



FAWE/MA
FORUM FOR AFRICAN WOMEN
EDUCATIONALISTS IN MALAWI



© Lameck Luhanga/GGIImages/CARE/

The McGovern-Dole International Food For Education and Child Nutrition Program in Malawi – Tiwoloka

Baseline Findings – FY25

Education and Nutrition

A student's academic performance depends on the development of cognitive abilities, including working memory, attentiveness, and reasoning / problem-solving.¹ Good nutrition plays a critical role in children's cognitive development, and consequently, in the learning process. Globally, 250 million children under the age of five, or 43%, are growing up in extreme poverty and are at risk of not reaching their full physical and cognitive potential.² The provision of school meals is a key safety net for those facing malnutrition. The evidence shows that school meals have the potential to increase years of schooling, reduce anemia, and support smallholder farmers, generating up to \$8 in benefits for every \$1 invested.³

Education and Nutrition in Malawi

In Malawi, 35.5% of the children under five suffer from chronic malnutrition, with 39% of the boys and 32% of the girls being stunted.⁴ The major food inflation in recent years—reaching 32.7% in May 2025⁵—is further worsening nutrition outcomes in Malawi and hindering children's development. An estimated 28% of the Malawi's population, or 5.7 million people, are facing severe food insecurity (IPC 3 or above).⁶

The Government of Malawi recognizes the school feeding program (SFP) as a crucial intervention for improving student enrollment, attendance, retention, and overall health and nutritional status. The provision of school meals is one of the key strategies in Malawi's *5-Strand Foundational Learning Strategy*.⁷ Malawi's ambitious National School Meals Strategy aims to expand the SFP to reach 100% of primary schools by 2030. The Government of Malawi promotes the use of the Home-Grown School Feeding (HGSF) model, which involves local farmers growing and supplying nutritious food to schools, contributing both to the local economy and food security.

DISCLAIMER: The McGovern-Dole International Food For Education And Child Nutrition Program in Malawi – Tiwoloka Baseline Evaluation was produced at the request of the United States Department of Agriculture. It was prepared by an independent third-party evaluation firm. The author's views expressed in this publication do not necessarily reflect the views of the United States Department of Agriculture or the United States Government.



FAWE
FORUM FOR AFRICAN WOMEN
EDUCATIONALISTS IN MALAWI

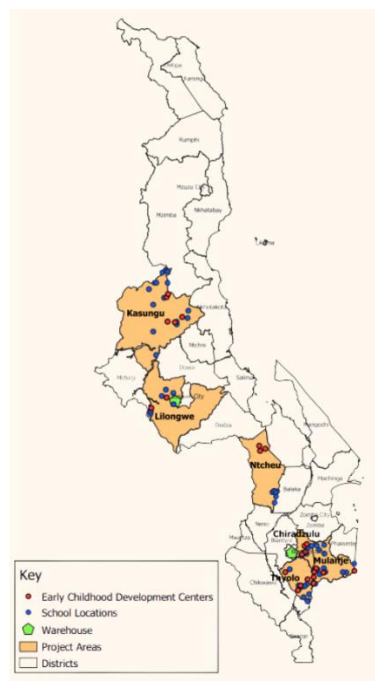


TiwoLoka: Testing the Impact of Protein-rich School Meals

CARE's *TiwoLoka* is a five-year (2024–2029) program, made possible through the United States Department of Agriculture's McGovern-Dole International Food for Education and Child Nutrition Program, is one of the largest partners of the Ministry of Education of Malawi in the effort to expand school meal provision. *TiwoLoka* is being implemented in 106 schools in six districts of Central and Southern Malawi—Chiradzulu, Kasungu, Lilongwe Rural West, Mulanje, Ntcheu, and Thyolo, reaching 84,331 students. This integrated program operates at system, school, and community levels to improve literacy among school-aged children, increase the use of positive health, nutrition, and dietary practices, and strengthen systems for a sustainable, government-led SFP.

In 2025-2028, *TiwoLoka* is testing the provision of an innovative protein-rich porridge using U.S.-grown commodities: lentils, Corn-Soy Blend Plus (CSB+), and fortified vegetable oil, providing 60-71% of the daily protein needs of school children, depending on age. In 2025, *TiwoLoka* piloted the provision of a protein-rich home-grown porridge to 62,036 students, combining soy, cowpea, peanut, moringa, and orange maize flours. The porridges provided under *TiwoLoka* respond to a key nutrition gap. Research conducted in Malawi showed that protein consumption was minimal among poor households, who were eating protein-rich foods of animal origin only 2.5 days/week, and pulses 1.8 days/week.⁸

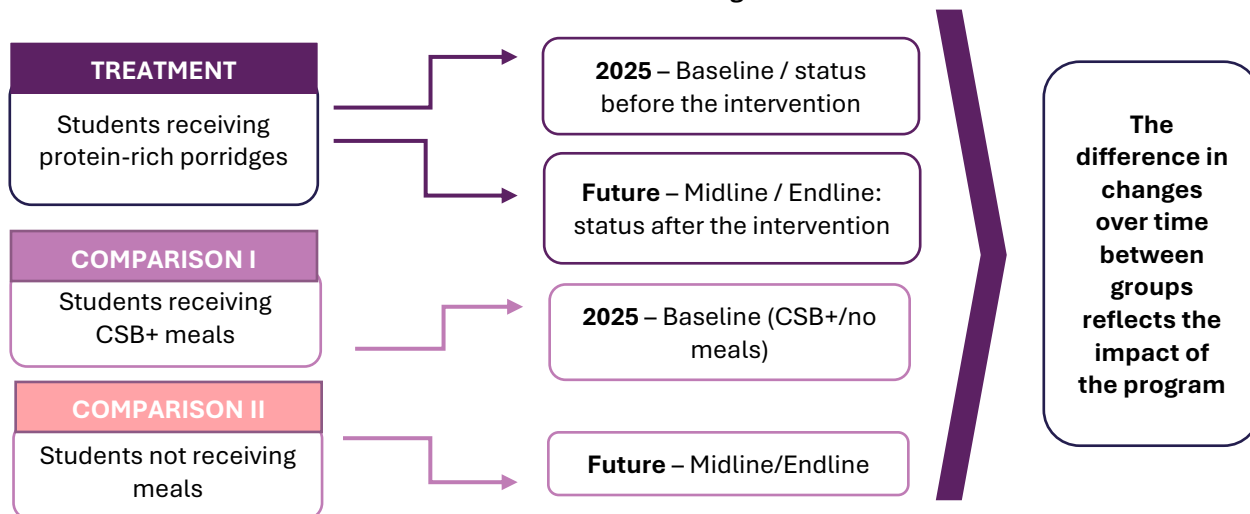
TiwoLoka Project Areas



Rigorous Evaluation Methodology

TiwoLoka uses a quasi-experimental evaluation design, which compares the learning outcomes of (a) *TiwoLoka*-supported students receiving protein-rich porridges with (b) those receiving CSB+ meals through a different program implemented by a local charity, and (c) students who do not receive meals. The three school samples will be tracked over time to assess the potential gains of consuming protein-rich meals.

TiwoLoka Evaluation Design



DISCLAIMER: The McGovern-Dole International Food For Education And Child Nutrition Program in Malawi – TiwoLoka Baseline Evaluation was produced at the request of the United States Department of Agriculture. It was prepared by an independent third-party evaluation firm. The author's views expressed in this publication do not necessarily reflect the views of the United States Department of Agriculture or the United States Government.



FAWE
FORUM FOR AFRICAN WOMEN
EDUCATIONALISTS IN MALAWI



“The learners’ performance goes down in class because she or he has started off from home without eating anything. At the school, the same thing, the child does not eat anything until the closing time. Even if the child is intelligent, the performance still declines because he thinks that he or she did not eat and also after knocking off, am I going to find something to eat at home.”

- PTA member, Mulanje

What Did We Learn from Tiwoloka’s Baseline Study?

Nutrition Findings

Over a third of the students are not eating before coming to school. In Tiwoloka schools, 35% of the students reported that they had not eaten on the day of the assessment, with similar rates for girls and boys. Their caregivers reported that **46% of the students had not eaten breakfast at home.**

What are students eating? Nearly 100% of the students are consuming carbohydrate-rich foods, and 78% green leafy vegetables. However, the consumption of protein-rich foods is

far lower: only 51% are eating legumes and pulses, 21% flesh foods, and 5% eggs. **The most common source of animal-origin protein consumed by students is wild meat, including wild mice (25%), which poses major health risks.**

Are CSB+-based meals working? The consumption of CSB+-based school meals **does not predict higher reading comprehension** among assessed students. **CSB+ meal consumption is also not associated with higher reading fluency scores.** However, **CSB+ meals are reducing hunger:** 77% of the students in schools providing CSB+-based meals had consumed any food on the day of the assessment, compared to 65% of those in Tiwoloka schools (which had not yet started providing meals) and 61% in schools without an SFP.

Working memory and hunger: Working memory is the ability to sustain and recall information for specific periods of time.⁹ It is essential for reading comprehension, enabling children to remember the content they have read.¹⁰ There is a positive correlation between working memory and reading outcomes: children with higher working memory scores have scored significantly higher in the EGRA. Research shows that **students’ working memory is negatively affected by short-term hunger.**¹¹ In this study, we found that **higher dietary diversity and having a CSB+ meal at school are associated with higher working memory scores in Malawi.**

How is nutrition affecting learning outcomes?

- Children who ate on the day of the assessment had significantly higher reading scores. Students attending schools where a meal was provided on the day of data collection were 17.1 percentage points more likely to report having eaten.

-Students whose diet is more diversified had near-significantly higher scores.

-Children with higher height-for-age z-scores (i.e. not stunted) had significantly higher scores.

“Children miss school simply because of lack of food, for instance when they had slept hungry the previous day, the next day they will not go to school.”

– Kasungu Parent

DISCLAIMER: The McGovern-Dole International Food For Education And Child Nutrition Program in Malawi – Tiwoloka Baseline Evaluation was produced at the request of the United States Department of Agriculture. It was prepared by an independent third-party evaluation firm. The author’s views expressed in this publication do not necessarily reflect the views of the United States Department of Agriculture or the United States Government.



Other Factors Affecting Learning Outcomes

Girls have better results than boys: Girls are significantly outperforming boys in all reading tasks. Among *Tiwoloka* students, the average EGRA score among girls was 25.1%, compared to 15.1% among boys. Not surprisingly, 83% of the boys have repeated grades, compared to 63% of the girls.

Absenteeism: On the day of data collection, only 50.1% of the Standard 2 students were in attendance in *Tiwoloka* schools. According to caregivers, students are missing an average of 1.2 school days/week. **Illness is the main reason for absenteeism**, cited by 56% of the caregivers. Overall, 10% of the students have a history of prior dropout. **The provision of school meals is associated with significantly reduction in absenteeism.** Conversely, children from food insecure households are more likely to be absent from school.

Hygiene: Poor hygiene is associated with both malnutrition and illness-related absenteeism, thus having an impact on learning outcomes. Overall, 7% of *Tiwoloka*'s households lack toilets, and 67% only have uncovered pit latrines. Not surprisingly, **having a toilet at home is associated with higher literacy scores and lower stunting rates.**

“(...) lack of money to buy basic needs like soap because for the plates to be hygienic they need soap. Most times, our families we can go for a month bathing without soap.”
- Parent, Ntcheu

While 73% of the households have a nearby water source, and 78% have access to water all year, **only 9% of the households have a handwashing station.** The vast majority of the households – 98% – do not have soap at the handwashing station.

Most schools—97%—have access to water. However, 82% of the schools are not treating drinking water in any form. In average, there is one handwashing station with soap per school – compared to an average enrolment of 854 students/ school. Only 13% of the schools are using school grants to purchase soap or detergent. **Poor hygiene practices are likely to contribute to diarrhea and absenteeism, ultimately preventing school meals from realizing their expected impact.**

References

- ¹ Sternberg, R. J., Kaufman, J. C., & Grigorenko, E. L. (2008). *Applied intelligence*. New York, NY: Cambridge University Press.
- ² <https://ineeq.org/collections/early-childhood-development>
- ³ School Meals Coalition (October 2024), “Value for Money of School Feeding Programs in Malawi”. Retrieved from: <https://schoolmealscoalition.org/value-money-school-feeding-malawi>
- ⁴ National Statistical Office (2021) *Malawi Multiple Indicator Cluster Survey 2019-2020, Survey Findings Report*, pg.233-234.
- ⁵ <https://tradingeconomics.com/malawi/food-inflation>
- ⁶ [Integrated Food Security Phase Classification: IPC Acute Food Insecurity Analysis – May 2024-March 2025](https://doi.org/10.1037/bul0000124)
- ⁷ Government of Malawi (2024) *Malawi 2023-2027 Partnership Compact*, pg.3
- ⁸ Innovations for Poverty Action (2022) *Baseline Report of the Titukulane Resilience Food Security Activity in Malawi*, pg.16.
- ⁹ Peng, P., Barnes, M., Wang, C., Wang, W., Li, S., Swanson, H. L., Tao, S. (2018). A meta-analysis on the relation between reading and working memory. *Psychological Bulletin*, 144, 48–76. <https://doi.org/10.1037/bul0000124>
- ¹⁰ Abadzi, H. (2020) *Skills to Stay: Memory Functions in 21st Century Education*. Transforming Societies Through Education, Cambridge University Press.
- ¹¹ Ke, J. & Ford-Jones, E.L. (2015). Food Insecurity and Hunger: A Review of the Effects on Children's Health and Behaviour. *Paediatrics Child Health* 2015 Mar; 20 (2): pgs. 89-91

DISCLAIMER: The McGovern-Dole International Food For Education And Child Nutrition Program in Malawi – *Tiwoloka* Baseline Evaluation was produced at the request of the United States Department of Agriculture. It was prepared by an independent third-party evaluation firm. The author's views expressed in this publication do not necessarily reflect the views of the United States Department of Agriculture or the United States Government.