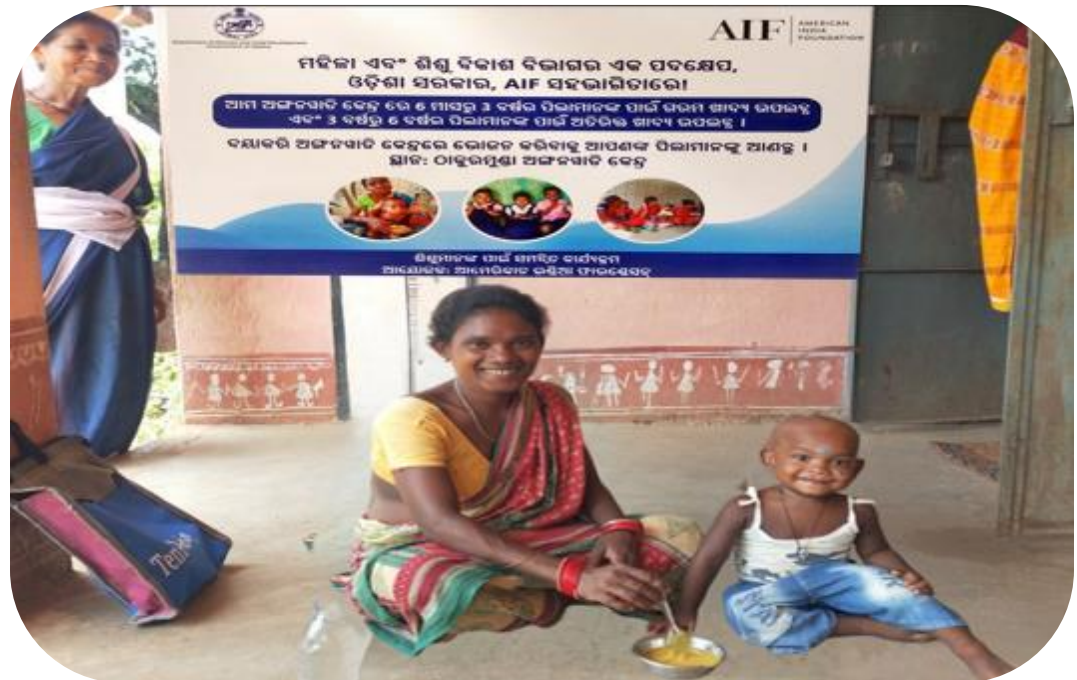


INTEGRATED PROGRAM THROUGH A SUSTAINABLE
APPROACH TO ENHANCE NUTRITION AND EARLY
CHILDHOOD DEVELOPMENT (ECD)
IN A LOWER-MIDDLE-INCOME COUNTRY, ODISHA, INDIA.



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BACKGROUND



Odisha faces high child undernutrition. AIF supports early childhood development in Mayurbhanj, a tribal district with 36.7% stunting, 28.5% wasting, 49.9% underweight, and 71.7% anemia among children under five. Nearly 1 in 2 children are underweight, and 1 in 3 are stunted or wasted.

OBJECTIVE



To demonstrate a cost-effective, scalable model for rapid undernutrition reduction in children under five through an integrated public-private partnership.

OVERVIEW PROGRAM GEOGRAPHY:

- Two tribal blocks - Gopabandhu Nagar and Thakurmunda in Mayurbhanj district, Odisha.
- Duration - 18 months
- Beneficiaries: 15000 children (0-6 years)
- Facilities - 388 Anganwadi Centres
- Cost:\$50/child/year
- Evaluation: Independent quasi experimental study using two stage stratified sampling

KEY INTERVENTION



Targeted Supplementary Nutrition Support

Age-appropriate, hot cooked meals for children aged 6-36 months, six days/week, at child care centers, called Anganwadi centers (AWCs) Nutritious snacks, including a **millet-based** recipe, for children aged 37-72 months, six days/week at AWCs



Caregiver and Community Engagement

Structured Individual and group counselling sessions on Infant and Young Child Feeding (IYCF) practices, responsive caregiving, and hygiene, reinforced by participatory community outreach to deepen ownership and impact.

Data-driven, targeted home visits for moderately & severely malnourished children; Follow up of cases discharged from Nutrition Rehabilitation Centers (NRCs).



Systems Strengthening and Convergence

Continuous capacity-building of Anganwadi workers on IYCF, growth monitoring, and early identification of undernutrition.

Integrated review systems and strategic coordination with government stakeholders ensure accountability and program sustainability.

COMPOSITION OF SUPPLEMENTARY NUTRITION [EAR,2020]

Children 6-12 Months

Energy: ~200 kcal ($\approx \frac{1}{3}$ of daily requirement)
Protein: 40-50% of daily requirement
Micronutrients: $\geq 50\%$ of daily requirement for iron, vitamin A, folate, and zinc



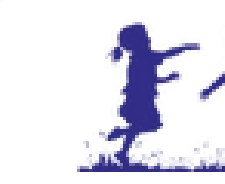
Children 1-3 Years

Energy: ~200 kcal ($\approx \frac{1}{3}$ of daily requirement) Protein: 40-50% of daily requirement
Micronutrients: $\geq 30\%$ of daily iron requirement; 20-30% of at least two others: zinc, vitamin A, folate, calcium



Children 3-6 Years

Energy: ~300 kcal ($\approx \frac{1}{2}$ of daily requirement) Protein: 40-50% of daily requirement
Micronutrients: $\geq 40\%$ of daily iron requirement; $\geq 30\%$ of at least two others: zinc, vitamin A, folate, calcium



Hot Cook Meals preparation at Anganwadi center



3-6-year-old children eating a hot cooked meal at AWC

SUSTAINABILITY APPROACH UNDER THE INTERVENTION

Mothers and caregivers have started asking support from AIF facilitators to provide handholding support in preparing the recipes introduced at the AWCs, as their children have started demanding the same food at home.

Since the intervention provides one hot cooked meal at the AWC, the core sustainable approach is that mothers and caregivers should prepare and serve the same nutritious food at the household level. This positive change is now visibly emerging through the program intervention.

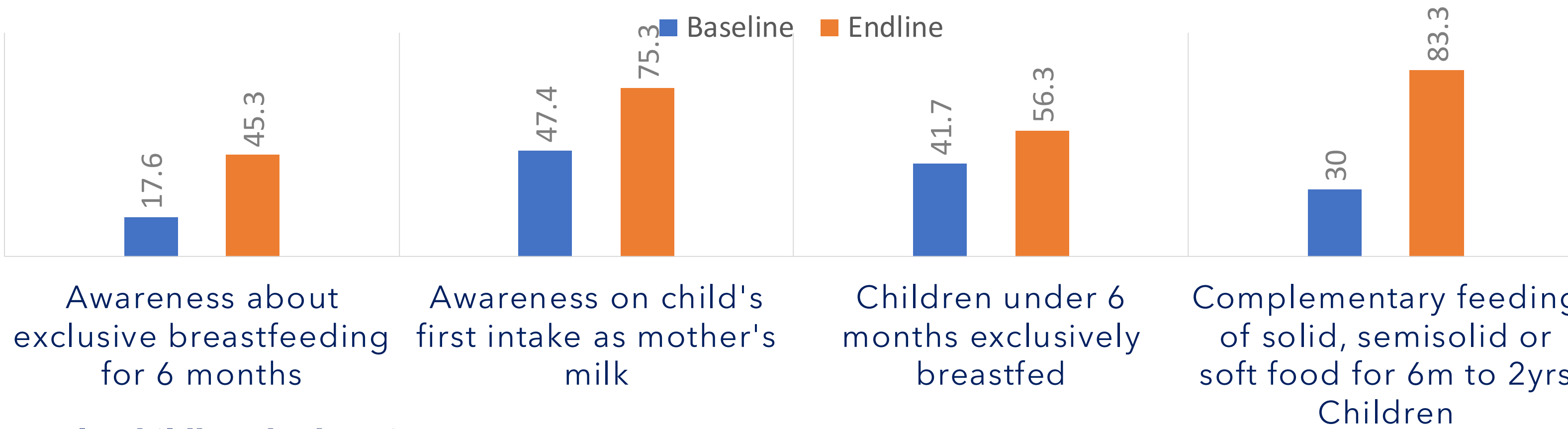


Facilitator guiding mothers to cook nutritious meals at the household level

RESULTS

There has been significant improvement in key nutrition indicators—especially stunting, wasting, and underweight—within 24 months of program intervention. The Knowledge, Attitude, and Practices (KAP) on Infant and Young Child Feeding (IYCF) have also improved, as reflected in the baseline and endline findings conducted by an external agency. Under Early Childhood Education, children aged 3-6 years are assessed for school readiness—mainly in reading, comprehension, and writing—using ten specific activities. Through our intervention, these assessments have shown a 40% improvement in school readiness.

Awareness And Practices On Breastfeeding Among Mothers.



Early Childhood Education (ECE):

- Spatial concept
- Number object matching
- Number comparison
- Sequential thinking
- Pattern completion (Act. 8)

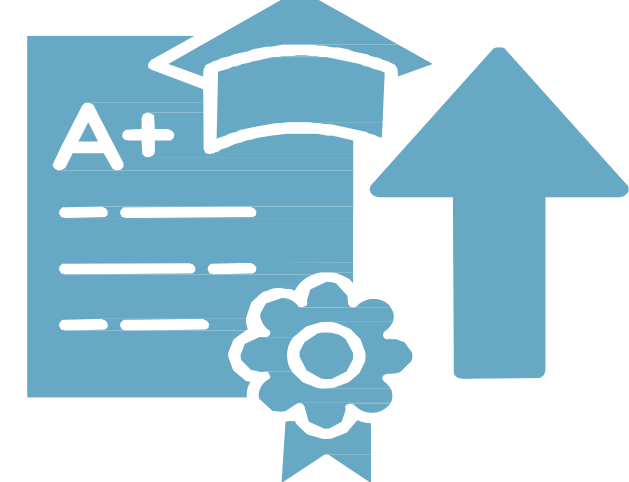
Areas where improvement got assessed

- Pre-number concept
- Sentence formation
- Phonemic awareness
- Following instructions
- Pattern completion (Act. 4)



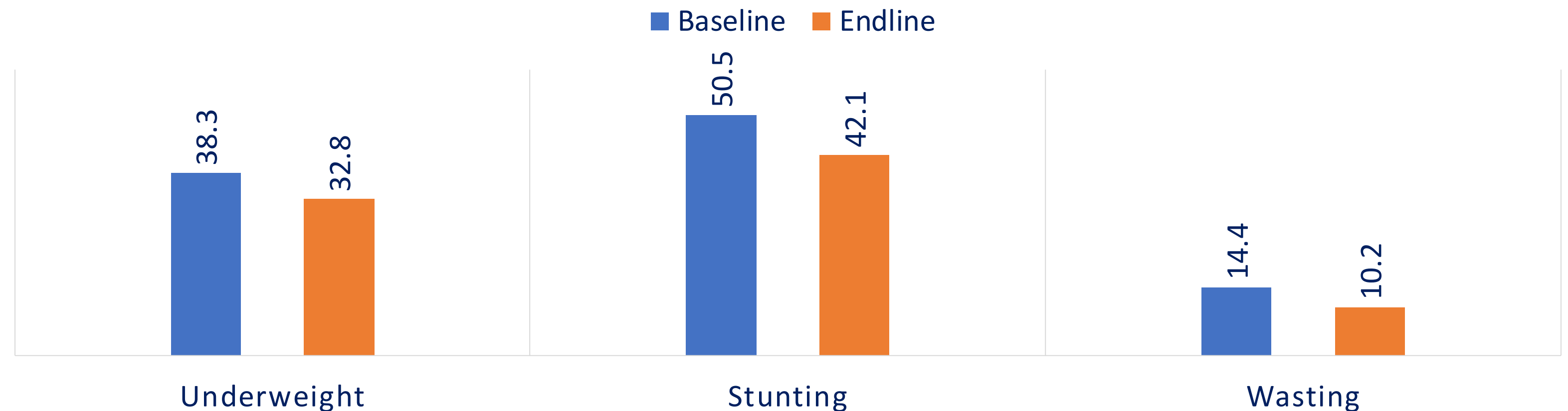
ECE activities for 3-6-year-old children at AWC

40.0%



The percentage increase (40.0%) stated here represents an improvement in the learning levels (reading, comprehension, and writing) of pre-primary children as part of their preparedness for formal schooling. The conclusion is drawn based on learners' performance in all 10 activities assessed, which follows the assessment framework developed by the World Bank.

Nutrition Status Of Children



CONCLUSION

The AIF intervention has significantly strengthened child nutrition and early development in Mayurbhanj by improving Anganwadi services, introducing nutritious hot cooked meals, and enhancing frontline worker capacity. Through strong community engagement and sustained SBCC efforts, mothers are increasingly adopting healthy feeding practices at home. These combined actions have reduced stunting, wasting, and underweight levels while improving school readiness, laying a stronger foundation for under-six children.

ACKNOWLEDGEMENT:

- 1- National Family & Health Survey - 5, 2019-2021: District Factsheet, Mayurbhanj, Odisha.
- 2- Narayan Chandra Jana, *et al.*; Comparing Patterns and Variations in Health Status between Tribes and Non-Tribes in Odisha of Eastern India with Special Reference to Mayurbhanj District, Odisha : Journal of Geography and Earth Sciences, December 2014.

