

Data source: WHO. The Global Health Observatory. Anemia in women and children, 2023.



Overweight/Obesity among Adult Women is Increasing



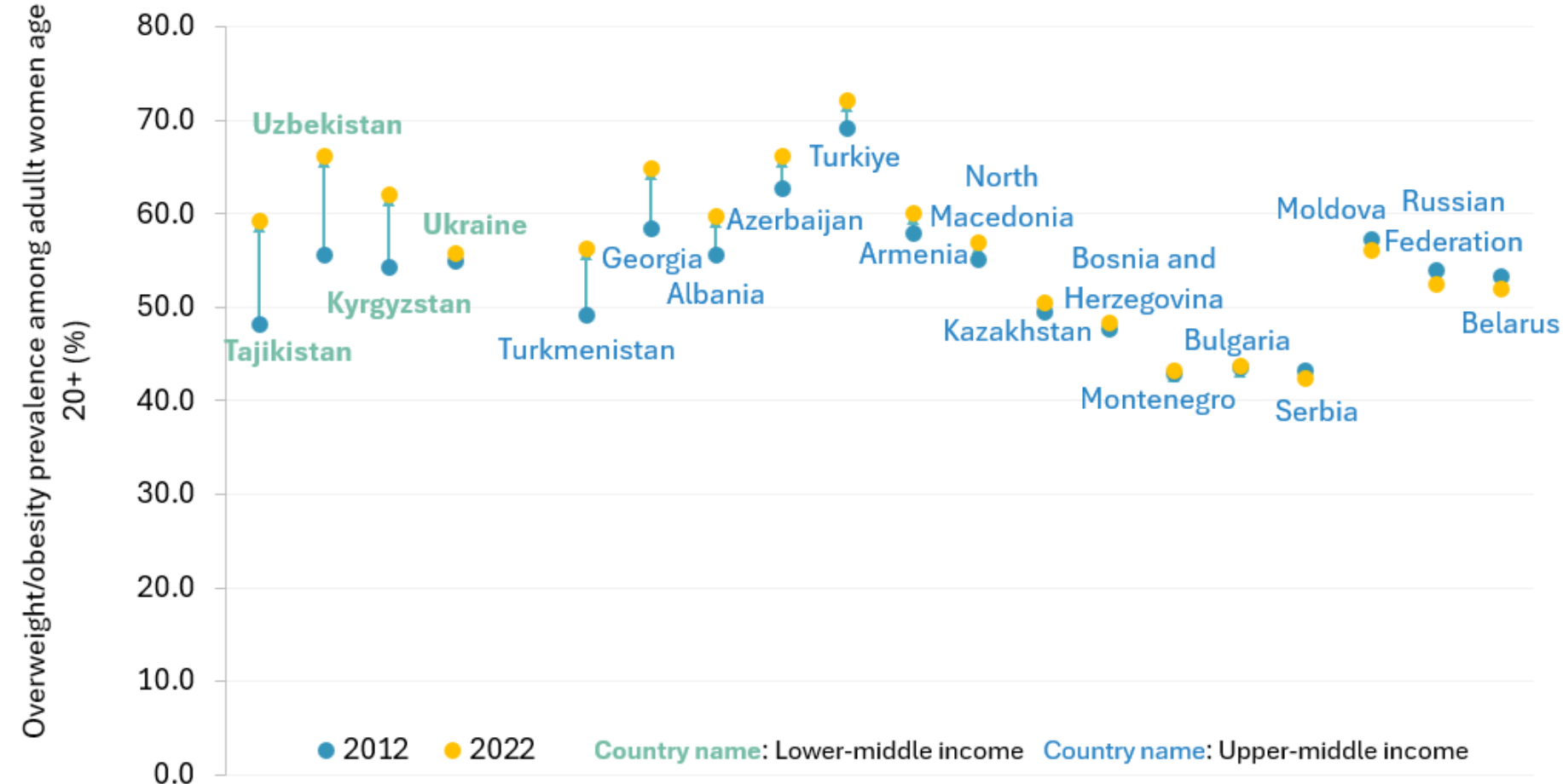
- Overweight/obesity affected more than half of adult women in the Central and Eastern Europe in the recent decades
- Over 70% of adult women in the Central Asia, Middle East and North Africa were identified as overweight/obese in 2022
- In Tajikistan, the prevalence of overweight/obesity among adult women is almost doubled between 2000 and 2022 with a fast-rising trend, albeit it is declining among children

* Regions are as defined by NCD-RisC.

Data source: NCD-RisC BMI Age standardized, Lancet 2024.



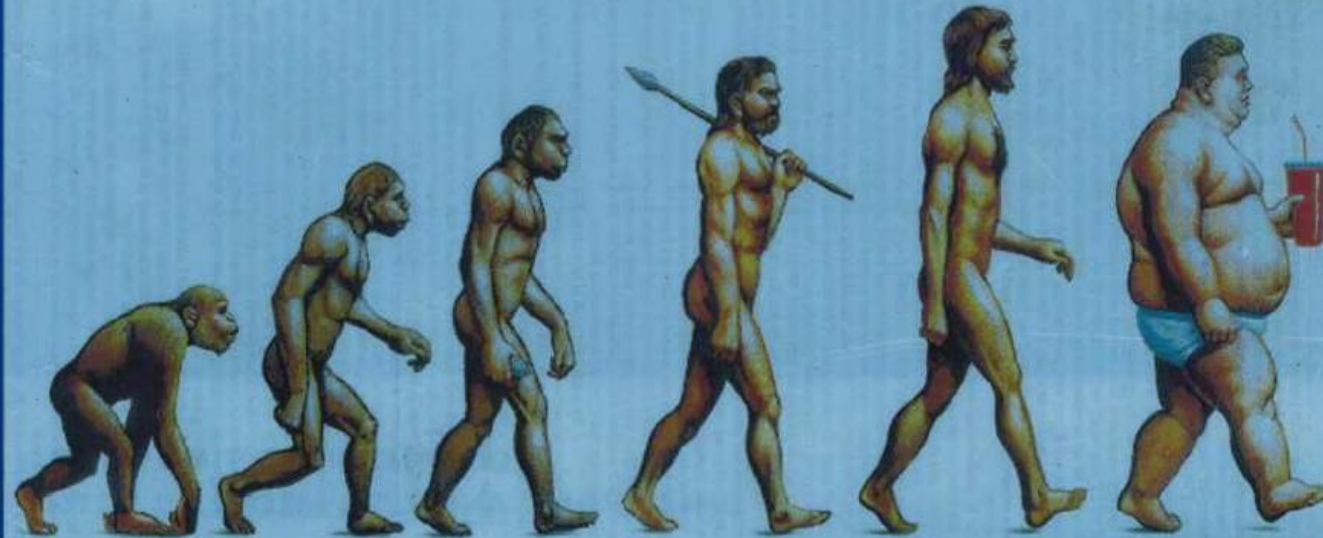
Change in overweight/obesity prevalence among adult women in ECA region, 2012-2022



Overweight/obesity among children has declined over the last decade but is increasing among women in almost all countries in ECA region

Data source: NCD-RisC BMI Age standardized, Lancet 2024.

The shape of things to come





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**But there is
hope for
ECA's
children....**

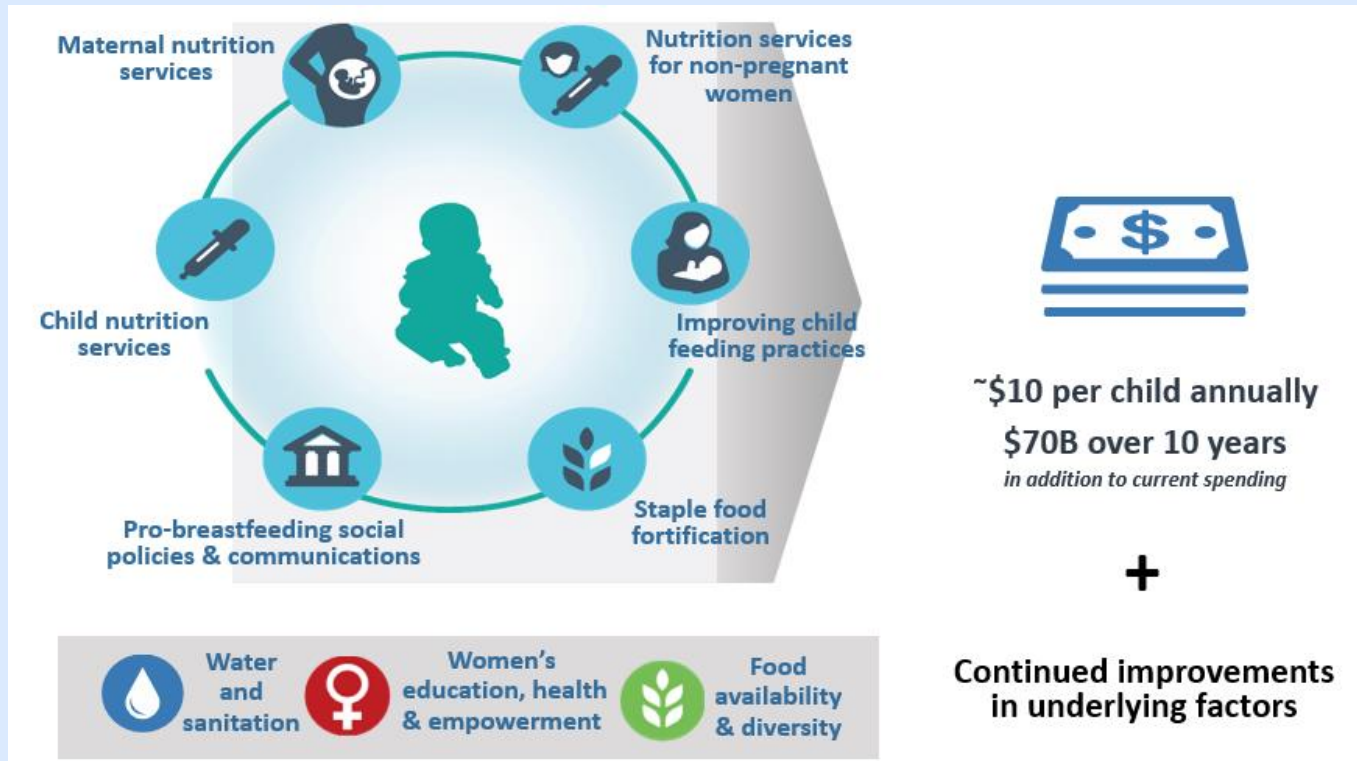
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WE HAVE SOLUTIONS

scaling up a proven package of interventions to prevent undernutrition
(Updated Framework to be ready Sep 2024)



Source: [Shekar et al. An Investment Framework for Nutrition, 2017.](#)

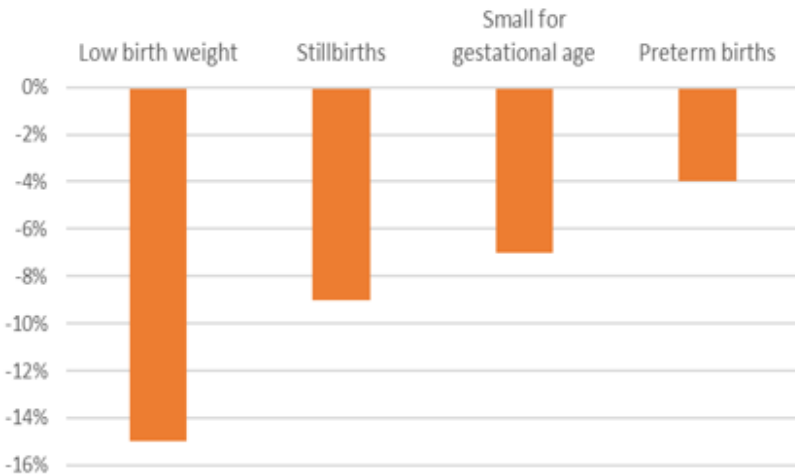


Scaling up New, High Impact Interventions

Alongside continued scale-up of Infant and Young Child Feeding (IYCF) package of services

Multiple micronutrient Supplements for women (MMS)

Improvements in fetal and newborn outcomes



- High-impact (strong evidence)
- Cost-effective
- Scale-up readiness & willingness

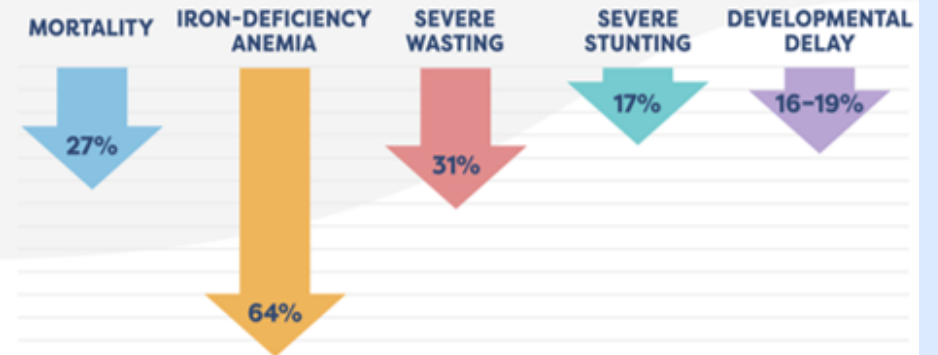
through Health System & Social Protection Platforms



Financing & supply constraints

Small-quantity lipid-based nutrient supplements for children (SQ-LNS)

Small-quantity lipid-based nutrient supplements reduce*:



*One packet per day for at least three months for children 6-23 months of age

Source: Slide from Christine P Stewart; Smith et al, 2017; Stewart, AJCN, 2019; Dewey, AJCN, 2021; Prado, AJCN, 2021; Wessells AJCN, 2021; Dewey, AJCN, 2022.



Cost effective evidence-based population-level interventions also exist for addressing obesity and unhealthy diets

WHO Best Buys

Highly cost-effective and feasible in LMICs

Reduce salt intake in food

Replace trans fat with polyunsaturated fat

Raise public awareness through mass media on diet and physical activity

Source: [WHO Best Buys](#)

A package of impactful interventions

- **TAXING** unhealthy foods, sugar-sweetened beverages, and subsidizing healthy foods
- **FRONT-OF-PACKAGE LABELS** to reduce consumption of ultra-processed foods
- **SETTING NUTRIENT TARGETS** (e.g., sodium, sugar) to encourage product reformulation
- **LIMITING ACCESS TO AND MARKETING** of unhealthy foods to children and adolescents
- **WORKING WITH PUBLIC INSTITUTIONS** to enhance the nutritional quality of food service and procurement
- **IMPLEMENTING MASS MEDIA CAMPAIGNS** to promote healthy diets

Global Sugar-Sweetened Beverage (SSB) Tax Database

<https://ssbtax.worldbank.org/>



Tools exist to support realizing additional gains from investments (More Nutrition for the Money)

Examples of available tools:

- **Nutrition-Responsive Public Financial Management (PFM)** to assess a country's nutrition public expenditure and its link to improved nutrition outcomes.
- The **Optima Nutrition tool** to optimize allocation of resources to priority interventions that can maximize impact.
- **Driving Nutrition Action Through the Budget: A Guide to Nutrition-Responsive Budgeting.**

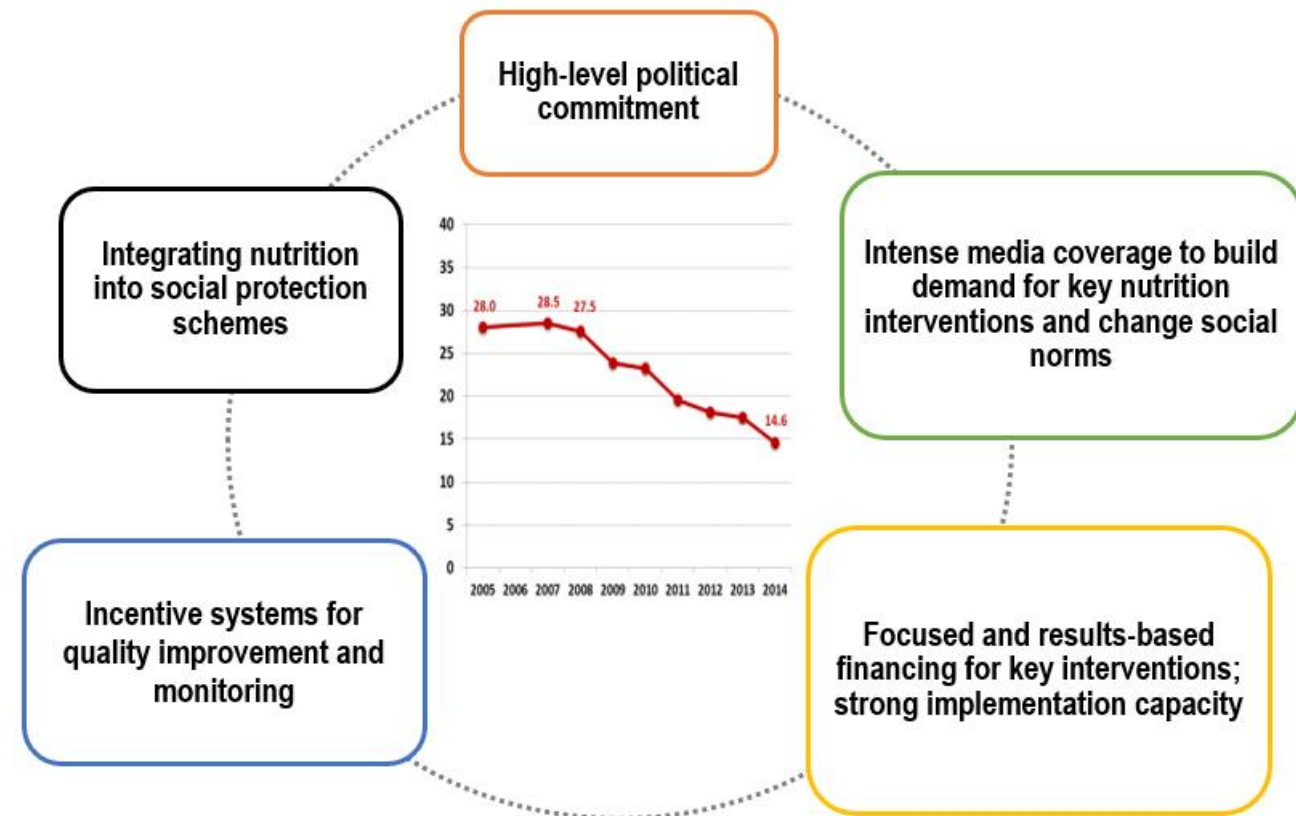


<https://www.worldbank.org/en/topic/health/brief/optima-nutrition-learning-tool>

<https://openknowledge.worldbank.org/entities/publication/25b2c228-3ec8-4114-bf64-8600032bbb2d>

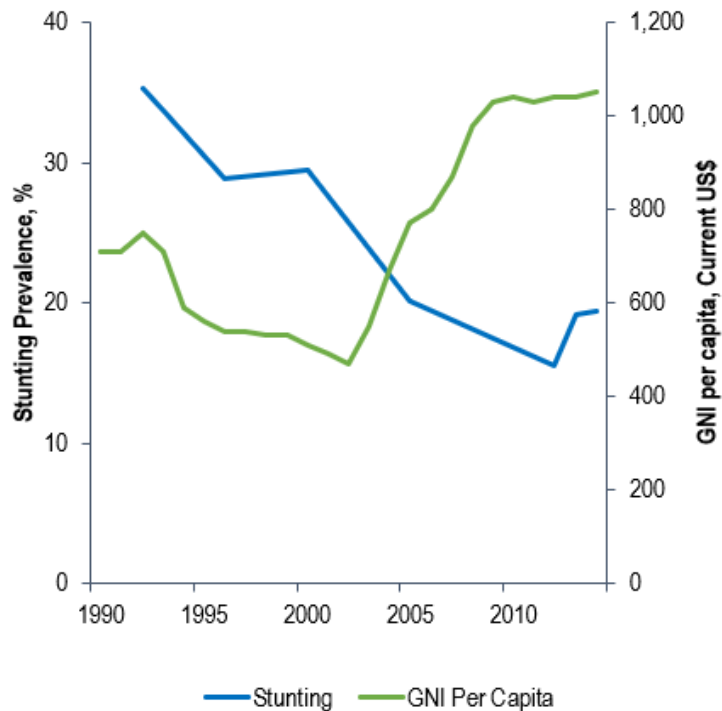


Countries with high-level commitments and a focus on data, evidence, and results have made progress – like Peru





Senegal was the only country in Africa that met the Nutrition MDG, at a time when economic growth was stalling



Strong Leadership and Commitment

Unit for the Fight Against Malnutrition (CLM)
with authority & resources

Multi-sectoral Strategy

Evidence-based interventions
Decentralized management & service delivery via NGOs;
Strong public communications
Strong local government support
Community mobilization (>10,000 volunteers)

Financing for Nutrition

Two rounds of WB support
Scale-up of high-quality services
Domestic budgets and other donors' support



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Remember:

- Malnourished children learn less
- They earn less
- And they reduce human capital!

CHILDREN
are vital to a
country's ECONOMIC
FUTURE



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Thank you!



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