INVESTING IN NUTRITION
THE FOUNDATION FOR DEVELOPMENT

AN INVESTMENT FRAMEWORK TO REACH THE GLOBAL NUTRITION TARGETS

Every year, malnutrition claims the lives of 3 million children under age five and costs the global economy billions of dollars in lost productivity and health care costs. Yet those losses are almost entirely preventable. A large body of scientific evidence shows that improving nutrition during the critical 1,000 day window from a woman’s pregnancy to her child’s second birthday has the potential to save lives, help millions of children develop fully and thrive, and deliver greater economic prosperity.\textsuperscript{1, 2, 3, 4, 5, 6}

There is an urgent need for global action on nutrition. In 2012, the 194 member states of the World Health Assembly (WHA) endorsed the first-ever global targets to improve nutrition focusing on six areas: stunting, exclusive breastfeeding, wasting, anemia, low birth weight, and overweight. And while some of the targets were enshrined within Sustainable Development Goal 2, which commits to end malnutrition in all its forms by the year 2030, the world is not on track to achieve any of the six nutrition targets.

Accelerating progress against malnutrition will require investment in both proven nutrition interventions and research to understand how to bring promising solutions to scale in a cost-effective manner.\textsuperscript{7} To inform the action needed, the World Bank, Results for Development Institute (R4D), and 1,000 Days, with support from the Bill & Melinda Gates Foundation and the Children’s Investment Fund Foundation (CIFF) conducted an in-depth costing analysis and developed an investment framework for achieving four of the six global nutrition targets (see Table 1).\textsuperscript{a}

This brief summarizes the analysis of the costs, impacts, and investments needed to achieve the targets and how governments, donors, the private sector, foundations, and others can come together to finance these at scale.

KEY MESSAGES

1. Global action is urgently needed to tackle the pervasive problem of malnutrition.

2. Reaching the targets to reduce stunting among children and anemia in women, increase exclusive breastfeeding rates, and mitigate the impact of wasting will require an average annual investment of $7 billion over the next 10 years. This is in addition to the $3.9 billion the world currently spends on nutrition annually. This investment can yield tremendous returns: 3.7 million child lives saved, at least 65 million fewer stunted children, and 265 million fewer women suffering from anemia as compared to the 2015 baseline when combined with other health and poverty reduction efforts.

3. To catalyze progress toward the global nutrition targets, priority should be given to a set of the most cost-effective actions which can be scaled up immediately. Financing this more limited set of actions will require an additional annual investment of just over $2 billion for the next 10 years. The majority of this annual investment would come from country governments and donors, $1.4 billion and $650 million, respectively, while innovative financing mechanisms and households fund the remaining gap.

4. When combined with other health and poverty reduction efforts, this priority investment can yield significant returns: an estimated 2.2 million lives can be saved and there will be 50 million fewer cases of stunting in 2025 compared to in 2015.

5. Achieving the targets is within reach if all partners work together to immediately step up in investments in nutrition.
INVESTING IN PROVEN INTERVENTIONS

Data and methods derived from country-level costing and financing work were used to inform the analysis and determine the set of evidence-based interventions needed to meet each target. While keeping in mind WHO recommendations for the actions needed to achieve the global nutrition targets, for each target, the analysis covered the highest-burden countries and the results were extrapolated to all low- and middle-income countries. A technical advisory group guided the work to ensure all methodology and assumptions were technically sound.

The analysis underscores the need to scale-up interventions that directly impact the nutritional status of women and children. Many of the highest-impact interventions are found in the 1,000-day window and several contribute to achieving multiple targets (see Table 3). Investments in nutrition interventions alone are not enough to reach the targets—improvements in water and sanitation, agriculture, women’s health and education, and other areas are also necessary to accelerate progress against malnutrition.

It is estimated that an additional $7 billion per year over the next ten years is needed to reach the global targets for stunting, anemia in women, and exclusive breastfeeding and to mitigate the impact of wasting. This investment of $70 billion over the next ten years can yield tremendous returns: 3.7 million child lives saved, at least 65 million fewer stunted children, and 265 million fewer women suffering from anemia as compared to the 2015 baseline (see Figure 1). A detailed breakdown is shown in Table 2.

While the potential returns on this investment are significant, it is important to note that a few of the interventions identified cannot be brought to scale in a cost-effective manner at this time. Moreover, based on what is currently known about preventing wasting, it was not possible to estimate the costs of achieving the wasting target. Therefore, the analysis included only scaling up the treatment of severe acute malnutrition (SAM) as it is a proven life-saving therapy and can help countries reduce the levels of wasting.

As the global community gears up to address critical implementation challenges and rapidly advance understanding of how to prevent wasting, the analysis suggests that priority should be given to a set of the most cost-effective interventions, all of which can be scaled up immediately. This smaller package requires an annual investment of just over $2 billion, or approximately $22 billion over ten years above current baseline spending (see Table 2). Scaling up this set of priority interventions could save about 2.2 million lives and—together with anticipated progress in food availability and diversity, women’s health and education, and investments in water and sanitation—could result in 50 million fewer children stunted in 2025 compared to 2015.

A NEW FINANCING PARTNERSHIP: GLOBAL SOLIDARITY

Currently, investments in nutrition are minimal compared to the scale of the problem. It is estimated that country governments currently spend $2.9 billion and donors provide just under $1 billion annually to address stunting reduction, wasting, anemia, and exclusive breastfeeding. This means that on average, countries are spending just 1% of their health budgets on the kind of high-impact nutrition-specific programs that save lives and pay significant dividends down the road. Nutrition-specific spending accounts for less than 1% of Official Development Assistance (ODA), despite the fact that malnutrition contributes to 45% of all deaths of children under age 5.

Mobilizing the resources needed to accelerate progress against malnutrition will require that donors, countries, innovative financing mechanisms, businesses, and even consumers themselves act in “global solidarity.” National ownership and domestic financing must be maximized and each partner will need to contribute according to its financing capacity and comparative advantage.

Under the global solidarity investment framework, donor financing is front-loaded in the first five years (2016-2020) in low-income and lower middle-income countries to help catalyze greater domestic investment and scale nutrition interventions quickly. Additional contributions are expected to come from innovative financing mechanisms such as the Power of Nutrition® and the Global Financing Facility in support of Every Woman, Every Child as well as from households.

In the scenario in which $70 billion is needed to reach the stunting, anemia, and breastfeeding targets and mitigate the impact of wasting, national governments will need to mobilize an average of $4 billion more per year, and donors an additional $2.6 billion annually over the next 10 years. For a more detailed understanding of this financing scenario, see Table 2 and Figure 2.
TABLE 2: ADDITIONAL FINANCING BY YEAR, $ U.S. MILLIONS

These per year investments by source are meant to show the scaling up and tapering of investments as appropriate for full scale up to reach the targets, as well as to scale up a package of priority interventions.

<table>
<thead>
<tr>
<th>Source</th>
<th>Full Package Total over 10 years</th>
<th>In 2016</th>
<th>In 2021</th>
<th>In 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country governments</td>
<td>$39,676</td>
<td>$707</td>
<td>$4,519</td>
<td>$7,104</td>
</tr>
<tr>
<td>Donors</td>
<td>$25,628</td>
<td>$622</td>
<td>$3,940</td>
<td>$2,063</td>
</tr>
<tr>
<td>Other sources*</td>
<td>$4,608</td>
<td>$203</td>
<td>$570</td>
<td>$590</td>
</tr>
<tr>
<td>Total**</td>
<td>$69,912</td>
<td>**</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Priority Package Total over 10 years</th>
<th>In 2016</th>
<th>In 2021</th>
<th>In 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country governments</td>
<td>$14,095</td>
<td>$285</td>
<td>$1,527</td>
<td>$2,486</td>
</tr>
<tr>
<td>Donors</td>
<td>$6,536</td>
<td>$151</td>
<td>$950</td>
<td>$619</td>
</tr>
<tr>
<td>Other sources*</td>
<td>$2,153</td>
<td>$77</td>
<td>$278</td>
<td>$281</td>
</tr>
<tr>
<td>Total</td>
<td>$22,785</td>
<td>**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Sources include innovative financing mechanisms, household contributions to appropriate interventions, and financing of antimalarial medicine provided during regular prenatal visits (IPTp). The additional $0.5 billion to scale up IPTp over ten years is covered by other health initiatives, including the President’s Malaria Initiative, the Global Fund to Fight AIDS, TB and Malaria, and to some extent national governments.

** The sum of first three rows may be slightly smaller than the total due to rounding.

THERE IS NOW A SHARED OPPORTUNITY TO SAVE MILLIONS OF LIVES AND UNLOCK HUMAN POTENTIAL.
THE SHARED OPPORTUNITY

Though decades of underinvestment have led to slow and uneven progress against malnutrition, there is now a shared opportunity to alter this trajectory, save millions of lives and unlock human potential. The financing scenario presented is undoubtedly ambitious. However, these levels of investment are within reach if pursued in conjunction with other critical health and development frameworks and if the effectiveness and efficiency of current and future spending are improved. Rapid success is possible as countries like Peru and Senegal have shown. Moreover, the investments in nutrition proposed herein are minimal compared to the trillions spent on fuel subsidies and food subsidies. Additional funding to scale up what we know works is absolutely critical. However, more work is needed to ensure the cost-effectiveness of existing spending and policy commitments to accelerate progress to meet the global nutrition targets and ensure the bright futures of families and nations.

As the world stands at the cusp of the new Sustainable Development Goals with global poverty rates having declined to less than 10% for the first time in history, there is an unprecedented opportunity to act decisively on malnutrition. Investing in nutrition today can have an immediate payoff in terms of lives saved and suffering averted as well as significant long-term impacts on the health and development of economies. The second Nutrition for Growth (N4G) Summit provides an important opportunity to bring forward new financial and policy investments to move the world towards the health and development target.

By 2025, nutrition interventions to address malnutrition will increase household expenditure on nutrition and hygiene practices, and strengthen delivery mechanisms for high-impact interventions. As countries are expected to cover the full extra cost through their domestic budgets and household contributions.

For pregnant women and mothers of infants

- Antenatal Micronutrient Supplementation (starting, anemia)
  - Includes iron and folate acid supplementation, and at least one additional micronutrient, for approximately 180 days per pregnancy. Delivered as part of antenatal care.

- Promotion of good infant and young child nutrition and hygiene practices (starting, exclusive breastfeeding)
  - Individual or group based counseling sessions to promote exclusive breastfeeding (0-5 months of age) and continued breastfeeding, and timely introduction and appropriate quantity and quality of complementary foods for children (6-23 months of age).

- Balanced energy-protein* supplementation (starting)
  - Nutritional supplementation during pregnancy for pregnant women living under the poverty line (0.125/day).

- Intermittent preventive treatment for malaria in pregnancy (starting, anemia)
  - Two doses of sulfadoxine-pyrimetamine for pregnant women (in malaria endemic areas only) delivered as part of antenatal care.

For infants and young children

- Vitamin A supplementation for children (starting)
  - Two doses per year for children 6-59 months old delivered through mass campaigns.

- Prophylactic zinc* supplementation (starting)
  - 1/20 packets of zinc (10mg/day) per child per year for children 6-59 months old.

- Public provision of complementary foods (starting)
  - Supplemental foods for children 6-23 months of age living under the poverty line ($1.25/day) delivered through community-based nutrition programs or existing public food distribution/social-safety net programs.

- Treatment of severe acute malnutrition (SAM) (severe wasting)
  - Treatment of SAM using ready to use therapeutic foods (RUTF) in children 6-59 months of age with Weight for Height<-3SD or MUAC<115mm. Outpatient treatment for uncomplicated cases and inpatient treatment (in the stabilization phase) for patients with complications.

For all women of reproductive age

- Iron and folate acid supplementation for non-pregnant women (anemia)
  - Weekly supplementation of 60mg iron + 0.4mg folate acid delivered through public provision via schools, community health workers, hospitals, and private distribution for a share of women above the poverty line.

For the general population

- Staple food fortification (anemia)
  - Fortification of wheat and maize flour as well as rice with iron and folate acid and distributed through the marketplace.

- Pro-breastfeeding social policies (exclusive breastfeeding)

- National breastfeeding promotion campaign (exclusive breastfeeding)
  - Large-scale efforts and use of mass media to promote breastfeeding.

Interventions with an asterisk (*) await updated WHO guidelines.

TABLE 3: TO MEET THE TARGETS

<table>
<thead>
<tr>
<th>Intervention and target addressed</th>
<th>Description and assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>For pregnant women and mothers of infants</td>
<td></td>
</tr>
<tr>
<td>Antenatal Micronutrient Supplementation (starting, anemia)</td>
<td>Includes iron and folic acid supplementation, and at least one additional micronutrient, for approximately 180 days per pregnancy. Delivered as part of antenatal care.</td>
</tr>
<tr>
<td>Promotion of good infant and young child nutrition and hygiene practices (starting, exclusive breastfeeding)</td>
<td>Individual or group based counseling sessions to promote exclusive breastfeeding (0-5 months of age) and continued breastfeeding, and timely introduction and appropriate quantity and quality of complementary foods for children (6-23 months of age).</td>
</tr>
<tr>
<td>Balanced energy-protein* supplementation (starting)</td>
<td>Nutritional supplementation during pregnancy for pregnant women living under the poverty line ($0.125/day). Delivered through existing community, health facility, or social-safety net programs.</td>
</tr>
<tr>
<td>Intermittent preventive treatment for malaria in pregnancy (starting, anemia)</td>
<td>Two doses of sulfadoxine-pyrimetamine for pregnant women (in malaria endemic areas only) delivered as part of antenatal care.</td>
</tr>
<tr>
<td>For infants and young children</td>
<td></td>
</tr>
<tr>
<td>Vitamin A supplementation for children (starting)</td>
<td>Two doses per year for children 6-59 months old delivered through mass campaigns.</td>
</tr>
<tr>
<td>Prophylactic zinc* supplementation (starting)</td>
<td>1/20 packets of zinc (10mg/day) per child per year for children 6-59 months old. Delivered through community mechanisms similar to MNP supplementation.</td>
</tr>
<tr>
<td>Public provision of complementary foods (starting)</td>
<td>Supplemental foods for children 6-23 months of age living under the poverty line ($1.25/day) delivered through community-based nutrition programs or existing public food distribution/social-safety net programs.</td>
</tr>
<tr>
<td>Treatment of severe acute malnutrition (SAM) (severe wasting)</td>
<td>Treatment of SAM using ready to use therapeutic foods (RUTF) in children 6-59 months of age with Weight for Height&lt;-3SD or MUAC&lt;115mm. Outpatient treatment for uncomplicated cases and inpatient treatment (in the stabilization phase) for patients with complications.</td>
</tr>
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<td>For all women of reproductive age</td>
<td></td>
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<tr>
<td>Iron and folate acid supplementation for non-pregnant women (anemia)</td>
<td>Weekly supplementation of 60mg iron + 0.4mg folic acid delivered through public provision via schools, community health workers, hospitals, and private distribution for a share of women above the poverty line.</td>
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<td>For the general population</td>
<td></td>
</tr>
<tr>
<td>Staple food fortification (anemia)</td>
<td>Fortification of wheat and maize flour as well as rice with iron and folic acid and distributed through the marketplace.</td>
</tr>
<tr>
<td>Pro-breastfeeding social policies (exclusive breastfeeding)</td>
<td>Policies, legislation, and monitoring and enforcement of policies related to the International Code of Marketing of Breast Milk Substitutes and subsequent resolutions, WHO Ten Steps integration into hospital accreditation, and maternity protection/leave.</td>
</tr>
<tr>
<td>National breastfeeding promotion campaign (exclusive breastfeeding)</td>
<td>Large-scale efforts and use of mass media to promote breastfeeding.</td>
</tr>
</tbody>
</table>

Interventions with an asterisk (*) await updated WHO guidelines.

* Averages are weighted by population.

All dollar amounts are U.S. dollars.
In addition, improvements are needed in resource tracking for ODA spent on nutrition so that it is clearer where both nutrition-specific and nutrition-sensitive investments are made.

REFERENCES


14 Martorell R, Horta BL and Stein AD et al. 2010. Weight gain in the first two years of life is an important predictor of schooling outcomes in pooled analysis from 5 birth cohorts from low- and middle-income countries. Journal of Nutrition. 140:348-54.


18 More information available at Powerofnutrition.org

19 More information available at GlobalFinancingFacility.org