

# Informing the design of interventions to reduce childhood anaemia in India

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## Highlights

### Evidence impact

- The 3ie-supported evaluation's findings informed the design of Evidence Action's pilot interventions in four states as part of its technical assistance to the Indian government under its school-based iron and folic acid (IFA) supplementation programme.

### Factors that contributed to impact

- The implementing agency, Naandi Foundation, and the researchers shared a common interest in and commitment to reducing undernutrition, ensuring smooth collaboration and rigorous research.
- Timely publication of a journal article about the impact evaluation by the 3ie study's authors enabled GiveWell, Evidence Action's donor, to find and discuss the findings with the lead researcher and facilitate their use.

## Impact evaluation details

Title: [Improving midday meal delivery and encouraging micronutrient fortification amon...](#)

Authors: Gauri Kartini Shastry, James Berry, Priya Mukherjee, Saurabh Mehta and Hannah Ruebeck

Status : Completed June 2017



## Context

Iron deficiency and undernutrition are widespread in low- and middle-income countries. Insufficient iron in the diet is a leading cause of anaemia – causing slower physical and cognitive development in children – with potentially long-lasting effects. Malnourished children are less likely to perform well in school and more likely to grow into malnourished adults. In India, 58.4 per cent of children aged 6–59 months are anaemic.

In 2001, the Indian Supreme Court mandated a school feeding programme (the midday meal scheme) to improve nutritional levels and school attendance amongst children. However, inefficiencies and leakages in the delivery system plagued the programme, and there was little evidence on the best methods of providing nutritional supplements to children.

To evaluate the effects of fortifying midday meals with a micronutrient mix (MNM) on meal quality and child health, 3ie-supported researchers affiliated with the Abdul Latif Jameel Poverty Action Lab South Asia collaborated with Naandi Foundation, the Odisha state government's implementing partner for the meal programme. The researchers also evaluated the government's IFA supplementation programme that began in January 2013, just after the evaluation team had completed its baseline survey.

MNM fortification was randomly implemented across 377 schools in Keonjhar district of Odisha. Additionally, the intensity of school visits was varied to investigate the extent to which monitoring improves health outcomes. The baseline data indicated that approximately 60 per cent of the children in the sample were anaemic and 44 per cent were underweight.

# Evidence

Findings showed a high level of MNM uptake by the schools. However, this led to no significant impact on the children's nutritional status. The researchers linked this finding to the state regulatory body's decision to cap the amount of micronutrients in the mix at 50 per cent of the recommended daily allowance.

Increased monitoring of school meals led to higher child haemoglobin levels and improved implementation of the IFA programme, as more students reported receiving the tablets weekly. Findings showed that high-intensity monitoring did not improve uptake of the MNM. Thus, the improved implementation of the IFA programme likely explains the improvement in the children's haemoglobin levels.

The study also found evidence that the MNM intervention might have negatively affected implementation of the IFA programme by 'crowding out' the effort exerted by school officials. The officials might have shifted their focus and efforts to the new micronutrient fortification programme and reduced their efforts in implementing the IFA programme.

'For us, I think, reading the paper was helpful. But being able to engage with [the lead researcher], maybe over 8 or 10 calls to really get into the details was, you know, definitely was more useful.' – Samantha Bastian, director, innovation, Evidence Action

## Evidence impacts

### Strengthened technical assistance to the government

The 3ie-supported evaluation's findings, particularly those relating to administrative challenges and the provision of IFA tablets to out-of-school children, informed the design of Evidence Action's pilot IFA supplementation interventions in four states of India. Evidence Action, funded by GiveWell, designed and implemented these pilots as part of its technical assistance to the state governments in Rajasthan, Madhya Pradesh, Jharkhand and Haryana. Impact and process findings also helped inform the sample size and evaluation methodology for the pilot projects.

## Suggested citation

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*Last updated on 11th November 2020*