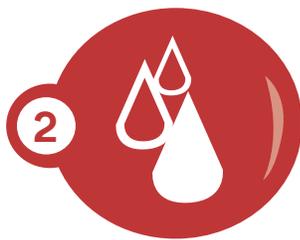


An Investment Framework for Meeting the Global Nutrition Target for Anemia

Dylan Walters, Jakub Kakietek, Julia Dayton Eberwein, and Meera Shekar

Key Messages

- Achieving the global target of reducing anemia in women of reproductive age would require \$12.9 billion over 10 years. This includes scaling up micronutrient interventions for non-pregnant women to unprecedented levels, and thus will require strong political will and the development of innovative and effective delivery platforms.
- The costs of not investing would be 265 million more cases of anemia in women in 2025 than in 2015 and nearly 800,000 more child deaths and 7,000–14,000 more maternal deaths.
- Making this investment could increase economic productivity in low- and middle-income countries by \$110 billion for women and children. Each \$1 invested in this set of interventions is estimated to yield \$12 in economic returns.



ANEMIA TARGET

**REDUCE THE NUMBER
OF WOMEN OF
REPRODUCTIVE AGE
WITH ANEMIA BY 50%
BY 2025**

Anemia is a widespread public health problem with vast human, social, and economic consequences. It leads to a higher risk of infections as well as impaired cognitive function and physical work capacity. In addition, maternal anemia is associated with intrauterine growth restriction. In 2011, anemia affected over half a billion women worldwide, with a prevalence of 29 percent for non-pregnant women and 38 percent for pregnant women. Anemia remains a moderate to severe public health problem in 142 countries around the world, impinging on health and productivity (Stevens et al. 2013; WHO 2015; WHO and 1,000 Days 2014).

In 2012, the World Health Assembly called for a 50 percent reduction of anemia among women of reproductive age (15 to 49 years) by 2025, including both non-pregnant and pregnant women (WHO and 1,000 Days 2014).¹ Achieving this ambitious target will require a multisectoral approach. This brief summarizes the financing needs and expected health and economic impacts of meeting the anemia target.

Note: This summary is based on Shekar, Meera, Jakub Kakietek, Julia Dayton Eberwein, and Dylan Walters. 2017. *An Investment Framework for Nutrition: Reaching the Global Targets for Stunting, Anemia, Breastfeeding, and Wasting*. Directions in Development. Washington, DC: World Bank. doi:10.1596/978-1-4648-1010-7, available at <https://tinyurl.com/InvestmentFrameworkNutrition>. Suggested citation for this brief is: Walters, Dylan, Jakub Kakietek, Julia Dayton Eberwein, and Meera Shekar. 2017. *An Investment Framework for Meeting the Global Nutrition Target for Anemia*. Washington, DC: World Bank Group. All dollar amounts are U.S. dollars.

¹ Although anemia is a concern in both women and young children, the anemia target as set by the World Health Assembly refers only to anemia in women of reproductive age—that is, both pregnant and non-pregnant women aged 15–49. Throughout this summary we use the phrase anemia in women to refer to anemia in women of reproductive age.

Investing in Proven Interventions to Meet the Global Anemia Target

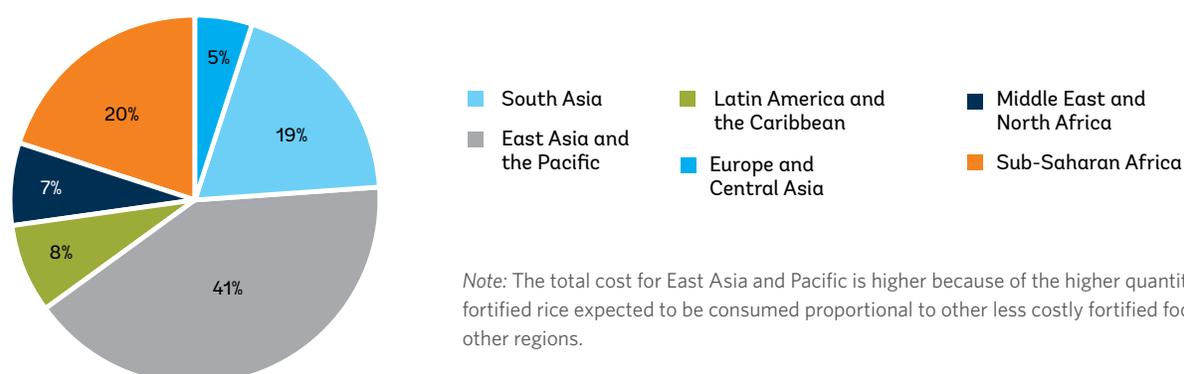
The analysis presented in *An Investment Framework for Nutrition* estimates the financing needs and impact of scaling up a minimum core set of interventions for preventing anemia that (1) are applicable to all countries, (2) have a strong evidence base for effectiveness, and (3) together can plausibly achieve the proposed target. The analysis focuses on the costs and potential impacts of a package of primarily preventive nutrition-specific interventions that have proven efficacy. The scale-up of the preventative package aims to reach all women, including those with anemia. Treatment of anemia through the health system, while important, is not costed in this analysis. Achieving the global target of reducing anemia in women would require an additional \$12.9 billion in domestic government budget allocations and official development assistance (ODA) resources over 10 years, with over half of the resources to be allocated for iron and folic acid supplementation for non-pregnant women (see the table). The estimated allocation of the financing by region is shown in the pie chart.

Interventions to Be Scaled-Up and Additional 10-Year Public (Domestic Government and ODA) Financing Needs to Meet the Anemia Target

INTERVENTION	ADDITIONAL FINANCING NEEDS 2016-2025 (US\$, MILLIONS)	SHARE OF TOTAL (PERCENT)
Antenatal micronutrient supplementation ^a Iron and folic acid supplementation and at least one more micronutrient delivered for 180 days per pregnancy as part of antenatal care.	2,017	18%
Intermittent presumptive treatment of malaria in pregnancy in malaria-endemic regions ^a At least two doses of sulfadoxine-pyrimethamine delivered during pregnancy as part of antenatal care.	337	3%
Iron and folic acid supplementation in non-pregnant women 15–49 years of age Weekly iron and folic acid supplement in school-based programs for girls age 15–19 enrolled in school, and delivered via community health workers, health facility outpatient visits, and/or via private marketplace for all others	6,705	58%
Staple food fortification Fortification of wheat flour, maize flour, and rice with iron at WHO guideline levels and delivered through the marketplace	2,443	21%
SUBTOTAL	11,502	100%
Program costs (monitoring and evaluation, capacity strengthening, and policy development)	1,380	n.a.
TOTAL PUBLIC COSTS	12,882	n.a.

Note: a Scaling up this intervention also contributes to meeting the global stunting target.
n.a. = not applicable.

Ten-Year Total Financing Needs to Meet the Anemia Target, by Region



Note: The total cost for East Asia and Pacific is higher because of the higher quantity of fortified rice expected to be consumed proportional to other less costly fortified foods in other regions.

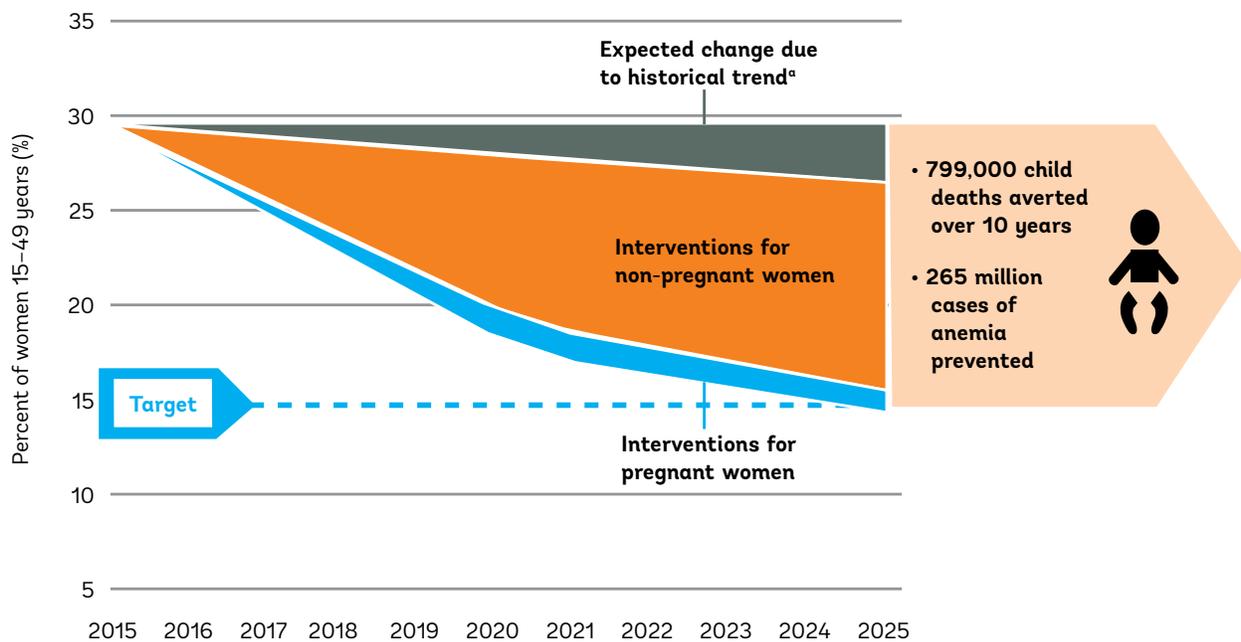
Approximately \$6.7 billion in additional financing is required for iron and folic acid supplementation for non-pregnant women and \$2.4 billion for staple food fortification. The investments in antenatal micronutrient supplementation (\$2.0 billion) and intermittent presumptive treatment for malaria in pregnancy in malaria-endemic regions (\$0.3 billion) are also necessary to reach the global nutrition target for stunting.

In addition to the total \$12.9 billion public investment needed over 10 years, it is estimated that households living above the poverty line would also spend \$505 million for the purchase of iron and folic acid supplementation and \$19.1 billion for the expected incremental additional cost of fortified foods (compared with unfortified foods) purchased through the marketplace.

The Impact of Investing in the Anemia Target

At full scale-up, investment in these four key interventions would prevent 265 million more cases of anemia in women in 2025 than occurred in 2015, reduce anemia prevalence to 15.4 percent among women of reproductive age, and avert nearly 800,000 child deaths. Intermittent presumptive treatment of malaria in pregnancy in malaria-endemic regions would also prevent approximately 7,000–14,000 maternal deaths.

Costs and Impacts of a 10-Year Scale-Up of Interventions to Meet the Anemia Target



Note: a This trend represents an extension of average annual rate of reduction of anemia rate without scale-up.

Investing in this set of interventions also would produce highly positive economic returns. Making this investment of \$12.9 billion over 10 years is estimated to generate a total net benefit of \$110.1 billion over 10 years for women and over the productive lives of children who benefit from these interventions. Each dollar invested in this package of prevention interventions would yield approximately \$12 in economic returns.

Call to Action

Achieving the anemia target would improve the lives of millions of women and their newborns and contribute toward a more productive economy. However, achieving this ambitious goal will be a challenge. The *Global Nutrition Report* estimated that, at the current rate of progress, it would take until the year 2084 to reach the anemia target (IFPRI 2016). Current investments in the core package of interventions to prevent anemia—estimated to be \$0.5 billion by domestic governments and \$0.1 billion by donors annually—fall far short of what is needed to accelerate progress on reaching the target for anemia in women.

Rapid scale-up of the preventive interventions needed to cover 1.5 billion women in low- and middle-income countries will require a concerted effort and strong political will, as well as the development of innovative and effective delivery platforms.

Acknowledgments

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For more information please see: <https://tinyurl.com/InvestmentFrameworkNutrition>

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