

THE COST OF HUNGER IN AFRICA

Social and Economic Impact
of Child Undernutrition in
Egypt, Ethiopia, Swaziland
and Uganda

PROJECT SUMMARY

Implications for the Social and Economic Transformation of Africa





10 Findings from the First Phase of the Cost of Hunger in Africa Study*

- 1** Today, there are more stunted children in Africa than there were 20 years ago.
- 2** 69 to 82 per cent of all cases of child undernutrition are not properly treated.
- 3** Most of the health costs associated with undernutrition occur before the child turns 1 year old.
- 4** Between 7 and 16 per cent of repetitions in school are associated with stunting.
- 5** Stunted children achieve 0.2 to 1.2 years less in school education.
- 6** 8 to 28 per cent of all child mortality is associated with undernutrition.
- 7** Child mortality associated with undernutrition has reduced national workforces by 1 to 8 per cent.
- 8** 40 to 67 per cent of working-age populations suffered from stunting as children.
- 9** The annual costs associated with child undernutrition reach values equivalent to 1.9 to 16.5 per cent of gross domestic product (GDP).
- 10** Eliminating stunting in Africa is a necessary step for inclusive development on the continent.

* Based on results from Egypt, Ethiopia, Swaziland and Uganda.

About the Study

The **Cost of Hunger in Africa (COHA) Study** is a project led by the **African Union Commission (AUC)** and the **New Partnership of Africa’s Development (NEPAD) Planning and Coordinating Agency**, and supported by the **UN Economic Commission for Africa (ECA)**, and the **UN World Food Programme (WFP)**. **COHA is a multi-country study aimed at estimating the economic and social impacts of child undernutrition in Africa.**

This continent-wide initiative is being led by the AUC’s Department of Social Affairs, within the framework of the Revised African Regional Nutrition Strategy (2005-2015),¹ the objectives of the African Task Force on Food and Nutrition Development² and the principles of pillar 3 of the AU/NEPAD’s Comprehensive Africa Agriculture Development Programme.³




In March 2012, the COHA Study was presented to African Ministers of Finance, Planning and Economic Development, who were meeting in Addis Ababa, Ethiopia. The ministers issued Resolution 898⁴ confirming the importance of the study and recommending that it continue beyond the initial stage.

The core implementers of the study are national teams set up in each participating country, which are drawn from relevant governmental institutions, such as the Ministries of Health, Education, Social Development, Planning and Finance, and the national statistics institutes.

The COHA study is being carried out in 12 countries, namely **Botswana, Burkina Faso, Cameroon, Egypt, Ethiopia, Ghana, Kenya, Malawi, Mauritania, Rwanda, Swaziland and Uganda**. The data in this document are the results collected from the COHA initiative in the four first-phase countries, Egypt, Ethiopia, Swaziland, and Uganda.

Conceptual Framework

The COHA model is used to estimate the additional cases of morbidity, mortality, school repetition, school dropout and reduced physical capacity that can be directly associated with a person’s undernutrition before the age of 5.

 0-5 years	<p>Undernourished children are at higher risk of anaemia, diarrhoea, fever and respiratory infections. These additional cases of illness are costly to the health system and to families. Undernourished children are at a higher risk of dying.</p>
 6-18	<p>Stunted children are at a higher risk of repeating grades in school and dropping out of school. Grade repetitions are costly to the education system and to families.</p>
 15-64 years	<p>If a child has dropped out of school early and has entered the workforce, he or she may be less productive, particularly in the non-manual labour market. If engaged in manual labour, he or she is likely to have reduced physical capacity and will tend to be less productive. People who are absent from the workforce as a result of undernutrition-related child mortality represent lost economic productivity.</p>

In order to estimate the social impacts for a single year, the model focuses on the current population, identifies the proportion of that population that was undernourished before the age of 5, and then estimates the associated negative impacts experienced by the population in the current year.

Estimates on health, education and productivity are based on the concept of the relative (or differential) risk experienced by individuals who suffer from undernutrition.

Using those risk factors, alongside the economic, demographic, nutritional, health and educational data provided by each country team, the model then estimates the associated economic losses in health, education and potential productivity in a single year.

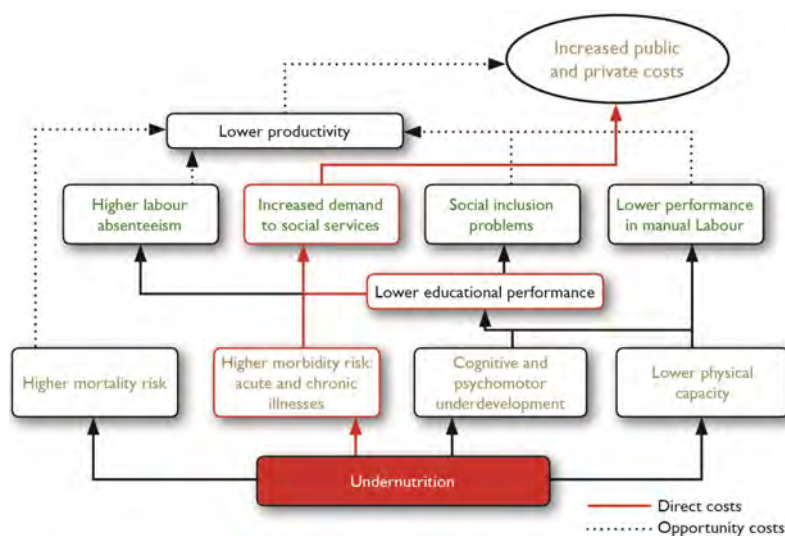
A Methodology for Africa

With the support of experts and representatives from the national implementation teams of the participating countries, the conceptual framework was adapted to the context of Africa. COHA is based on a model that was originally developed in Latin America by the Economic Commission for Latin America and the Caribbean (ECLAC). The process of adaptation was carried out in partnership with ECLAC and was endorsed by the African Task Force on Food and Nutrition Development.

This framework establishes clear linkages between the direct consequences associated with undernutrition, and takes into account the particular structures of the labour market in Africa, as well as the limitations in data availability. The result allows the model to clearly define boundaries in the cost analysis both from a public and an individual perspective, as well as defining a clear differentiation with direct cost and opportunity costs in the results.

The COHA model utilizes a two-dimensional analysis to estimate the costs arising from the consequences of child undernutrition, in the areas of health, education and productivity. The incidental retrospective dimension analyses the history of child undernutrition in the country concerned in order to estimate the current economic and social consequences. To complement this analysis, a prospective dimension is used to project and generate scenarios for analysis.

**FIGURE 1
THE COHA FRAMEWORK OF SOCIAL AND ECONOMIC
CONSEQUENCES OF CHILD UNDERNUTRITION
IN AFRICA**



Modified from Rodrigo Martínez and Andrés Fernández, *Model for analysing the social and economic impact of child undernutrition in Latin America*, based on consultations carried out by authors.

KEY TERMS AND CONCEPTS*

Chronic hunger: The status of people whose food intake regularly provides less than their minimum energy requirements leading to undernutrition.⁵

Child undernutrition: The result of prolonged low levels of food intake (hunger) and/or low absorption of food consumed. It is generally applied to energy or protein deficiency, but it may also relate to vitamin and mineral deficiencies. Anthropometric measurements (stunting, underweight and wasting) are the most widely used indicators of undernutrition.⁶

Intrauterine growth restriction (IUGR): An infant suffering from IUGR is defined as being below the 10% percentile of the recommended gender-specific birthweight for gestational age reference curves.⁷

Low birth weight (LBW): A new-born is considered to have low birth weight when he or she weighs less than 2,500 grams.⁸

Malnutrition: A broad term for a range of conditions that hinder good health caused by inadequate or unbalanced food intake or by poor absorption of the food consumed. It refers to both undernutrition (food deprivation) and obesity (excessive food intake in relation to energy requirements).⁹

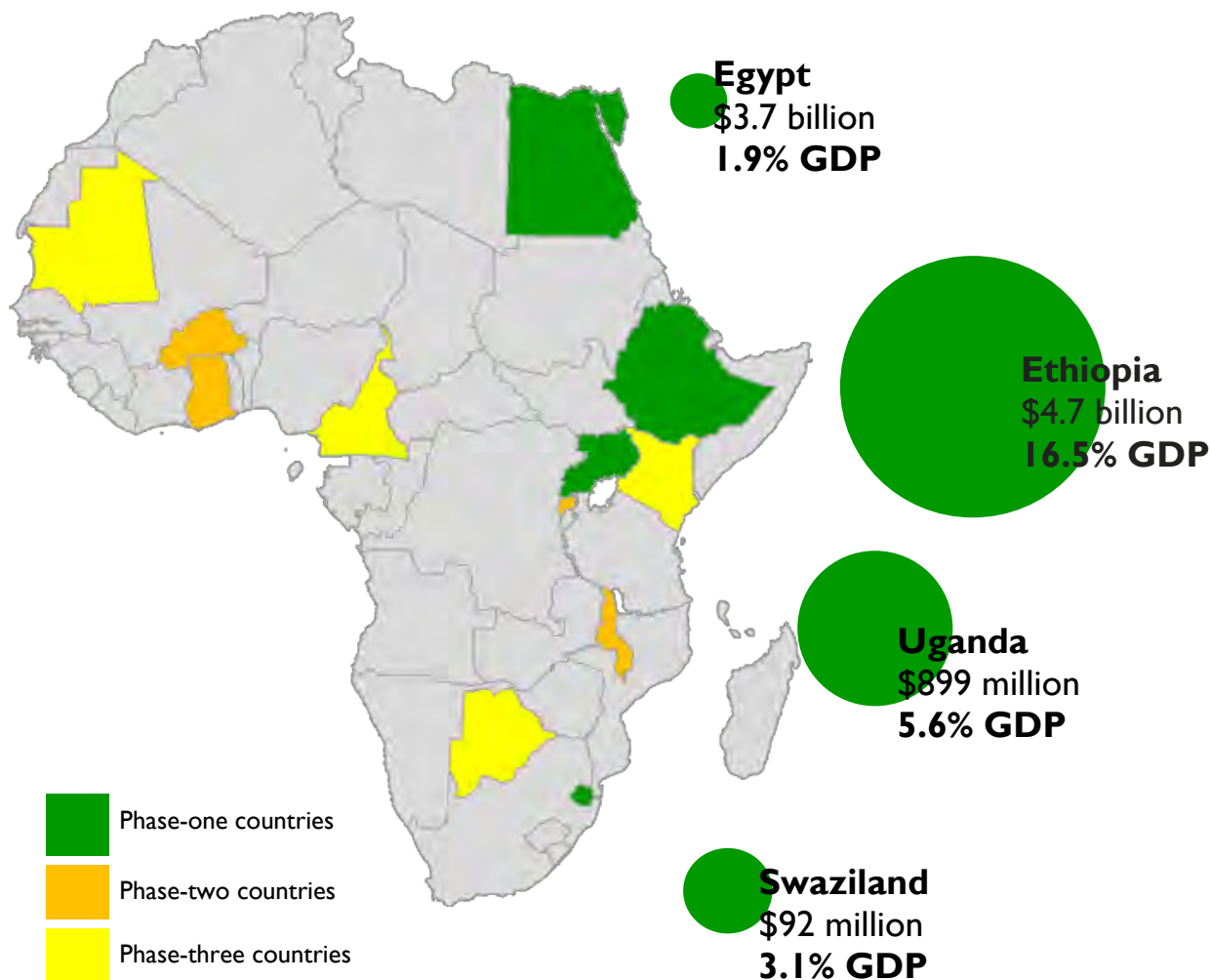
Stunting: Reflects shortness-for-age; an indicator of chronic malnutrition, calculated by comparing the height-for-age of a child with a reference population of well-nourished and healthy children. The model uses it as the indicator to analyse the impact on educational performance and productivity.¹⁰

Underweight: Measured by comparing the weight-for-age of a child with a reference population of well-nourished and healthy children. The model utilizes it to analyse the impact of child undernutrition on health.¹¹

*All terms adapted for COHA based on sources indicated.

First-Phase Results

The initial results generated by the COHA study show that the following equivalent losses are incurred by each country annually as a result of child undernutrition.



Social and Economic Impact of Child Undernutrition in Health

When a child is undernourished, he or she will have an increased chance of experiencing specific health problems.¹² Research shows that undernourished children below the age of 5 are more likely to experience cases of anaemia, acute diarrhoeal syndrome, acute respiratory infection, and fever. The treatment of undernutrition and related illnesses is a critical, recurrent cost for the health system. Treating a severely underweight child, for example, requires a comprehensive protocol that is often more costly than the monetary value and effort needed to prevent undernutrition, especially when other diseases are present.¹³ The chart below summarizes the total costs incurred to the countries concerned as a result of additional morbidities.

**TABLE I
ECONOMIC IMPACT OF CHILD UNDERNUTRITION ON HEALTH**

Country	Underweight children	Annual additional morbidity episodes	Economic Cost		Proportion covered by the families
			National currency	USD (millions)	
Egypt	658,516	901,440	EGP1.1 billion	213	73%
Ethiopia	3.0 million	4.4 million	ETB1.8 billion	155	90%
Swaziland	9,645	25,446	SZL60.7million	7	88%
Uganda	975,450	1.6 million	UGX525.8 billion	254	87%

Research shows that undernourished children below the age of 5 have an increased risk of dying.¹⁴ The costs associated with mortality are identified in losses to national productivity. If those children had been able to reach adulthood, they could have contributed to the economy. Table 2 highlights the number of children who died from causes associated with undernutrition and the percentage of child mortalities that can be associated with undernutrition.

TABLE 2
CHILD MORTALITIES ASSOCIATED WITH UNDERNUTRITION

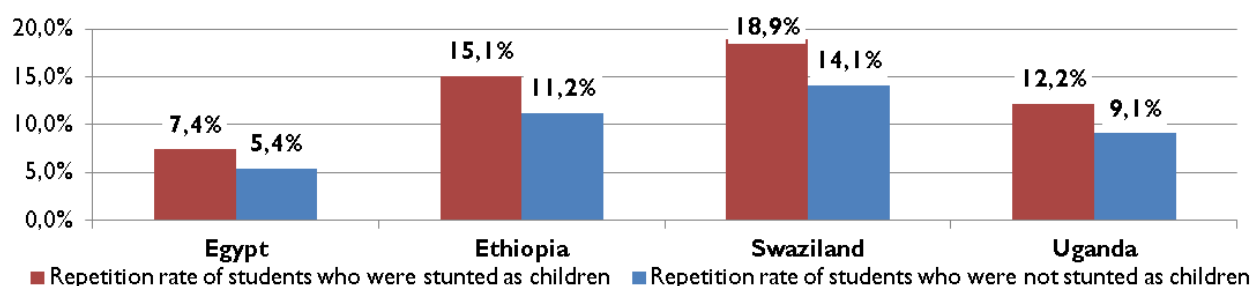
	Number of mortalities associated with undernutrition (last 5 years)	% total child mortalities associated with undernutrition
Egypt	28,102	11%
Ethiopia	378,591	28%
Swaziland	1,351	8%
Uganda	110,220	15%

Social and Economic Impact of Child Undernutrition in Education

Impact of Undernutrition on Repetition

There is no single cause for repetition and dropout. However, there is substantive research that shows that students who were stunted before the age of 5 will have reduced cognitive capacity and will be more likely to underperform in school and to repeat grades.¹⁵ The following graph illustrates the repetition rates for stunted children and for non-stunted children in each of the countries.

FIGURE 2
REPETITION RATES BY NUTRITIONAL STATUS



Repetitions are costly both to the family of the student and to the education system, as both need to invest resources for an additional year of schooling. The table below highlights the economic costs of additional repetitions associated with students' childhood undernutrition. A more detailed analysis shows that the cost of a repetition in secondary school is significantly higher than it is in primary school, however the majority of repetitions occur during the primary school years.

TABLE 3
ECONOMIC COSTS OF GRADE REPETITIONS ASSOCIATED WITH CHILD UNDERNUTRITION

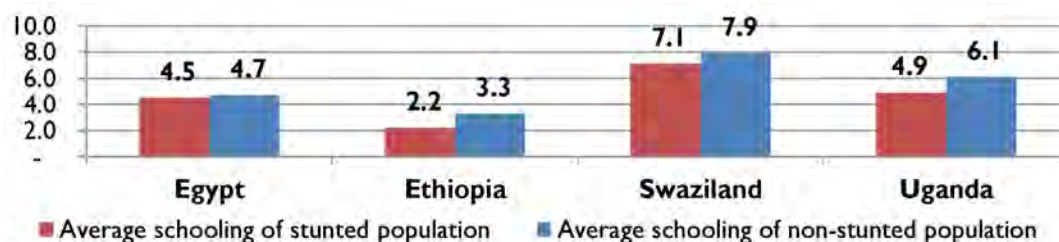
Country	Number of stunted children of school age	% of repetitions associated with stunting	Economic Cost		Proportion covered by the education system
			Local currency	USD	
Egypt	7.9 million	10%	EGP271 million	49 million	68%
Ethiopia	17.4 million	15.8%	ETB93 million*	8 million*	36%
Swaziland	168,228	11.7%	SZL6 million	0.7 million	70%
Uganda	5.8 million	7.3%	UGX20 billion	9.5 million	46%

*Only considers primary school

Impact of Undernutrition on Retention

Students who are undernourished are also more likely to drop out of school than those who experience healthy childhoods.¹⁶ The data from the first-phase countries illustrate that the expected number of years of schooling for a student who was stunted is up to 1.2 years lower than for a student who was never undernourished. Figure 2 illustrates these levels of expected schooling achievement. The economic impact of dropouts from school is not incurred immediately. Rather, the economic costs are incurred when the population is of working age, as people may be less productive and earn less as a result of having had fewer years of schooling.¹⁷ Considerations relating to productivity losses are described in the following section.

FIGURE 3
EXPECTED SCHOOLING YEARS BY NUTRITIONAL STATUS



Social and Economic Impact of Child Undernutrition in Productivity

Losses in Potential Productivity

The model estimates that between 40 and 67 per cent of the working-age population in the four countries were stunted as children. Research shows that adults who suffered from stunting as children are less productive than non-stunted workers and are less able to contribute to the economy.¹⁸

The impact of this lowered productivity varies, depending on the labour structure of the country and the type of economic activity in which the individual is engaged. In the non-manual sectors, the lower levels of educational achievement of the population affected by stunting are reflected in lower incomes.¹⁹ On the other hand, research shows that stunted workers engaged in manual activities tend to have less lean body mass¹⁰ and are likely to be less productive in manual activities than those who were never affected by growth retardation.²¹

The economic impact of child undernutrition on the workforce is reflected in losses in potential productivity for manual and non-manual activities, as summarized in the table below.

TABLE 4
LOSSES IN PRODUCTIVITY ASSOCIATED WITH CHILD UNDERNUTRITION

Country	Stunted population of working age (15-64)		Lost productivity in manual activities		Lost productivity in non-manual activities	
	Number	Estimated Prevalence	National Currency	USD	National Currency	USD
Egypt	21 million	41%	EGP10.7 billion	2.0 billion	EGP2.7 billion	484 million
Ethiopia	26 million	67%	ETB12.9 billion	1.1 billion	ETB625 million	53 million
Swaziland	270,188	40%	SZL126 million	15 million	SZL251 million	30 million
Uganda	8 million	54%	UGX417 billion	201.5 million	UGX241 billion	116.5 million

Losses in Productivity due to Working Hours Lost as a Result of Mortality

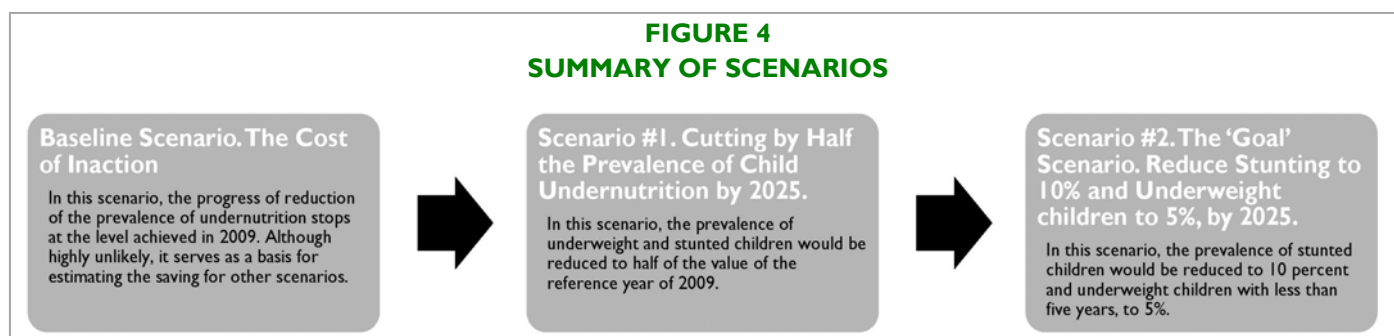
As mentioned in the section of this report that deals with health, undernourished children have a higher risk of dying compared to children who are not underweight. In addition to the clear social problem associated with increased mortality, there is also a related economic cost. The COHA model estimates the proportion of child mortalities that are associated with undernutrition, and then estimates the potential productivity of those individuals if they had been part of the workforce (aged 15 to 64) in 2009. The model uses current income data to estimate this lost productivity in terms of both income and lost working hours. According to these estimations, countries lose between 1 and 8 per cent of total working hours as a result of these undernutrition-related mortalities. In many countries, this is the most significant productivity cost associated with undernutrition.

TABLE 5
LOSSES IN PRODUCTIVITY DUE TO MORTALITY ASSOCIATED WITH CHILD UNDERNUTRITION

	Total annual working hours lost	Cost in national currency	Cost in USD
Egypt	857 million	EGP5.4 billion	988 million
Ethiopia	4.7 billion	ETB40.1 billion	3.4 billion
Swaziland	37 million	SZL340 million	40 million
Uganda	943 million	UGX657billion	317 million

Scenarios

The model generates a baseline, to be compared to the nutritional goals established in each country. These scenarios are constructed on the basis of the estimated costs associated with the undernourishment of the children born in each year from 2009 to 2025 (net present value). While the previous sections calculated the costs incurred in a single year by historical undernutrition, these values represent the projected costs and savings generated by children born during and after 2009.



The potential economic benefits are an opportunity to help build a case for increased investment in nutrition. With this information, as presented in the table below, countries can have a benchmark for increasing investment, and can compare this increased investment with the potential economic gains from reducing the prevalence of child undernutrition.

**TABLE 6
COMPARISON OF PROJECTED COSTS AND SAVINGS OF REDUCED STUNTING RATES IN TWO SCENARIOS**

Country	Scenario #1: Halving the Prevalence of Child Undernutrition by 2025			Scenario #2. The Goal Scenario: “10 and 5 by 2025”		
	% annual reduction of stunting required	Total savings to be achieved	Average annual savings	% annual reduction of stunting required	Total savings to be achieved	Average annual savings
Egypt	0.9%	EGP11.7 billion	EGP732 million (USD133 million)	1.2%	EGP14.4 billion	EGP907 million (USD165 million)
Ethiopia	1.5%	ETB71 billion	ETB4.4 billion (USD376 million)	2.3%	ETB148 billion	ETB9.2 billion (USD784 million)
Swaziland	0.9%	SZL402 million	SZL25 million (USD3 million)	1.2%	SZL511 million	SZL32 million (USD4 million)
Uganda	1.1%	UGX2.8 trillion	UGX179 billion (USD88 million)	1.6%	UGX4.3 trillion	UGX267 billion (USD132 million)

Conclusions

The COHA study is an important step forward to better understand the role that child nutrition and human development can play as a catalyser, or as a constraint, in the social and economic transformation of Africa. The following conclusions are based on the results of the first-phase countries: Egypt, Ethiopia, Swaziland and Uganda.

Health Sector

- Child undernutrition generates health costs equivalent to between 1 and 11 per cent of the total public budget allocated to health. These costs are due to episodes directly associated with the greater quantity and intensity of illnesses that affect underweight children and the protocols necessary for their treatment.
- The majority of these episodes, 69 to 82 per cent, do not receive proper medical attention or are treated at home, increasing the risk of complications and evidencing an unmet demand for health care.

Eliminating the inequality in access to health care is a key element of the social transformation agenda in Africa, which requires, as a precondition, a reduction in the rural/urban health service coverage gap. As health coverage expands to rural areas, there will be an increase in the numbers of people seeking medical attention; this could potentially affect the efficiency of the system in providing proper care services. The current study shows that a reduction in child undernutrition could facilitate the effectiveness of this expansion, by reducing the incremental burden generated by the health requirements of underweight children.

Education Sector

- Children who were stunted experienced higher repetition rates in school, of between 2 and 4.9 per cent.
- Moreover, 7 to 16 per cent of all grade repetitions in school are associated with the higher incidence of repetitions among stunted children, the majority (90 per cent) of which occur in primary school.
- These numbers suggest that a reduction in the prevalence of stunting could support improvements in school quality, as it would reduce preventable burdens on the education system.

Increasing the educational levels and maximizing the productive capacity of Africa's population is a key element in increasing competitiveness and innovation on the continent. This represents a particular opportunity in sub-Saharan Africa, where those under 15 years of age are estimated to account for 40 per cent of the total population. Children and young people must be equipped with the skills necessary for competitive labour markets. Therefore, the underlying causes of low educational outcomes and early dropouts must be addressed. As there is no single cause, a comprehensive strategy must be put in place that is aimed at improving the quality of education and bringing about the conditions that enable children to attend school. The current study demonstrates that stunting is one barrier to attendance and retention that must be removed in order to elevate educational levels and improve individuals' job opportunities for the future.

Labour Productivity

- 40 to 69 per cent of the working-age population in the countries analysed are currently stunted.
- This population has attained, on average, lower levels of schooling than those who did not experience growth retardation, by between 0.2 and 1.2 years.
- The working-age population has been diminished by between 1 and 8 per cent due to child mortality associated with undernutrition. This population has attained, on average, lower levels of schooling than those who did not experience stunting.

On the African continent, more than half of the population is expected to live in cities by 2035.²² An important component in preparing for this shift is to ensure a transition to a more highly skilled workforce, and to ensure that economies are able to produce new jobs to reduce youth unemployment. By preventing child stunting, and thus avoiding the associated loss in physical and cognitive capacity that hinders individual productivity, people can be provided with a more equal opportunity for success.

Potential Economic Benefits

- The model estimates that a halving of the prevalence of stunting by the year 2025 (compared to the level of the reference year of 2009) can generate annual average savings of between USD3 million and USD376 million for the countries analysed.
- An additional scenario estimates that reducing the prevalence of stunted children to 10 per cent and underweight children to 5 per cent could yield annual average savings of between USD4 million and USD784 million.

The economic benefit that would result from decreases in morbidity, lower school repetition rates and increases in manual and non-manual productivity is an important argument for increased investments in child nutrition. Undernutrition impacts not only those people directly affected, but also society as a whole.

Evidence-Based Policy and South-South Collaboration

- COHA is an important example of how South–South collaboration can work to implement cost-effective development and knowledge-sharing activities. It demonstrates that developing and implementing tools that are sensitive to the particular conditions of the continent is feasible.
- It illustrates the valuable role that data and government-endorsed research can play in shedding light on pertinent issues on the continent. Although the availability of uniform and readily available data in Africa is limited, the COHA results have shown that analysis has the potential to bring the issue of child nutrition to the forefront of the development arena.

Policy Recommendations

Stunting is a useful indicator to evaluate effective social policies. The causes of and solutions for chronic hunger are linked to social policies across numerous sectors. As such, the reduction of stunting will require interventions from the health, education, social protection and social infrastructure perspectives. Reduction of stunting can be an effective indicator of success in larger social programmes.

Aggressive goals are necessary to address stunting. This study encourages countries not to be content with “acceptable” numbers of children that are in a disadvantaged position due to stunting, and affirms that equal opportunity should be the aspiration of the continent. Therefore, it is recommended that aggressive targets be set in Africa for the reduction of stunting that go beyond the proportional reduction, to establish an absolute value of 10 per cent as the goal for the region. Countries with high and very high levels of stunting (over 30 per cent) might pursue an interim goal of reducing to 20 per cent. These advances would go a long way towards levelling the social and economic outcomes arising from childhood food intake, between children in the developing world and children in the developed world.

A multi-causal problem requires a multi-sectoral response. This aggressive goal cannot be attained by the health sector alone. In order to make a decisive impact on improving child nutrition, a comprehensive multisectoral policy must be put in place, backed up by strong political commitment and with the allocation of adequate resources for its implementation.

Efficient rural economies and effective social protection schemes are key drivers for the sustained reduction of child undernutrition. Fostering rural economies, by enhancing the productivity of agricultural activities and expanding the non-agricultural activities, is a key element in accelerating the reduction of malnutrition. Work carried out by the Comprehensive Africa Agriculture Development Programme, and the development of value chains of strategic agricultural commodities, can be key elements to focus efforts on in the coming years. Additionally, it is important to consider the role of social protection programmes in reducing hunger and malnutrition, in order to achieve an appropriate combination of transfers and services that is adequate for each context.

Sustainability requires strong national capacity. To ensure the sustainability of these actions, the role of international aid must, whenever possible, be complementary to nationally led investments, and further efforts must be made to ensure the strengthening of national capacity to address child undernutrition.

Monitoring is needed for progress. To measure short-term results for the prevention of stunting, a more systematic approach with a shorter periodicity is recommended, such as two to three years between each assessment. As prevention of child undernutrition should target children under 2 years of age, during their first 1,000 days, these results would provide information to policymakers and practitioners on the immediate effectiveness of social protection and nutrition programmes.

Long-term commitment is necessary to achieve results. The COHA initiative represents a valuable opportunity to place nutrition within a strategy to ensure Africa’s sustainable development. As the deadline for Millennium Development Goals nears, new priorities and targets will be set that will serve to guide development policies in years to come. It is recommended that prioritization of the elimination of stunting should not only be presented in the traditional forums, but should also be included in the wider discussions on development, as a concern that affects the economic transformation of Africa.

Citations

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- ¹⁸ Melissa C. Daniels and Linda S. Adair, "Growth in young Filipino children predicts schooling trajectories through high school," *The Journal of Nutrition*, March 22, 2004, [Jn.nutrition.org](http://jn.nutrition.org).
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Reactions to the Cost of Hunger in Africa Study

“The Cost of Hunger Study provides us with the evidence base for building a case for food security, communication, advocacy and policy discourse on nutrition. The study reveals that we can no longer afford to have high prevalence rates of under-nutrition and has given the justification for increasing investment in scaling up nutrition interventions and ensuring availability of food and good nutrition.”

- **Prime Minister Amama Mbabazi of Uganda**

“We are talking about demographic dividends. And I can’t think of a better way to starting to earn this dividend – and when we talk about preparing our youth, preparing our children, [we should think] in terms of nutrition and getting them to the position to eventually become productive members of their community. We will use [COHA] to plan our post 2015 agenda and what we want to achieve.”

- **Commissioner of Social Affairs, Mustapha Kaloko, AUC**

“I think we have made the case in front of the ministers of finance, economic development and planning about the need for us to invest a lot in human capital. It is one of the tracks that will make this transformation possible. What we have not said enough is how we are going to go about developing human capital... human capital starts with children, and if we don’t take care of them in terms of nutrition, the costs are very high.

We always talk about returns on investments and the returns on this investment are underrated. This is a unique and important investment, but we need to make the case in much stronger terms. That’s why the research done in Africa and providing evidence based contribution is extremely important. And this study is already producing this with its reports.”

- **Carlos Lopes, Executive Secretary of ECA**

“Like in Latin America, the analysis in Africa shows that —beyond the social and ethical dimensions— undernutrition and its consequences have a major impact on economies, and this is a warning of how urgently action is needed. Moreover, this study is particularly relevant for ECLAC as a clear example of South-South cooperation and speaks to the importance of sharing experiences, analytical frameworks and methodologies between Africa and Latin America and the Caribbean.”

- **Alicia Bárcena, Executive Secretary of ECLAC**

The Cost of Hunger in Africa Study could not have come at a better time, when there is significant attention given to issues of eradicating hunger and malnutrition in order to boost and accelerate development on the continent.

To this end, the results of this Cost of Hunger Study are proving pivotal in giving the nutrition and broader development communities the much needed evidence and good arguments to invest in nutrition. This study provides us a unique opportunity to design better evidence-based policies and develop effective programmes.

- **Dr. Ibrahim Assane Mayaki, NEPAD CEO**

“It is compelling data and I am also very pleased to hear the enthusiasm and the interest. This exercise is a strong partnership exercise and it is very encouraging to hear from [partners]. The most important thing here is that we have heard the strong interest from national government, because it is national governments who need to design the policies and need to implement the policies. And that’s where we come in, as supporters.”


- **Elisabeth Rasmusson, WFP Assistant Executive Director**

“I want to commend this project. It is an eye-opener, and it needs to be encouraged. We are grateful to be part of this important [study]. We know we don’t have the means to change it all overnight, but we are doing a lot.”

- **Prince Hlangusephi Dlamini, Minister of Economic Planning and Development, Swaziland**

“We [tend to] still look into handling this [nutrition] issue from the aspect of spending or charity work. This should be viewed as investment, not as extra cost of spending or charity work.”

- **Mohamed Edrees, Egyptian Ambassador to the African Union**



When a child is undernourished, the negative consequences follow that child for his or her entire life. These consequences also have grave effects on the economies where he or she lives, learns and works.

The Cost of Hunger in Africa Study quantifies the social and economic impact of undernutrition. The results provide an important advocacy tool towards creating policies and encouraging investments in Africa that help prevent losses of human and economic potential due to undernutrition.

With Africa's present economic advancement, now is the time for governments to seize the window of opportunity to ensure a generation free from stunting in the foreseeable future. Then, and only then, can the continent achieve the inclusive economic development desired.

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