

A food based approach to reduce vitamin A deficiency in Southern Ethiopia: A cross sectional study of maternal nutrition and health indicators

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Background

Vitamin A is a micronutrient essential for proper growth and development. Children and pregnant women are most susceptible to vitamin A deficiency (VAD) because of the higher intake requirements needed during critical growth periods. VAD is a serious but preventable public health problem in Ethiopia. Consumption of foods rich in vitamin A is low and reliable data on VAD prevalence, particularly among vulnerable populations, is lacking. In 2012, the International Potato Center (CIP) partnered with the University of Wisconsin-Madison (UW) and stakeholders from agriculture, nutrition and health in the Southern Nations, Nationalities, and Peoples Region (SNNPR), Ethiopia, to implement a food-based approach to reduce VAD among rural households in the SNNPR, through production and consumption of orange fleshed sweet potato (OFSP). This paper present a cross-sectional analysis of vitamin A knowledge, consumption practices, and attitudes from surveys conducted in 150 households in 5 districts of southern Ethiopia

Materials and Methods

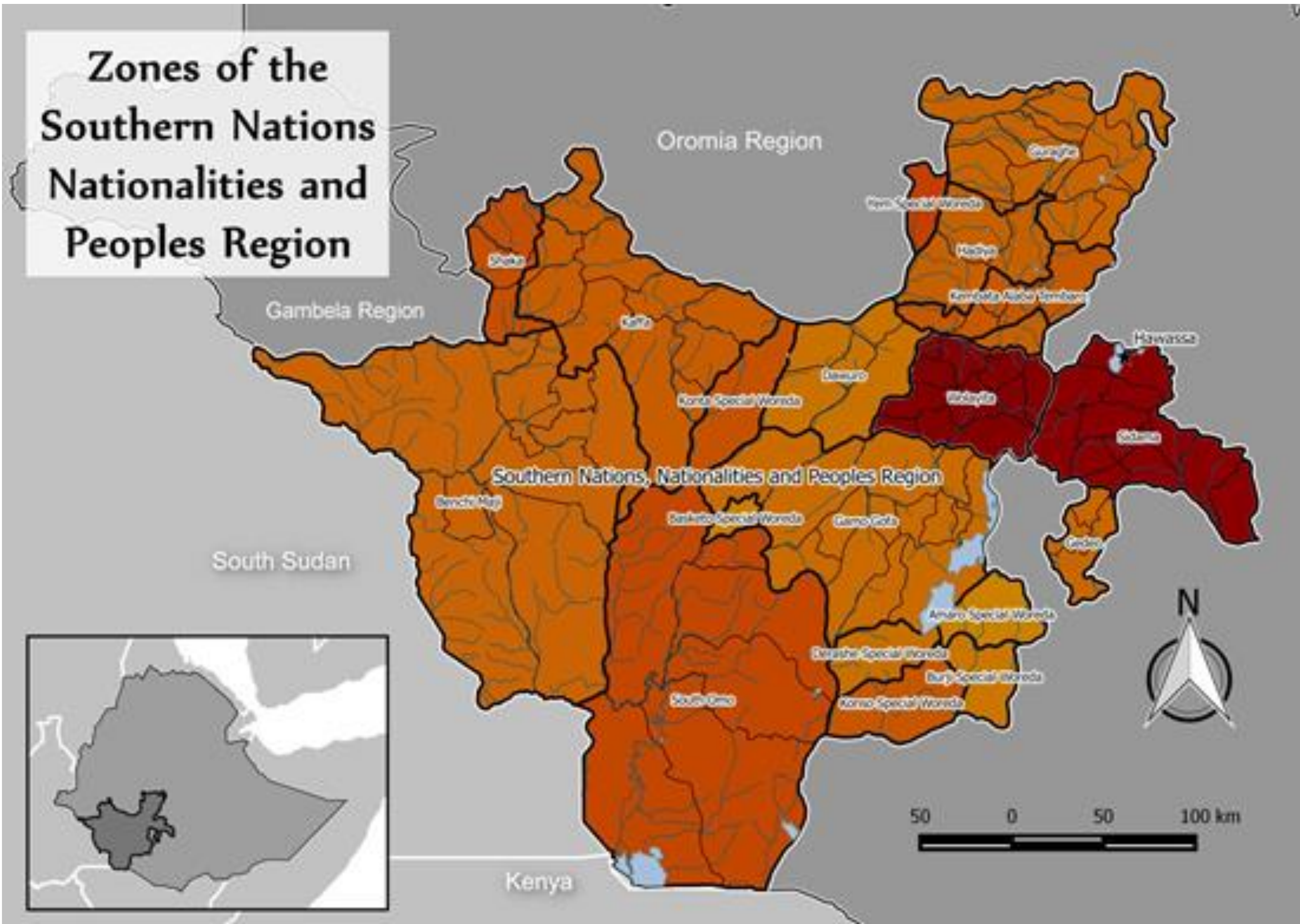
The study population consisted of 150 mothers from rural households in five districts in the Sidama and Wolayta zones in the SNNPR. Data were collected during April and May 2013 by trained enumerators in the local language using structured questionnaires. The surveys gathered information on household socio-economic characteristics, education levels, agricultural practices, P & OFSP production and consumption habits, food security, nutritional status, and general health for women and children between 6-59 months. Questions were adapted from validated survey instruments and quantitative analysis of data was conducted using SAS® version 9.2.

Results

Results: of the 150 households surveyed, 63% of mothers overall reported knowledge about vitamin A, but responses varied significantly by geographic location. 71% of mothers could not identify any food source of vitamin A. Among those who reported knowledge about vitamin A, 8% identified OFSP as a source of vitamin A, 1% had consumed OFSP in the past 7 days, and 0% reported that they ever prepared OFSP with an animal- or vegetable-based fat. Vitamin A-related health issues reported by mothers include night-blindness (32%), measles (32%) and malaria (72%).

Discussion and Conclusion

Discussion: The best method of alleviating vitamin A deficiency is relative to the situation and resources available. A food-based approach is encouraged when possible because it has the potential to enhance multiple types of capital, which may decrease morbidity and other vitamin deficiencies beyond vitamin A. Long-term nutrition and health improvements require dietary diversification, including increased consumption of vitamin A-rich foods, along with enhancement of other livelihoods assets in order to be sustainable and effective. Given that existing knowledge, behaviors and production levels of vitamin A rich foods (including OFSP) are limited within the SNNPR study population and vary by geographic location, an integrated food-based approach to address VAD may be most relevant in this context to sustainably support improved health. To achieve this, families must be informed, motivated, and empowered on how to incorporate vitamin A-rich foods into their diets throughout the year



	Sidama Zone (n=60)		Wolayta Zone (n=90)			Overall (n=150)
	Boricha	Loko Abaya	Damot Gale	Damot Woyide	Duguna Fango	
Know about vitamin A***	87%	87%	25%	56%	62%	63%
Among those who know about vitamin A, can identify the following food sources:						
OFSP***	7%	0%	25%	6%	0%	8%
Dark leafy greens*	7%	0%	21%	16%	10%	11%
Meat/liver/eggs***	10%	0%	32%	13%	7%	12%
Carrots*	10%	0%	18%	19%	10%	11%
Chilies**	7%	3%	39%	22%	23%	19%
Could not identify a food***	87%	87%	43%	69%	67%	71%
Among those who know about vitamin A, can identify that it is important for health:						
Knowledge of VA and health	97%	96%	95%	94%	98%	96%

