STUNTING REDUCTION

Exemplars overview

Exemplars in Global Health (EGH) brings together experts, funders, and collaborators around the globe with the mission of identifying positive global health outliers, analyzing and understanding what makes these countries successful, and disseminating the core learnings so they can be replicated in comparable settings. EGH aims to help country-level decision-makers, global partners, and funders make strategic decisions, allocate resources, and craft evidence-based policies in consultation with both their global peers and technical advisors.

EGH is incubated at Gates Ventures, the private office of Mr. Bill Gates, in collaboration with the Bill & Melinda Gates Foundation.

TOPIC OVERVIEW

Childhood stunting is the failure of a child to reach his or her full growth potential as a result of poor long-term diet, health, and/or care, including emotional support. It is identified and measured based on a child’s height given their age. Stunting is caused by factors throughout childhood, but primarily during the “first 1,000 days”: the period just before conception (when the mother’s nutritional status is of paramount importance) to a child’s second birthday. Stunting itself largely cannot be treated, only prevented.

An estimated 22 percent of children under five (149 million children) were identified as stunted in 2018. About 91 percent of these stunted children are clustered in low-and lower middle-income countries. While stunting prevalence has declined in every region since 2000, progress has been uneven, and the absolute burden remains high.

Exemplar countries

We selected Exemplar countries based on their reduction in stunting rate relative to economic improvement over the 2000–2015 period. Using this method, the five countries chosen were Senegal, Ethiopia, Peru, Nepal and Kyrgyz Republic.

In addition, we are engaging deeply with a number of additional countries to understand their progress and map out opportunities for impact based on our Exemplar research, including Pakistan, Nigeria, and Indonesia.

Stunted children are 2–4 times as likely to die before age five as their peers are.

Stunting is associated with delayed cognitive development and up to an 11-point reduction in expected adult IQ.

At the societal level, stunting reflects limitations in a country’s ability to compete in the knowledge economy; it correlates with costs of as much as 11 percent of expected annual GDP.

Led by Dr. Zulfiqar Bhutta (SickKids), our research is driven by local experts and academics and shaped by an objective, technical advisory group.

Technical advisory group members:

Shawn Baker, United States Agency for International Development; Dr. Robert Black, Johns Hopkins University; Dr. Sue Horton, Univ. of Waterloo; Dr. Rasa Izadnegahdar, Bill & Melinda Gates Foundation; Dr. Joanne Katz, Johns Hopkins University; Dr. Purnima Menon, IFPRI; Dr. Meera Shekar, World Bank; Dr. Cesar Victora, Federal Univ. of Pelotas

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Methodology

We took a holistic approach to analyze the stunting story in each Exemplar country, adapting our methods based on data available. Our learnings were synthesized from four methods of inquiry:

1. LITERATURE REVIEW
2. QUANTITATIVE ANALYSIS
3. QUALITATIVE ANALYSIS
4. POLICY / PROGRAM REVIEW & FINANCING ANALYSIS

Context-specific opportunities

Phase I: Diagnosis

SUPPORT AND MONITORING
1. Stakeholder consultation
2. Robust situational analysis

Phase II: Prioritized strategies at scale

INDIRECT HEALTH SECTOR STRATEGIES TO:
3. Increase access to family planning and reduce high-risk pregnancies

DIRECT HEALTH SECTOR STRATEGIES TO:
4. Improve maternal nutrition and access to high-quality maternal and newborn health care
5. Promote early and exclusive breastfeeding
6. Improve complementary feeding, including dietary diversification and micronutrient supplementation/fortification strategies

SECTORS OUTSIDE OF HEALTH, TO:
7. Address food insecurity and reach marginalized populations
8. Invest in education, for girls specifically
9. Address gender disparities and empower girls and women
10. Improve living conditions, especially WASH

STUNTING INTERVENTION DECOMPOSITION

One way of analyzing these commonalities is to break down stunting interventions into categories, including those within the health sector that have a direct effect on child nutrition, those within the health sector that have an indirect effect on child nutrition, and those in other sectors. The average split among these three categories is just under one-third health/direct, just over one-tenth health/indirect, and approximately one-half other sectors, although each country’s split is different (see left). This categorization underscores that no single intervention can solve stunting on its own; indeed, one half of the impact, on average, comes from investments outside the health sector. Effective impact on population-level stunting requires an integrated set of investments that are strategically planned and adequately resourced. With the right buy-in, information, and means of execution, stunting can be reduced at scale.

RECOMMENDATIONS

Our work has demonstrated that no single intervention can eliminate stunting in any country. Furthermore, the precise mix of policies needed to address stunting is dependent on context, varying from one country to another. Each of the five Exemplar countries we studied took a different path to reduce its stunting burden.

Nevertheless, we identified key themes across all the Exemplar countries that are relevant to any country prioritizing the fight against stunting and helped assemble a robust framework for thinking about reducing stunting at scale:

Address food security: Improvements in agricultural yield and investments to address food insecure populations—despite climate/conflict headwinds—were critical.

Reduce poverty: An increase in wealth, and an improved distribution of resources available—especially to the most vulnerable populations—were key contributors to progress in all five countries.

Improve equitable access to quality education: In four out of the five countries we studied, investments in education, for both boys and girls, emerged as pivotal.

It matters how a country invests, not just what it invests in. The absence or presence of enabling factors helps determine whether investments fail or succeed. We identified three key factors in our Exemplar countries:

Political will with financial commitments: Leadership that prioritizes nutrition-relevant investments and sets clear, specific targets tends to secure the financial commitments and cross-sector buy-in to excel.

Efficient service delivery mechanisms targeted towards the vulnerable: Governments that work to identify the most vulnerable populations and meet their specific needs increase their odds of making equitable and overall progress.

Scale up reproductive, maternal, and child health & nutrition interventions: Improvements in maternal and child health care, access to health services, family planning, and nutrition counseling, played an important role in progress in all five countries.

Promote universal access to water and sanitation services and hygiene: Examination of its independent contribution to stunting declines over the ~10 year period studied shows meaningful contributions of WASH improvements to stunting reduction in three of the five countries studied.

SickKids
Gates Ventures
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