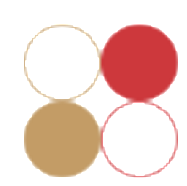


Accelerating anaemia reduction: a global health priority for 2030





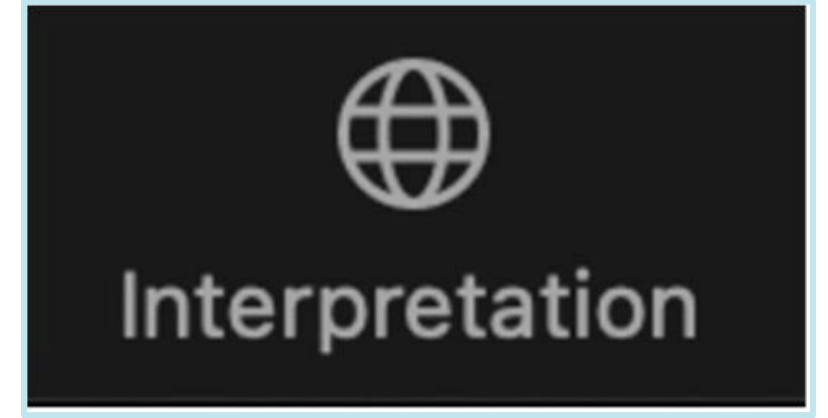
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Click this button below to join the interpretation channel

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Why anaemia is a major priority?

Mandana Arabi M.D., Ph.D.,

Vice President, Research & Development and Chief Technical Advisor
Nutrition International

19 NOVEMBER 2024



Background

- Anaemia is a condition in which the number of red blood cells (RBC) or the haemoglobin concentration is lower than normal due to blood loss, ineffective production of RBC, or destruction of RBC
- Effects can range from mild to severe:
 - Fatigue and decreased productivity
 - Poor cognitive and motor development in children
 - Poor birth outcomes
 - Increased morbidity and mortality in adolescent girls and women and children with severe anaemia
- In 2019, anaemia accounted for 50.3 million total years lived with disability
- For each US\$ 1 invested in anaemia prevention and control could yield US\$ 12 in economic returns

Anaemia aetiology

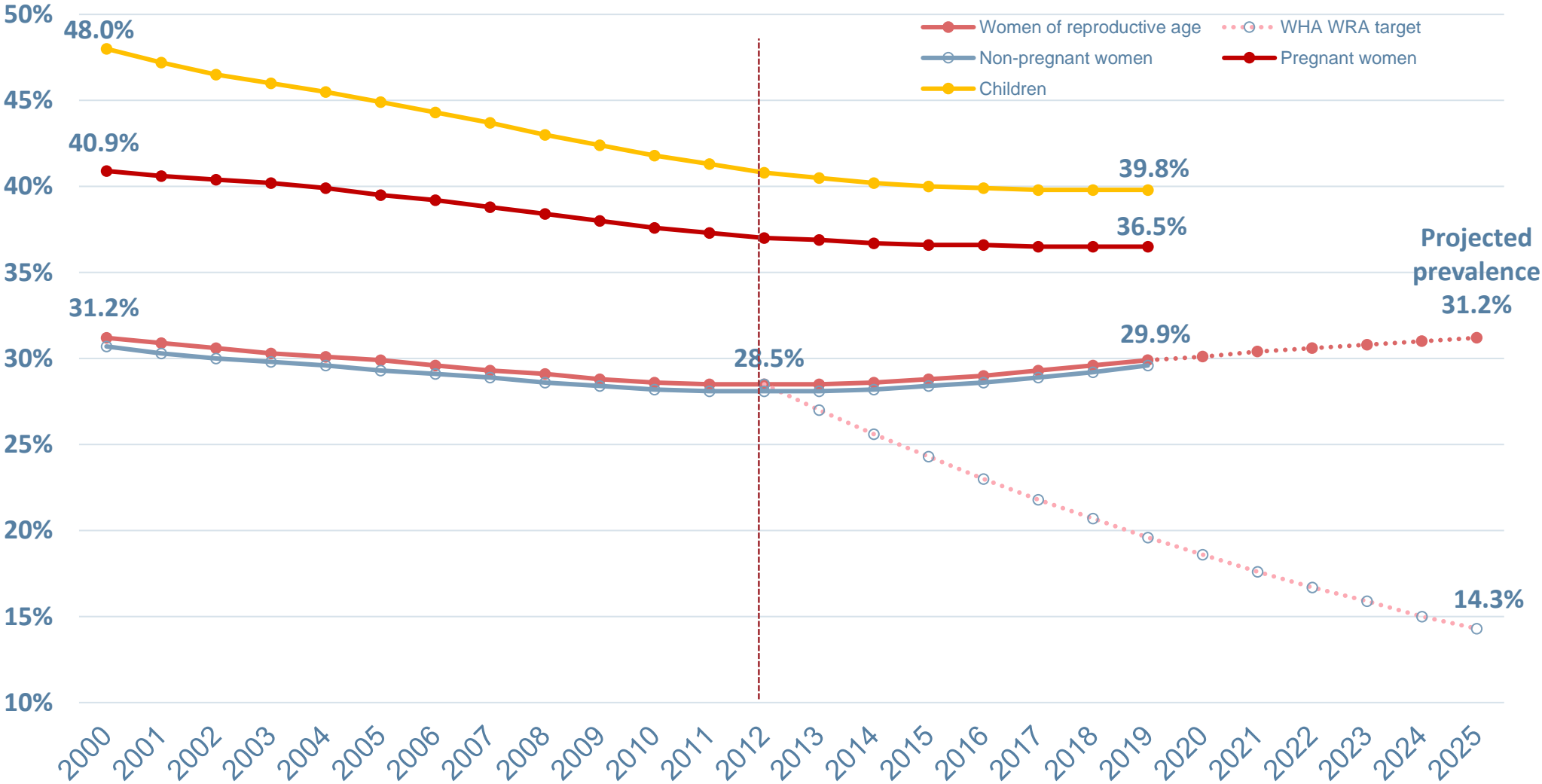
Non-nutritional causes of anemia				Nutrition-specific causes of anemia ⁺	
Blood loss	Increased hemolysis	Deficient erythropoiesis		Microcytosis	Macrocytosis
		<i>Microcytic</i>	<i>Normocytic</i>	<ul style="list-style-type: none"> • Iron deficiency* • Vitamin A deficiency* • Riboflavin deficiency* 	<ul style="list-style-type: none"> • Folate deficiency* • Vitamin B12 deficiency*
<ul style="list-style-type: none"> • Postpartum hemorrhage • Heavy menstrual bleeding* • Gastrointestinal blood loss* • Urinary blood loss* 	<ul style="list-style-type: none"> • Infection (malaria)* • Hemoglobin disorders (SCD, thalassemias) • Enzymopathies (G6PD deficiency) • Immune-mediated • Hypersplenism 	<ul style="list-style-type: none"> • Anemia of inflammation* • Thalassemias 	<ul style="list-style-type: none"> • Anemia of inflammation* • Renal failure • Bone marrow failure 		

⁺Can be caused by insufficient dietary intake, impaired absorption or increased losses

*Preventable or treatable

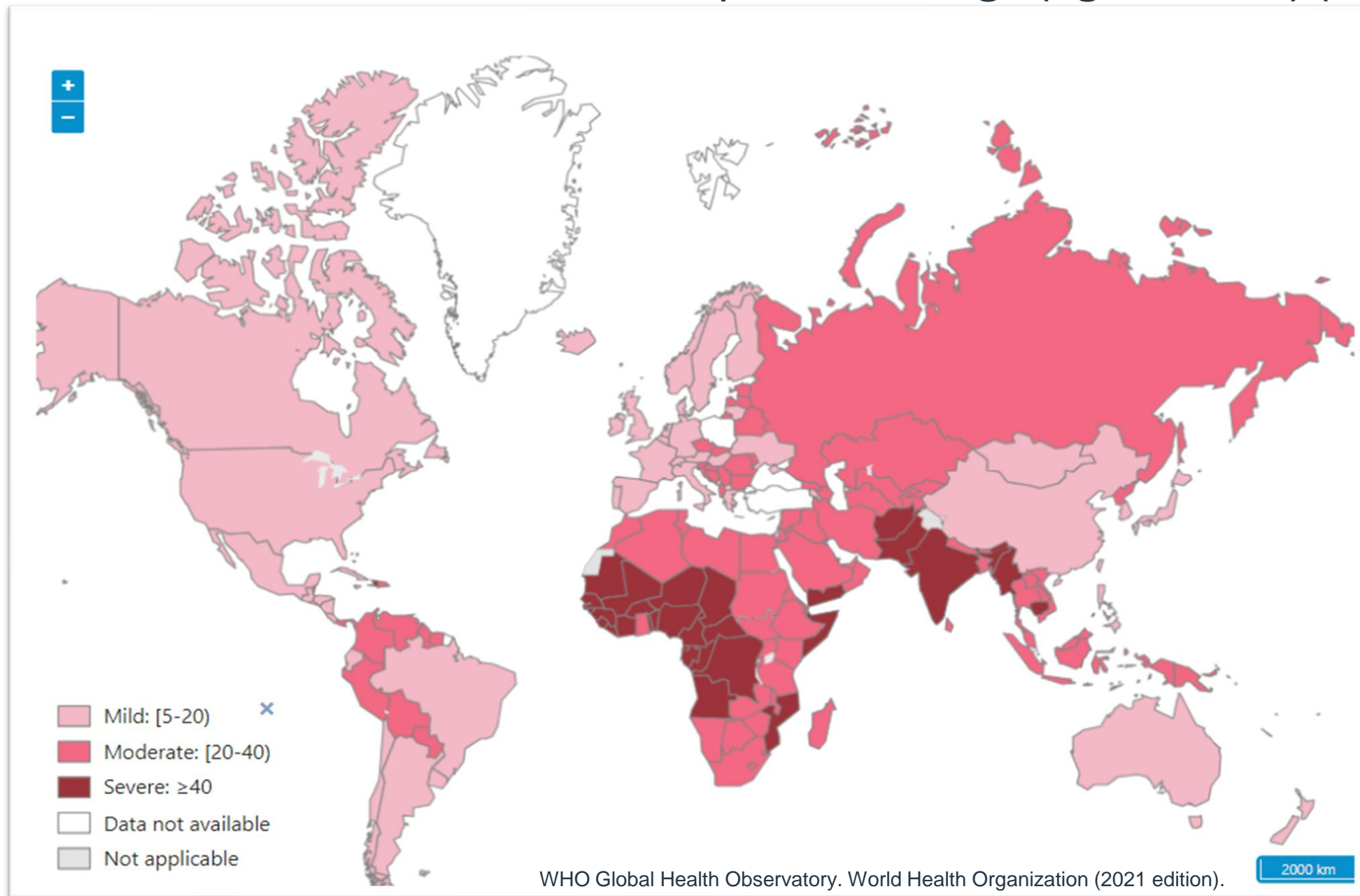
- Common knowledge: Iron deficiency is the most common cause of nutritional anaemia
- We now know that 30-70% of anaemia is due to iron deficiency, depending on burden of infection (higher burden -> lower proportion due to iron deficiency)

Global trends in the prevalence of anaemia - 2000-2019

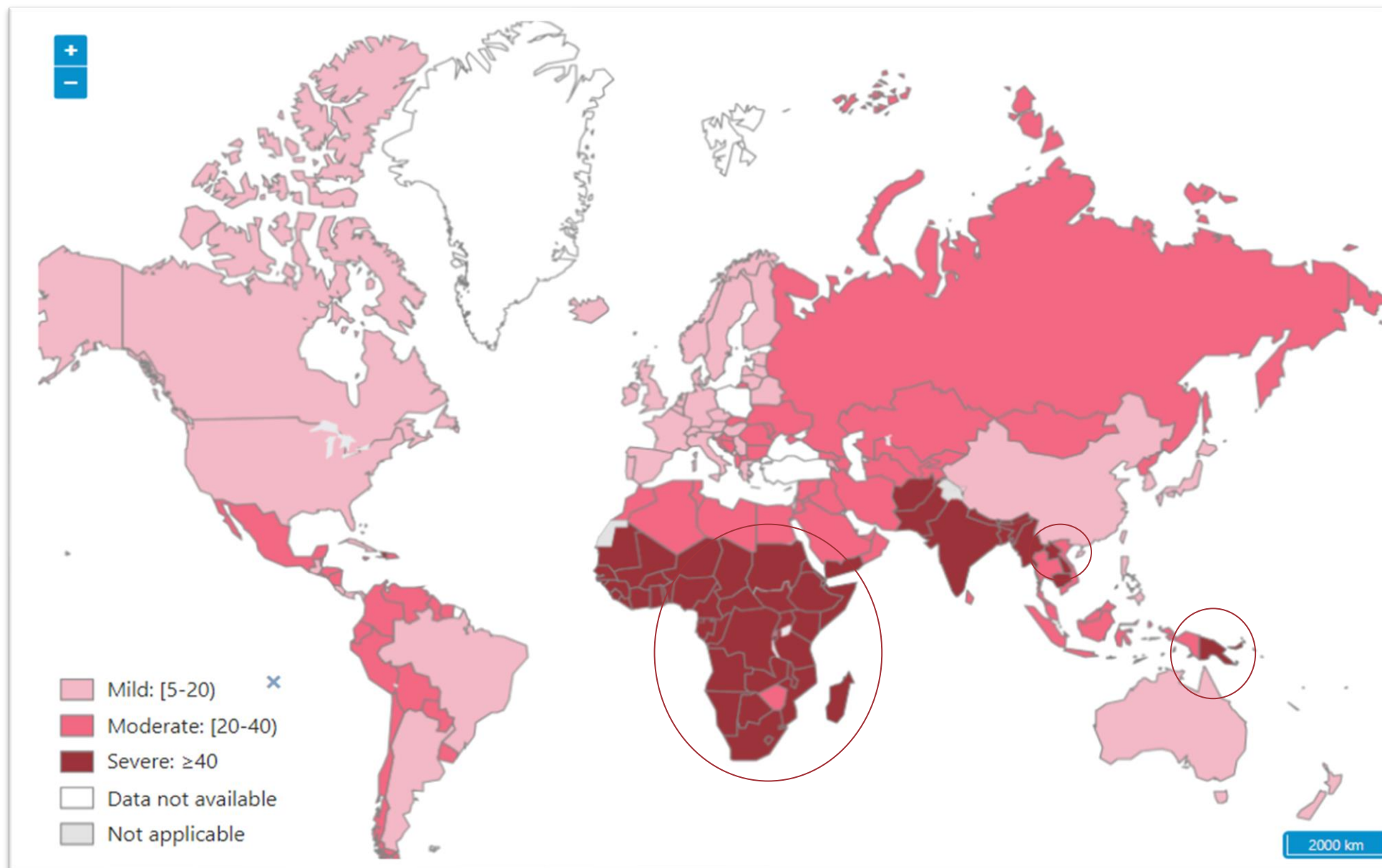


WHA 2025 target:
50% reduction of
anaemia in WRA

Prevalence of anaemia in women of reproductive age (aged 15-49) (%) (2019)



Prevalence of anaemia in children aged 6–59 months (%) (2019)



What is the “Cost of Inaction” to address anaemia?

Introducing an open access tool developed by NI

https://www.nutritionintl.org/learning-resource/cost-inaction-tool/

THE COST OF INACTION

What is the economic cost of stunting, anaemia and low birthweight per year?

Globally, the annual economic cost of the current level of undernutrition is more than US\$761B, representing 0.9% of the global income. The Cost of Inaction Tool, developed by Nutrition International in partnership with Limestone Analytics, estimates the annual economic costs associated with stunting, low birthweight and anaemia for over 140 countries and regional groupings.

[Learn more about the WHA targets](#)

View dataset Indicator: Anaemia in children Location: Global → APPLY

The Global Cost of Anaemia in children

The total annual global economic cost of the current level of undernutrition is US \$761B, equivalent to 0.9% of the global income.

ANNUAL ECONOMIC COSTS

\$161B	economic costs per year (USD)	0.2%	Total Income
---------------	-------------------------------	-------------	--------------

Profile and trend

Globally, the prevalence of anaemia in children (6-59 months) has decreased from 41.1% in 2012 to 41% in 2019 (the most recent estimate as of 2023).

Each year, there are **48,946,511 new cases** of anaemia in children globally. There is a total of **244,732,555 children (6-59 months)** who are anaemic globally.

Inaction

Stunting

Low birthweight

✓ Anaemia in children

Anaemia in adolescent girls and women

✓ Global

Sub-Saharan Africa

South Asia

Latin America & Caribbean

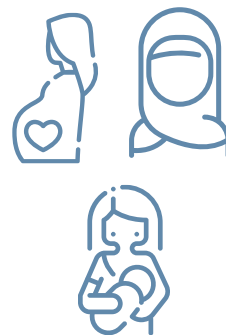
North America



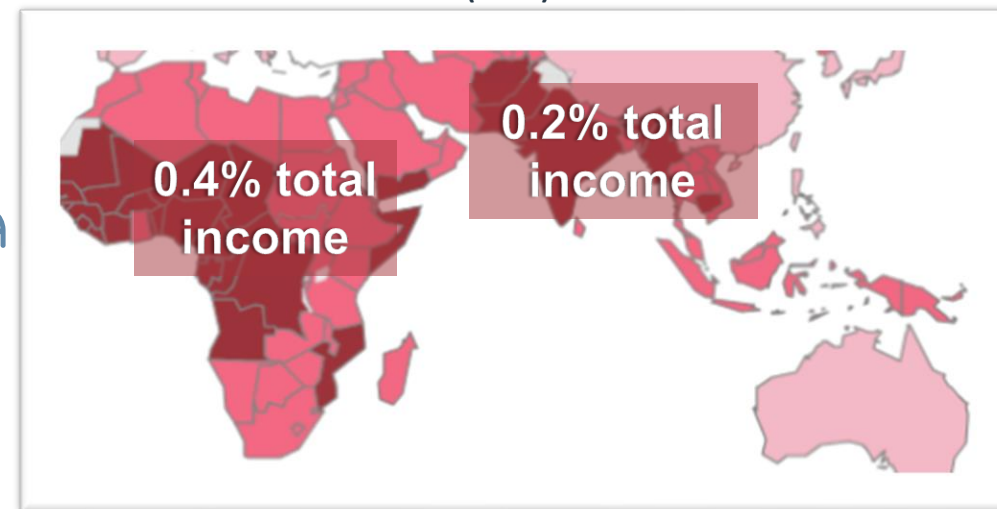
Annual economic costs of anaemia inaction

Global annual economic cost of anaemia inaction

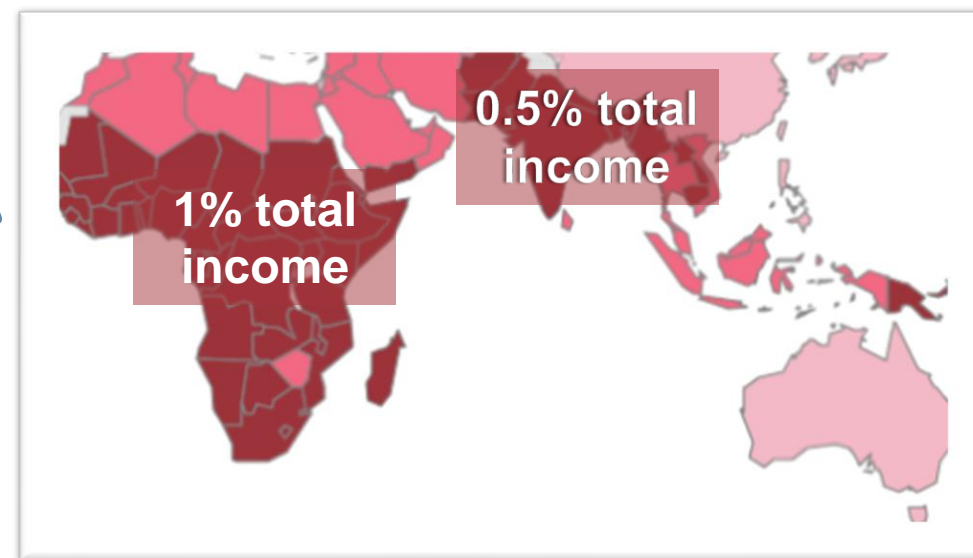
In children	In adolescent girls and women
161B (USD)	113B (USD)
0.2% total income	0.1% total income.



Prevalence of anaemia in women of reproductive age (aged 15-49) (%) (2019)



Prevalence of anaemia in children aged 6-59 months (%) (2019)





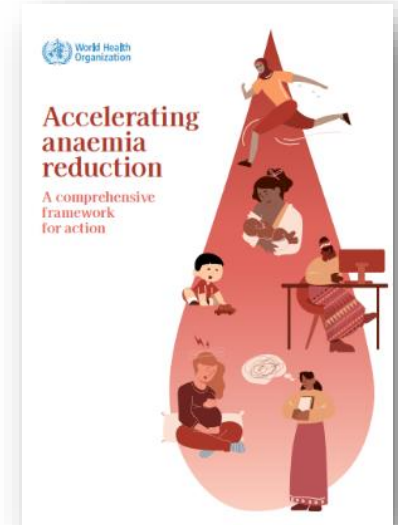
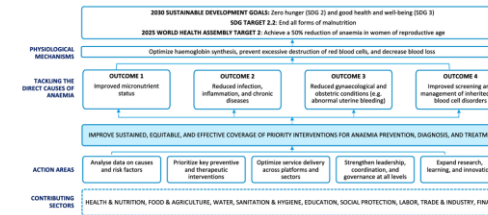
Challenges on estimating the cost of anaemia

- Cost of anaemia inaction mainly focused on the effects of iron deficiency anaemia on labor productivity
- Incomplete view of the costs, missing factors:
 - Formal and informal labor engagement
 - Women's ability to care for themselves and their families
 - Severe fatigue and mental health
 - Full costs of anaemia in pregnancy (including folate deficiency):
 - Health care treatment and substantial intergenerational effects on newborns
 - Care for children born with low-birthweight, impaired cognitive development, and neural tube defects
- Additional research and analysis are needed to capture the multidimensional cost of anaemia

Renewed approach at the global level

WHO Comprehensive framework for action to accelerate anaemia reduction

- Integrated action to prevent, diagnose, and manage anaemia
- Tackling direct causes of anaemia
- Proposing five action areas
- Listing contributing sectors
- Operational Guideline (in progress)



Anaemia Action Alliance

- Fosters accelerated and coordinated efforts
- Adaptation and implementation of the WHO framework
- Multi-agency, multi-disciplinary initiative
- One core group, four working groups (integrated actions, Investment, Programmatic implementation, research agenda)

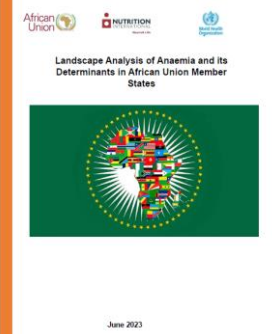
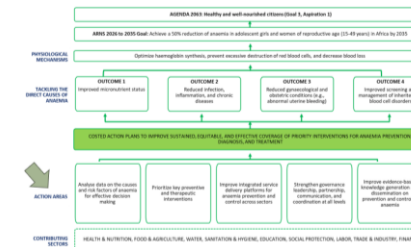


AnaemiaAlliance@who.int

Renewed approach at the regional, and national levels

Africa Union Strategic Framework

- Specific sub-strategy needed to reduce anaemia
- Informed by Landscape Analysis of Anaemia in Africa
- Based on the WHO framework
- Guided by Technical Advisory Group
 - (AUC, NI, WHO, UNICEF)



Country-level actions

- Context-specific, multisectoral, and costed action plans
- Specific actions for the WHO framework action areas
 - Including analyzing country-specific data on anaemia etiology

ACTION AREAS

Analyse data on causes and risk factors

Prioritize key preventive and therapeutic interventions

Optimize service delivery across platforms and sectors

Strengthen leadership, coordination, and governance at all levels

Expand research, learning, and innovation

Where partners are working

Agencies
1 6





Thank you!





Dr Lisa M. Rogers

Technical officer

Department of Nutrition and Food Safety

World Health Organization



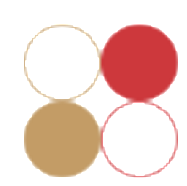
Charting the way forward to 2030

Accelerating anaemia reduction: a global health priority for 2030



Photo credit: WHO / A Bhatiasevi

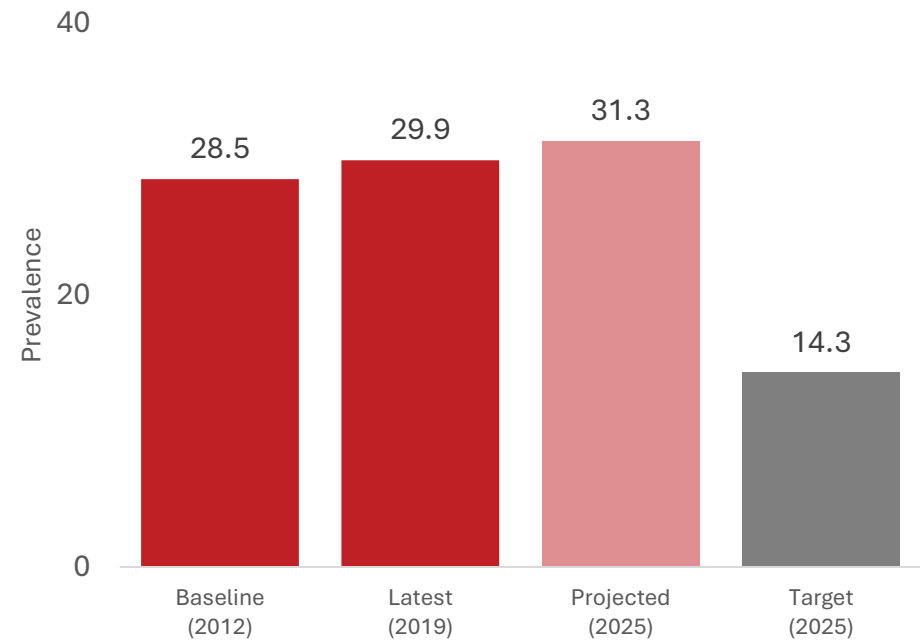


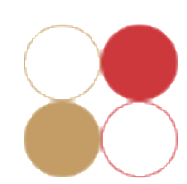


Extending the Global Nutrition Target on anaemia to 2030

- **Current:** 50% reduction in the prevalence of anaemia in women 15-49 years of age by 2025 (2012 as baseline)
- **Proposed:** 50% reduction in the prevalence of anaemia in women 15-49 years of age by 2030 (2012 as baseline)

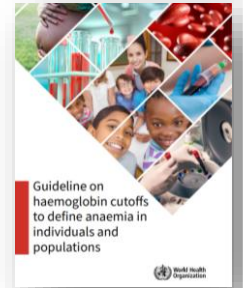
Anaemia in women of reproductive age

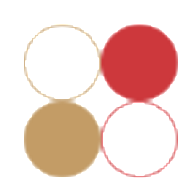




Why has progress in reducing anaemia been insufficient?

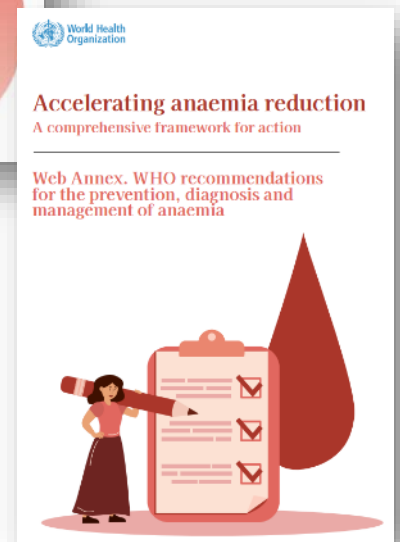
- **Multiple causes and risk factors** for anaemia
 - Focus primarily on iron deficiency
 - Less focus on other direct causes
- **Lack of data** on underlying causes
 - More data needed or will continue to attribute causes of anaemia to iron deficiency alone
 - Complex biomarkers (ferritin, inflammation, retinol, infections, RBC disorders, others) with more accurate point-of-care tests needed
- **Poor quality and coverage of effective interventions and actions**
 - Lack of education on importance of preventing and treating anaemia
- **Too little investment and coordination**
 - Need for shared ownership of anaemia reduction goals



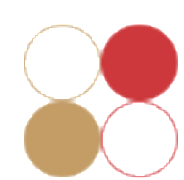


Comprehensive framework for action to accelerate anaemia reduction

- Addresses persistent issue of anaemia, and the diverse causes of all its forms
- Translates evidence for effective actions, delivered through available delivery platforms, for anaemia reduction and improved health
- Creates shared understanding and builds commitment to strengthen the multisectoral response to reducing anaemia



<https://www.who.int/publications/i/item/9789240074033>

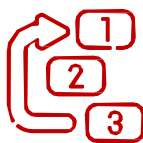


Action areas for accelerating anaemia reduction



Analyse data on causes and risk factors for anaemia

Ensure diagnostics tools available for collection of data, and appropriate analysis and interpretation to understand context-specific causes and risk factors of anaemia



Prioritize key preventive and therapeutic interventions

Use of data to select effective interventions for reducing anaemia in that context



Optimize service delivery across platforms and sectors

Collaboration among implementing sectors to drive effective coverage of the relevant package of interventions

Build on existing platforms to reduce fragmentation across sectors; improve quality and coverage of interventions



Strengthen leadership, coordination, and governance at all levels

Incorporate shared tasks and indicators into workplans across sectors, to hold leaders accountable



Expand research, learning and innovation

Implementation research needed for addressing how best to improve the design and delivery of interventions to enhance their reach, effectiveness in different contexts, and return on investment



Priority interventions for anaemia reduction

1. **Screening** for young children and pregnant women
2. Prevent and treat **micronutrient deficiencies** (multiple micronutrient powders, iron supplementation for children; iron and folic acid containing supplements for menstruating adolescent girls and women, and pregnant and postpartum women; fortification of staple foods)
3. Prevent and treat **infectious diseases** (WASH; malaria control; chemotherapy for the treatment of soil-transmitted helminth infections)
4. Manage **gynaecological and obstetric conditions** (e.g. abnormal uterine bleeding)
5. Provide **family planning** services (counselling, contraceptive use) to promote birth spacing and the prevention of early pregnancy
6. Enhance the **screening and management of inherited red blood cell disorders**, such as sickle cell disease and thalassaemia, in areas where they are prevalent



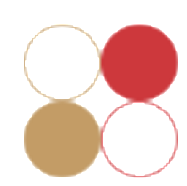
Monitoring anaemia prevalence & proposed operational targets

Anaemia prevalence

- Measurement of haemoglobin concentrations in women 15-49 years of age, using venous blood, validated analytical methods, and recommended thresholds to define anaemia
- Encourage sharing of data with WHO for use in monitoring and updating databases and global estimates (nfsdata@who.int)

Proposed relevant operational targets

- Increase the % of PW consuming at least 90 doses of **iron-containing supplements** by 50% (from the baseline of 34%)
- Increase the % of women with **minimum dietary diversity** by 30% (from the baseline of 66%)



Commitments for Nutrition for Growth 2025: illustrative examples

Context	Example
National	By 2026, develop, invest in and implement a comprehensive national anaemia reduction plan , aligned with the WHO <i>Comprehensive framework for action to accelerate anaemia reduction</i>
National	By 2027, establish national anaemia leadership and coordination within and across the health and social protection sectors to optimize impact of nutrition, reproductive health, and infectious & chronic disease interventions on anaemia reduction in women and children
National	By 2026, ensure establishment of sustainable food systems and climate change mitigation and adaptation strategies that integrate mandatory food fortification to address underlying causes and risk factors of anaemia (e.g. micronutrient deficiencies, infectious diseases, gender inequalities)
National	By 2027, invest in research, learning, and innovation to optimize the comprehensive prevention, diagnosis and treatment of anaemia
National, global	Monitor and report on the prevalence of anaemia , preferably with the use of venous blood and a validated analytical method, and its underlying drivers within the next 2-3 years.

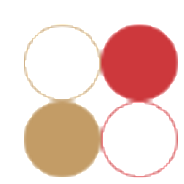


Anaemia Action Alliance



- We must all **work together** to support the anaemia reduction efforts for the most vulnerable populations, including women, adolescent girls and children
- An **Anaemia Action Alliance** was established to foster accelerated and coordinated efforts to reduce anaemia.
- By **aligning our efforts**, we can get on track to reduce anaemia.
- Take action to reduce anaemia
 - Join the Alliance
 - AnaemiaAlliance@who.int





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