POSHAN
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Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India
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EDITOR'S NOTE

This issue of Abstract Digest features several papers from a UNICEF supported special supplement of *Maternal and Child Nutrition* on *First Foods* and papers from a South Asia Infant Feeding Research Network (SAIFRN) supported special supplement on the policy landscape for infant and young child feeding (IYCF) in South Asia. In addition, there are several other interesting articles highlighting the need for equity-driven approaches to address malnutrition, factors associated with optimal child growth, and feasibility of engaging women's collectives in delivering nutrition messages. Here are some more highlights:

- In an overview article to the special supplement on *First Foods*, France Bégin and Víctor M. Aguayo summarize the rationale on why improving complementary foods and feeding for infants and young children matter and what it takes to improve them. This supplement builds on the papers presented at the First Foods Global Meeting and those commissioned as a follow on to it.
- Sinha and colleagues (2017) analyzed data from a community-based randomized controlled trial and concluded that low-birthweight (LBW) infants born to short-stature mothers are at additional risk of stunting and poor growth velocity.
- Two studies highlight the need for equity-driven approaches to address malnutrition. Using data from 146 surveys from 39 low- and lower-middle income countries, Vollmer and colleagues (2017) highlight that while the overall prevalence of Composite Index of Anthropometric Failure (CIAF) is slowly decreasing, the socioeconomic inequities in childhood undernutrition persist, underlying the need for equity-driven approaches to address malnutrition. Krishna and colleagues (2017) demonstrate that a disproportionate burden of stunting is experienced by the most disadvantaged children in four South Asian countries.
- To explain the remarkable decline in child undernutrition in Maharashtra between 2006 and 2012, Nisbett and Barnett (2017) conducted stakeholder interviews and focus group discussions. The authors find issue framing and evidence, governance structures (the State's 'Nutrition Mission'), leadership and a focus on system-wide capacity along with a focus of resources on pockets of deprivation in high-burden areas to have created an enabling environment for achieving improvements in stunting.
- A study by Nandi and colleagues (2017) demonstrates small benefits of longer breastfeeding duration on education outcomes particularly in boys in India.
- Singh and colleagues (2017) find that participation in comprehensive Integrated Nutrition and Health Program in two districts of Uttar Pradesh, improved breastfeeding but not complementary feeding or the nutritional status.
- In the introductory article to the special supplement on policy landscape for IYCF in South Asia, Purnima Menon and Anne-Marie Thow note the critical need to recognize the diversity and complexity of the actor environment in IYCF policy space, and call on the research community to continue to invest in policy process research alongside more traditional research on testing and implementing interventions to improve IYCF.
- To improve compliance to adolescent anemia control program in tribal communities of India, a government-led positive deviance (PD) approach was used to identify local solutions and provided an opportunity to adapt the program according to the needs of the affected communities (Sethi et al. 2017).

- Results of a study on priority interventions to improve maternal and child diets in Sub-Saharan Africa and South Asia (Masters et al. 2017) demonstrate that a participatory process can help local experts identify their own priorities for future investments, and can generate an actionable set of program priorities for policy makers' considerations. This is a first step in a novel process of rigorous, transparent, and independent priority setting to improve diets among those at the greatest risk of undernutrition.
- In a randomized, double-blind, controlled food-fortification trial, Wenger and colleagues (2017) find that women who consumed double-fortified salt had measurable and significant improvements in the perceptual, attentional, and mnemonic performance.
- In a cluster-randomised controlled trial, Nair and colleagues (2017) studied the effect of participatory women's groups and counselling through home visits on children's linear growth in rural eastern India. The authors report that the introduction of a new cadre of community-based workers did not significantly increase children's length, but it did improve infant survival rate, dietary diversity, and handwashing.
- In a study assessing community collectives' awareness, institutional and program capacity to deliver women's nutrition services, women's Self-Help Groups (SHGs) and their federations emerged as the most promising collectives to engage in nutrition promotion and service delivery (Sethi et al. 2017).

Enjoy reading!

PEER-REVIEWED

SPECIAL ISSUE
First Foods: Improving Diets in Early Childhood Maternal and Child Nutrition

OVERVIEW

First Foods: Why Improving Young Children's Diets Matter

France Bégin and Víctor M. Aguayo. 2017. *Maternal and Child Nutrition* 3(S2): e12528.

http://onlinelibrary.wiley.com/doi/10.1111/mcn.12528/full

Globally, only 52% of children aged 6–23 months meet the minimum meal frequency and a mere 29% meet the minimum dietary diversity, with large disparities across and within regions. With most of the stunting occurring during the first thousand days—from conception to age 2 years—improving complementary feeding in children 6–23 months old is an urgent priority. With this evidence in mind, UNICEF collaborated with the governments of India and Maharashtra to convene a global meeting in Mumbai, India, under the theme: First Foods: A Global Meeting to Accelerate Progress on Complementary Feeding in Young Children (November 17–18, 2015). The global meeting provided a platform that aimed to (a) synthesize the biological and implementation science on complementary feeding; (b) review the practice and experience in improving access to nutritious complementary foods and good complementary feeding practices; and (c) consolidate a strong evidence base that can inform the development of strategies and approaches to improve complementary feeding that are fit to context. This overview paper summarizes the rationale on why improving complementary foods and feeding for infants and young children matters and what it takes to improve them. It builds on the papers presented at the First Foods Global Meeting and those commissioned as a follow on to it.

SUPPLEMENT ARTICLES

Emerging Issues in Complementary Feeding: Global Aspects

Michaelsen, K.F., L. Grummer-Strawn, and France Bégin. 2017. *Maternal and Child Nutrition* 13(S2): e12444.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12444/epdf

Complementary Feeding Practices: Current Global and Regional Estimates

White, J.M., F. Bégin, R. Kumapley, C. Murray, and J. Krasevec. 2017. *Maternal and Child Nutrition* 13(S2): e12505.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12505/epdf

Consumption of Commercially Produced Snack Foods and Sugar-Sweetened Beverages During the Complementary Feeding Period in Four African and Asian Urban Contexts

Pries, A.M., S.L. Huffman, M. Champeny, I. Adhikary, M. Benjamin, A.N. Coly, E.H.I. Diop, K. Mengkheang, N.Y. Sy, S. Dhungel, A. Feeley, B. Vitta, and E. Zehner. 2017. *Maternal and Child Nutrition* 13(S2): e12412.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12412/epdf

Diet Quality and Risk of Stunting Among Infants and Young Children in Low- and Middle-Income Countries

Krasevec, J., X. An, R. Kumapley, F. Bégin, and E.A. Frongillo. 2017. *Maternal and Child Nutrition* 13(S2): e12430.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12430/epdf

Household Food Insecurity and Children's Dietary Diversity and Nutrition in India. Evidence from the Comprehensive Nutrition Survey in Maharashtra

Chandrasekhar, S., V.M. Aguayo, V. Krishna, and R. Nair. 2017. *Maternal and Child Nutrition* 13(S2): e12447.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12447/epdf

Risk Factors of Poor Complementary Feeding Practices in Pakistani Children Aged 6–23 Months: A Multilevel Analysis of The Demographic and Health Survey 2012–2013

Na, M., V.M. Aguayo, M. Arimond, and C.P. Stewart. 2017. *Maternal and Child Nutrition* 13(S2): e12463.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12463/epdf

Complementary Feeding Practices for Infants and Young Children in South Asia. A Review of Evidence for Action Post-2015

Aguayo, V.M. 2017. *Maternal and Child Nutrition* 13(S2): e12439.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12439/epdf

Scaling-Up Interventions to Improve Infant and Young Child Feeding in India: What Will It Take?

Avula, R., V.M. Oddo, S. Kadiyala, and P. Menon. 2017. *Maternal and Child Nutrition* 13(S2): e12414.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12414/epdf

Using Behavior Change Approaches to Improve Complementary Feeding Practices

Sanghvi, T., R. Seidel, J. Baker, and A. Jimerson. 2017. *Maternal and Child Nutrition* 13(S2): e12406.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12406/epdf

Linking Agriculture and Nutrition Education to Improve Infant and Young Child Feeding: Lessons for Future Programmes

Muehlhoff, E., R. Wijesinha-Bettoni, E. Westaway, T. Jeremias, S. Nordin, and J. Garz. 2017. *Maternal and Child Nutrition* 13(S2): e12411.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12411/epdf

The Potential Role of Micronutrient Powders to Improve Complementary Feeding Practices

Siekmans, K., F. Bégin, R. Situma, and R. Kupka. 2017. *Maternal and Child Nutrition* 13(S2): e12464.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12464/epdf

Harnessing Private Sector Expertise to Improve Complementary Feeding Within a Regulatory Framework: Where Is the Evidence?

van Liere, M.J., D. Tarlton, R. Menon, M. Yellamanda, and L. Reerink. 2017. *Maternal and Child Nutrition* 13(S2): e12429.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12429/epdf

Tools to Improve Planning, Implementation, Monitoring, and Evaluation of Complementary Feeding Programmes

Untoro, J., R. Childs, I. Bose, P. Winichagoon, C. Rudert, A. Hall, and S. de Pee. 2017. *Maternal and Child Nutrition* 13 (S2): e12438.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12438/epdf

Government Information Systems to Monitor Complementary Feeding Programs for Young Children

Jefferds, M.E.D. 2017. *Maternal and Child Nutrition* 13(S2): e12413.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12413/epdf

Evaluation of Programs to Improve Complementary Feeding in Infants and Young Children

Frongillo, E.A. 2017. *Maternal and Child Nutrition* 13(S2): e12436.
http://onlinelibrary.wiley.com/doi/10.1111/mcn.12436/epdf

Low-Birthweight Infants Born to Short-Stature Mothers Are at Additional Risk of Stunting and Poor Growth Velocity: Evidence from Secondary Data Analyses

Sinha, B., S. Taneja, R. Chowdhury, S. Mazumder, T. Rongsen-Chandola, R.P. Upadhyay, J. Martines, N. Bhandari, M.K. Bhan. 2017. *Maternal & Child Nutrition*

http://onlinelibrary.wiley.com/doi/10.1111/mcn.12504/full

Low-birthweight (LBW) infants are at an increased risk of stunting and poor linear growth. The risk might be additionally higher in these infants when born to short mothers. However, this hypothesis has been less explored. The objective of this secondary data analysis was to determine the risk of linear growth faltering and difference in linear growth velocity in LBW infants born to short mothers (<150 cm) compared to those born to mothers with height ≥150 cm during the first year of life. This analysis uses data from a community-based randomized controlled trial of 2,052 hospital-born term infants with birthweight ≤2,500g from urban low–middle socio-economic neighbourhoods in Delhi, India. Data on maternal height and infant birth length were available from 1,858 (90.5%) of the infants. Infant anthropometry outcomes were measured at birth, 3, 6, 9, and 12 months of age. We found that infants born to short mothers had around twofold higher odds of stunting and lower attained length-for-age Z scores compared to infants of mothers with height ≥150 cm, at all ages of assessment. Linear growth velocity was significantly lower in infants of short mothers particularly in the first 6 months of life. We conclude that LBW infants born to short mothers are at a higher risk of stunting and have slower postnatal growth velocity resulting in lower attained length-for-age Z scores in infancy. Evidence-based strategies need to be tested to optimize growth velocity in LBW infants especially those born to short mothers.

Levels and Trends of Childhood Undernutrition by Wealth and Education According to A Composite Index of Anthropometric Failure: Evidence from 146 Demographic and Health Surveys from 39 Countries

Vollmer, S., K. Harttgen, R. Kupka, S.V. Subramanian. 2017. *BMJ Global Health* 2(2).

http://gh.bmj.com/content/2/2/e000206

Background: Governments have endorsed global targets to reduce childhood undernutrition as part of the Sustainable Development Goals. Understanding the socioeconomic differences in childhood undernutrition has the potential to be helpful for targeting policy to reach these goals. **Methods:** We specify a logistic regression model with the Composite Index of Anthropometric Failure (CIAF) as the outcome and indicator variables for wealth quartiles, maternal education categories and a set of covariates as explanatory variables. Wealth and education variables are interacted with a period indicator for 1990–2000 compared with 2001–2014 to observe differences over time. Based on these regressions we calculate predicted CIAF prevalence by wealth and education categories and over time. **Results:** The sample included 146 surveys from 39 low-income and lower-middle-income countries with an overall sample size of 533217 children. CIAF prevalence was 47.5% in 1990–2000, and it declined to 42.6% in 2001–2014. In 1990–2000 the CIAF prevalence of children with mothers with less than primary education was 31 percentage points higher than for mothers with secondary or higher education. This difference slightly decreased to 27 percentage points in 2001–2014. The difference in predicted CIAF prevalence of children from the highest and lowest wealth quartiles was 21 percentage points and did not change over time. **Conclusions:** We find evidence for persistent and even increasing

socioeconomic inequalities in childhood undernutrition, which underlines the importance of previous calls for equity-driven approaches targeting the most vulnerable to reduce childhood malnutrition.

Trends in Inequalities in Child Stunting in South Asia

Krishna, A., I. Mejía-Guevara, M. McGovern, V. Aguayo, and S. V. Subramanian. 2017. *Maternal and Child Nutrition*.

http://onlinelibrary.wiley.com/doi/10.1111/mcn.12517/full

We analysed socio-economic inequalities in stunting in South Asia and investigated disparities associated with factors at the individual, caregiver, and household levels (poor dietary diversity, low maternal education, and household poverty). We used time-series analysis of data from 55,459 children ages 6–23 months from Demographic and Health Surveys in Bangladesh, India, Nepal, and Pakistan (1991–2014). Logistic regression models, adjusted for age, sex, birth order, and place of residency, examined associations between stunting and multiple types of socio-economic disadvantage. All countries had high stunting rates. Bangladesh and Nepal recorded the largest reductions—2.9 and 4.1 percentage points per year, respectively—compared to 1.3 and 0.6 percentage points in India and Pakistan, respectively. Socio-economic adversity was associated with increased risk of stunting, regardless of disadvantage type. Poor children with inadequate diets and with poorly educated mothers experienced greater risk of stunting. Although stunting rates declined in the most deprived groups, socio-economic differences were largely preserved over time and in some cases worsened, namely, between wealth quintiles. The disproportionate burden of stunting experienced by the most disadvantaged children and the worsening inequalities between socio-economic groups are of concern in countries with substantial stunting burdens. Closing the gap between best and worst performing countries, and between most and least disadvantaged groups within countries, would yield substantial improvements in stunting rates in South Asia. To do so, greater attention needs to be paid to addressing the social, economic, and political drivers of stunting with targeted efforts towards the populations experiencing the greatest disadvantage and child growth faltering.

Explaining the Reduction in Child Undernutrition in the Indian State of Maharashtra Between 2006 and 2012: An Analysis of the Policy Processes

Nisbett, N., and I. Barnett. 2017. *Food Policy* 70: 27–39.

http://www.sciencedirect.com/science/article/pii/S0306919217303858

The Indian state of Maharashtra has been lauded as a 'success story' for its rapid and significant decline in undernutrition amongst children. Between 2006 and 2012, childhood stunting fell from 39 to 24%. Whilst the global policy and academic literature strongly emphasises the need to act on nutrition, there are still too few studies outlining the policy processes which been part of successful state-led strategies – particularly at a sub-national level. This study is intended to contribute to future policy via unpacking the unfolding story of policy and programme attention to nutrition. Stakeholder perceptions and opinions on the wider policy, political and contextual reasons for Maharashtra's decline in child undernutrition were sought and used alongside documentary evidence to construct a chronology of key events. Key factors identified via this process include the way in which issue framing and evidence helped catalyse a political response; the particular governance structures employed in response (the State's 'Nutrition Mission') and the way in which leadership and a focus on system-wide capacity combined in an innovative fashion to focus resources on pockets of deprivation in high-burden areas.

Breastfeeding Duration and Adolescent Educational Outcomes: Longitudinal Evidence from India

Nandi, A., R. Lutter, and R. Laxminarayan. *Food and Nutrition Bulletin* 38(4).

http://journals.sagepub.com/doi/full/10.1177/0379572117733100

Objective: There is a significant evidence gap on the long-term educational benefits of longer breastfeeding in low- and middle-income countries. We estimated the association between duration of (any) breastfeeding and educational outcomes of Indian children. **Methods:** We used regression analysis to examine the association between the length of breastfeeding (in months) and future education outcomes on the basis of 2 data sets: (1) data from a follow-up survey known as the Andhra Pradesh Children and Parents Study (APCAPS, 2003-2005) of 1165 children aged 13 to 18 years from a controlled nutrition trial originally conducted in South India during the period of 1987 to 1990; and (2) nationally representative data from the India Human Development Survey (IHDS-2, 2011-2012) of 6121 children aged 6 to 12 years. **Results:** In APCAPS, children with >36 months of breastfeeding scored 0.28 (95% confidence interval [95% CI]: 0.00-0.56; P < .05) higher on tests than those with up to 12 months of breastfeeding. In the nationally representative IHDS-2 data, above-median breastfeeding duration was associated with 0.1 year (95% CI: 0.04-0.16; P < .01) higher educational attainment. In IHDS-2, >12 to 24 months and >24 months of breastfeeding were associated with 0.12 (95% CI: 0.01-0.23; P < .05) and 0.19 years of (95% CI: 0.05-0.34; P < .05) higher educational attainment, respectively, than for those with up to 6 months of breastfeeding. In additional analyses by sex, we found that the benefits of breastfeeding accrued primarily to boys. **Conclusion:** Breastfeeding duration was associated with small gains in educational outcomes for boys but not for girls in India.

An Integrated Nutrition and Health Program Package on IYCN Improves Breastfeeding but Not Complementary Feeding and Nutritional Status in Rural Northern India: A Quasiexperimental Randomized Longitudinal Study

Singh, V., S. Ahmed, M.L. Dreyfuss, U.Kiran, D.N. Chaudhery, V.K. Srivastava, R.C. Ahuja, A.H. Baqui, G.L. Darmstadt, M. Santosham, and K.P. West Jr. 2017. *PLOS One* 12(9): e0185030.

http://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0185030&type=printable

Background: Undernutrition below two years of age remains a major public health problem in India. We conducted an evaluation of an integrated nutrition and health program that aimed to improve nutritional status of young children by improving breast and complementary feeding practices over that offered by the Government of India's standard nutrition and health care program. **Methods:** In Uttar Pradesh state, through multi-stage cluster random sampling, 81 villages in an intervention district and 84 villages in a comparison district were selected. A cohort of 957 third trimester pregnant women identified during house-to-house surveys was enrolled and, following childbirth, mother-child dyads were followed every three months from birth to 18 months of age. The primary outcomes were improvements in weight-for-age and length-for-age z scores, with improved breastfeeding and complementary feeding practices as intermediate outcomes. **Findings:** Optimal breastfeeding practices were higher among women in intervention than comparison areas, including initiating breastfeeding within one hour of delivery (17.4% vs. 2.7%, p<0.001), feeding colostrum (34.7% vs. 8.4%, p<0.001), avoiding pre-lacteals (19.6% vs. 2.1%, p<0.001) and exclusively breastfeeding up to 6 months (24.1% vs. 15.3%, p = 0.001). However, differences were few and mixed between study arms with respect to complementary feeding practices. The mean weight-for-age z-score was higher at 9 months (-2.1 vs. -2.4, p = 0.0026) and the prevalence of underweight status was lower at 12 months (58.5% vs. 69.3%, p = 0.047) among intervention children. The prevalence of stunting

was similar between study arms at all ages. Coefficients to show the differences between the intervention and comparison districts (0.13 cm/mo) suggested significant faster linear growth among intervention district infants at earlier ages (0-5 months). **Interpretation:** Mothers participating in the intervention district were more likely to follow optimal breast, although not complementary feeding practices. The program modestly improved linear growth in earlier age and weight gain in late infancy. Comprehensive nutrition and health interventions are complex; the implementation strategies need careful examination to improve feeding practices and thus impact growth.

SPECIAL ISSUE

The Policy Landscape For Infant And Young Child Feeding (IYCF) In South Asia

Edited by Michael Dibley, Quazi Syed Zahiruddin, and Anne-Marie Thow.

INTRODUCTION

Strengthening Policy Research on Infant and Young Child Feeding: An Imperative to Support Countries in Scaling Up Impact on Nutrition

Menon, P., and A.M. Thow. 2017. *BMC Public Health* 17(Suppl 2): 420.

https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4335-3

Enabling policy environments for nutrition require evidence to support best practice and engagement with political and policy contexts, as well as leadership, resourcing, advocacy, and technical support. However, research on nutrition policy contexts is limited. The papers in this special supplement on policy contexts for infant and young child feeding (IYCF) in South Asia makes a valuable contribution to understanding the policy landscape and political dynamics in the region and the global literature. Studies included in this special supplement analyzed policy content and stakeholder influence on IYCF in Bangladesh, India, Nepal, Pakistan and Sri Lanka, and assess the role of advocacy in addressing multiple elements of the policy environment. These analyses highlight opportunities to harmonize and manage the demands and interests of multiple actors while strengthening policy to strategically support optimal IYCF as the ultimate goal. They also provide robust examples of research on policy environments and policy change. Further investments in research on policy contexts for nutrition can help to understand and support continued progress towards improved actions for nutrition.

SUPPLEMENT ARTICLES

Opportunities for Strengthening Infant and Young Child Feeding Policies in South Asia: Insights from the SAIFRN Policy Analysis Project

Thow, A.M., S. Karn, M.D. Devkota, S. Rasheed, S.K. Roy, Y. Suleman, T. Hazir, A. Patel, A. Gaidhane, S. Puri, S. Godakandage, U. Senarath, and M.J. Dibley. 2017. *BMC Public Health* 17(Suppl 2): 404.

https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4336-2

Analysis of stakeholders networks of infant and young child nutrition programmes in Sri Lanka, India, Nepal, Bangladesh and Pakistan

Uddin, S., H. Mahmood, U. Senarath, Q. Zahiruddin, S. Karn, S. Rasheed, and M. Dibley. 2017. *BMC Public Health* 17(Suppl 2):405.

https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4337-1

Policy content and stakeholder network analysis for infant and young child feeding in Bangladesh

Rasheed, S., S.K. Roy, S. Das, S.N. Chowdhury, M. Iqbal, S.M. Akter, K. Jahan, S. Uddin, and A.M. Thow. 2017. *BMC Public Health* 17(Suppl 2):402.

https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4338-0

Policy content and stakeholder network analysis for infant and young child feeding in India

Puri, S., S. Fernandez, A. Puranik, D. Anand, A. Gaidhane, Z.Q. Syed, A. Patel, S. Uddin, and A.M. Thow. 2017. *BMC Public Health* 17(Suppl 2):461.

https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4339-z

Policy content and stakeholder network analysis for infant and young child feeding in Nepal

Karn, S., M.D. Devkota, S. Uddin, and A.M. Thow. 2017. *BMC Public Health* 17(Suppl 2):421.

https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4340-6

Overview of the infant and young child feeding policy environment in Pakistan: Federal, Sindh and Punjab context

Mahmood, H., Y. Suleman, T. Hazir, D.S. Akram, S. Uddin, M.J. Dibley, S. Abassi, A. Shakeel, N. Kazmi, and A.M. Thow. 2017. *BMC Public Health* 17(Suppl 2):474.

https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4341-5

Policy and stakeholder analysis of infant and young child feeding programmes in Sri Lanka

Godakandage, S.S.P., U. Senarath, H.S. Jayawickrama, I. Siriwardena, S.W.A.D.A. Wickramasinghe, P. Arumapperuma, S. Ihalagama, S. Nimalan, R. Archchuna, C. Umesh, S. Uddin, and A.M. Thow. 2017. *BMC Public Health* 17(Suppl 2):522.

https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4342-4

Changes in the policy environment for infant and young child feeding in Vietnam, Bangladesh, and Ethiopia, and the role of targeted advocacy

Harris, J., E.A. Frongillo, P.H. Nguyen, S.S. Kim, and P. Menon. 2017. *BMC Public Health* 17(Suppl 2):492.

https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4343-3

Applying Positive Deviance for Improving Compliance to Adolescent Anemia Control Program in Tribal Communities of India

Sethi, V., M. Sternin, and D. Sharma. 2017. *Food and Nutrition Bulletin* 38(3).

http://journals.sagepub.com/doi/abs/10.1177/0379572117712791

Background: Positive deviance (PD) is an asset-based social and behavior change communication strategy, utilizing successful outliers within a specific context. It has been applied to tackling major public health problems but not adolescent anemia. **Objective:** The study, first of its kind, used PD to improve compliance to adolescent anemia control program in Jharkhand, India, where anemia prevalence in adolescent girls is 70%, and program compliance is low. **Methods:** With leadership of state government, the study was designed and implemented by a multidisciplinary 42 member PD team, in Khunti district, in 2014. Participatory appraisals were undertaken with 434 adolescent girls, 18 frontline workers, 15 teachers, and 751 community leaders/parents/relatives. Stakeholders were interviewed to identify positive deviants and PD determinants across 17 villages. **Results:** Perceived benefits of iron folic acid tablet and nutritional care

during adolescence are low. Positive deviants exist among adolescent girls (26 of 434), villages (2 of 17), and schools (2 of 17). Positive deviant adolescent girls consumed variety of iron-rich foods and in higher frequency, consumed iron folic acid tablets, and practiced recommended personal hygiene behaviors. Deviant practices in schools included supervision of students during tablet distribution among others. **Conclusion:** Government-led PD approach uncovered local solutions and provided a forum for government functionaries to listen to and dialogue with, and an opportunity to adapt the program according to the needs of the affected communities, who are missing partners in program design and management.

Priority Interventions to Improve Maternal and Child Diets in Sub-Saharan Africa and South Asia

Masters, W.A., K. Rosettie, S. Kranz, S.H. Pedersen, P. Webb, G. Danaei, and D. Mozaffarian. 2017. *Maternal and Child Nutrition.*

http://onlinelibrary.wiley.com/doi/10.1111/mcn.12526/full

Nutrition-sensitive interventions to improve overall diet quality are increasingly needed to improve maternal and child health. This study demonstrates feasibility of a structured process to leverage local expertise in formulating programmes tailored for current circumstances in South Asia and Africa. We assembled 41 stakeholders in 2 regional workshops and followed a prespecified protocol to elicit programme designs listing the human and other resources required, the intervention's mechanism for impact on diets, target foods and nutrients, target populations, and contact information for partners needed to implement the desired programme. Via this protocol, participants described 48 distinct interventions, which we then compared against international recommendations and global goals. Local stakeholders' priorities focused on postharvest food systems to improve access to nutrient-dense products (75% of the 48 programmes) and on production of animal sourced foods (58%), as well as education and social marketing (23%) and direct transfers to meet food needs (12.5%). Each programme included an average of 3.2 distinct elements aligned with those recommended by United Nations system agencies in the Framework for Action produced by the Second International Conference on Nutrition in 2014 and the Compendium of Actions for Nutrition developed for the Renewed Efforts Against Child Hunger initiative in 2016. Our results demonstrate that a participatory process can help local experts identify their own priorities for future investments, as a first step in a novel process of rigorous, transparent, and independent priority setting to improve diets among those at greatest risk of undernutrition.

Consumption of a Double-Fortified Salt Affects Perceptual, Attentional, and Mnemonic Functioning in Women in a Randomized Controlled Trial in India

Wenger, M.J., L.E. Murray-Kolb, J.E.H. Nevins, S. Venkatramanan, G.A. Reinhart, A. Wesley, and J.D. Haas. 2017. *The Journal of Nutrition.*

http://jn.nutrition.org/content/early/2017/10/11/jn.117.251587.abstract

Background: Iron deficiency and iron deficiency anemia have been shown to have negative effects on aspects of perception, attention, and memory. **Objective:** The purpose of this investigation was to assess the extent to which increases in dietary iron consumption are related to improvements in behavioral measures of perceptual, attentional, and mnemonic function. **Methods:** Women were selected from a randomized, double-blind, controlled food-fortification trial involving ad libitum consumption of either a double-fortified salt (DFS) containing 47 mg potassium iodate/kg and 3.3 mg microencapsulated ferrous fumarate/g (1.1 mg elemental Fe/g) or a control iodized salt. Participants' blood iron status (primary outcomes) and cognitive

functioning (secondary outcomes) were assessed at baseline and after 10 mo at endline. The study was performed on a tea plantation in the Darjeeling district of India. Participants (n = 126; 66% iron deficient and 49% anemic at baseline) were otherwise healthy women of reproductive age, 18–55 y. **Results:** Significant improvements were documented for iron status and for perceptual, attentional, and mnemonic function in the DFS group (percentage of variance accounted for: 16.5%) compared with the control group. In addition, the amount of change in perceptual and cognitive performance was significantly ($P < 0.05$) related to the amount of change in blood iron markers (mean percentage of variance accounted for: 16.0%) and baseline concentrations of blood iron markers (mean percentage of variance accounted for: 25.0%). Overall, there was evidence that the strongest effects of change in iron status were obtained for perceptual and low-level attentional function. **Conclusion:** DFS produced measurable and significant improvements in the perceptual, attentional, and mnemonic performance of Indian female tea pickers of reproductive age.

Effect of Participatory Women's Groups and Counselling through Home Visits on Children's Linear Growth in Rural Eastern India (CARING Trial): A Cluster-Randomised Controlled Trial

Nair, N., P. Tripathy, H.S. Sachdev, H. Pradhan, S. Bhattacharyya, R. Gope, S. Gagrai, S. Rath, S. Rath, R. Sinha, S.S. Roy, S. Shewale, V. Singh, A. Srivastava, A. Costello, A. Copas, J. Skordis-Worrall, H. Haghparast-Bidgoli, and A. Prost. 2017. *The Lancet Global Health:* 5(10): e1004–e1016.

http://www.sciencedirect.com/science/article/pii/S2214109X1730339X

Background: Around 30% of the world's stunted children live in India. The Government of India has proposed a new cadre of community-based workers to improve nutrition in 200 districts. We aimed to find out the effect of such a worker carrying out home visits and participatory group meetings on children's linear growth. **Methods:** We did a cluster-randomised controlled trial in two adjoining districts of Jharkhand and Odisha, India. 120 clusters (around 1000 people each) were randomly allocated to intervention or control using a lottery. Randomisation took place in July, 2013, and was stratified by district and number of hamlets per cluster (0, 1–2, or ≥3), resulting in six strata. In each intervention cluster, a worker carried out one home visit in the third trimester of pregnancy, monthly visits to children younger than 2 years to support feeding, hygiene, care, and stimulation, as well as monthly women's group meetings to promote individual and community action for nutrition. Participants were pregnant women identified and recruited in the study clusters and their children. We excluded stillbirths and neonatal deaths, infants whose mothers died, those with congenital abnormalities, multiple births, and mother and infant pairs who migrated out of the study area permanently during the trial period. Data collectors visited each woman in pregnancy, within 72 h of her baby's birth, and at 3, 6, 9, 12, and 18 months after birth. The primary outcome was children's length-for-age Z score at 18 months of age. Analyses were by intention to treat. Due to the nature of the intervention, participants and the intervention team were not masked to allocation. Data collectors and the data manager were masked to allocation. The trial is registered as ISCRTN (51505201) and with the Clinical Trials Registry of India (number 2014/06/004664). **Results:** Between Oct 1, 2013, and Dec 31, 2015, we recruited 5781 pregnant women. 3001 infants were born to pregnant women recruited between Oct 1, 2013, and Feb 10, 2015, and were therefore eligible for follow-up (1460 assigned to intervention; 1541 assigned to control). Three groups of children could not be included in the final analysis: 147 migrated out of the study area (67 in intervention clusters; 80 in control clusters), 77 died after the neonatal period and before 18 months (31 in intervention clusters; 46 in control clusters), and seven had implausible length-for-age Z scores (<–5 SD; one in intervention cluster; six in control clusters). We measured 1253 (92%) of 1362 eligible children at 18 months in intervention clusters, and 1308 (92%) of 1415 eligible children in control clusters. Mean length-for-age Z score at 18 months was –2.31 (SD 1.12) in intervention clusters and –2.40

(SD 1.10) in control clusters (adjusted difference 0.107, 95% CI –0.011 to 0.226, p=0.08). The intervention did not significantly affect exclusive breastfeeding, timely introduction of complementary foods, morbidity, appropriate home care or care-seeking during childhood illnesses. In intervention clusters, more pregnant women and children attained minimum dietary diversity (adjusted odds ratio [aOR] for women 1.39, 95% CI 1.03–1.90; for children 1.47, 1.07–2.02), more mothers washed their hands before feeding children (5.23, 2.61–10.5), fewer children were underweight at 18 months (0.81, 0.66–0.99), and fewer infants died (0.63, 0.39–1.00). **Interpretation:** Introduction of a new worker in areas with a high burden of undernutrition in rural eastern India did not significantly increase children's length. However, certain secondary outcomes such as self-reported dietary diversity and handwashing, as well as infant survival were improved. The interventions tested in this trial can be further optimised for use at scale, but substantial improvements in growth will require investment in nutrition-sensitive interventions, including clean water, sanitation, family planning, girls' education, and social safety nets.

Partnering with Women Collectives for Delivering Essential Women's Nutrition Interventions in Tribal Areas of Eastern India: A Scoping Study

Sethi, V., A. Bhanot, S. Bhalla, S. Bhattacharjee, A. Daniel, D.M. Sharma, R. Gope, and S. Mebrahtu.
2017. *Journal of Health, Population and Nutrition* 36:(20).

https://jhpn.biomedcentral.com/articles/10.1186/s41043-017-0099-8

Background: We examined the feasibility of engaging women collectives in delivering a package of women's nutrition messages/services as a funded stakeholder in three tribal-dominated districts of Odisha, Jharkhand and Chhattisgarh States, in eastern India. These districts have high prevalence of child stunting and poor government service outreach. **Methods:** Conducted between July 2014 and March 2015, an exploratory mix-methods design was adopted (review of coverage data and government reports, field interviews and focus group discussion with multiple stakeholders and intended communities) to assess coverage of women's nutrition services. A capacity assessment tool was developed to map all types of community collectives and assess their awareness, institutional and programme capacity as a funded stakeholder for delivering women's nutrition services/behaviour promotion. **Results:** Limited targeting of pre-pregnancy period, delays in first trimester registration of pregnant women, and low micronutrient supplementation supply and awareness issues emerged as key bottlenecks in improving women's nutrition in these districts. Amongst the 18 different types of community collectives mapped, Self Help Groups (SHGs) and their federations (tier 2 and tier 3), with total membership of over 650,000, emerged as the most promising community collective due to their vast network, governance structure, bank linkage, and regular interface. Nearly 400,000 (or 20% of women) in these districts can be reached through the mapped 31,919 SHGs. SHGs with organisational readiness for receiving and managing grants for income generation and community development activities varied from 41 to 94% across study districts. Stakeholders perceived that SHGs federations managing grants from government and be engaged for nutrition promotion and service delivery and SHG weekly meetings can serve as community interface for discussing/resolving local issues impeding access to services. **Conclusions:** Women SHGs (with tier 2 and tier 3) can become direct grantees for strengthening coverage of women's nutrition interventions in these tribal districts/pockets, provided they are capacitated, supervised and given safe guards against exploitation and violence.

NON-PEER REVIEWED

Trends in Nutrition Outcomes, Determinants, and Interventions in India (2006–2016)

Menon, Purnima; Nguyen, Phuong H.; Mani, Sneha; Kohli, Neha; Avula, Rasmi; and Tran, Lan M. 2017. *Trends in Nutrition Outcomes, Determinants, and Interventions in India (2006–2016).* POSHAN Report 10. New Delhi, India: International Food Policy Research Institute (IFPRI).

http://poshan.ifpri.info/2017/07/10/trends-in-nutrition-outcomes-determinants-and-interventions-in-india-2006-2016/

Nutrition is central to the Sustainable Development Goals (SDGs) of the 2030 Agenda, and at least 12 of the 17 SDGs include indicators relevant for nutrition. In addition, the World Health Assembly unanimously endorsed 6 ambitious maternal, infant, and young child nutrition targets and several noncommunicable disease-related targets to be achieved by 2025. These global targets are intended to set the course for country-specific nutrition-focused policies and programmatic actions to address malnutrition and set a better course for human and economic development for all. India contributes a third of the global burden of undernutrition and has an emerging burden of noncommunicable diseases. Given India's population size, investing in actions to reduce all forms of malnutrition is especially important, not just for India itself, but also to support the attainment of global targets. Data-driven analyses are invaluable in helping to identify actions for accelerating progress toward a malnutrition-free India. Assessing India's progress on nutrition and its determinants has been challenged by limited data availability because the last National Family Health Survey-3 (NFHS-3) was completed in 2006. However, in 2017, after a long hiatus, new summary data from the National Family Health Survey-4 (NFHS-4) are now available to support a data-driven analysis of India's progress, of lingering challenges, and of factors that need to be addressed to accelerate progress. This is, therefore, an opportune time to examine India's status and progress on the global nutrition targets, on the determinants of nutrition outcomes, and on the scale and reach of interventions that have been put in place in India over the last decade. This report aims to provide a general overview of national trends and of state-level variability in nutrition outcomes, determinants, and intervention coverage, thus helping to identify areas of progress and areas where more investment is critical to accelerate progress. Using data available at the time of analysis and writing, the goal of this report is to bring together data to support policy decisions for nutrition at the national level and across multiple states.

Improving Nutrition in Gujarat: Insights from Examining Trends in Outcomes, Determinants and Interventions between 2006 and 2016

Menon, Purnima; Nguyen, Phuong H.; Kohli, Neha; Mani, Sneha; and Avula, Rasmi. 2017. *Improving Nutrition in Gujarat: Insights from Examining Trends in Outcomes, Determinants and Interventions between 2006 and 2016.* POSHAN Policy Note 3. New Delhi, India: International Food Policy Research Institute (IFPRI).

http://poshan.ifpri.info/2017/05/09/improving-nutrition-in-gujarat-insights-from-examining-trends-in-outcomes-determinants-and-interventions-between-2006-and-2016/

Gujarat, situated on the west coast of India, accounts for 6 percent of the area of the country, includes 25 districts subdivided into 226 blocks, 18,618 villages, and 242 towns (Government of Gujarat, 2017). Gujarat is home to more than 60 million people (5 percent of the population of India) (Government of Gujarat, 2017). It is one of the most urbanized states in India, with 43 percent of the population living in urban

areas (Government of Gujarat, 2017). Gujarat is well-positioned compared to many other states in terms of economy, infrastructure, industrialization, and governance. However, maternal and child undernutrition remains a challenge for the state. The purpose of this Policy Note is to examine the trends in undernutrition in Gujarat and to document trends and geographic variability in the major determinants of nutrition and the coverage of key nutrition and health interventions. In doing this analysis, we aim to highlight key areas for actions to improve nutrition in Gujarat.

Improving Nutrition in Uttar Pradesh: Insights from Examining Trends in Outcomes, Determinants and Interventions between 2006 and 2016

Mani, Sneha; Avula, Rasmi; Nguyen, Phuong H.; Tran, Lan Mai; and Menon, Purnima. 2017. *Improving Nutrition in Uttar Pradesh: Insights from Examining Trends in Outcomes, Determinants and Interventions between 2006 and 2016.* POSHAN Policy Note 4. New Delhi, India: International Food Policy Research Institute (IFPRI).

http://poshan.ifpri.info/2017/05/09/improving-nutrition-in-uttar-pradesh-insights-from-examining-trends-in-outcomes-determinants-and-interventions-between-2006-and-2016/

Uttar Pradesh, situated in the northern part of India, accounts for 7.3 percent of the area of the country, includes 75 districts subdivided into 822 blocks, 97,814 villages, and 689 cities and towns (Uttar Pradesh State Government, 2017). Uttar Pradesh is home to more than 199 million people (16.17 percent of the population of India) of which 67.68 percent is literate. The state has a sex ratio of 912 females per 1,000 males (Census of India, 2011). The purpose of this Policy Note is to examine the trends in undernutrition in Uttar Pradesh and to document trends and geographic variability in the major determinants of nutrition and the coverage of key nutrition and health interventions. In doing this analysis, we aim to highlight key areas for actions to improve nutrition in Uttar Pradesh.

Improving Nutrition in Bihar: Insights from Examining Trends in Outcomes, Determinants and Interventions between 2006 and 2016

George, Nitya; Avula, Rasmi; Nguyen, Phuong H.; Tran, Lan Mai; and Menon, Purnima. 2017. *Improving Nutrition in Bihar: Insights from Examining Trends in Outcomes, Determinants and Interventions between 2006 and 2016.* POSHAN Policy Note 5. New Delhi, India: International Food Policy Research Institute (IFPRI).

http://poshan.ifpri.info/2017/05/09/improving-nutrition-in-bihar-insights-from-examining-trends-in-outcomes-determinants-and-interventions-between-2006-and-2016/

Bihar is a landlocked state in eastern and northern India. It is split into 9 divisions and 38 districts. It is the nation's third most populated state, and is home to 103 million people. With only 11.3 percent of its population living in cities, Bihar is one of India's least urbanized states (Government of Bihar, 2017). Fifty-eight percent of Bihar's population is below the age of 25, the highest proportion in the country. The state has a sex ratio of 916 females for 1000 males (Census of India, 2011). The purpose of this Policy Note is to examine the trends in undernutrition in Bihar and to document trends and geographic variability in the major determinants of nutrition and the coverage of key nutrition and health interventions. In doing this analysis, we aim to highlight key areas for actions to improve nutrition in Bihar.

Improving Nutrition in Tamil Nadu: Insights from Examining Trends in Outcomes, Determinants and Interventions between 2006 and 2016

Kohli, Neha; Nguyen, Phuong H.; Avula, Rasmi; and Menon, Purnima. 2017. *Improving Nutrition in Tamil Nadu: Insights from Examining Trends in Outcomes, Determinants and Interventions between 2006 and 2016.* POSHAN Policy Note 6. New Delhi, India: International Food Policy Research Institute (IFPRI).

http://poshan.ifpri.info/2017/05/09/improving-nutrition-in-tamil-nadu-insights-from-examining-trends-in-outcomes-determinants-and-interventions-between-2006-and-2016/

Tamil Nadu, situated on the east cost of India, accounts for 4 percent area of the country, includes 32 districts subdivided by 385 blocks, 12,618 villages and 561 towns (Government of Tamil Nadu, 2017). Tamil Nadu is home to more than 70 million (6 percent of population of India) (Government of Tamil Nadu, 2017) and is better positioned compared to many other states in terms of economy, infrastructure, industrialization, governance and social indicators. The state has a literacy rate of over 80 percent (Census of India, 2011). The purpose of this Policy Note is to examine the trends in undernutrition in Tamil Nadu, and to document trends in the major determinants of nutrition and the coverage of key nutrition and health interventions. In doing this analysis, we aim to highlight key areas for actions to improve nutrition in Tamil Nadu.

How Are India's Districts Doing on Maternal, Infant and Young Child Nutrition? Insights from the National Family Health Survey-4

Menon, Purnima; Mani, Sneha; and Nguyen, Phuong H. 2017. *How Are India's Districts Doing on Maternal, Infant and Young Child Nutrition? Insights from the National Family Health Survey-4.* POSHAN Data Note 1. New Delhi, India: International Food Policy Research Institute (IFPRI).

http://poshan.ifpri.info/2017/05/09/how-are-indias-districts-doing-on-maternal-infant-and-young-child-nutrition-insights-from-the-national-family-health-survey-4/

A set of global nutrition targets for maternal, infant and young child nutrition to be achieved by 2025, were endorsed by the World Health Assembly (WHA) in 2012. These targets provide goals against which progress towards ending malnutrition in all its forms can be measured and also contribute to the Sustainable Development Goals (SDGs). This Data Note describes the current levels of a set of these key nutrition outcomes at the district-level in India, summarizing data from the recently released district fact sheets of the National Family Health Survey.

How Are India's Districts Doing on Nutrition-Related Non-Communicable Diseases? Insights from the National Family Health Survey-4

Menon, Purnima; Mani, Sneha; and Nguyen, Phuong H. 2017. *How Are India's Districts Doing on Nutrition-Related Non-Communicable Diseases? Insights from the National Family Health Survey-4.* POSHAN Data Note 2. New Delhi, India: International Food Policy Research Institute (IFPRI).

http://poshan.ifpri.info/2017/05/09/how-are-indias-districts-doing-on-nutrition-related-non-communicable-diseases-insights-from-the-national-family-health-survey-4/

A set of diet-related global non-communicable diseases (NCD) targets, to be achieved by 2025, was endorsed by the World Health Assembly (WHA) in 2013. A sub-set of those targets are directly nutrition-related. This Data Note describes the current levels of a set of key NCD-related outcomes at the district level in India, summarizing data from the recently released district fact sheets of the National Family Health Survey.

Nutrition and Food Systems. A report by the High-Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome.

HLPE. 2017. *Nutrition and Food Systems. A report by the High-Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security.* HLPE Report #13. Rome, Italy: Food and Agriculture Organization (FAO).

http://www.fao.org/fileadmin/user_upload/hlpe/hlpe_documents/HLPE_Reports/HLPE-Report-12_EN.pdf

At its 42nd session in October 2015, the Committee on World Food Security (CFS) requested the High Level Panel of Experts on Food Security and Nutrition (HLPE) to prepare a report on Nutrition and Food Systems, to be presented at CFS 44 in October 2017. This topic is highly relevant to the Sustainable Development Goals (SDGs), the implementation of the 2014 Rome Declaration on Nutrition, the subsequent Decade of Action for Nutrition, and the fulfilment of the right to adequate food. The purpose of this report is two-fold: (i) to analyse how food systems influence people's dietary patterns and nutritional outcomes; and (ii) to highlight effective policies and programmes that have the potential to shape food systems, contribute to improved nutrition and ensure that food is produced, distributed and consumed in a sustainable manner that protects the right to adequate food for all. This report is illustrated by short case studies reflecting the wide variety of practical experiences in different contexts. It also provides a set of action-oriented recommendations addressed to states and other stakeholders in order to inform CFS engagement in advancing nutrition and CFS contribution to the UN Decade of Action on Nutrition (2016–2025).

Accountability in Health and Nutrition in South Asia – A Conceptual and Practical Review of Lessons from the Global Literature and from India, Pakistan and Bangladesh

Ahmed, N., S. Deshpande, R. Feruglio, and N. Nisbett. 2017.

http://www.transformnutrition.org/wp-content/uploads/sites/3/2017/03/Nisbett_working_paper_KON-final.pdf

Social and community accountability initiatives in health and nutrition have been associated with the potential for significant improvements in outcomes when applied to relevant services. This paper outlines community-specific factors, drawn from recent literature, which are likely to be of interest to researchers and practitioners in the field of health and nutrition delivery, stressing the importance of context in understanding accountability initiatives. It then brings together some of the findings of the practice review and practitioner consultation.

Fiscal Restructuring and its Impact on Nutrition Financing in India

Chakrabarty, M. 2017. *Fiscal Restructuring and its Impact on Nutrition Financing in India*. ORF Occasional Paper 118. New Delhi, India: Observer Research Foundation (ORF).

http://cf.orfonline.org/wp-content/uploads/2017/08/ORF_OccasionalPaper_118_Nutrition.pdf

In 2015, the United Nations agreed to end hunger in all forms by 2030. While India has committed itself as a stakeholder in the 2030 agenda for development, its own record in reducing hunger has been less than satisfactory. Latest data from the National Family Health Survey – 4 show an improvement in nutritional indicators of children under-five. However, there are huge differences across states and social groups. Nutrition should thus remain high on India's list of development priorities. This paper provides an overview of the status of nutrition financing in India, particularly in the context of the recommendations on fiscal restructuring recently issued by the Fourteenth Finance Commission. The paper highlights the gaps in India's nutrition financing and provides policy prescriptions. It finds that the increased autonomy in setting budgetary agendas has not led to higher allocations for nutrition for all states, raising critical questions about India's development priorities and its commitment to sustainable development goals. The paper recommends, among others, the setting up of guidelines for, and monitoring of, nutrition spending by states.

UPCOMING EVENTS

Nutrition 2018

At Nutrition 2018, the top scientific researchers, practitioners, global and public health professionals, policy makers and advocacy leaders, industry, media and other related professionals will gather to advance nutrition science and its practical application. The American Society for Nutrition's new scientific sessions and annual meeting will convene in Boston to focus on the multidisciplinary field of nutrition science. It will bring together basic, translational, clinical, and population scientists and practitioners.

When: June 9-12, 2018

Where: Hynes Convention Center, Boston, MA

For more information: https://meeting.nutrition.org/

Strengthening National, State and District-level Actions for Nutrition: Insights from the National Family Health Survey Data

This event on 'Strengthening National, State and District-level Actions for Nutrition: Insights from the National Family Health Survey Data' will feature presentations on POSHAN's work to analyze NFHS-4 data available to-date, as well as technical and policy-focused panel discussions. At this event, POSHAN will launch a set of state-focused policy notes for all states in India and District Nutrition Profiles for all 640 districts in India.

When: December 13, 2017

Where: India International Center, New Delhi, India

For more information: http://poshan.ifpri.info/upcoming-events-2/

Led by IFPRI

Partnership members:

Institute of Development Studies (IDS)

Public Health Foundation of India (PHFI)

One World South Asia

Vikas Samvad

Coalition for Sustainable Nutrition Security in India

Save the Children, India

Public Health Resource Network (PHRN)

Vatsalya

Centre for Equity Studies

ABOUT POSHAN

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

ABOUT ABSTRACT DIGEST

In each issue, the POSHAN Abstract Digest brings you some of the new and noteworthy studies on maternal and child nutrition. It focuses on India-specific studies and also brings 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 about specific articles.

CONTACT US

Email us at IFPRI-POSHAN@cgiar.org

IFPRI-NEW DELHI

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

NASC Complex, CG Block,
Dev Prakash Shastri Road,
Pusa, New Delhi 110012, India
T +91.11.66166565
F +91.11.66781699

IFPRI-HEADQUARTERS

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

2033 K Street, NW,
Washington, DC 20006-1002 USA
T. +1.202.862.5600
F. +1.202.467.4439
Skype: IFPRIhomeoffice
ifpri@cgiar.org
www.ifpri.org

This publication has been prepared by POSHAN with research assistance from Abhilasha Vaid, IFPRI, and has not been peer reviewed. Any opinions stated herein are those of the author(s) and do not necessarily reflect the policies of the International Food Policy Research Institute. Please contact Dr. Rasmi Avula at IFPRI with any questions: r.avula@cgiar.org.