Tata-Cornell Institute

POLICY BRIEF

Number 12

Amplifying India's Efforts Against Anemia

New research shows that closely coordinating nutrition- and sanitation-focused interventions can help eliminate anemia experienced by thousands of Indian children.

Study Overview

Tata–Cornell Institute (TCI) researchers mapped indicators from the National Family Health Survey (NFHS) to the *Anemia Mukt Bharat* (Anemia-Free India) and *Swachh Bharat Mission* (Clean India Mission) at the individual, household, and community levels to analyze the impact on children's hemoglobin levels of each program alone and of the programs in combination.

Background

Characterized by insufficient healthy red blood cells or hemoglobin, anemia causes impaired cognitive and developmental outcomes. The condition has a variety of causes, including iron or vitamin deficiencies from poor diets. Infections from fecal contamination can also contribute to anemia by inhibiting the absorption of nutrients.

Anemia was on the decline in India from 2005–2015, but rebounded in recent years. In 2020, an estimated 67 percent of Indian children under 5 were anemic. The Indian economy loses about 1.3% percent of GDP each year due to anemia.

Launched in 2018, *Anemia Mukt Bharat* aims to reduce anemia by 3 percent per year in target populations, including children under 5, through a variety of health- and nutrition-focused interventions. The *Swachh Bharat Mission* was launched in 2014, with the goal of ending open defecation by 2019. More than 100 million toilets were built as part of the program.

RESULTS

According to the study, children who received at least one intervention under *Anemia Mukt Bharat* had 0.06 g/dl higher hemoglobin levels. Among children whose households received improved sanitation facilities under the *Swachh Bharat Mission* and whose communities' open defecation rates fell below 40 percent, children's hemoglobin levels were 0.12 g/dl higher. Hemoglobin levels were 0.08–0.23 g/dl higher in children receiving interventions from both programs.

Hemoglobin levels below 11 g/dL are considered anemic. The researchers estimated that 2,100–6,700 children have hemoglobin levels 0.08–0.23 g/dL below the 11 g/dL threshold and thus, could be raised out of anemia by receiving interventions from both programs.

The researchers also found that the impact of receiving interventions from both programs differed among socioeconomic groups. Middle-income households saw the strongest effect, while the impact was insignificant for the richest households. Similarly, the effect was larger for urban families compared to those from rural areas. The researchers also found that the effects of the programs are negated for children if their mother is anemic.

POLICY RECOMMENDATIONS

- Adopt a systematic approach to anemia reduction that prioritizes interministerial coordination of nutrition, sanitation, and other programs, including data sharing, the adoption of joint goals, and the coordination of community-level activities.
- Design programs to address the specific needs of different socioeconomic groups and tailor implementation to different geographic contexts, such as the use of mobile healthcare services and community-based interventions to reach remote areas.
- Integrate maternal health services into child health programs to bolster children's health outcomes.

Gupta, S., Seth, P., and Pingali, P., Multisectoral Convergence of Food, Nutrition and Sanitation Programs for Child Health: Evidence From Country-Level Programs in India, *Applied Economic Perspectives and Policy*, Volume 47, Number 5, December 2025.

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