

## **LEARNING FROM THE EVALUATION OF THE HarvestPlus ORANGE FLESH SWEET POTATO PROJECT**

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This presentation summarizes the findings of a randomized-controlled evaluation study of the impact and cost-effectiveness of a project that introduced provitamin-A-rich orange-fleshed sweet potatoes (OFSP) to more than 24,000 households in Mozambique and Uganda. From 2007 to 2009, HarvestPlus collaborated with national and international organisations to disseminate conventionally bred vines to farmers and to encourage adoption, consumption and marketing of the crop. The project strategy involved a coordinated three-pronged approach to encourage adoption and consumption of OFSP including: (i) vine distribution and agricultural extension, (ii) demand creation through nutrition trainings; and (iii) trainings in marketing and product development. As a basis for identifying impact and learning about cost-effective dissemination strategies, sampled farmer groups were randomly assigned into one of three intervention arms: an intensive 2-3 year intervention (Model 1), a less intensive intervention with reduced activity after the first year (Model 2) and a control group.

The results of the impact evaluation showed that the project was very successful at fostering OFSP adoption and consumption of the crop by women and young children. The project caused a 68% increase in the probability of OFSP adoption in Mozambique and a 61% increase in Uganda. OFSP also became an established part of the diet in project households: the project increased average OFSP intakes of children age 6-35 months by 36-45 g/day in Mozambique and by 37-52 g/day in Uganda. As a result of this increased OFSP consumption, the project caused significant increases in vitamin A intakes, equal to roughly 100 percent of age-specific daily requirements for young children (age 6-35 months), older children (age 3-5 years) and adult women.

For most of these outcomes, there was no significant difference in impact between the interventions in Model 1 and Model 2, although the less intensive Model 2 was nearly 30% less costly in each country. The average cost of Model 2 per targeted household was \$65 in Mozambique and \$48 in Uganda. However, factoring in additional cost savings and observed diffusion of the crop to neighboring households, the marginal cost of reaching new households in a scaled-up program are estimated to be \$17 in Mozambique and \$14 in Uganda. With greater encouragement of diffusion, these costs fall to \$5 per household in Mozambique and \$6 per household in Uganda. These results suggest that OFSP could be an important component of a national strategy to increase vitamin A intakes and reduce vitamin A deficiency in Mozambique and Uganda.