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**Title:** Linking Agriculture and Nutrition Interventions: Within and Without an Ecohealth Approach

**Objective:** Agriculture interventions that employ a holistic agriculture-nutrition approach, such as an Ecohealth approach, are more likely to yield health benefits to participating households than narrowly focused “agriculture only” interventions. This research introduces three new case studies to better understand the elements of the Ecohealth approach that enable greater health benefits.

**Materials and methods:** Interventions promoting legumes to concurrently improve soil fertility and human health were conducted in Malawi, Ecuador and Bolivia, using explicit (Malawi), implicit (Ecuador), and planned but incomplete (Bolivia) Ecohealth approaches. Child growth status (Malawi, Bolivia), and household diet (all) were monitored at baseline and throughout the intervention in ~50 (Ecuador) to ~500 (Bolivia, Malawi) households.

**Results:** Over seven years child growth status markedly improved in participating Malawian households (by ~0.5 weight-for-age Z-score). In Ecuador, consumption of legumes in participating households increased from ~40 to 80% over two years. In Bolivia, intensified use of legumes in production systems has occurred independently of promotion of legume consumption. There has been no change in legume consumption or child growth status.

**Conclusions:** The two interventions that employed Ecohealth approaches had a positive impact on the health of participating households; the third intervention has not yet impacted health. Due to the complex nature of the interventions it is not possible to separate the effects of each component on participant health, and in fact it is unlikely that a study could be designed that would isolate the effects of each intervention component. However, research on social heterogeneity indicates that when there are multiple points of contact that mutually reinforce agriculture and health concerns, there is increased likelihood of local appropriation of change. Consistent with this, the positive effect of the Ecohealth approach on household diet and health is likely due in part to the multiple ways in which an intervention finds the diverse sectors of a community.