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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 the Abstract Digest features several papers of interest to nutrition in India, including a set of papers on determinants of nutritional outcomes and trends, a set of papers on narrative and empirical analyses of change in nutrition and a summary of findings on lipid-based nutrient supplements. It also features IFPRI's 2017 *Global Food Policy Report* which looks at the impact of rapid urban growth on food security and nutrition, the *2016 India Spotlight Index from the Access to Nutrition Index*, that evaluates the performance of the largest national food and beverage manufacturers' policies, practices and disclosure related to nutrition in India, and a new UNICEF (2017) report on the implications of the 2030 Agenda for children and the data required to monitor the situation of children within the SDG framework. Here are some more highlights:

- Adu-Afarwuah and colleagues (2017) find that small-quantity lipid-based nutrient supplements (SQ-LNS) may help reduce inadequate gestational weight gain and promote fetal and child growth and development in low-income settings.
- Results from a decomposition analysis by Chaurasia (2017) suggest that the level, depth and severity of the faltering of the growth of the body mass in Indian children are primarily due to the level, depth and severity of the faltering of the ponderal growth.
- Nisbett's (2017) narrative policy analysis of the political economy shaping policy on child undernutrition in India, helps elucidate a clearer sense of the underlying positions within this important area of development discourse.
- Preliminary findings from a study on seasonal variation in birth weights, by Madan et. al (2017), suggest that seasonal differences in newborn size vary according to season of exposure during periods of expected maximum fetal growth velocity in weight and length.
- Alderman and Headey (2017) undertake a novel econometric analysis of 376,992 preschool children from 56 developing countries, to the examine the impact of parental education on child nutrition.
- Coates et. al (2017) highlight the barriers to collection and use of individual-level dietary data in low-income countries (LICs), and introduces readers to the INDDEX project which is developing a dietary assessment platform for LICs, called INDDEX24, consisting of a mobile application integrated with a web database application, which is expected to facilitate seamless data collection and processing.
- Sinha and colleagues (2017) use cross sectional data from the India National Family Health Survey Round-3 (NFHS-3) to examine the immediate and underlying effect of gender inequality on child nutritional status.
- A new report by Shankar et. al (2017) summarizes discussions on trends in malnutrition in India, its evolution in the context of economic growth, intrahousehold aspects, infant and young child feeding practices, women's status, maternal nutrition, and nutrition policymaking.

- Kohli and colleagues (2017) find overarching policy support, financing at the national and state level, leadership across sectors, capacity and stability of tenure of bureaucrats, and state innovations in service delivery interventions, to be factors driving the scale up of health and nutrition interventions in Odisha.

- A district-wise analysis of immediate and underlying causes of stunting in Bihar, by Sethi et. al (2017), reveals that prevalence of child stunting in Bihar is as high as 48% and that only 15 of Bihar's 38 districts are on course to reach the global target of 40% reduction in child stunting by 2025, with some districts likely to take over 25 years to reach the target.

- Deptford et. al (2017) introduce a new software called *The Cost of the Diet*, that calculates the lowest cost of meeting recommended intakes of energy and nutrients from local foods.

- A review of experience-based household food insecurity (HFI) scales in India, by Sethi and colleagues (2017), reveals that evidence-based policy dialogue is needed in India for contextualizing and harmonizing the experience-based HFI scales across multiple surveys to aid comparability over time, and support policy decision making.

- Gillespie and van den Bold (2017) review recent qualitative evidence to examine the role of agriculture in improving nutrition, and the impact of globalization, trade liberalization, and urbanization on food systems.

PEER-REVIEWED

Stories of Change in Nutrition

http://www.transformnutrition.org/stories_of_change/stories-of-change-special-issue/

To meet the growing demand from many countries for experiential learning about what works in Nutrition, Stories of Change sought to systematically assess and analyse drivers of change in six high-burden countries (Bangladesh, India (Odisha), Ethiopia, Nepal, Senegal, and Zambia) that have had some success in accelerating improvements in nutrition. Bringing all of this work together for the first time a special Stories of Change issue of Global Food Security is now available.

Stories Of Change in Nutrition: An Overview

Gillespie, S., M. van den Bold, and the Stories of Change Team. 2017. *Global Food Security* 13: 1–11.

http://www.sciencedirect.com/science/article/pii/S2211912416301006

Accounting for Nutritional Changes in Six Success Stories: A Regression-Decomposition Approach

Headey, D., J. Hoddinott, and S. Park. 2017. *Global Food Security* 13: 12–20.

http://www.sciencedirect.com/science/article/pii/S2211912416300992

Bangladesh's Story of Change in Nutrition: Strong Improvements in Basic and Underlying Determinants with an Unfinished Agenda for Direct Community Level Support

Nisbett, N., P. Davis, S. Yosef, and N. Akhtar. 2017. *Global Food Security* 13: 20–29.

http://www.sciencedirect.com/science/article/pii/S2211912416301018

Maternal and Child Nutrition in Nepal: Examining Drivers Of Progress from the Mid-1990S to 2010S

Cunningham, K., D. Headey, A. Singh, C. Karmacharya, and P.P. Rana. 2017. *Global Food Security* 13: 30–37.

http://www.sciencedirect.com/science/article/pii/S2211912416300682

Reprint of "What will it Take to Accelerate Improvements in Nutrition Outcomes in Odisha? Learning from the Past"

Kohli, N., R. Avula, M. van den Bold, E. Becker, N. Nisbett, L. Haddad, P. Menon. 2017. *Global Food Security* 14: 38–48.

http://www.sciencedirect.com/science/article/pii/S2211912417300408

From Coherence Towards Commitment: Changes and Challenges in Zambia's Nutrition Policy Environment

Harris, J., S. Drimie, T. Roonaraine, and N. Covic. 2017. *Global Food Security* 13: 49–56.

http://www.sciencedirect.com/science/article/pii/S2211912416300943

How Senegal Created an Enabling Environment for Nutrition: A Story of Change

Kampman, H., A. Zongrone, R. Rawat, and E. Becquey. 2017. *Global Food Security* 13: 57–65.

http://www.sciencedirect.com/science/article/pii/S2211912416301109

Mid-Level Actors and Their Operating Environments for Implementing Nutrition-Sensitive Programming in Ethiopia

Warren, A.M., and E.A. Frongillo. 2017. *Global Food Security* 13: 66–73.

http://www.sciencedirect.com/science/article/pii/S2211912416300979

Community-Level Perceptions of Drivers of Change in Nutrition: Evidence from South Asia and Sub-Saharan Africa

Nisbett, N., M. van den Bold, S. Gillespie, P. Menon, P. Davis, T. Roopanaraine, H. Kampman, N. Kohli, A. Singh, and A. Warren. 2017. *Global Food Security* 13: 74–82.

http://www.sciencedirect.com/science/article/pii/S2211912416300980

Stories of Change: Perspectives

Ahuja, A., R.K. Adhikari, M.D. Devkota, S. El Arifeen, A. Ka, T. Hailu, R. Hughes, D. Pelletier, G. Fekete, G. Verburg, and C. Flowewrs. *Global Food Security* 13: 83–88.

http://www.sciencedirect.com/science/article/pii/S221191241730007X

Coverage and Utilization in Food Fortification Programs: Critical and Neglected Areas of Evaluation

Neufeld, L.M., S. Baker, G.S. Garrett, and L. Haddad. 2017. *The Journal of Nutrition* 147(5): 1015S–1019S.

http://jn.nutrition.org/content/early/2017/04/12/jn.116.246157.full.pdf

The need for evidence to inform nutrition program design and implementation has long been recognized, yet the generation and use of evidence for program decision making has lagged. The results of the coverage surveys reported in this supplement highlight some of the strengths and areas for improvement of current population-based (i.e., staple foods and condiments) and targeted (e.g., foods for infants and young children) fortification programs. Among other topics, the results identify a few striking successful fortification programs whereby the majority of the food vehicle used is fortifiable and fortified, and coverage is equitable among those classified as vulnerable and not. Other programs have great potential based on very high use of a fortifiable food vehicle, including in most cases among the vulnerable, but that potential is not currently reached because of low compliance with fortification requirements. Programs were also identified whereby the food vehicle has limited potential to make public health contributions to micronutrient intake, given the low proportions of the population who consume the food vehicle in general or who consume the fortifiable food vehicle. Four key lessons were learned:1) the potential for impact of food fortification depends on the appropriate choice of food fortification vehicle but also on the proportion of the food vehicle consumed that is fortifiable; 2) the design of fortification programs should be informed by the magnitude and distribution of inadequate intake and deficiency and consumption of fortifiable foods, and part of micronutrient deficiency control strategies to ensure coordination with other programs; 3) effective quality control of fortification levels in foods urgently needs strengthening, including the many governance and other policy factors that influence the capacity, resources, and commitment to do this; 4) periodic review of the assumptions related to dietary patterns that underpin food fortification is needed to ensure continual safe and impactful programs.

Meeting Nutritional Needs in the First 1000 Days: A Place for Small-Quantity Lipid-Based Nutrient Supplements

Adu-Afarwuah, S., A. Lartey, and K.G. Dewey. 2017. *Annals of the New York Academy of Sciences* 1392: 18–29.

http://onlinelibrary.wiley.com/doi/10.1111/nyas.13328/full

The first 1000 days of life is marked by intense metabolic activity and tissue deposition. The increased nutritional needs during this period, and the challenges to meeting them, are often not understood or appreciated. Here, we describe the nutritional needs during the first 1000 days, highlight the challenges to meeting these needs in developing countries, outline intervention strategies, and examine the consumption of small-quantity lipid-based nutrient supplements (SQ-LNS) as a promising strategy. In low-income settings, the challenge to meeting nutritional needs during the first 1000 days is worsened by overreliance on cereal-based diets of low nutrient density and high prevalence of infections and infestations. Dietary diversification is the ideal long-term solution to nutritional deficiencies, but difficulties with obtaining adequate amounts of iron, zinc, and certain vitamins may still remain. Several other interventions are available, but applying them is often fraught with challenges, including cost and contextual factors limiting efficacy. Evidence suggests that SQ-LNS supplementation may help reduce inadequate gestational weight gain and promote fetal and child growth and development in some populations. More research is needed to evaluate the effectiveness of SQ-LNS and other fortified products in different contexts and within integrated programs that address other determinants of maternal and child undernutrition.

Decomposition of Body Mass Growth into Linear and Ponderal Growth in Children with Application to India

Chaurasia, A.R. 2017. *British Journal of Nutrition* 117(3): 413–421.

https://www.cambridge.org/core/journals/british-journal-of-nutrition/article/decomposition-of-body-mass-growth-into-linear-and-ponderal-growth-in-children-with-application-to-india/62B016D2B06A9A64420E686E48893A89

In this paper, we decompose the difference between the weight of a child and the weight of a reference child into the difference between the height of the child and the height of the reference child and the difference between the weight per unit height of the child and the weight per unit height of the reference child. The decomposition provides the theoretical justification to the classification of the nutritional status proposed by Svedberg and by Nandy et al. An application of the decomposition framework to the Indian data shows that the level, depth and severity of the faltering of the growth of the body mass in Indian children are primarily due to the level, depth and severity of the faltering of the ponderal growth.

Seasonal Differences in Birth Weights and Lengths Depends on Exposure During Pregnancy in Rural India

Madan, E.M., J.D. Haas, P. Menon, V. Kumar, A. Kumar, S. Singh, and S. Dixit. 2017. *The FASEB Journal* 31(1): Supplement 639.19.

http://www.fasebj.org/content/31/1_Supplement/639.19.short

Background: Birth weight and birth length are important indicators of morbidity, mortality and future growth and development during childhood and adulthood. The seasonality of these indicators has been documented in various developing countries, but there is a dearth of data from rural South Asia. Seasonal variations in anthropometry are generally attributed to seasonal deteriorations in maternal health and nutritional status that occur during pregnancy when food supplies are diminished, and both agricultural labor demands and risk for infectious disease are high. Peak fetal growth velocity in length and weight occur during the 2nd and 3rd trimester of pregnancy, respectively, and are thus periods when fetal growth may be particularly vulnerable to seasonal insults. **Objective:** To describe seasonal variation in birth weights and lengths that result from exposure to one of three seasons during the 2nd and 3rd trimesters of pregnancy, respectively, for length and weight. **Methods:** From August 2015–September 2016, all pregnant women in the 32ndweek of gestation or later, residing in 9 rural villages in Uttar Pradesh (UP) were invited to participate in a study of infant growth. Pregnant women were identified from a pre-existing registry that was based on a bi-monthly village surveillance of missed menstrual cycle. The final working sample of singleton, full-term newborn infants with valid anthropometry measured within 14 days of birth was 288 for weight and 254 for length. Seasons were defined as rainy (July–September), winter (October–February) and summer (March–June). Multi-level models with village as a random effect were used to test the effect of exposure to season during the 3rdtrimester for weight, and the 2nd trimester for length. **Results:** The mean (SD) birth weight of the sample was 2.64 (0.44) kg, and the mean (SD) birth length was 48.0 (1.6) cm. Mean birth weights for infants born in the rainy, winter and summer season were 2.66 (0.44) kg, 2.59 (0.45) kg and 2.75 (0.38) kg, respectively. Mean birth lengths for infants born in the rainy, winter and summer season were 48.2 (1.4) cm, 47.8 (1.6) cm and 48.1 (1.8) cm, respectively. After controlling for gestational age and sex, infants exposed to the rainy season during the 3rd trimester of pregnancy had mean birth weights that were 163 grams lower than infants exposed to summer (p=0.022). Infants exposed to the rainy season during the 2nd trimester of pregnancy had birth lengths that were 0.6 cm (p=0.068) and 0.5cm (p=0.062) lower than in winter and in summer, respectively. Conclusions: These preliminary findings suggest that observed seasonal differences in newborn size vary according to season of exposure during periods of expected maximum fetal growth velocity in weight and length. Further analyses will seek to understand the seasonality of maternal health, nutrition security and physical activity that may explain seasonal patterns in birth weights and lengths.

A Narrative Analysis of the Political Economy Shaping Policy on Child Undernutrition in India

Nisbett, N. 2017. *Development and Change* 48(2).

http://onlinelibrary.wiley.com/doi/10.1111/dech.12297/full

This article examines two narratives on the subject of child undernutrition in India espoused by competing sides of the policy elite. It argues that undertaking narrative policy analysis in a structured fashion helps to elucidate a clearer sense of the underlying positions within this important area of development discourse. India's high rates of child undernutrition have become a battleground of positions on the country's growth

trajectory, revealing of the wider assumptions, ideologies and manifestations of power of the various actors espousing particular positions. Recent debates have brought into focus not only the contestation of various causalities and remedies, but also the politics of measurement, data and their interpretation. The results of this analysis are relevant elsewhere in their illumination of the politically public nature of technocratic debates on nutrition and the way in which this public discourse extends beyond the immediate topic to wider ideological divisions and assumptions on growth, equity and recent history.

How Important is Parental Education for Child Nutrition?

Alderman, H., and D.D. Headey. 2017. *World Development* 94: 448–464.

http://www.sciencedirect.com/science/article/pii/S0305750X17300451

Existing evidence on the impacts of parental education on child nutrition is plagued by both internal and external validity concerns. In this paper we try to address these concerns through a novel econometric analysis of 376,992 preschool children from 56 developing countries. We compare a naïve least square model to specifications that include cluster fixed effects and cohort-based educational rankings to reduce biases from omitted variables before gauging sensitivity to sub-samples and exploring potential explanations of education-nutrition linkages. We find that the estimated nutritional returns to parental education are: (a) substantially reduced in models that include fixed effects and cohort rankings; (b) larger for mothers than for fathers; (c) generally increasing, and minimal for primary education; (d) increasing with household wealth; (e) larger in countries/regions with higher burdens of undernutrition; (f) larger in countries/regions with higher schooling quality; and (g) highly variable across country sub-samples. These results imply substantial uncertainty and variability in the returns to education, but results from the more stringent models imply that even the achievement of very ambitious education targets would only lead to modest reductions in stunting rates in high-burden countries. We speculate that education might have more impact on the nutritional status of the next generation if school curricula focused on directly improving health and nutritional knowledge of future parents.

Overcoming Dietary Assessment Challenges in Low-Income Countries: Technological Solutions Proposed by the International Dietary Data Expansion (INDDEX) Project

Coates, J.C., B.A. Colaiezzi, W. Bell, U.R. Charrondiere, and C. Leclercq. 2017. *Nutrients* 9(3).

http://www.mdpi.com/2072-6643/9/3/289/htm

An increasing number of low-income countries (LICs) exhibit high rates of malnutrition coincident with rising rates of overweight and obesity. Individual-level dietary data are needed to inform effective responses, yet dietary data from large-scale surveys conducted in LICs remain extremely limited. This discussion paper first seeks to highlight the barriers to collection and use of individual-level dietary data in LICs. Second, it introduces readers to new technological developments and research initiatives to remedy this situation, led by the International Dietary Data Expansion (INDDEX) Project. Constraints to conducting large-scale dietary assessments include significant costs, time burden, technical complexity, and limited investment in dietary research infrastructure, including the necessary tools and databases required to collect individual-level dietary data in large surveys. To address existing bottlenecks, the INDDEX Project is developing a dietary assessment platform for LICs, called INDDEX24, consisting of a mobile application integrated with a web database application, which is expected to facilitate seamless data collection and processing. These tools will be subject to rigorous testing including feasibility, validation, and cost studies. To scale up dietary data

collection and use in LICs, the INDDEX Project will also invest in food composition databases, an individual-level dietary data dissemination platform, and capacity development activities. Although the INDDEX Project activities are expected to improve the ability of researchers and policymakers in low-income countries to collect, process, and use dietary data, the global nutrition community is urged to commit further significant investments in order to adequately address the range and scope of challenges described in this paper.

Drivers of Change: Examining the Effects of Gender Equality on Child Nutrition

Sinha, A., R.G. McRoy, B. Berkman, and M. Sutherland. 2017. *Children and Youth Services Review* 76: 203–212.

http://www.sciencedirect.com/science/article/pii/S0190740917302499

India has the world's highest burden of child undernutrition. Lack of income is considered as one of its primary causes. However, evidence suggests that despite steady economic growth and investments in social services directed towards child welfare, undernutrition rates continue to rise. Thus indicating, that there are other societal factors impacting child undernutrition. Previous studies indicate that countries with higher gender inequality have worse health outcomes for women and children. India, particularly in the northern states, has deep-rooted gender biases, leading to disproportionately worse outcomes for women and children. This study uses cross sectional data from the India National Family Health Survey Round-3 (NFHS-3) to examine the immediate and underlying effect of gender inequality on child nutritional status. The sample includes urban married women between 15 and 49 years (N = 9092) who have at least one living child between 0 and 5 years. Findings highlight the significant effect of autonomy and health related awareness on child nutritional status, when the relationship is mediated by maternal health. Implications for policy and practice are provided.

Dietary and Nutritional Change in India: Implications for Strategies, Policies, and Interventions

Shankar, B., S. Agrawal, A.R. Beaudreault, L. Avula, R. Martorell, S. Osendarp, D. Prabhakaran, M. S. Mclean. 2017. *Annals of the New York Academy of Sciences.*

http://onlinelibrary.wiley.com/doi/10.1111/nyas.13324/full

Despite the global transition to overnutrition, stunting affected approximately 159 million children worldwide in 2014, while an estimated 50 million children were wasted. India is an important front in the fight against malnutrition and is grappling with the coexistence of undernutrition, overnutrition, and micronutrient deficiencies. This report summarizes discussions on trends in malnutrition in India, its evolution in the context of economic growth, intrahousehold aspects, infant and young child feeding practices, women's status, maternal nutrition, and nutrition policymaking. The discussion focuses on a review of trends in malnutrition and dietary intakes in India in the context of economic change over the past four decades, identification of household dynamics affecting food choices and their consequences for family nutritional status in India, and effective malnutrition prevention and treatment interventions and programs in India and associated policy challenges.

Bihar's Burden of Child Stunting: A District-Wise Analysis

Sethi, V., A. Bhanot, S. Dar, R.N. Parhi, and S. Mebrahtu. 2017. *Economic & Political Weekly* LII(10): 16–21.

http://www.im4change.org/siteadmin/tinymce/uploaded/Stunting%20in%20Bihar.pdf

The prevalence of child stunting in Bihar is as high as 48%. This study of the immediate and underlying causes of stunting reveals that only 15 of Bihar's 38 districts are on course to reach the global target of 40% reduction in child stunting by 2025, with some districts likely to take over 25 years to reach the target. The data disaggregation at the district level presented here can help district managers use publicly available data to design and strengthen nutrition-specific and nutrition-sensitive programmes to lower the incidence of stunting.

Cost of the Diet: A Method and Software to Calculate the Lowest Cost of Meeting Recommended Intakes of Energy and Nutrients from Local Foods

Deptford, A., T. Allieri, R. Childs, C. Damu, E. Ferguson, J. Hilton, P. Parham, A. Perry, A. Rees, J. Seddon, and A. Hall. 2017. *BMC Nutrition* 3(26).

https://bmcnutr.biomedcentral.com/articles/10.1186/s40795-017-0136-4

Background: When food is available, the main obstacle to access is usually economic: people may not be able to afford a nutritious diet, even if they know what foods to eat. The Cost of the Diet method and software was developed to apply linear programming to better understand the extent to which poverty may affect people's ability to meet their nutritional specifications. This paper describes the principles of the method; the mathematics underlying the linear programming; the parameters and assumptions on which the calculations are based; and then illustrates the output of the software using examples taken from assessments. **Results:** The software contains five databases: the energy and nutrient content of foods; the energy and nutrient specifications of individuals; predefined groups of individuals in typical households; the portion sizes of foods; and currency conversion factors. Data are collected during a market survey to calculate the average cost of foods per 100 g while focus group discussions are used to assess local dietary habits and preferences. These data are presented to a linear programming solver within the software which selects the least expensive combination of local foods for four standard diets that meet specifications for: energy only; energy and macronutrients; energy, macronutrients and micronutrients; and energy, macronutrients and micronutrients but with constraints on the amounts per meal that are consistent with typical dietary habits. Most parameters in the software can be modified by users to examine the potential impact of a wide range of theoretical interventions. The output summarises for each diet the costs, quantity and proportion of energy and nutrient specifications provided by all the foods selected for a given individual or household by day, week, season and year. When the cost is expressed as a percentage of income, the affordability of the diet can be estimated. **Conclusions:** The Cost of the Diet method and software could be used to inform programme design and behaviour change communication in the fields of nutrition, food security, livelihoods and social protection as well as to influence policies and advocacy debates on the financial cost of meeting energy and nutrient specifications.

Internal Validity and Reliability of Experience-Based Household Food Insecurity Scales in Indian Settings

Sethi, V., C. Maitra, R. Avula, S. Unisa, and S. Bhalla. 2017. *Agriculture & Food Security* 6(21).

https://agricultureandfoodsecurity.biomedcentral.com/articles/10.1186/s40066-017-0099-3

Background: Experience-based household food insecurity (HFI) scales are not included in large-scale Indian surveys. There is limited evidence on which experience-based HFI scale or questions within a scale are most relevant for India. Between 01 June and 31 August 2015, we reviewed 19 published and unpublished studies, conducted in India between January 2000 and June 2015, which used experience-based HFI scales. As part of this exercise, internal validity and reliability of the scale used in these studies was examined, field experiences of 31 researchers who used experience-based HFI scales in India were gathered and psychometric tests were conducted where raw data were available. **Results:** Out of the 19 studies reviewed, HFI prevalence varied depending on the type of experience-based HFI scale used. Internal reliability across scales ranged between 0.75 and 0.94; however certain items ('balanced meal', 'preferred food', 'worried food would run out') had poor in-fit and out-fit statistics. To improve this, the following is suggested, based on review and experience of researchers: (1) cognitive testing of quality of diet items; (2) avoiding child-referenced items; (3) rigorous training of enumerators; (4) addition of 'how often' to avoid overestimation of food-insecure conditions; (5) splitting the cut and skip meal item and (6) using a standardized set of questions for aiding comparison of construct validity across scales. **Conclusions:** An evidence-based policy dialogue is needed in India for contextualizing and harmonizing the experience-based HFI scales across multiple surveys to aid comparability over time, and support policy decision making.

Agriculture, Food Systems, and Nutrition: Meeting the Challenge

Gillespie, S., and M. van den Bold. 2017. *Global Challenges* 1(3).

http://onlinelibrary.wiley.com/doi/10.1002/gch2.201600002/full

Malnutrition is a global challenge with huge social and economic costs; nearly every country faces a public health challenge, whether from undernutrition, overweight/obesity, and/or micronutrient deficiencies. Malnutrition is a multisectoral, multi-level problem that results from the complex interplay between household and individual decision-making, agri-food, health, and environmental systems that determine access to services and resources, and related policy processes. This paper reviews the theory and recent qualitative evidence (particularly from 2010 to 2016) in the public health and nutrition literature, on the role that agriculture plays in improving nutrition, how food systems are changing rapidly due to globalization, trade liberalization, and urbanization, and the implications this has for nutrition globally. The paper ends by summarizing recommendations that emerge from this research related to (i) knowledge, evidence, and communications, (ii) politics, governance, and policy, and (iii) capacity, leadership, and financing.

NON-PEER REVIEWED

2017 Global Food Policy Report

International Food Policy Research Institute. 2017. *2017 Global Food Policy Report*. Washington, DC: International Food Policy Research Institute.

http://www.ifpri.org/publication/2017-global-food-policy-report

IFPRI's flagship report reviews the major food policy issues, developments, and decisions of 2016, and highlights challenges and opportunities for 2017 at the global and regional levels. This year's report looks at the impact of rapid urban growth on food security and nutrition, and considers how food systems can be reshaped to benefit both urban and rural populations.

Is Every Child Counted? Status of Data for Children in the SDGs

UNICEF. 2017. *Is Every Child Counted? Status of Data for Children in the SDGs*. New York: UNICEF.

http://data.unicef.org/wp-content/uploads/2016/09/SDGs-and-Data-publication.pdf

The 2030 Agenda for Sustainable Development charts an ambitious course for the coming decade and beyond. Reaching further than its precursor, the Millennium Development Goals, the Agenda brings together the social, economic and environmental dimensions of development. The Sustainable Development Goals (SDGs) are a clarion call for a more equitable future, and at their core is a commitment to leave no one behind. The SDGs can only deliver on the promise of equity if the world knows which children and families are thriving and which are being left behind – both at the launch of the Agenda and throughout its implementation. This recognition is built directly into the Goals themselves: Goal 17, focused on the means of implementing the Agenda, includes an explicit target on supporting countries to increase the availability of high-quality, timely and disaggregated data. The global framework for SDG monitoring calls for indicators to be disaggregated wherever relevant to direct government investments, shape service delivery and policy and, ultimately, fulfil the rights of every child. UNICEF has a long history of meeting data challenges as bold as those set out in the SDGs. Over the past 70 years, the organization has played a leading role in highlighting inequities in the situation of children. The first report on the State of the World's Children, published 35 years ago, underlined the need for 'hard evidence' to support the implementation and monitoring of international targets. Since then, UNICEF has actively supported countries all over the world to improve the availability and use of child-related data. Thanks to the increasing availability of disaggregated data, we know more than ever about the deprivations faced by children around the world; and thanks to the increasing use of such data, policies and programmes are increasingly able to focus on advancing equity for children and families. This progress, however, is incomplete. There are still critical gaps in the availability of relevant data, particularly in countries with large numbers of poor and vulnerable children. Closing these data gaps is the first step towards closing the underlying equity gaps. Understanding the situation of children in relation to the SDGs is crucial both for the wellbeing of children and for reaching the targets of the Global Goals. While there is no goal that exclusively addresses the needs of children, most SDGs have targets that are either directly or indirectly related to children. The world cannot and will not reach most goals unless the specific needs of children are monitored and addressed throughout the course of the 2030 Agenda. This report considers both the implications of the 2030 Agenda for children and the data required to monitor the situation of children within the SDG framework. The first section identifies 50 global SDG indicators across 14 goals that are likely to be the main focus of future thematic reporting on children in

relation to the SDGs. This initial section focuses on a subset of eight goals which include direct references to children, while the second section examines the global availability of indicators for these goals and ongoing efforts to address key data gaps. The final section identifies priorities for enhancing the collection, analysis and use of data for children within the SDG framework.

Access to Nutrition Index: India Spotlight Index 2016

Access to Nutrition Foundation. 2016. *Access to Nutrition Index: India Spotlight Index 2016.* Utrecht: Access to Nutrition Foundation.

https://www.accesstonutrition.org/sites/in16.atnindex.org/files/resources/atni-india-spotlight-index-2016-1.pdf

In India, the double burden of malnutrition poses a serious challenge – the need to tackle both persistent levels of undernutrition at the same time as rising levels of overweight and obesity. Severe undernutrition has been a national problem for generations and remains so today. According to the latest available data from the National Survey undertaken by the Ministry of Women and Child Development in 2013-14, the prevalence of stunting in children below five years is 39%. This equates to around 48 million children – or two in every five children under the age of five – making India home to the largest number of stunted children in the world. Moreover, among the same population, more than 70% suffer from iron deficiency, 65% are deficient in vitamin A and 45% are zinc deficient. The gravity of this situation has been greatly compounded in recent years by an alarmingly rapid rise in levels of overweight and obesity in the population. India now ranks third, after the US and China, in terms of the absolute number of obese people. Around 20% of children and adolescents are overweight. These trends, which are predicted to increase substantially, are already causing serious pandemic diseases in the form of diabetes, heart disease, stroke and certain cancers. Food and beverage (F&B) manufacturers in India have the potential – and the responsibility - to be part of the solution. The serious health consequences of poor nutrition lend urgency to the need for India's F&B manufacturers to proactively adopt impactful initiatives to improve the nutritional quality of their products, as well as other aspects of their businesses, augmented by other non-commercial practices (e.g. how they direct the mandatory Corporate Social Responsibility tax funds). It is in the companies' financial and business interests to do so. Clear incentives are emerging: Indian urban consumers are increasingly demanding healthier foods and the Government is becoming increasingly active by, for example, introducing tighter nutrition labeling regulations and standards for fortification. The Access To Nutrition Index (ATNI) evaluates the largest food and beverage manufacturers' policies, practices and disclosure related to nutrition, both in individual countries and globally. They provide companies with a tool to benchmark their performance on nutrition against others in their sector and they provide stakeholders with consistent, in-depth information on companies' contributions to improving nutrition. The aim of the Index is to encourage companies to increase access to healthy products and to responsibly exercise their influence on consumers' choice and behavior. The first Global Index was launched in 2013 and the second in 2016. It gained a positive response from stakeholders, including food and beverage manufacturers, NGOs and investors. Following the publication of the first Global Index, the Access to Nutrition Foundation (ATNF), the organization that designs and publishes the Indexes, conducted research to explore the feasibility of launching Spotlight Indexes to assess companies in markets with a high double burden of malnutrition – India, Mexico and South Africa. The purpose of such Spotlight Indexes is to gather and publish empirical evidence on the performance of companies on nutrition and to strengthen the basis for national dialogue and action to address the double burden.

The Bumpy Road from Food to Nutrition Security–Slow Evolution of India's Food Policy

Pingali, P., B. Mittra, and A. Rahman. 2017.

https://www.researchgate.net/profile/Bhaskar_Mittra/publication/314949584_The_Bumpy_Road_from_Food_to_Nutrition_Security_-_Slow_Evolution_of_India's_Food_Policy/links/58c79fe6458515478dca7e5a/The-Bumpy-Road-from-Food-to-Nutrition-Security-Slow-Evolution-of-Indias-Food-Policy.pdf

India's Food Policy has been slow to transition from its historic focus on staple grain self-sufficiency to a more integrated approach to nutrition security. Research and policy discussions continue to focus on hunger and calorie deficiency rather than on the need for a balanced diets to address chronic micronutrient malnutrition and the emerging problems of overweight and obesity. Social welfare schemes aimed at improving nutrition also focus on ensuring calorie sufficiency, neglecting quality and diversity of diets and behavioral change towards better nutrition. This paper provides a detailed review of the evolution of food policy in India and a way forward in the transition towards nutrition security.

UPCOMING EVENTS

IUNS 21st International Congress of Nutrition (ICN)

The IUNS-ICN International Congress of Nutrition is a four-yearly meeting that's been held since 1946. The following is a preliminary list of topics that will be discussed this year: Advances in nutrition research nutrition through life course, public health nutrition and the environment, nutrition and management of diseases, nutrients and nutritional assessment, functional foods and bioactive compounds, food culture practices and nutritional education, and agriculture, food science and safety.

Where: Buenos Aires, Argentina

When: October 15–20, 2017

For more information: http://icn2017.com/index.php

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.