

# HOMESTEAD FOOD PRODUCTION AND MATERNAL DIETARY DIVERSITY IN NEPAL

that *Suaahara* promotes is for pregnant and lactating women to consume extra meals daily: one extra meal during pregnancy and two while breastfeeding.

## Recommendations on HFP and Maternal Dietary Diversity

The positive association found between Homestead Food Production and Maternal Dietary Diversity shows that the various HFP activities, complemented by the nutrition counseling and other integrated *Suaahara* program activities may have increased mothers' knowledge and skills relating to the production and consumption of diverse, nutrient-dense food.

These findings support other studies, which have documented that the provision of agricultural inputs, facilitation of trainings, group meetings, and other core HFP activities can contribute to improvements in dietary diversity. Additional research is needed



Photo: Pallavi Dhakal/Save the Children

to disentangle the pathways linking HFP to nutrition and to better understand the relative contributions of HFP and other *Suaahara* program components to improved household-level nutrition.

- 1 Robert E. Black et al (2013) Maternal and child undernutrition and overweight in low-income and middle-income countries *The Lancet* 382: 427-51.
- 2 Marie T. Ruel, Megan Deitchler, Mary Arimond. Developing Simple Measure of Women's Diet Quality in Developing Countries, 2010.
- 3 Report of a WHO Technical Consultation on Birth Spacing, 2005 *Nepal Demographic and Health Survey, 2011* Population Division, Ministry of Health Government of Nepal, Kathmandu.
- 4 Data was analyzed from three rounds of seasonal monitoring surveys, collected between June 2014 and April 2015. In the bivariate analysis, a significant positive association was found ( $\beta=0.06$ ,  $P=0.001$ ) between the degree of participation in HFP

activities (ranked from 0 to 6 based on the six key HFP program components – seeds received, chicks received, improved vegetable garden established, technical support received, HFPB group participation, and training received) and women's dietary diversity (based on a 7-day dietary recall and eight food categories – grains roots and tubers, legumes and nuts, dairy products, eggs, flesh foods and organ meats, vitamin-A rich dark green, leafy vegetables, other vitamin-A rich fruits and vegetables, and other fruits and vegetables). This association remained in the final adjusted model ( $\beta=0.07$ ,  $P=0.002$ ) that controlled for confounding factors (women's age and education, household size, migration, distance to market, agro-ecological zone of residency, and season of survey).

- 5 Data sources include routine monitoring, seasonal monitoring and Annual Outcome Monitoring Data.



Photo: Suaahara Program/Save the Children

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## Program Information

*Suaahara* is a USAID-funded five year (2011-2016) project led by Save the Children in partnership with Helen Keller International, JHPIEGO, Johns Hopkins Bloomberg School of Public Health Center for Communication Programs, Nepal Water for Health, Nutrition Promotion and Consultancy Services, and Nepali Technical Assistance Group.

The project provides local, national and global expertise and experience to address the causes of under-nutrition in 41 out of the 75 districts in Nepal by uniquely integrating nutrition with agriculture, sanitation, and health care interventions. It works to influence behavior of individuals and communities through community-based behavior change programming with a focus on gender and social inclusion, in order to improve the nutritional status of pregnant and lactating women and children under two.

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## Maternal Dietary Diversity & Homestead Food Production

Maternal malnutrition may lead to difficulties in childbirth, increased chance of maternal mortality and negative effects on child growth<sup>1</sup>. In Nepal, maternal undernutrition remains a critical issue (see Box 1). One immediate cause of maternal undernutrition, together with disease, is a diet lacking a diversity of vegetables, fruits, and animal sourced foods that are rich in bioavailable micronutrients.<sup>2</sup>

A diverse diet is crucial to ensuring a mother receives the nutrients she need for her own health and that of her child. Homestead Food Production (HFP) is an intervention that aims to help households cultivate diverse, nutrient-dense vegetables and produce animal-sourced foods primarily for home consumption.

### Box 1: Maternal Undernutrition in Nepal (2011)<sup>3</sup>

- ▶ 18% of women are underweight (BMI <18.5)
- ▶ 35% of women are anemic (low in iron)
- ▶ 12% of women are of short stature (<145 cm tall)



Photo: Suaahara Program/Save the Children

## Suaahara's Achievements in Homestead Food Production for Maternal Dietary Diversity

The degree of participation in *Suaahara's* HFP activities was positively associated with dietary diversity in women.<sup>4</sup> This means women who participated in a greater number of HFP activities consumed foods from more food groups. *Suaahara* has numerous data sources<sup>5</sup> in addition to the Process Evaluation (the source that is reflected here), for more results see the Homestead Food Production Fact Sheet.

## Suaahara's Integrated Maternal Dietary Diversity Interventions

*Suaahara* promotes HFP as part of an integrated solution to household food insecurity and malnutrition by increasing access to and consumption of locally produced nutrient dense foods for households in food insecure villages.

The three key Maternal Dietary Diversity interventions are:

### 1. Supporting beneficiaries to establish homestead gardens and raise poultry

In collaboration with local NGOs and agriculture and livestock government bodies, *Suaahara* provides pregnant women and mothers with children under two (1000 days women) with seasonal vegetable and fruit seeds and chicks. *Suaahara* provides agricultural training on a wide array of topics as well as technical support visits. The project helps to form

model farmers by supporting a leading female to develop a model farm on her property and then act as a resource and support for other homestead gardeners in the area. Some model farmers are chosen and trained as local resource persons who counsel community members on HFP. *Suaahara* also helps to establish HFP-Beneficiaries Groups that act as a forum to discuss key nutrition messages, gardening and poultry management.

### 2. Building capacity of FCHVs and VMFs for nutrition counseling

*Suaahara* trains model farmers, local resource persons and Nepal's Female Community Health Volunteers (FCHVs), among others, on optimal women's nutrition during and after pregnancy. Emphasis is placed on encouraging consumption of micronutrient rich foods by women and young children. Using *Suaahara's* innovative job aids and promotional materials, Village Model Farmers (VMFs), Local Resource Persons (LRPs) and FCHVs counsel 1000 days women at HFP-Beneficiary Group Meetings and other community-level interactions.

### 3. Promoting maternal nutrition behaviors to 1000 days women

*Suaahara's* multi-level Social Behavior Change Communications (SBCC) interventions promote maternal nutrition to 1000 days women through interpersonal counseling, social mobilization and mass media (radio). In particular, one of the seven key behaviors



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