Orange sweet potato reduces risk of vitamin a deficiency in children and women in Mozambique

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(Medical Xpress) -- A study published in the *British Journal of Nutrition* indicates that orange sweet potato (OSP) is effective in providing vitamin A to malnourished women and children in Mozambique, where the prevalence of vitamin A deficiency (VAD) is very high. VAD can lead to impaired immune defenses and eye damage that can lead to blindness and even death. Annually, 250,000 to 500,000 preschool children go blind from VAD and about two-thirds will die within months of going blind.

The OSP, conventionally bred to be rich in vitamin A, was distributed as part of a HarvestPlus project to more than 10,000 households in Zambezia Province in northern Mozambique. Many of these households traditionally grew and ate yellow or white sweet potato which are poor vitamin A sources. The project resulted in about 65% of households adopting OSP. While many farmers substituted OSP for yellow or white ones on their plots, a good number were 'new' sweet potato farmers. Due to adoption, household consumption of OSP and thus, vitamin A intakes, increased substantially. On average vitamin A intakes doubled for both children and women.

By project end, OSP provided more than 70 per cent of all dietary vitamin A and was the third most important food in the diet (after maize and rice) for young children. OSP also provided more vitamin A than other local foods such as pumpkin, leafy green vegetables, or mango.
Available for about 3 months of the year, or longer in other regions, OSP can help close the VAD gap, when other vitamin A-rich foods or supplements are not available.

Previous smaller-scale studies have shown that OSP consumption results in measurable improvements in vitamin A levels of young children. "We've now shown that you can scale up efforts to distribute OSP to poor rural communities and see this translate into increased OSP and vitamin A intakes especially in women and children, who are most vulnerable to mineral and vitamin deficiencies," says Dr. Christine Hotz, former HarvestPlus Nutrition Coordinator who led the study. "It's a powerful approach using agriculture to improve nutrition and public health." OSP has also been introduced in other countries including Ethiopia, Ghana, Kenya, Malawi, Nigeria, South Africa, Tanzania, Zambia and Zimbabwe to combat VAD.

**More information:** The article can be read in full at: journals.cambridge.org/bjn/sweetpotato

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