Novel technologies in agriculture, food safety and nutrition can pregnant women improve food diversity: Experience from Maternal Nutrition Intervention Project.

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Introduction

Lack of dietary diversity during pregnancy is a major problem as it is associated with nutrition insufficiency, micronutrient deadequacy, and adverse pregnancy outcomes. Alive & Thrive's integration of "Maternal Nutrition Interventions" into BRAC, 'Maternal Nutrition Intervention (MNI)' project in rural Bangladesh aimed to test the operational feasibility to deliver a package of maternal nutrition interventions through behavior change communication using multiple channels including interpersonal and mass communication and community mobilization. Thus the goal of MNI project was to reduce maternal malnutrition related morbidity and illness through increased dietary diversity, energy intake, and iron/folic acid and calcium intakes among pregnant women.

Objective

- **To identify novel technologies in agriculture, food safety and nutrition can pregnant women improve food diversity, experience from MNI Project.**
- **To demonstrate intake of green leafy vegetables through counseling pregnant mothers and promoting home gardens.**
- **To reduce maternal malnutrition through intensive counseling and trimester wise practical demonstration.**

Methods

Project Area: 10 intervention upazilas of 4 selected districts

District	Intervention upazilas
Mymensingh	1. Gafargoan 2. Dhobaura 3. Tarakanda 4. Trishal
Rangpur	5. Badargonj 6. Mithapukur
Lalmonirhat	7. Aditmari 8. Patgram
Kurigram	9. Rajarhat 10. Ulipur

Total population: 3.4 million

Target group

Primary:
- Pregnant women
- Postpartum women

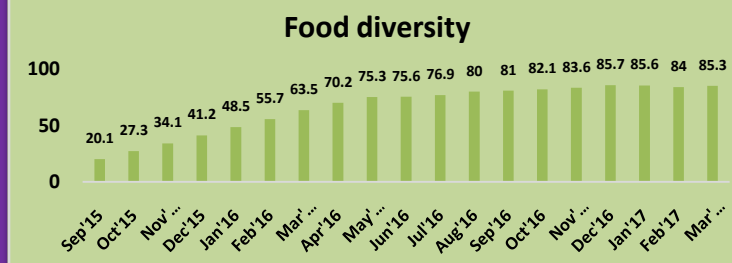
Secondary:
- Husbands
- Family members
- Formal and informal health care providers
- Community influencers

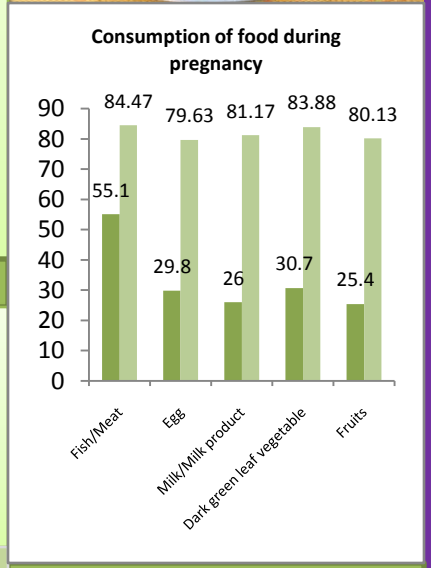
Total pregnant women reached: 134,354

Data collection period: 2015 to March 2017

Results

During this period, total 134,354 pregnant women were counseled in every month by CHW and 297,648 number of demonstration sessions were conducted (one in each trimester). Within this period, consumption of all 5 recommended varieties of foods by pregnant women dramatically increased from 20% to 85% which may result from demonstration with extensive counseling. Sharp increase in consumption of foods from all five groups by pregnant women was observed in the first few months of intervention. Percentage of women who consume all 5 groups of foods increased to almost 80% whereas this percentage was 55% for fish/meat consumption, 30% for egg, 26% for milk, 31% for dark green leafy vegetables and 25% for yellow/orange fruits and vegetables previously.





Conclusions

Agriculture has a remarkable effect on maternal dietary diversity and intake. Innovative agricultural ideas may help to occupy a family's food insufficiency. To irradiate food and nutrition insufficiency of pregnant mothers as well as of family it is important to align agriculture and nutrition Intervention together.