

CASE STUDY

# Linking agriculture and nutritional health

An estimated 43 million children under age five in sub-Saharan Africa are at risk of vitamin A deficiency, which contributes to significant rates of blindness, disease, and premature death. Orange-fleshed sweet potatoes hold promise as a strategy for reducing undernutrition, providing an important source of energy and beta-carotene that the body can convert into vitamin A.

PATH and the International Potato Center are working with officials and local agricultural organizations in Western Kenya to improve the health status of pregnant women and the nutritional health of young children through a project linking agriculture and nutrition interventions to health services. Mama SASHA (Sweetpotato Action for Security and Health in Africa) is a key component of the International Potato Center's ten-year initiative to improve the food security and livelihoods of families in sub-Saharan Africa.

Community health workers run clubs for pregnant women at the community level to discuss nutrition and health topics and encourage women to seek antenatal and postnatal care services. Clinic nurses provide nutrition counseling and vouchers for sweet potato vines that women can plant to grow their own sweet potatoes. Community farmers act as vine multipliers, supplying the vines and agronomic advice when women present the vouchers. Home visits are made to assess how the vines were planted and to give management advice.

## PLANNING AND ORGANIZING INTEGRATED SERVICES

Integrating services requires significant coordination within the health system and community as well as across the health and agriculture ministries of the local government. In addition, the project requires careful planning to time the availability of the vines with women's visits to health clinics to receive their vouchers and then redeem them with local farmers.

### STAFFING, TRAINING, AND SUPERVISION

Stakeholders include public health nurses, local district nutritionists, community health workers, community farmers, and agriculture extension agents. A two-day integrated training program ensures that each group learns about agronomic practices for sweet potatoes as well as nutrition and health counseling issues and can relay a consistent message to women and communities about nutritional health during pregnancy and the consumption of foods rich in vitamin A.

For example, health workers display posters of sweet potato production and consumption in antenatal clinics. Farmers discuss the nutritional value of the orange-fleshed sweet potato when pregnant women pick up their vines. These messages are reinforced at the community level in pregnant mother's clubs and by word of mouth in the community.



## PATH's approach to integrated health services

We develop integrated programming



across as many as four levels of a country's health framework: (I) client-centered services at the community level;

(II) health operations planning at the organization or agency level; (III) health system coordination at the national level; and (IV) intersectoral initiatives across development sectors. This case study highlights integration at the intersectoral level.

Our approach incorporates nine elements we consider essential for successful integration: planning and budgeting; organization of health services; staffing; training; supervision; logistics; community outreach; referral services; and monitoring, evaluation, and research.



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#### **COMMUNITY OUTREACH**

A key objective is to strengthen information, education, and communication materials and methods to support sustainable sweet potato production and consumption and improved nutrition. The project has revised existing education and training materials to include the nutritional aspects of orange-fleshed sweet potatoes and other aspects of maternal health and infant and young child nutrition.

### **LESSONS LEARNED AND NEXT STEPS**

More than 800 women participated in the pilot project in its first eight months. Results from an assessment of the pilot indicate that the intervention is both acceptable and feasible to project stakeholders and beneficiaries. Preliminary indications are that the use of a voucher succeeds in getting more women to start antenatal care earlier than in previous pregnancies. Additional analysis will measure the project's impact on diet quality and health outcomes for mothers and their children, as well as its cost-effectiveness.

Success will require the involvement of the women's partners. Initially, men were reluctant to offer land for women to plant sweet potatoes, but as the nutrition messages sank into the community, men became more supportive. Integrated training, standardized service delivery, and the coordination of vine supply with demand from pregnant women are also critical components for the project's success.

The project has been expanded to additional locations in Western Kenya, and there is interest in expanding the model to other provinces in the future. Staff will explore financial and other sustainability issues, including strategies around water management and ways to encourage communities to take greater ownership of the agricultural component.

For a more detailed look at our approach to integration, please see PATH's framework for health services integration on www.path.org.



PATH is an international nonprofit organization that creates sustainable, culturally relevant solutions, enabling communities worldwide to break longstanding cycles of poor health. By collaborating with diverse public- and private-sector partners, PATH helps provide appropriate health technologies and vital strategies that change the way people think and act. PATH's work improves global health and well-being.

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