

Household-grown food leads to improved health for children

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Children grow taller in rural households where their mothers are supported to grow their own food—according to new research from the University of East Anglia (UEA).

The research, which looked at households in low- and [middle-income countries](#), showed growing their own food helped mothers to prevent stunting, wasting and underweight in their children. Their children's food was more varied, meaning they had access to different classes of food nutrients.

The study, 'Impact of [home](#) food production on nutritional [blindness](#), stunting, wasting, underweight and mortality in children: a systematic review and meta-analysis of controlled trials', is published today in the journal *Critical Reviews in Food Science and Nutrition*.

The team from the Norwich Medical School and the School of International Development at UEA analysed studies that introduced women to home farming in African and Asian countries including Nigeria, Ghana, India, Cambodia, Mozambique, Uganda, Kenya and Burkina Faso. The home farming included growing brightly coloured Vitamin A-rich fruit and vegetables such as sweet potatoes, and sometimes also included chicken farming.

The health of these women's children was assessed over the next year or more. The children of the women who were introduced to home farming did better than children of other women, in that they were less likely to suffer from wasting, stunting and underweight.

No studies, however, reported on children's eye health. The researchers concluded that high-quality trials are needed to assess the impact of home food production on nutritional blindness in children, especially in rural areas.

Xerophthalmia is abnormal dryness and inflammation of the eye, leading to irreversible blindness, and is predominantly caused by an insufficient intake of Vitamin A. Vitamin A supplementation prevents children from dying and improves their health in other ways, such as reducing the risk

from measles. Many countries run Vitamin A supplementation programmes for children, but these often leave out children in [rural areas](#).

Approximately 250 million preschool children are still Vitamin A deficient, according to the World Health Organization. Vitamin A deficiency is the main global cause of preventable childhood blindness with about 2.8 million preschool-age children at risk of blindness. Vitamin A deficiency also increases the risk of mortality from other childhood diseases, such as diarrhoea and measles, and plays a significant role in normal immune function. It remains one of the most prevalent micronutrient deficiencies globally.

Mrs Chizoba Bassey, a postgraduate researcher in UEA's Norwich Medical School, led the team conducting the [systematic review](#).

Mrs Bassey said: "Well-evidenced interventions such as Vitamin A supplementation programmes should be adopted and expanded to children at greatest risk to prevent nutritional blindness.

"Currently there is not enough evidence of the effects of home gardening on xerophthalmia, night blindness or mortality in children, but the evidence from our research shows that if women take up home gardening the risk of stunting, wasting and underweight in their [children](#) is reduced.

"The introduction of home [food](#) production may be appropriate in areas where nutritional blindness, underweight, stunting and wasting are prevalent and where more intensive nutritional support, such as Vitamin A supplementation programmes, are not available."

Home farming may help to achieve sustainability in controlling Vitamin A deficiency and can complement Vitamin A supplementation

programmes where they are available.

More information: Chizoba Bassey et al. Impact of home food production on nutritional blindness, stunting, wasting, underweight and mortality in children: a systematic review and meta-analysis of controlled trials, *Critical Reviews in Food Science and Nutrition* (2020). [DOI: 10.1080/10408398.2020.1848786](https://doi.org/10.1080/10408398.2020.1848786)

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