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The U.S. Government's Global Hunger & Food Security Initiative



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Integrated Social Behavior Change Communication to Improve Maternal, Infant, and Young Child Nutrition Practices

The Empowering the New Generation to Improve Nutrition and Economic opportunities (ENGINE) project baseline assessment showed that women often found the information they received from health workers vague or unclear. When mothers did have knowledge regarding healthy maternal, infant, and young child nutrition (MIYCN) behaviors, such as the importance of eating a diversified diet including a sufficient amount of animal protein, barriers such as poor communication with spouses or other household members, gender imbalances, economic constraints, and limited control of household finances prevented them from providing themselves and their children with an optimal diet.

ENGINE TECHNICAL BRIEF 9

EMPOWERING NEW GENERATIONS TO IMPROVE NUTRITION AND ECONOMIC OPPORTUNITIES



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ENGINE's social and behavior change communication approach was designed as behavior-centered programming, which provides opportunities for families, health workers, and other community members to participate in formulating and testing proposed practices, strategies, activities, messages, and materials that support improved MIYCN behaviors and relationships between couples.

IMPLEMENTATION

To address these barriers, rather than simply disseminating information, ENGINE's social and behavior change communication (SBCC) approach was designed as behavior-centered programming, which provides opportunities for families, health workers, and other community members to participate in formulating and testing proposed practices, strategies, activities, messages, and materials that support improved MIYCN behaviors and relationships between couples. The process followed the steps described below.

1. Situational analysis to understand context:

ENGINE analyzed the findings of the baseline, formative, and water, sanitation, and hygiene (WASH) studies to identify predominant MIYCN and WASH behaviors in the rural communities it supported. It then identified cultural resources, objects, places, events, rituals, roles, relationships, or traditions with significance in the local context, that had the potential to promote desired behaviors. To better understand cultural context and gain insight into common gender and family dynamics, ENGINE conducted diagnostic role plays in which participants acted out typical attitudes and behaviors followed by discussion and analysis.

2. Creative concept testing:

The project identified several creative concepts and symbols that could be

used to explain healthy MIYCN behaviors through cultural resources and tested local audiences' comprehension of the concepts. For instance, to explain the concept of a balanced diet in a way in which women could readily relate, ENGINE introduced an image of a *gulicha*, the large round plate used to cook *injera*, the flat thin bread that is a staple food in Ethiopia. To properly bake *injera* the plate must be level, balanced by three clay pillars on the cooking fire. ENGINE used an image of a *gulicha* to explain a balanced diet by using fats, vegetables and fruits, and meat as the three pillars. These three pillars must be consumed in balanced amounts to support the diet, which is completed with the addition of *injera*, represented by the plate, for energy. The gender role play cards used animals to represent different personalities and behaviors to facilitate positive changes in family relationships.

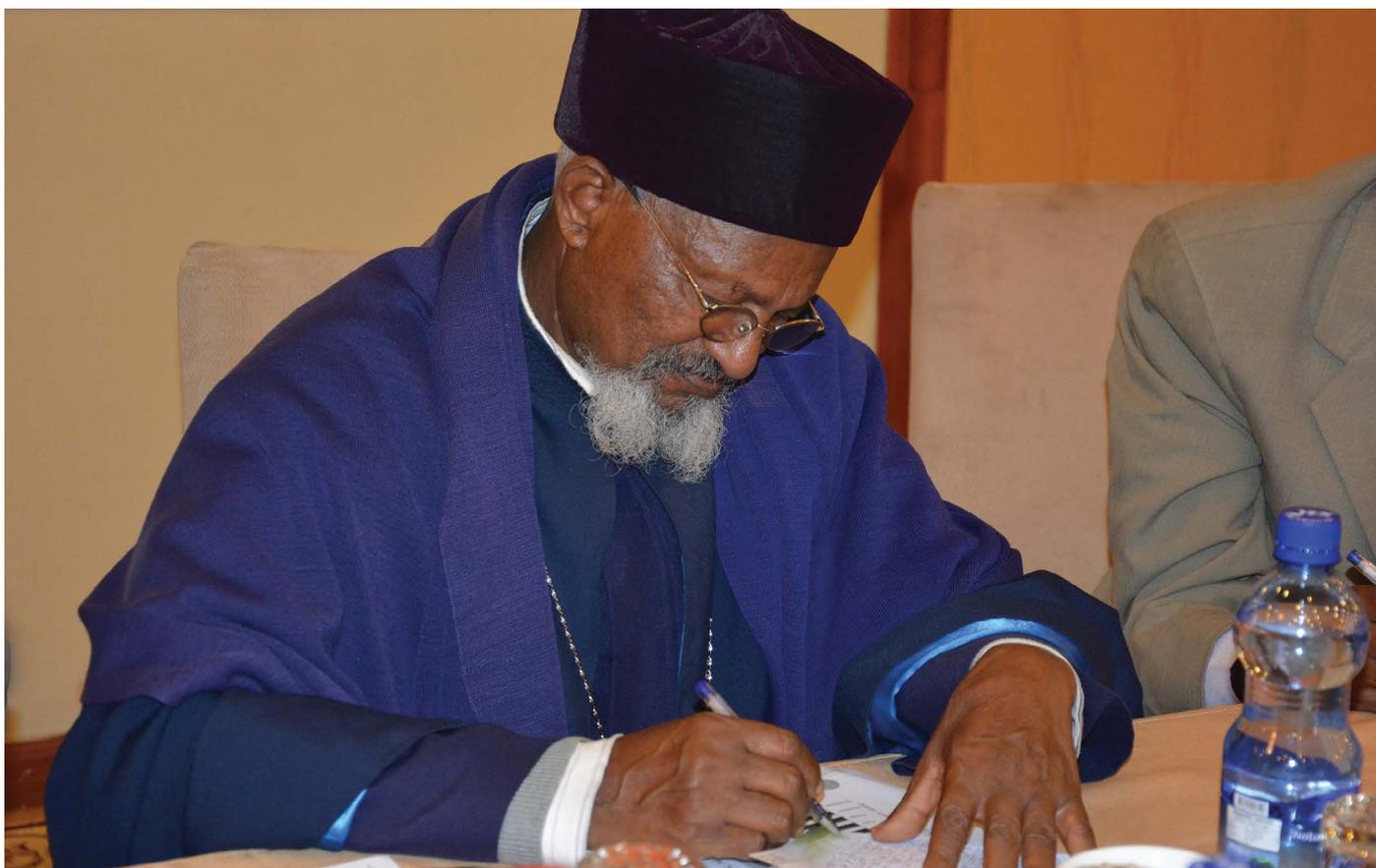
3. SBCC strategy:

Rather than creating a list of key messages, ENGINE developed a comprehensive SBCC strategy based on formative research recommendations and results of the concept testing. The strategy's overarching theme was *Nutrition is a Family Affair*. It focused on improving couple dialogue, women's self-efficacy, and supportive family actions to improve MIYCN behaviors and practices using improved community



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The creative concept to promote dietary diversity presented a *gulicha* with three "pillars" of good nutrition: animal-source foods (red), fruits, leafy green and vitamin A-rich vegetables (green), and fats and oils (yellow).



ENGINE collaborated with the Ethiopian Orthodox Tewahedo Church to develop a nutrition guide based on church teachings, clearly outlining the laws and regulations related to fasting.

dialogue, innovative audio recordings, and interactive skills-building activities to engage communities.

4. **Supporting frontline workers with training and creative SBCC materials:** ENGINE developed songs, videos, and printed materials using the creative concepts described above to engage and educate communities regarding MIYCN. The project distributed the materials to health centers, health posts, and farmer training centers in supported *woredas* and trained health and agriculture workers on their use. Health extension workers (HEWs) and agricultural extension workers (AEWs) educated their communities about healthy MIYCN behaviors such as early and exclusive breastfeeding and eating a diversified diet during community conversations and cooking and farming demonstrations. HEWs were households' primary source of nutrition information, but the proportion of households who received nutrition information from AEWs increased throughout the project's implementation.
5. **Enhanced community conversations:** Beginning in the fourth project year, ENGINE supported three local nongovernmental organizations to conduct enhanced community conversations (ECCs) with 1,800 peer groups, divided into three categories, pregnant and

lactating mothers, husbands and fathers, and grandmothers of children under the age of two years. The ECCs use an audio-recorded virtual facilitator as well as a live community change agent to guide participants through role plays, games, contests, and songs all aimed at transforming nutrition behaviors and communications between household members.

ENGINE recognized the 35,248 ECC participants who had attended eight or more ECC sessions with certificates and further rewarded participants who adopted the desired behaviors and promoted key nutrition practices to other community members with special certificates, water filtration units, and umbrellas.

ENGINE collected both quantitative and qualitative data using tools such as individual in-depth interviews, focus group discussions, direct observations, and short post-observation interviews to determine the impact of the ECCs and the effectiveness of the community-based approach. The findings are presented in *ENGINE Technical Brief 8: Engaging Communities through Enhanced Community Conversations*.

6. **Engaging religious leaders:** To raise awareness on the effects of fasting practices on under-nutrition



and childhood stunting, ENGINE held two consultative workshops with Ethiopian Orthodox Tewahedo Church (EOTC) senior leadership and scholars. The project used the workshops to build consensus among church scholars regarding religious guidelines on fasting practices for pregnant and lactating women and children under the age of two.

ENGINE collaborated with the EOTC to develop a nutrition guide based on church teachings, clearly outlining the laws and regulations related to fasting. In October 2015, the Patriarch of the EOTC, his Holiness Abune Matias I, formally endorsed the nutrition guide. The guide was disseminated through churches, schools, and communities across the country and used to train clergymen. The EOTC will cascade this training through all 53 dioceses and ensure the guide is used nationwide.

- 7. Using innovative technology to support frontline workers:** ENGINE created a platform to enable AEWs and HEWs to access key nutrition information,

skills, and tips on their mobile phones. This mNutrition service promoted dietary diversity for mothers and children during the first 1,000 days, optimal maternal nutrition and child feeding behaviors and practices, and household hygiene and sanitation practices and was designed to help frontline workers in their work with rural communities. The service sent text messages to frontline workers twice a week and prompted them to call into an interactive voice response system to obtain further information.

- 8. Mass media:** ENGINE developed a 32-episode radio program in two local languages, Amharic and Oromiffa, to promote healthy nutrition during the first 1,000 days. An assessment of the impact and effectiveness of the radio program found that the majority of respondents regarded the content as valuable and many stated that it helped them adopt positive nutrition behaviors.

RESULTS

ENGINE's SBCC activities have had a significant impact in changing relationships between partners. Men have reported being more supportive of their wives and caring for their children.

A survey of most vulnerable households (MVHH), who received a targeted package of ENGINE interventions, including participation in ECCs and educational demonstrations provided by HEWs and AEWs, found improvement in several key MIYCN behaviors, described below.

WASH

- ◆ Households that had a hand washing facility increased from 22 to 44 percent
- ◆ The proportion of mothers who reported washing their hands increased:
 - before serving a meal from 52 to 76 percent;
 - after using the toilet from 45 to 55 percent; and
 - after cleaning a child following defecation from 12 to 19 percent.

MIYCN

- ◆ Consumption of iron folate supplements among pregnant women increased from 61 to 66 percent
- ◆ The proportion of mothers who breastfed within one hour of birth increased from 57 to 62 percent
- ◆ The proportion of exclusively-breastfed children zero to five months increased from 77 to 86 percent
- ◆ The proportion of children consuming items from four or more food groups increased from 7 to 26 percent.
- ◆ The proportion of children being fed a minimally acceptable diet (a summary measure that combines minimum meal frequency and dietary diversity) increased by 10 percent.
- ◆ The proportion of mothers consuming moderately- and highly-diversified diets increased from 14 to 22 percent and 0 to 1.2 percent, respectively

While the results of the MVHH Survey cannot be interpreted solely as the result of the project's SBCC activities, there is evidence to show that the SBCC component contributed to these positive changes.

Households who received advice on dietary diversity from HEWs (the most common source of information) were more likely to have children consuming diverse diets than those who did not receive this information (28 versus 10 percent, respectively).

Table 1. Increase in healthy MIYCN practices as a result of dietary diversity information

REPORTED CHANGE IN PRACTICE	Baseline %	Endline %
Feeding child diversified foods (a least four food groups)	37.3	51.7
Give children above six months animal source foods	11.8	27.1
Increase frequency of breastfeeding	17.8	35.3
Provide thick porridge	26.3	29.4

Households who received advice on dietary diversity from HEWs (the most common source of information) were more likely to have children consuming diverse diets than those who did not receive this information (28 versus 10 percent, respectively).

Table 1 shows the increase in proportion of households practicing positive MIYCN behaviors as a result of receiving information about dietary diversity. Further-

more, mothers' participation in village savings groups, which served as the main platform for implementing SBCC activities with the MVHHs, was shown to have significant impact on their children's dietary diversity. In the first survey, 10 percent of children whose mothers participated in savings groups had adequate dietary diversity; just 7 percent of children whose mothers did not participate had adequately diversified diets. In the second survey, the proportion with adequate dietary diversity increased to 27 percent among children whose mothers were active in savings groups and decreased to zero among children of women who did not participate in savings groups.

The impact of the ECCs has been documented in a comprehensive report and discussed in *ENGINE Technical Brief #8: Engaging Communities through Enhanced Community Conversations*.

In the second survey, the proportion with adequate dietary diversity increased to 27 percent among children whose mothers were active in savings groups and decreased to zero among children of women who did not participate in savings groups.

LESSONS LEARNED

- ◆ **A comprehensive approach to SBCC that includes WASH, adolescent nutrition, and other target behaviors and groups is necessary to sustainably address stunting.** For example, as ENGINE has shown through its research, fasting is an important factor in the nutrition of mothers and children in Ethiopia. Working with religiously-affiliated groups could help to address it. Similarly, ENGINE's innovative formative research helped identify specific barriers and motivators to addressing the WASH environment of young children. Adolescent nutrition is a new area that will be a prominent focus for Growth Through Nutrition.
- ◆ **ENGINE's SBCC efforts with HEWs and the Health Development Army need additional development.** Support for MIYCN behaviors must reach the household. While ENGINE was successful through some of its approaches, such as the ECCs,

frontline health workers need more counseling materials and tools for use at the household level. Growth Through Nutrition will partner with the Ministry of Health to support HEWs to scale up family-centered nutrition SBCC to a greater number of mothers and children.

- ◆ **More study is required to identify effective communications that encourage increased dietary diversity, while also ensuring adequate meal frequency.** Though the MVHH Survey showed some increase in maternal and child dietary diversity after exposure to ENGINE activities, the changes were modest. Even more concerning was the observation of a small decrease in meal frequency and increase in household hunger. One theory to explain these seemingly contradictory findings is that communications may have over-emphasized the importance of dietary diversity to the detriment of meal frequency. Growth



AEWs need a SBCC nutrition tool developed specifically for the unique opportunities that their interaction with households and communities presents.

Through Nutrition will further investigate reasons for these results and adjust its approach appropriately.

- ◆ **AEWs need an SBCC nutrition tool developed specifically for the unique opportunities that their interaction with households and communities presents.** AEWs' requirements for support and materials are different than health workers. ENGINE initially trained AEWs with SBCC materials developed for health workers. Through that experience it became clear that AEWs needed approaches that were more closely linked to their agricultural role. Late in the project, ENGINE developed an agriculture-nutrition SBCC kit to assist AEWs in reaching farmers with nutrition-sensitive messages and support as part of the overall SBCC strategy to address stunting. Growth Through Nutrition will provide these materials to AEWs early in its implementation.
- ◆ **Radio is a common mass media communications approach; however, program development must take factors that affect listenership and effectiveness into account.** For instance, regional FM radio stations have higher coverage than national

stations in Ethiopia. Timing of broadcasts must be aligned with audiences' listening habits. Growth Through Nutrition will continue to use radio as part of the SBCC strategy based on the findings of the ENGINE radio assessment and will create new radio programming that takes listener behaviors, radio station coverage, and other factors into account.

- ◆ **mNutrition holds promise to reach frontline workers with targeted nutrition information; however working through EthioTelecom, the national telecommunications company, inhibits building a system that can be implemented at scale.** Growth Through Nutrition will integrate nutrition-sensitive agriculture messages into the Agricultural Transformation Agency's well-developed mobile information system to reach thousands of farmers and AEWs. ◆

ABOUT ENGINE

The Empowering the New Generation to Improve Nutrition and Economic Opportunities (ENGINE) project was the U.S. Agency for International Development Ethiopia Mission's flagship multisector nutrition project. ENGINE, which was implemented from September 2011 to September 2016, built on the Government of Ethiopia's National Nutrition Program and the U.S. Government's Feed the Future initiatives to prevent undernutrition during the first 1,000 days of life, from the start of pregnancy until the child is two years of age. The project was led by Save the Children in partnership with Tufts University, Jhpiego, Land o' Lakes, the Manoff Group, Valid International, and Jimma University and worked in 116 *woredas* across the Amhara, Tigray, Oromia, SNNPR, and Somali regions of Ethiopia.

ENGINE partnered with Ethiopian ministries to strengthen existing multisector coordination and support the development and revision of nutrition policies, guidelines, and standards. It integrated instruction on nutrition into the pre-service curriculum for health and agriculture workers and built the capacity of frontline

workers to provide high quality nutrition services. The project's social and behavior change communication activities promoted optimal maternal, infant, and young child feeding practices and dietary diversity at the community level. Work with vulnerable households educated participants about nutrition-sensitive agriculture techniques and livestock management to increase consumption of nutrient-dense foods and augment household income. ENGINE promoted improved water, sanitation, and hygiene practices to prevent diarrhea in children and improve nutritional status, mainstreamed gender in all its activities, and implemented a rigorous research strategy to support and guide effective nutrition policies and practices.

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