

## EDITORS' NOTE

The POSHAN Abstract Digest brings to your fingertips some of the new and noteworthy studies on maternal and child nutrition. It will primarily focus on India-specific studies and also bring to you other relevant global or regional literature with broader implications for maternal and child nutrition.

The Abstract Digest is based on literature searches to identify selected studies that we think are most relevant to nutrition issues in India and to Indian programs and policies. We share with you a collection of abstracts from articles published in peer-reviewed journals; as well as selected non peer-reviewed articles by researchers in reputed academic and/or research institutions and which demonstrated rigor in their research objectives, methodology, and analysis. The abstracts in this document are reproduced in their original form from their source, and without editorial commentary. The Digest has four sections: special journal supplements, abstracts from individual peer-reviewed articles, abstracts of non peer-reviewed literature and upcoming events of interest.

The year 2012 brought a rich collection of academic literature on maternal and child nutrition to the scientific world, including **six** special issues published in different journals! This first issue of the Digest, therefore, features research publications spanning a broad spectrum of issues that relate to maternal and child nutrition - biological, epidemiological, social, economic, programmatic and political.

We hope you find this useful, and look forward to any comments you might have!

Warm regards and best wishes for 2013,

Dr. Purnima Menon, Senior Research Fellow, IFPRI and

Dr. Suneetha Kadiyala, Research Fellow, IFPRI

**POSHAN Co-Directors**

### About POSHAN

POSHAN (*Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India*) is a 4-year initiative which aims to build evidence on effective actions for nutrition and support the use of evidence in decision-making. It is supported by the Bill & Melinda Gates Foundation and led by IFPRI in India.



The Institute for Development Studies, Sussex is a POSHAN partner who bring global expertise in mobilizing knowledge for development.



The Health Communication Division at the Public Health Foundation of India is a POSHAN partner who brings national level communications and advocacy experience in India.

## PEER-REVIEWED LITERATURE: SPECIAL JOURNAL SUPPLEMENTS

Six special issue publications in 2012 examined the issues on improving maternal and child undernutrition from different dimensions

### 1. Special Issue of *Maternal and Child Nutrition – Complementary feeding practices in South Asia: Analyses by the South Asia Infant Feeding Research Network [SAIFRN]*

EDITED BY: MICHAEL J. DIBLEY AND UPUL SENARATH

Maternal & Child Nutrition, Volume 8, Issue Supplement s1, pages 28–44, January 2012

This supplement examines complementary feeding practices (using four indicators i.e., timely introduction of complementary foods, minimum dietary diversity, minimum meal frequency, and minimum acceptable diet) in five South Asian countries (Bangladesh India, Nepal, Pakistan, and Sri Lanka), their determinants, and compares the complementary feeding indicators among the five countries. Following is a list of select articles:

**Determinants of inappropriate complementary feeding practices in young children in India: secondary analysis of National Family Health Survey 2005-2006.**

Patel, A, Pusdekar, Y, Badhoniya, N, Borkar, J, Agho, KE, & Dibley, J. Maternal and Child Nutrition, 8(1), pages 28–44, 2012. doi : 10.1111/j.1740-8709.2011.00385.x <http://onlinelibrary.wiley.com/doi/10.1111/j.1740-8709.2011.00385.x/pdf>

**Comparisons of complementary feeding indicators and associated factors in children aged 6–23 months across five South Asian countries**

Senarath, U, Agho, KE, Akram, D, Godakandage, SSP., Hazir, T, Jayawickrama, H, Joshi, N, Kabir, I, Khanam, M, Patel, A, Pusdekar, Y, Roy, SK, Siriwardena, I, Tiwari, K, & Dibley, MJ. Maternal and Child Nutrition, 8(1), pages 89-106, 2012. DOI: 10.1111/j.1740-8709.2011.00370.x <http://onlinelibrary.wiley.com/doi/10.1111/j.1740-8709.2011.00370.x/pdf>

### 2. Special Supplement of *Advances in Nutrition - Building Convergence in Science, Programs, and Policy Actions on Child Undernutrition*

SUPPLEMENT EDITED BY: REBECCA J. STOLTZFUS AND EDWARD A. FRONGILLO, JR.

*Adv Nutr.* 3(2):224-6, March 2012. doi: 10.3945/an.111.001115

This issue a compilation of symposium papers that examine the relationship between the different manifestations of undernutrition (stunting and wasting), their patterns and potential explanatory factors, current programmatic responses to acute and chronic undernutrition and their divergence and convergence, and priorities for research and action to promote healthy growth. Following is a list of articles in the supplement:

**Building Convergence in Science, Programs, and Policy Actions on Child Undernutrition: Symposium Rationale and Overview**

Menon P and Stoltzfus, RJ. *Adv Nutr* March 2012 3 224-226; doi:10.3945/an.111.001115

**Revisiting the Relationship of Weight and Height in Early Childhood**

Richard, SA, Black, RE, & Checkley, W. *Adv Nutr*, Vol. 3: 250-254, 2012. doi: 10.3945/an.111.00109

**Patterns of Stunting and Wasting: Potential Explanatory Factors**

Martorell, R and Young, MF. *Adv Nutr* March 2012 3 227-233; doi:10.3945/an.111.001107

**Program Responses to Acute and Chronic Malnutrition: Divergences and Convergences**

Bergeron, G & Castleman, T. *Adv Nutr*, Vol. 3: 242-249, 2012. doi: 10.3945/an.111.001263

**Promoting Healthy Growth: What Are the Priorities for Research and Action?**

Piwoz E, Sundberg S, Rooke J. *Adv Nutr* March 2012 3 234-241; doi:10.3945/an.111.001164

### 3. Special issue of *Food and Nutrition Bulletin – Opportunities to improve women's nutrition and maternal, neonatal and child health outcomes.*

EDITED BY: JOHN B. MASON., LISA S. SALDANHA, AND REYNALDO MARTORELL

*Food and Nutrition Bulletin*, Volume 33, Supplement 1, pages S3-S104, June 2012

<http://www.ingentaconnect.com/content/nsinf/fnb/2012/00000033/a00102s1;jsessionid=5a5b28ecsi49p.alice>

This special issue examines scaling up of five programs in multiple countries to improve maternal nutrition. Policies and program implementation experiences are examined in India, Ethiopia, Nigeria, and a synthesis of country experiences for improving maternal nutrition and birth outcomes is also presented. Below is the list of some select studies from this issue:

**Public health interventions, barriers, and opportunities for improving maternal nutrition in India**  
Ramakrishnan, U, Lowe, A, Vir, S, Kumar, S, Mohanraj, R, Chaturvedi, A, Noznesky, EA, Martorell, R, & Mason, JB. Food & Nutrition Bulletin, Volume 33, Supplement 1, pages 71-92(22), June 2012.

**A situation analysis of public health interventions, barriers, and opportunities for improving maternal nutrition in Bihar, India**  
Noznesky, EA, Ramakrishnan, U, & Martorell, R. Food & Nutrition Bulletin, Volume 33, Supplement 1, pages 93-103(11), June 2012.

**Opportunities for improving maternal nutrition and birth outcomes: Synthesis of country experiences**  
Mason, JB, Saldanha, LS, Ramakrishnan, U, Lowe, A, Noznesky, EA, Girard, AW, McFarland, DA, & Martorell, R. Food & Nutrition Bulletin, Volume 33, Supplement 1, pages 104-137(34), June 2012.

#### 4. Special Issue of *CESifo Economic Studies*: Malnutrition

EDITED BY: PANU POUTVAARA, WITH ROHINI PANDE AND SEEMA JAYACHANDRAN  
*CESifo Economic Studies*, Volume 58 Issue 2, June 2012  
<http://cesifo.oxfordjournals.org/content/58/2.toc>

This issue brings together a set of papers on trends, causes, and potential policy solutions related to undernutrition in South Asia. Three overview pieces discuss the links between economic growth and nutrition, and the patterns in malnutrition across South Asia. Three papers examine the links between processes of development and nutritional outcomes in South Asia. Two papers in this issue explore the challenges associated with micronutrient fortification of food. Finally, one paper provides evidence from Sub-Saharan Africa on the potential for private sector participation in services influencing public health. Following is a list of articles of interest for nutrition in India:

**The Response of Child Nutrition to Changes in Income: Linking Biology with Economics**  
Alderman, H. *CESifo Economic Studies*, Vol. 58, 2/2012, 256–273, 2012. doi:10.1093/cesifo/ifs012

**Some Facts about Boy versus Girl Health Indicators in India: 1992–2005**  
Tarozzi, A. *CESifo Economic Studies*, Vol. 58, 2/2012, 296–321, 2012. doi:10.1093/cesifo/ifs013

**Childhood Undernutrition in South Asia: Perspectives from the Field of Nutrition**  
Menon, P. *CESifo Economic Studies*, Vol. 58, 2/2012, 274–295, 2012. doi:10.1093/cesifo/ifs015

**Trends in Prenatal Sex Selection and Girls' Nutritional Status in India**  
Hu, L & Schlosser, A. *CESifo Economic Studies*, Vol. 58, 2/2012, 348–372, 2012 doi:10.1093/cesifo/ifs022

#### 5. Special Issue of *IDS Bulletin*: Standing on the Threshold: Food Justice in India

EDITED BY: LAWRENCE HADDAD, C.P. CHANDRASEKHAR, AND BIRAJ SWAIN  
*IDS Bulletin*; Special Issue: Volume 43, Issue, Supplement s1, pages 1–122, July 2012.  
<http://onlinelibrary.wiley.com/doi/10.1111/idsb.2012.43.issue-s1/issuetoc>

This special issue is a compilation of 14 articles that examines macro-level issues pertaining to undernutrition in India. It starts by providing an overview of the state of food and nutrition in India reflecting on the role of courts in promoting food justice, highlighting barriers to effective implementation and availing rights and justice, and finally examines challenges to attaining food security in India. Following is the list of selected studies from this issue:

**Hunger and Malnutrition in India**  
Saxena, NC., *IDS Bulletin*; Special Issue: Standing on the Threshold: Food Justice in India; Volume 43, Issue Supplement s1, pages 8–14, July 2012. DOI: 10.1111/j.1759-5436.2012.00341.x  
<http://onlinelibrary.wiley.com/doi/10.1111/j.1759-5436.2012.00341.x/abstract>

**Elimination of Identity-based Discrimination in Food and Nutrition Programmes in India**  
Rajendra, P, Mangain, RP & Diwakar, GD. *IDS Bulletin*, Special Issue: Standing on the Threshold: Food Justice in India. Volume 43, Issue Supplement s1, pages 25–31, July 2012. DOI: 10.1111/j.1759-5436.2012.00343.x  
<http://onlinelibrary.wiley.com/doi/10.1111/j.1759-5436.2012.00343.x/abstract>

**Priority Changes for Strengthening Women's Role as Producers, Processors and Providers of Food and Nutrition**  
Shah, A. *IDS Bulletin*, Special Issue: Standing on the Threshold: Food Justice in India. Volume 43, Issue Supplement s1, pages 40–48, July 2012. DOI: 10.1111/j.1759-5436.2012.00345.x  
<http://onlinelibrary.wiley.com/doi/10.1111/j.1759-5436.2012.00345.x/abstract>

## 6. Special Issue of *Pediatric and Perinatal Epidemiology*: Improving maternal, newborn, and child health outcomes through better designed policies and programs that enhance the nutrition of women

EDITED BY: BETH IMHOFF-KUNSCH AND REYNALDO MARTORELL

*Pediatric and Perinatal Epidemiology*, Volume 26, Supplement 1, pages 1–325, July 2012

<http://onlinelibrary.wiley.com/doi/10.1111/ppe.2012.26.issue-s1/issuetoc>

This special issue published 20 articles examining issues ranging from biological mechanisms for nutritional regulation of maternal health and fetal development to that of current global policy and program guidance on maternal nutrition. The issue discusses the importance of maternal nutrition for maternal and child outcomes, reviews available scientific evidence on the effect of different macro- and micro-nutrients on pregnancy and infant outcomes, and examines interventions aimed at behavior change during pregnancy. Six of the eight systematic reviews in this issue examine the effect of specific micronutrient supplementation on maternal and infant outcomes; the seventh paper examines the effect of women's nutrition before and during pregnancy, and the last examines the effect of household food production on maternal health and nutrition. Two studies examine determinants of maternal and child health, one paper discusses the impact of macronutrient supplementation and another discusses the effect of antihelminthics on maternal and child health. One paper discusses the intergenerational effects on child growth and undernutrition and the last paper examines global policies and programmatic implications. Following is the list of selected studies from this issue:

### Is it Time to Replace Iron Folate Supplements in Pregnancy with Multiple Micronutrients?

Bhutta, ZA, Imdad, A, Ramakrishnan, U, & Martorell, R. *Pediatric and Perinatal Epidemiology* Volume 26, Supplement s1, pages 27-35, July 2012. DOI: 10.1111/j.1365-3016.2012.01313.x.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-3016.2012.01313.x/abstract>

### Effect of Multiple Micronutrient Supplementation on Pregnancy and Infant Outcomes: A Systematic Review

Ramakrishnan, U, Grant, FK., Goldenberg, T, Bui, V, Imdad, A, Bhutta, ZA. *Pediatric and Perinatal Epidemiology*, Volume 26, Supplement s1, pages 153-167, July 2012. DOI: 10.1111/j.1365-3016.2012.01276.x

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-3016.2012.01276.x/abstract>

### Nutrition Education and Counselling Provided during Pregnancy: Effects on Maternal, Neonatal and Child Health Outcomes

Girard, AM. & Olude, O. *Pediatric and Perinatal Epidemiology*, Volume 26, Supplement s1, pages 191-204, July 2012. DOI: 10.1111/j.1365-3016.2012.01278.x

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-3016.2012.01278.x/abstract>

### Intergenerational Influences on Child Growth and Undernutrition

Martorell, R. & Zongrone, A. *Pediatric and Perinatal Epidemiology*, Volume 26, Supplement s1, pages 302-314, July 2012. DOI: 10.1111/j.1365-3016.2012.01298.x

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-3016.2012.01298.x/abstract>

### Global Policy and Programme Guidance on Maternal Nutrition: What Exists, the Mechanisms for Providing It, and How to Improve Them?

Shrimpton, R. *Pediatric and Perinatal Epidemiology*, Volume 26, Supplement s1, pages 315-325, July 2012. DOI: 10.1111/j.1365-3016.2012.01279.x

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-3016.2012.01279.x/abstract>

## PEER-REVIEWED LITERATURE: INDIVIDUAL ARTICLES/BRIEFS

### Inadequate feeding of infant and young children in India: lack of nutritional information or food affordability?

Malhotra N. *Public Health Nutrition*, Sep 3: 1-9, 2012. doi: <http://dx.doi.org/10.1017/S1368980012004065>

**Objective:** Despite a rapidly growing economy and rising income levels in India, improvements in child malnutrition have lagged. Data from the most recent National Family Health Survey reveal that the infant and young child feeding (IYCF) practices recommended by the WHO and the Indian Government, including the timely introduction of solid food, are not being followed by a majority of mothers in India. It is puzzling that even among rich households children are not being fed adequately. The present study analyses the socio-economic factors that contribute to this phenomenon, including the role of nutritional information. **Design:** IYCF practices from the latest National Family Health Survey (2005-2006) were analysed. Multivariate logistic regression analyses were performed to establish the determinants of poor feeding practices. The indicators recommended by the WHO were used to assess the IYCF practices. **Setting:** India. **Subjects:** Children (n 9241) aged 6-18 months. **Results:** Wealth was shown to have only a small effect on feeding practices. For

children aged 6-8 months, the mother's wealth status was not found to be a significant determinant of sound feeding practices. Strikingly, nutritional advice on infant feeding practices provided by health professionals (including anganwadi workers) was strongly correlated with improved practices across all age groups. Exposure to the media was also found to be a significant determinant. **Conclusions:** Providing appropriate information may be a crucial determinant of sound feeding practices. Efforts to eradicate malnutrition should include the broader goals of improving knowledge related to childhood nutrition and IYCF practices.

### Understanding wealth-based inequalities in child health in India: A decomposition approach

Chalasan, S. *Social Science & Medicine*, 75(12), Pages 2160-2169, 2012.

<http://www.sciencedirect.com/science/article/pii/S0277953612006168>

India experienced tremendous economic growth since the mid-1980s but this growth was paralleled by sharp rises in economic inequality. Urban areas experienced greater economic growth as well as greater increases in economic inequality than rural areas. During the same period, child health improved on average but socioeconomic differentials in child health persisted. This paper attempts to explain wealth-based inequalities in child mortality and malnutrition using a regression-based decomposition approach. Data for the analysis come from the 1992/93, 1998/99, and 2005/06 Indian National Family Health Surveys. Inequalities in child health are measured using the concentration index. The concentration index for each outcome is then decomposed into the contributions of wealth-based inequality in the observed determinants of child health. Results indicate that mortality inequality declined in urban areas but remained unchanged or increased in rural areas. Malnutrition inequality increased dramatically both in urban and rural areas. The two largest individual/household-level sources of disparities in child health are (i) inequality in the distribution of wealth itself, and (ii) inequality in maternal education. The contributions of observed determinants (i) to neonatal mortality inequality remained unchanged, (ii) to child mortality inequality increased, and (ii) to malnutrition inequality increased. It is possible that the increases in child health inequality reflect urban biases in economic growth, and the mixed performance of public programs that could have otherwise offset the impacts of unequal growth.

### Falling Between Two Stools: Operational Inconsistencies between ICDS and NRHM in the Management of Severe Malnutrition

Prasad, V, Sinha, D, Sridhar, S. *Indian Pediatrics*. 49(3): 181-185, 2012. doi: 10.1007/s13312-012-0053-1

<http://www.indianpediatrics.net/mar2012/181.pdf>

There has been a welcome interest in the issue of malnutrition by policy makers as well as technical experts in the recent years. The current public health systems for management of malnutrition, the ICDS and NRHM, have attempted to evolve approaches to the management of severe malnutrition. This paper makes a fresh analysis of data from well-accepted existing sources, indicating that 36–44% of all children with Severe Acute Malnutrition (SAM) are likely to be missed by current criteria of screening and referral; simultaneously, a large proportion of children selected for referral to Nutritional rehabilitation centres are likely not to have SAM. The paper also highlights other areas of inconsistencies between the ICDS and the NRHM in the continuum of care required for the prevention and proper management of severe malnutrition. Thus, the paper identifies areas that need further exploration to achieve a seamless and effective program for tackling severe malnutrition. [*Data source: NFHS data and comparable data collected by CARE as part of Integrated Nutrition and Health Program*]

### A study to evaluate the effect of nutritional intervention measures on admitted children in selected nutrition rehabilitation centers of Indore and Ujjain divisions of the state of Madhya Pradesh (India)

Taneja, G, Dixit, S, Khatri, AK, Yesikar, V, Raghunath, D, Chourasiya, S. *Indian J Community Med*, 37(2), pages 107–115, April-June 2012. doi:10.4103/0970-0218.96096

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3361793/>

**Background:** The state of Madhya Pradesh has 1.3 million severely malnourished children. Nutrition rehabilitation centers (NRCs) were started in the state to control severe malnutrition and decrease the prevalence of severe malnourished children to less than 1% among children aged 1–5 years. **Materials and Methods:** The present study was conducted from November 2008 to October 2009; 100 children admitted to seven different NRCs in Indore and Ujjain divisions of Madhya Pradesh were observed during their stay at NRCs and the follow-up period to analyze the effect of interventional measures on select anthropometric indicators. Mothers of the children were interviewed on health issues and therapeutic feeding practices at the NRCs using a predesigned and pretested interview schedule. **Results:** The study group consisted of 48 boys and 52 girls; 60% were between 13 and 36 months of age. 93 children were analyzed

for anthropometric indicators following a dropout rate of 7%. A statistically significant difference was obtained between the weight of children at admission and discharge ( $t=14.552$ ,  $P<0.001$ ); difference of mid upper arm circumference (MUAC) at admission and discharge was statistically significant ( $t=9.548$ ,  $P<0.001$ ). The average weight gain during the stay at the centers was  $9.25 \pm 5.89$  g/kg/day. Though the number of severe malnourished children decreased from 85 to 43 following the stay at NRCs ( $\chi^2 = 44.195$ ,  $P<0.001$ ); 48.78% of the children lost weight within 15 days of discharge from the NRCs. Dropout rates of 9.89%, 23.07%, 42.65%, and 61.76% for the study group were obtained during the follow-up period of 6 months for the four follow-up visits conducted 15 days, 1, 3, and 6 months after discharge. The mothers of the children lacked adequate information on health issues and composition and preparation of therapeutic diets at the centers. **Conclusion:** The NRCs were effective in improving the condition of admitted children, but the effects were not sustained following discharge due to high drop-out rate and lack of adequate parental awareness. There is an urgent need to link these centers with community-based models for follow-up and improve health education measures to maintain the gains achieved.

### Agriculture's role in the Indian enigma: Help or hindrance to the crisis of undernutrition?

Headey, D, Chiu, A, Kadiyala, S. *Food Security* 4(1): 87-102, 2012.

<http://dx.doi.org/10.1007/s12571-011-0161-0>

In recent decades India has achieved one of the fastest economic growth rates in the world, yet its progress against both child and adult undernutrition has been sluggish at best. While this Indian variant of the so-called Asian enigma presents many puzzles, one of the puzzles pertains to agriculture's role. Many researchers and policymakers have high expectations of agriculture's potential to reduce undernutrition, despite a lack of substantive evidence. In this paper we assess this tenuous evidence base by exploring two key channels by which agricultural production conditions can influence nutritional outcomes: a food consumption pathway and a maternal employment-time use pathway. We conclude with an appraisal of some possible entry points for pro-nutrition agricultural policies

### A nutrition secure India: role of agriculture.

Joshi, PK, Dev MS, Kadiyala, S, Nanda Kumar, T, Vyas, V. *Economic and Political Weekly* 47(8): 21-25, 2012.

<http://www.epw.in/commentary/nutrition-secure-india.html>

India continues to suffer from under-nutrition among large sections of its population. The country is unlikely to realize the first millennium development goal by 2015. How can agriculture be used to improve nutritional status?

## NON PEER-REVIEWED LITERATURE

### India Health Beat Briefs on Nutrition

EDITED BY: GERARD LA FORGIA AND KRISHNA D. RAO

**India Health Beat: Policy Notes, Volume 5, June 2011**

India Health Beat is produced by the Public Health Foundation of India and the World Bank's Health Nutrition and Population unit located in Delhi. This issue on Nutrition contains 10 articles that examine different dimensions to improving child nutrition discussing from nutrition, food security, and agriculture perspective. Following is the list of some select studies from this issue:

#### Nutrition in India

Kathuria, AK. *India Health Beat*, Volume 5, Supplement 1, pages 1- 6, June 2011. Accessed on November 27, 2012, from [http://www.phfi.org/images/pdf/Policy\\_Note\\_Vol5\\_1.pdf](http://www.phfi.org/images/pdf/Policy_Note_Vol5_1.pdf)

#### The 1,000 day window of opportunity for improving child nutrition in India: Insight from national – level data

Menon, P and Aguayo,V. *India Health Beat*, Volume 5, Supplement 3, pages 1 – 4, June 2011. Accessed on November 27, 2012, from [http://www.phfi.org/images/pdf/Policy\\_Note\\_Vol5\\_3.pdf](http://www.phfi.org/images/pdf/Policy_Note_Vol5_3.pdf)

#### Overcoming the challenges of urban food and nutrition security

Swaminathan, MS. *India Health Beat*, Volume 5, Supplement 6, pages 1-4, June 2011. Accessed on November 27, 2012, from [http://www.phfi.org/images/pdf/Policy\\_Note\\_Vol5\\_6.pdf](http://www.phfi.org/images/pdf/Policy_Note_Vol5_6.pdf)

#### Role of health system in improving childhood nutrition in India.

Ved, RR, Jain, A. *India Health Beat*, Volume 5, Supplement 7, pages 1-4, June 2011. Accessed on November 27, 2012, from [http://www.phfi.org/images/pdf/Policy\\_Note\\_Vol5\\_7.pdf](http://www.phfi.org/images/pdf/Policy_Note_Vol5_7.pdf)

### Pro-nutrition agriculture in India: Entry points and Policy options

Dev, MS, Kadiyala, S. India Health Beat, Volume 5, Supplement 8, pages 1-4, June 2011. Accessed on November 27, 2012, from [http://www.phfi.org/images/pdf/Policy\\_Note\\_Vol5\\_8.pdf](http://www.phfi.org/images/pdf/Policy_Note_Vol5_8.pdf)

### Best practices in the Integrated Child Development Services: Some lesson for its restructuring and strengthening

Kathuria, AK. India Health Beat, Volume 5, Supplement 10, pages 1-4, June 2011. Accessed on November 27, 2012, from [http://www.phfi.org/images/pdf/Policy\\_Note\\_Vol5\\_10.pdf](http://www.phfi.org/images/pdf/Policy_Note_Vol5_10.pdf)

## Economic and cultural determinants of child malnutrition in India: Unravelling the “south Asian enigma”

Fiorentini, CBA. (2012). Master’s Thesis. Published from Georgetown University. Accessed on November 7, 2012, from

<https://repository.library.georgetown.edu/bitstream/handle/10822/553725/fiorentiniChristina.pdf?sequence=1>

Despite consistent economic growth in India, levels of child malnutrition remain high. Two competing explanations for this phenomenon within the literature are that economic growth is not occurring in a manner beneficial to the health of the population, and that cultural factors, particularly the low status of women, are negatively impacting nutrition outcomes. This thesis, therefore, utilizes 2005-06 data from the National Family Health Survey of India to analyze the determinants of child malnutrition at the individual level. The results from multiple regression analysis indicate that both economic and cultural variables play a crucial role in nutrition outcomes, alongside factors such as feeding practices and demographics. However, household wealth is the single most important determinant of underweight in a child.

## Richer but more unequal? Nutrition and caste gaps

Boo, FL, Canon, ME. (2012). Working paper 2012-051A. Accessed on November 24, 2012 from

<http://research.stlouisfed.org/wp/more/2012-051/>

This paper explores children’s cognitive outcomes using novel panel data from India for children 6 months through 8 years. For the first time in a developing country, this allow us to estimate a value-added model of cognitive development at a very young age. We look at the nutrition-cognition link and at the relationship between caste and test scores. We use an instrumental variable approach and that a 1 standard deviation increase in height-for-age at the age of 5 leads to cognitive test scores that are about a 16 per cent of a SD higher at age 8. Our analysis suggests that the differences in income levels between castes found in adulthood arise early in childhood. After controlling for a wide range of controls; upper caste children show a substantial advantage in vocabulary tests, but most importantly, they show a more pronounced gender inequality than their lower caste counterparts. Compensating low caste children with the average nutritional status of their upper caste counterparts would close around one fifth of the caste cognitive differentials. We also show that UC families discriminate more against girls. Using a sub-sample of the data with the siblings’ birth weight in a unique way, we find that family fixed effects explain 1 SD of the overall nutrition-cognition effect. [Data source: Three rounds of the Young Lives longitudinal data of children 6 months to 8 years of age collected in 2002, 2006, and 2010].

## How good change happens: The political economy of child nutrition

Vaitla, B. Dissertation. 2012. Fletcher School of Law and Diplomacy (Tufts University).

The study is a cross-country econometric analysis of the determinants of stunting reduction, and also looks at reform experiences in Northeast Brazil and at the federal and state levels in India. The econometric analysis shows that income per capita and educational attainment are the most powerful determinants of stunting reduction, but find few other strong policy or political correlates; the results suggest that multiple pathways to stunting reduction exist, and few generalities apply across contexts. In Brazil, macroeconomic stabilization efforts and redistributive policies together drove stunting reduction, despite a lack of focus on child nutrition as such. In India, an elite/poor activist alliance, committed political leadership, and judicial activism helped bring about federal food and nutrition policy reforms. In the states of Kerala and Tamil Nadu within India, powerful class-based movements have permanently elevated the issue of access to basic health and nutrition services to political prominence. The study concludes that improvements in a wide range of policy and political variables are likely necessary for poor countries to reach developed-world nutrition levels, but the determinants of marginal improvement at any given level are not consistent across political units. Though direct nutrition interventions (or food and health policies closely linked to nutrition) are not always politically feasible, other stunting reduction pathways may be available. Political opportunities vary by time and place, but skillful statecraft and a synergy of interests between the executive, judiciary, and civil society may provide enough political strength to overcome resistance to pro-poor, undernutrition-reducing public action.

## UPCOMING EVENTS

### The Hidden Hunger Conference

Hosted by University of Hohenheim, Stuttgart, Germany

Where: Stuttgart, Germany

When: March 6-9, 2013

For more information: <https://hiddenhunger.uni-hohenheim.de/>

### Experimental Biology 2013, meetings of the American Society for Nutrition

Hosted by The American Society for Nutrition

Where: Boston, USA

When: April 20-24, 2013

For more information: <http://experimentalbiology.org/EB/pages/ASN-Nutrition.aspx>

### The International Congress of Nutrition (abstracts are due February 3, 2013!)

Hosted by The International Union for Nutritional Sciences

Where: Granada, Spain

When: September 15-20, 2013

For more information: <http://www.icn2013.com>

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