

Stories of Change in Nutrition

COUNTRY BRIEF 2020

Understanding the Differences between Child Stunting and Anemia Reduction and Identifying Outstanding Challenges



Ghana

INTRODUCTION

In the past decade, Ghana has seen a significant reduction in stunting among children under five years of age. However, anemia only declined marginally over the same period, with the result that the rate of child anemia continues to be a severe public health emergency [1]. These changes occurred within a socioeconomic context considered favorable for nutrition outcomes, marked by expansion and diversification of the economy, and investments in key infrastructure, healthcare, education, and water and sanitation. The Stories of Change in Nutrition study in Ghana aimed to better understand the

changes in stunting and anemia between 2009 and 2018, as well as the potential drivers of these changes. Such findings can be used to inform agenda-setting, implementation of existing policies, and future planning at national and subnational levels in Ghana. This study's findings are important because both stunting and anemia are linked to significant adverse health and well-being impacts, particularly in low-income settings [1], and are listed among the global targets for nutrition for 2025 agreed by national ministers of health (including Ghana's) at the World Health Assembly [2].



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METHODS

Multiple methods were employed in this study, including trend analysis of stunting (height-for-age z-score < -2.0) and anemia (hemoglobin $< 11.0\text{g/dL}$) rates in Ghana between 2003 and 2017, as well as for the potential drivers of these two outcomes. Indicators for a range of drivers (including infant and young child feeding, water and sanitation, access to health and social services), measured as part of nationally representative surveys, were selected for inclusion in the analysis, based on existing evidence of their linkage to stunting and anemia. In addition, decomposition analysis of all Demographic and Health Survey (DHS) data available between 2003 and 2014 was carried out to identify key drivers of changes in child stunting and anemia. Decomposition analysis is a statistical exercise that can be used to identify factors that are associated with changes in a key variable over time, and what percentage of that change each factor explains. These analyses were complemented by a stakeholder mapping exercise that utilized the Net-Map technique [3] to explore stakeholder relationships, interactions, and the flow of resources and influence. A desk review of policies and programs was carried out, spanning the decade prior to 2018 [4]. In-depth interviews with 25 national- and subnational-level key stakeholder institutions provided additional insights on policy and program implementation, as well as on what explains the observed outcomes and trends related to child stunting and anemia. The study was guided by a framework put forward in Gillespie et al. (2013) on the political dynamics of accelerating malnutrition reduction. The story of change in nutrition reported here reflects a synthesis of findings.

KEY FINDINGS

Understanding the reasons why prevalence of under-five (U5) stunting declined more rapidly between 2009 and 2018 than the prevalence of U5 anemia

required an examination of changes in immediate, underlying, and basic determinants, and the broader enabling environment in which these changes took place. Table 1 shows changes in trends and coverage of the identified determinants.

Descriptive analyses of changes in drivers indicated a stagnating pattern of child breastfeeding practices, while optimal complementary feeding rate declined [1][6]. Regarding health system services, vitamin A supplementation declined among children but increased among post-partum women. Both diarrhea and fever rates were low and declining. Antenatal clinic attendance coverage was high and increasing. Increasing household supply of insecticide-treated bednets was not matched by utilization rates. Utilization of antenatal care (ANC) and vaccination were both high and increasing. Most indicators of basic drivers show an increasing trend but at a low coverage level.

Decomposition analyses revealed that the presence of household bednets, household assets, and having at least four ANC visits during pregnancy with the index child were the major explanations for the reduction in stunting. While changes in these factors explained less than half of the change in stunting, during the 10-year period, the same analysis using height-for-age z-score as the outcome, increased the explained proportion of the outcome to 65%. The reduction in anemia prevalence was explained primarily by changes in household assets, a minimum of four ANC visits, maternal years of education, and full immunization of the index child. Changes in these factors explained about half of the change in anemia between 2003 and 2014; analysis using hemoglobin as the outcome increased the explained proportion of the outcome to 71% (Figure 1).

In support of the above changes in nutrition outcomes and drivers, data from the policy and program review, stakeholder network mapping, and

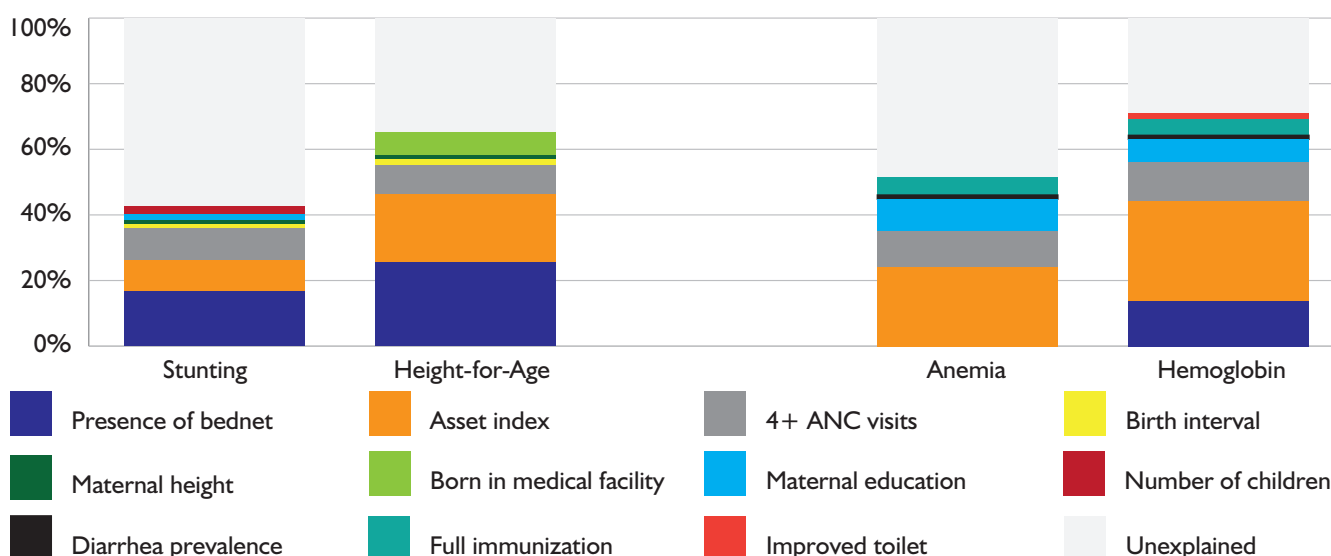


Figure 1. Decomposition analysis of chronic undernutrition among young children in Ghana



semi-structured interviews point to several other reasons for change, as well as remaining challenges in stunting and anemia reduction, presented in line with the Gillespie et al. (2013) framework.

I. Framing, generation, and communication of knowledge and evidence

Stories of success

- **Advocacy and awareness:** Institutions and individual champions have been consistently involved in advocacy and awareness creation about nutrition issues, specifically stunting. Advocacy efforts were supported by evidence on links between undernutrition and child mortality, and organization of international conferences and events (e.g., UNICEF's 2012 West Africa stunting reduction workshop in Accra, the 2016 2nd International Conference on Nutrition in Rome, the UN 2016 Declaration of the Decade of Nutrition). This shifted attention toward addressing stunting as a multisectoral issue. A key player in national advocacy has been the Ghana Coalition of Civil Society Organisations for Scaling Up Nutrition

(GHACSSUN). Public awareness initiatives on both stunting and anemia were also important, such as behavior change communication (BCC) targeting child caregivers through the USAID Goodlife campaign (2009–2019).

- **Prioritization of stunting:** As a result, attention to stunting in particular has increased at the highest level of decision-making. The 2012 UNICEF subregional workshop on stunting reduction was considered important for repositioning stunting as a cross-sectoral issue. Stunting was mainstreamed in the *National Health Sector Strategic Plan of Work* (2018), and in the Ghana Health Service (GHS), routine reviews of health programs were considered crucial for the prioritization of stunting, as well as more recent zonal reviews and support to address program implementation deficits. Evidence of the economic cost of stunting supported this prioritization.
- **Types of and coverage of nutrition-specific interventions:** Implementation of a range of nutrition-specific interventions was considered important in improving stunting and anemia outcomes, particularly child feeding interventions such as the Baby Friendly Hospitals Initiative,

community IYCF, Essential Nutrition Actions, and fortification of foods for children and women of reproductive age. Several new interventions were started that actively engaged communities in prevention and control of malnutrition among children, such as community-based Management of Acute Malnutrition, and Child Growth Monitoring and Promotion (GMP) at community level. A micronutrient powder distribution program in Northern Ghana was important in reducing anemia, in addition to a more recent (2017) national iron and folate supplementation program for school-age girls.

Outstanding stories of challenge

- **Limited understanding of drivers of stunting and anemia:** Interview respondents indicated that there is widespread misperception among decision-makers and the public about what causes stunting. Some believed stunting is not widely recognized as an important public health and human development issue among some key stakeholders, and as a result it is not considered in decision-making on broader development issues. Respondents also indicated that there is limited understanding of the anemia situation in Ghana, although there is some uncertainty with regards to why anemia rates remain high despite implementation of recommended interventions.
- **Lack of prioritization of child anemia:** Relatedly, child anemia was not given a similar level of priority as stunting over the past decade, attributed in part to a focus on maternal anemia, which was a Millennium Development Goal intermediary target. This finding was also reflected in the Net-Map analysis, which showed many more linkages between stakeholders for addressing stunting than for anemia.
- **Poor quality of young child feeding and diets:** Interview respondents stated that diets of young children remain suboptimal in terms of the quality of food and feeding practices – in part due to traditional food preparation methods, unwillingness to change behaviors, and increasing involvement of women in work outside the home.
- **Type and coverage of nutrition-sensitive interventions:** The importance of nutrition-sensitive interventions in reducing stunting and anemia in Ghana was hardly mentioned by interview respondents, although improved access to water, sanitation, and hygiene (WASH), and mainstreaming nutrition into

social protection programs were highlighted (Table 1). The importance of improved food security initiatives (e.g., Feed the Future, World Food Programme dry home rations), and food-processing technology transfer and community irrigation schemes led by the Ministry of Food and Agriculture were mentioned as important for reducing food insecurity.

2. Political economy of stakeholders, ideas, and interests

Stories of success

- **Stakeholder engagement on stunting:** A large and varied number of institutional actors across multiple sectors have been involved in policies and programs to address child stunting and anemia. A quarter of these institutions were units in GHS, in addition to 15 individuals identified as champions. GHS was considered one of the most influential actors, along with Global Affairs Canada and UNICEF. The stakeholder mapping exercise for stunting identified many more actors and connections than that for anemia, indicating prioritization of stunting over anemia.
- **Policies and program focus:** Policies and programs have increasingly started to address nutrition as a multisectoral issue. In particular, the *National Nutrition Policy* (NNP), first available as a draft in 2013, was one of the first policy documents that positioned malnutrition as a dual issue of health and development, a departure from previous health-focused policies (7). The NNP became an important driver of nutrition action at the subnational level, and a catalyst for other sectors to examine where and how they could contribute to nutrition. Other complementary policies and programs to address child stunting and anemia were identified, particularly in health, but also in WASH and social protection.
- **Monitoring and evaluation of progress:** Existing policies and programs include provisions to routinely monitor and supervise the progress of interventions. The GHS District Health Information System (DHIMS)¹ gathers and aggregates program information to guide planning and design of interventions, and complements nationally representative surveys (i.e., the DHS and MICS²). Interviews demonstrated that the existing mechanism of health reviews was applied rigorously for nutrition programs across administrative levels over the past decade. In

1 DHIMS aggregates health program data from subdistricts level into a national health information network.

2 Multiple Indicator Cluster Survey



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addition to supportive supervisory visits, districts were paired to monitor and motivate each other for improved outcomes.

- **Accountability:** GHACCSUN has since 2011 advocated for prioritizing nutrition in Ghana's development agenda as well as creating more public awareness of nutrition issues among vulnerable groups.

Outstanding stories of challenge

- **Horizontal and vertical coherence:** Findings from interviews and desk review showed that there are unresolved coordination challenges regarding nutrition policy planning and program implementation in Ghana. Although the GHS Nutrition Department acts as the de facto leader in nutrition policy and implementation, it often engages with other government and non-government agencies through informal means. Prior to 2011, the GHS coordinated national nutrition programming through a National Nutrition Partners Coordination Committee (NANUPACC) that included multiple government and non-governmental agencies, meeting on an adhoc basis. In 2011, the SUN Cross-Sectoral Planning Group (CSPG) was formed, it included both government and non-government institutions, and is coordinated by the National Development Planning Commission and led by a national SUN Focal Point [5]. While it was instrumental in the finalization of the NNP, neither the NANUPACC nor the CSPG have been functional over the past few years and both suffer from the lack of coordination capacity within their respective organizations. The NNP has proposed the establishment of multisectoral regional, and district coordinating units as well as regional and district nutrition focal persons [6], however, as of yet these do not exist.
- **Monitoring:** While the need for monitoring has been recognized, and while individual sectors have monitoring and evaluation plans for specific programs (e.g., the health sector's DHIMS), there is no integrated nutrition surveillance system for tracking implementation and coverage of interventions across sectors.
- **Accountability:** While information is communicated in technical reports and websites, information on stunting and anemia is not easily accessible for the public—and there is little means for the public to demand accountability on progress in nutrition interventions to address stunting and anemia.

3. Capacity and financial resources

Stories of success

- **Individual and institutional capacity:** Interview respondents highlighted significant improvements in technical competence for service delivery that have contributed to improved child nutrition. In addition, multiple training interventions and training of other health personnel who perform

nutrition task-shifting duties in the health system was considered beneficial. There was a revision of nutrition curricula in all Ministry of Health training schools/colleges [7]. Other interventions included overseas learning trips, participation in international meetings and conferences, and ongoing technical backstopping support from specific agencies such as UNICEF, WHO, and JICA.

Outstanding stories of challenge

- **Gaps in technical capacity:** While improvements in capacity for nutrition service delivery in the health sector (e.g. increased number and distribution of nutrition technical officers, in-service nutrition technical training, pre-service training, learning trips etc.) were recognized by some respondents, others expressed dissatisfaction with the level of capacity for addressing malnutrition among young children in Ghana, identifying gaps in technical capacity and skills in counseling, community mobilization, data analysis, and leading multi-disciplinary teams. Documentary evidence also shows that there are unresolved institutional capacity gaps including limited capacity for intersectoral coordination, identifying and creating visibility of malnutrition, generating a shared interest to address malnutrition across sectors, and leveraging funding for prevention and management of malnutrition.
- **Sub-optimal geographic coverage of effective interventions:** Stakeholders indicated that as a consequence of insufficient funding, there are unmet needs for scaling up interventions in terms of geographic coverage, intensity, and quality. Although there are many more district-level nutrition officers, they lack resources needed to implement programs, and existing interventions are not devolved to sub-district levels. Thus, communities do not have the benefit of easily accessing nutrition services. In addition, when a donor provides funding, it is often for localized projects in selected districts, making it difficult to scale up such interventions to other settings.
- **Inadequate and dwindling funding:** Gaps in government funding for nutrition remain, and there is a heavy reliance on donor funding for nutrition programs. Government funding for nutrition is buried in higher-level ministerial budgets, making it difficult to determine government allocations and expenditure on nutrition. The reliance on donor funding for program implementation means donors also tend to set the priorities for how these programs are focused and where they are implemented. As Ghana is now a middle-income country, it has become more difficult to access donor funding for nutrition programs.



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RECOMMENDATIONS

1. Improve coordination and leadership

- Develop coordination around a governance system for nutrition that is capable of harnessing and galvanizing resources across government and non-government agencies. Nutrition has been led by the Ghana Health Service and this limits opportunity for other sectors to be engaged in interventions. An empowered national nutrition commission is needed to work with all relevant ministries to address child malnutrition as a human development issue.
- Implement subnational coordination and monitoring arrangements, as indicated in the national nutrition policy.

- Develop a comprehensive nutrition program implementation plan for stunting and anemia, and update outdated policies.

2. Improve capacity and financial resources

- Increase government funding for nutrition particularly to address underperforming areas such as child feeding actions. Additionally, mechanisms from the Ministry of Finance to track allocated nutrition-relevant funding are warranted.
- Strengthen capacity for nutrition service delivery within the health system and in non-health sectors that provide nutrition-relevant services through continuous improvement in pre-service and in-service training. Use sustainable approaches for capacity building, including e-learning and direct mentorship and create institutional capacity for intersectoral coordination.

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REFERENCES

1. World Health Organization and Centers for Disease Control and prevention, *Worldwide prevalence of Anemia 1993-2005: WHO Global Database on Anemia*. 2008, World Health Organization: Geneva.
2. World Health Organization (WHO), *Global Nutrition Targets 2025*. 2014, WHO: Geneva.
3. Schiffer, E. and D. Waale, *Tracing power and influence in networks: Net-map as a tool for research and strategic network planning*. 2008, International Food Policy Research Institute: Washington, DC.
4. Gillespie, S., et al., *The politics of reducing malnutrition: building commitment and accelerating progress*. *Lancet*, 2013. 382 (9891): p. 552-69.
5. UN 'Renewed Efforts against Child Hunger and Undernutrition' (REACH), *Nutrition Governance for Multi-sector Approaches in Ghana: Capacity Assessment & Development Response*. 2014, REACH: Accra, Ghana.
6. Government of Ghana, *National Nutrition Policy*. 2016, Government of Ghana: Accra.
7. Aryeetey, R.N., A. Laar, and F. Zotor, *Capacity for scaling up nutrition: a focus on pre-service training in West Africa and a Ghanaian case study*. *Proc Nutr Soc*, 2015: p. 1-5.

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