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Together for Nutrition 2014

Working Across Sectors to Improve Nutrition in India

Addressing the Underlying Social Causes of Nutrition in India

Reflections from an economist

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The 2013 Lancet Nutrition Series estimated that scaling up 10 proven effective nutrition specific interventions would reduce stunting globally by 20 percent. While this would be a major improvement in the health and development of children, it does not go far enough.

Thus, there is also a need for programs that address the core determinants of undernutrition. These are addressed in the **nutrition sensitive interventions** discussed yesterday.

On a broader policy and strategic level, improvements in nutrition are also enhanced to the degree that a poverty sensitive growth strategy is effective.

Food Security is a Prerequisite but not a Solution

Although GNP growth does not guarantee poverty reduction, in most settings growth does predict the change in poverty: globally a 10% increase in growth leads to roughly a 10 % decrease in poverty.

Moreover, poverty reduction maps strongly to improved food security.

Even though the data on poverty reduction and on improvements in food security in India are imperfect, permitting continued debate, it appears that the MDG goal of reducing extreme poverty will be met.

India has a number of additional instruments to promote food security: the Public Distribution System (PDS), Mid-Day Meal Scheme (MDM), Integrated Child Development Services (ICDS) and maternity entitlements, among others.

These can still be improved, but the role of food distribution in reducing under-nutrition likely has reached diminishing returns.

Linking Transfer and Nutrition Communication is a Promising Strategy

Including behavioral change communication available to women who receive transfers (cash or in-kind) can improve the nutritional impact of existing food security measures.

This was shown in a randomized trial 30 years ago in the Philippines and confirmed in an on-going study in Bangladesh.

The behavioral change communication can be focused on diet diversity and proper weaning or can cover a wider range of topics on health and child care.

The Bangladesh study encourages or 'nudges' participation in weekly sessions but the transfer is not strictly conditional.

Income Growth does not Guarantee Improved Sanitation

In India, approximately 53% of households and 600 million people defecate in the open

A recent ecological analysis of data from 112 rural districts of India demonstrated a strong association between the prevalence of open defecation and stunting, after adjusting for potential confounders

This ties in with global evidence on the role of enteropathy as a contributing cause of malnutrition

While hand washing and water purification can be improved on a household level, sanitation is a community issue and the solution to this complex social issue is still being sought.

Education as an Underlying Determinant of Nutrition

The path from education to improved nutrition is not as straightforward as might be presumed.

To be sure, to the degree that education increases earnings it has an indirect effect on nutrition

But using 99,000 observations from children in 19 countries I found that fewer than 6 years of maternal education has no influence on stunting. The most plausible explanation is that even with 4-6 years of schooling less than half the women could read a sentence.

At higher levels of schooling the impact on nutrition increased with each year of education. This was also true for males, but maternal education had a larger impact than paternal at all levels.

What Do Trends in Child Mortality Imply for Nutrition Programs?

Global reductions in child mortality have accelerated in recent years.

Overall CMR has declined 47% from 1990 to 2012. The decline is slightly less for India (depending on various sources) but clearly appreciable.

Part of this improvement reflects more effective treatment of severe acute malnutrition. Scaling up that intervention and 9 other core nutrition interventions can save 1 million lives annual (about 15% of all child deaths).

But improvement in mortality is only part of the story. A malnourished survivor is also impaired. There is a clear link between cognitive development and both anemia as well as stunting. Indeed, it is likely that part of the poor performance of schools mentioned earlier reflects the fact that many of the children were malnourished before entering school.

This is one reason why attempting to solve the “Asian Enigma” is a distraction

It has been pointed out that India and its neighbors have malnutrition rates higher than Africa yet have much lower mortality rates.

This is largely irrelevant for two reasons:

- Even compared to other Indians, smaller children have a higher risk of early mortality (though this has improved over the last two decades there is still a significantly elevated risk)
- Taller children also perform better on tests of cognitive ability compared to other Indians.

The focus on the ‘enigma’ can divert us from the fact that height or weight is not an end in itself, but a means towards child development and overall health and productivity

Nutrition for Better Cognitive Development has Important Policy Implications

We often discuss nutrition sensitivity by asking “what can other sectors do for nutrition?”

But if that is a fair inquiry, it is equally fair to ask, “what can nutrition do for other sectors?”

The restructuring of ICDS in October 2012 acknowledged this reciprocal relationship by including a greater emphasis on early child care and education than previously.

This may lead to a clearer continuity between the core 1000 days priority for nutrition and entry into preschool and beyond.

Not only does this goal imply readily apparent challenges for inter-ministerial coordination it also requires significant research on potential synergies in delivery of messages for nutrition and for child stimulation.

Programmatic Synergy Is By No Means Automatic

Age response of interventions is a guide to programmatic synergy

Some interventions (e.g., preventing low birth weight or **maternal depression**) can improve both nutrition and cognitive development.

- e.g., trials in Eastern India and other parts of South Asia show that depression may respond to community interventions

Home visits to enhance stimulation are hardest to provide **at scale** before 24 months; thus, the first 1000 day focus for nutrition is not in sync with many plausible approaches for stimulation.

Still, parental enrichment and similar promotions of behavioral change can be built into nutrition interventions (e.g., in group sessions).

A possible risk for synergy was seen in a responsive feeding trial in AP: mothers were apparently confused by too many messages.

But there is limited evidence on program synergy

A few studies show that stimulation for malnourished or low-birth-weight children can offset some disparities associated with under-nutrition.

- e.g., beneficiaries from Jamaica earned 25% more when adults and exhibited less violence

Some programs are additive (the impact of supplements add to the impact of stimulation).

- But combining the impacts does not have more impact than the sum of the individual programs (the criteria for synergy)

There is less evidence on including stimulation in a preventative role at < 24 months.

- An exception: new evidence from Pakistan; but even here the stimulation was not synergistic with the nutrition program

Impact need not exceed the sum of each program to justify integrated programs

Synergy occurs if joint interventions reduce costs, even if nutrition programs do not increase impact of stimulation interventions or vice versa.

There is no evidence that adding stimulation to the provision of supplements has a negative impact on nutrition.

There is a need for an institutional or managerial transition from the health and nutrition focus of the “1000 days” to the preschool age.

Many studies show that, without long-term follow-up, the gains dissipate.

Some concluding points for research

Some research questions for which the answers could enhance the nutritional impact of poverty reduction and growth include:

- What behavioral change communication can augment food security measures to encourage diet diversity and improved mother-child interaction?
- What messages for home care can be delivered easily to achieve synergy of nutrition and child stimulation?
- How can message overload (or time overload) be prevented?
- How can schools be a vehicle for practical nutrition education?
- What are the most feasible means to achieve an institutional continuity from nutrition in the first 1000 days through preschool?
- How to intervene to improve community water and sanitation?