REDUCING MALNUTRITION IN RURAL INDIA

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Despite India's recent economic growth, nutritional status in rural areas has either worsened or improved only slowly, across households with different income levels. This has puzzled some researchers, who have claimed that calorie intakes per capita – calculated by food expenditure data – declined for all income groups from 1983 to 2004. [1]

While adult nutritional status in terms of Body Mass Index (BMI) has improved, albeit slowly, India has one of the worst levels of low birth weight, underweight and wasting among children in BRIC and South Asian countries (Figure 1).

Our recent research project[2] has examined the underlying reasons for these trends. We analysed extensive nationally representative household data to estimate behavioural response among different nutritional groups.

On adult undernutrition, we find that people excluded from the labour market or on lower wages tend to have a lower BMI. However, the link between nutrition and wage rates and/or employment status cannot alone explain the difference in nutritional conditions. Our results also show that those undertaking manual labour or more physically demanding activities (e.g. farmers, fishermen, labourers and production workers) are more likely to be *under*-nourished than those who are doing less intensive activities (e.g. professionals, managers). [3]

A traditional economic model ('the nutrition-poverty trap hypothesis') assumes a link between workers' nutrition and productivity. That is, unemployed or low-paid workers tend to be trapped in undernutrition and poverty, while those employed in well paid jobs can escape the trap, due to improved nutrition and productivity.

This model may, however, apply only to the bottom half of the labour market in rural areas. It also ignores the co-existence of different segments in the labour market, according to the skills or physical intensity required by different types of jobs. Our results at least partly explain why the improvement of BMI has been slow in all ranges of nutritional groups.

Productivity improvement in the manual labour market is not sufficient to further improve overall nutrition; workers in skilled jobs can receive a higher income (and thus increase their food consumption) with less physically intensive work. Entry into skilled or professional employment in the non-farm sector is therefore necessary for further nutritional improvement. This is far from an easy option for most poor people, who lack skills or education, or face other structural barriers.

On child malnutrition, we find that when a wife's bargaining position with her husband is stronger, their children's nutritional status improves, as measured in the short term.[4] We approximated the wife's bargaining position according to her level of education and the presence or absence of domestic violence. Health-related facilities, infrastructure and environment are also considered important in reducing child malnutrition.

Country	Underweight	Stunting
India	*43%*	*38%*
China	6%	11%
Brazil	4%	NA
Russia	NA	4%
Sri Lanka	23%	14%
Pakistan	31%	37%
Nepal	39%	43%
Bangladesh	41%	36%

Figure 1: Malnutrition in children under five in BRIC and South Asian countries, 2000-07.
Source: India Human Development Report 2011.

Key policy points

- Growth alone will not make a significant dent in adult and child undernutrition.
- Diversification of poor people's activities, through providing employment in non-farm or service sectors, will improve adults' nutritional status.
- Policies to help empower women through better education and employment opportunities are important for reducing the number of undernourished children.
- Extensive provision of health insurance and better infrastructure are likely to reduce the temporary nutritional deprivation of children.

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Notes

1. Deaton, A., and Drèze, J. (2009) 'Food and nutrition in India: facts and interpretations'. *Economic and Political Weekly* XLIV(7): 42-65.
2. Research project entitled: 'On the change of poverty and undernutrition in rural India' (RES-000-22-4028), funded by the Economic and Social Research Council, UK.
3. Imai, K., Annim, S., Gaiha, R. and Kulkarni, V. (2012a) 'Nutrition, activity intensity and wage linkages: evidence from India', *RIEB Working Paper Series*, DP2012-10, Kobe University.
4. Imai, K., Annim, S., Gaiha, R. and Kulkarni, V. (2012b) 'Does women's empowerment reduce prevalence of stunted and underweight children in rural India?' *RIEB Working Paper Series*, DP2012-11, Kobe University.

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