Transform Nutrition: a compendium

From 2012–2017, Transform Nutrition – a consortium of five international research and development partners, funded by UK aid from the UK Government – was active in generating and using research-based evidence to inform and inspire action to address undernutrition. Here is a compendium of its main outputs.
# Contents

**Introduction** 3

Evidence to Action: Transform Nutrition Research 3

Transform Nutrition Theory of Change 4

Inception phase scoping 4

**Pillar/theme 1 – Transforming delivery through nutrition-specific interventions and programmes** 5

Scaling up impact on nutrition 5

Role of private sector and Public-Private partnerships in operationalizing and scaling up direct interventions 5

Transforming government policy and practice – integrating nutrition in health systems 6

Strengthening provision of nutrition services at community level – supply and demand side aspects of frontline services 7

Strengthening nutrition service delivery at community level – tools and approaches 9

**Pillar/theme 2 – Nutrition-sensitive programmes and approaches** 11

Social protection 11

Agriculture 13

Women’s empowerment 14

**Pillar/theme 3 – Building an enabling environment** 15

The politics of reducing undernutrition – what is an enabling environment? 15

Assessing and strengthening accountability and responsiveness of policy makers – measuring commitment 16

Strengthening accountability – monitoring and surveillance 17

Assessing, monitoring and developing nutrition-relevant leadership 18

Assessing and developing key nutrition-relevant capacity 19

The economic rationale for investing in nutrition 20

The state of nutrition in India 20

Stories of Change 22
Introduction

Evidence to Action: Transform Nutrition Research

The Transform Nutrition Research Consortium was created to produce high quality evidence that would contribute to the global challenge of improving the nutritional status of the poorest in developing countries through addressing the causes of undernutrition at the immediate, underlying and basic levels. Transform Nutrition has undertaken primary and secondary research, evidence reviews and data analysis, a broad range of research uptake and engagement activities and capacity strengthening, to generate evidence, inform and inspire action to tackle malnutrition in the focal countries of Ethiopia, India, Bangladesh and Kenya, and at the global level. The research has taken multi-disciplinary approaches and emphasized multi-sectoral action.

The consortium has addressed three core questions corresponding to the three levels of the UNICEF framework:

1. How can we build commitment to, and accountability for, scaling up nutrition-relevant actions?
2. How to maximize the impacts of investments in agriculture, social protection and women’s empowerment on nutrition?
3. How can enabling environments be promoted to use existing political and economic resources more effectively?

The main findings from this portfolio of work are summarized in an overview paper and all outputs are shared through the dedicated website.


* Transform Nutrition website: [www.transformnutrition.org](http://www.transformnutrition.org)
* Stuart Gillespie (2012) Transform Nutrition overview, video
* Transform Nutrition Evidence for Action in East Africa Conference Report, June 2017
* Transform Nutrition Evidence for Action in South Asia Conference Report, July 2017
* Stuart Gillespie (2017) Transform Nutrition Overview, presentation given at Evidence for Action events in Nairobi (8 June 2017) and Kathmandu (8 July 2017)
Transform Nutrition Theory of Change

Policy makers in study countries are informed with evidence and examples of how to prioritize investments to scale up IYCF, CMAM and maternal nutrition service delivery through strengthening services and frontline worker delivery.

Policy makers in study countries and donors investing in social protection and agricultural programmes are informed with evidence and examples of how best to maximise the impacts of such programmes and nutrition outcomes.

A growing network of leaders armed with the latest knowledge, a supportive peer network and an appreciation of the tools to bring about change in nutrition policies and programmes.

**Theme 1: Transforming delivery**
- Combination interventions
- Strengthening delivery with mobile technology, frontline worker incentives, community accountability, health system strengthening

**Theme 2: Transforming sectors**
- Analysing and sharing evidence on combining social protection and agriculture interventions with direct nutrition approaches

**Theme 3: Transforming leadership**
- Best practice guidelines for training leaders
- Training courses
- Building and monitoring network of leaders

**Nutrition specific interventions and programmes**
- Evidence reviews:
  - Scaling up
  - Public-private partnerships
- Case studies:
  - Frontline worker incentives
  - National nutrition service in Bangladesh

**Nutrition sensitive programmes and approaches**
- Scoping and evidence reviews:
  - Social protection and nutrition
  - Women’s empowerment
- Case studies and data analysis:
  - Social protection programmes in Bangladesh and Ethiopia
  - Agriculture and diet diversity in Ethiopia and Bangladesh

**Building an enabling environment**
- Enabling environments
- Leadership
- Nutrition education
- Use of mobile technology
- Nutrition surveillance
- Drivers
- Economic rationale for investing

Inception phase scoping

In the inception phase of Transform Nutrition, country situation analysis and stakeholder mapping were undertaken in each focal country: Kenya, Ethiopia, Bangladesh and India. The situation analyses reviewed trends in nutrition outcomes; availability of nutrition data; underlying determinants; direct and indirect nutrition relevant programmes and interventions; nutrition-relevant policies and institutional arrangements and capacities for research, implementation and policy advocacy. The analyses identified priorities, challenges and opportunities for research.

The stakeholder mapping exercises sought to co-construct an understanding in each country about who the actors in nutrition are, how they relate to and influence each other, and how this informs the policy processes relevant to nutrition. The stakeholder mapping exercises were updated in Ethiopia and Bangladesh in 2015.

**Situation Analyses 2011**
- [Bangladesh situation analysis](#)
- [Ethiopia situation analysis](#)
- [India situation analysis](#)
- [Kenya situation analysis](#)

**Stakeholder mapping reports**
- [Stakeholder mapping report Bangladesh 2011](#)
- [Updated Stakeholder mapping report Bangladesh 2015](#)
- [Stakeholder mapping report Kenya 2011](#)
- [Stakeholder mapping report Ethiopia 2011](#)
- [Updated Stakeholder mapping report Ethiopia 2015](#)
- [Stakeholder mapping report India 2011](#)
Pillar/theme 1 – Transforming delivery through nutrition-specific interventions and programmes

Nutrition-specific interventions target the immediate causes of undernutrition i.e. dietary intake and prevention/cure of disease. Previous research has indicated that certain types of direct interventions can be effective for tackling undernutrition for women, infants and children if implemented at scale in countries with a high burden of undernutrition (Bhutta et al 2013). However, estimates of potential effectiveness are based on modeled assessments, which significantly limit inferences on actual effects of interventions on potential effectiveness are based on modeled assessments, which significantly limit inferences on actual effects of interventions on mothers and infants at community level. In addition to this gap, experiences from countries consistently show a failure to deliver targeted interventions at high coverage and quality, indicating challenges in making appropriate choices of delivery platforms to scale up the impact of nutrition-specific interventions. To address these challenges Transform Nutrition focused on three key elements:

- Identifying strategies for scaling up nutrition interventions, including the potential for integrating nutrition in health systems and for private sector input.
- Identifying approaches for strengthening delivery, particularly of infant and young child nutrition services at community level.
- Identifying the most effective combination of direct nutrition interventions to be scaled up.


Eldis key issues guide – *Nine key ingredients for transforming nutrition delivery*

Scaling up impact on nutrition

Against the backdrop of the impetus generated by the 2013 Lancet Nutrition Series and the growth of the Scaling Up Nutrition (SUN) movement, Transform Nutrition sought to harness knowledge on what it takes to scale up impact of nutrition-relevant actions. This study undertook a global evidence review on scaling up nutrition-relevant actions, drawing from literature across sectors for lessons learnt outside of nutrition as well as theoretical frameworks and experiences within nutrition. When the focus is on generating large-scale impact (not simply widening coverage of a programme), we see there are several pathways, triggers and enabling conditions that are required to optimize scale-up. A list of elements of critical factors for scaling up was developed, and then condensed into nine thematic elements of success, located within a theory of change. From this foundation, a series of country case studies were initiated to investigate, both retrospectively and prospectively, the issue of scale-up, broadly defined, and to address the question of what it takes to generate large-scale impact: see “Transform Nutrition: Stories of Change”.


See also Stories of Change, p22.

Role of private sector and Public-Private partnerships in operationalizing and scaling up direct interventions

Public and private partnerships (PPPs) can play an important role in scaling up nutrition-specific interventions. PPPs produce goods such as ready-to-use therapeutic foods and micronutrients; deliver nutrition education and health services; and disseminate information to consumers. This study provided a framework for analyzing PPPs within the realm of nutrition-specific interventions distinguishing between two types of PPPs: non-contractual (where representatives from public and private sectors unite around shared goals) and contractual (where there is a formal contract between public and private partners). The study found 24 case
studies of nutrition-relevant PPPs, but evidence on actual impact of PPPs is weak. There is scope for PPPs and private sector involvement in driving innovations that can reduce undernutrition. For PPPs to be successful, there need to be open discussions of the objectives, role and expectations of all parties along with potential conflicts of interest to build trust and understanding. There may also be scope for the private sector to act as a financier of investments that help improve children’s nutritional status.


### Transforming government policy and practice – integrating nutrition in health systems

Transform Nutrition explored the role of health systems in the fight against malnutrition. Health systems are important because they have the potential for national coverage in low resource settings to reach children in the critical first 1,000 days of life, are governed by global guidelines for health care, and are managed by state and non-state actors. In all of our focal countries, work is needed to expand the reach and efficiency of health services to contribute to nutrition goals.

#### Evidence review

Shams el Arifeen (2017), Integrating nutrition into health systems: opportunities and challenges, presentation given at Evidence for Action in South Asia event (9 July 2017)


#### Mainstreaming nutrition services in Bangladesh

Bangladesh has undertaken to mainstream nutrition services through the National Nutrition Service (NNS) initiative. Transform Nutrition contributed to an assessment by the World Bank of whether and how this works in terms of quality and coverage of services; identifying bottlenecks and areas for improvement. The assessment found that the NNS effort is an ambitious but valuable approach to supporting nutrition actions through an existing health system with diverse platforms. A focus on leadership and coordination challenges, and embed a small set of key interventions into well-matched health system delivery platforms will likely help achieve scale and impact. Additionally engagement with technical partners for monitoring and implementation support, high coverage outreach platforms (e.g. some NGOs), and ensuring transparency will be required.

- Bangladesh Paradox/Butterfly Effect – TedxDhaka talk by Anisul Karim – video
- See also SK Masum Billah et al (2017) Quality of nutrition services in primary health care facilities: Implications for integrating nutrition into the health system in Bangladesh, under strengthening provision at community level, p8
Strengthening provision of nutrition services at community level – supply and demand side aspects of frontline services

The quality and effectiveness of nutrition services on the ground is highly dependent on the dynamics of the intervention at community level – the capacities and incentives of the frontline workers (FLWs) and the quality of their interactions with the communities they serve. Transform Nutrition has sought to explore the challenges facing frontline providers of nutrition services, particularly for maternal, infant and young child nutrition, especially in hard to reach communities and identify how service performance can be improved.

**INDIA**

**Understanding the performance of Integrated Child Development Services (ICDS) in India**

This research focuses on India’s Integrated Child Development Services (ICDS) and explores the factors determining the impact of ICDS on child nutritional outcomes, particularly looking at the factors determining performance of the frontline workers (Anganwadi workers (AWWs)).

Our research sought to better understand how to overcome obstacles to optimal delivery and use of health and nutrition services. Findings show that service delivery outcomes could be improved by recruiting more educated candidates as FLWs, investing in incentives, and improving household contacts with nutrition centres through demand creation. FLW proximity to service area, workload, supervision and resources (financial, human, material) also affect service provision. Household factors, such as levels of household education and socioeconomic status have important effects on use of services. Beneficiary preference for product-oriented services (e.g. food distribution, immunization, pre-school) over information-oriented services (e.g. individual and group counselling) often leads to prioritization of these services. Social embeddedness and caste dynamics can negatively influence relationships between AWW and the community as well as service delivery. The ways in which local workers manage the conflicts and contradictions between the modern notion of liberal citizenship that governs the state-individual interaction and traditional affiliations of social identity that underlie much of democratic politics in India is illustrated in the example of an Anganwadi worker in Aurangabad.

- Rasmi Avula, Katrina Kosec, Brian Holtemeyer, Parul Tyagi, Stephanie Hausladen, Purnima Menon (2014), P Education and work incentives for frontline workers and household socioeconomic status influence delivery of health and nutrition interventions in Bihar, India, The FASEB Journal, 28(1 Supplement), April 2014
- Aparna John (2018) Understanding the factors that influence the performance of India’s community nutrition workers: Anganwadi workers of the integrated child development services scheme in Bihar, India, presentation given at Evidence for Action in South Asia event, 8 July 2017
- Aparna John, What factors influence community nutrition workers in performing their jobs? Preliminary findings from Bihar, India, blog, 21 December 2016
BANGLADESH

Providing nutrition services through health system platforms

Further analysis by Transform Nutrition from the Assessment of the National Nutrition Services in Bangladesh focused on the provision of nutrition services for children and found structural readiness to provide nutrition services was higher for antenatal care compared to the management of sick children, but delivery of nutrition services was poor. Increasing training coverage and improving equipment provision is key for improving nutrition services. Barriers to implementing nutrition services (e.g., high caseloads) need to be considered in order to identify alternative service delivery platforms prior to national-level scale up. Development partners committed to nutrition need to coordinate their efforts and provide support for nutrition in Bangladesh.

- SK Masum Billah (2017) Using the health system to deliver nutrition interventions in Bangladesh, presentation given at Evidence for Action in South Asia event (9 July 2017)

KENYA

Social Return on Investment (SROI) of the home-based nutritional counselling intervention to improve Maternal, Infant and Young Child Nutrition (MICYN) in Nairobi, Kenya

The study assessed the Social Return on Investment (SROI) of a home-based nutritional counselling intervention for mothers by community health workers to promote better infant feeding practices and to improve child nutritional and health outcomes in two Nairobi slums, Kenya. SROI is a method that measures the impact of an intervention in a participatory way. The SROI evaluation found that scaling up MICYN would be a valuable investment, with a need for unintended negative outcomes to be addressed and minimized, including, on the supply-side, providing incentives and training on psychosocial handling of issues for community health volunteers and, on demand, measures to support women who want to combine work with breastfeeding and including fathers in interventions.

Each US Dollar invested in the project was estimated to lead to USD 71 of social value for stakeholders.

- Social value of nutrition. What’s the social return on investment in Kenya, blogsite
- Social Return on investment value game – video
- Elizabeth Kimani, (2017), Social Return on Investment of a Nutrition Intervention in Urban Poor Settings, Nairobi, presentation given at Evidence for Action in East Africa event, 8 June 2017

SOUTH ASIA

The effectiveness of social accountability in health service provision

Social accountability and social mobilization play an important role in the provision of public services, especially those related to nutrition. This study draws together evidence of the effectiveness of social accountability in health service provision mechanisms and their relevance in the delivery of community nutrition to determine the conditions in which active community participation can help to hold local practitioners and service-delivery providers accountable for improving nutrition outcomes in the context of health systems in South Asia. The study takes account of political processes within community-based interventions and actions and the ways in which cooperation, capacity and commitment affect
community and frontline worker relationships, and the willingness and ability to deliver to meet demand.

• Nicholas Nisbett, Nabeela Ahmed, Shilpa Deshpande, Francesca Feruglio (2017) Social accountability initiatives in health and nutrition: lessons from India, Pakistan and Bangladesh. Making All Voices Count Research Report, Brighton: IDS

• Nabeela Ahmed, Shilpa Deshpande, Francesca Feruglio and Nicholas Nisbett (2017) 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. Transform Nutrition Working Paper, IDS, Brighton

• Francesca Feruglio, Nicholas Nisbett (2018), The challenges of institutionalizing community-level social accountability mechanisms for health and nutrition: a qualitative study in Odisha, India, BMC Health Services Research, 2018, 18:788

• See also Nisbett et al (2017) New approaches to accountability in nutrition, under Enabling Environment – Monitoring and Surveillance, p17

Strengthening nutrition service delivery at community level – tools and approaches

Governments seeking to strengthen nutrition services need guidance on how to invest limited resources to achieve the best results. Transform Nutrition has rigorously evaluated and assessed initiatives to streamline the provision of nutrition services and interventions through the use of mobile technology and the simplification of diagnosis tools, reaching underserved populations with nutrition services provided through community platforms, and it has initiated a large-scale trial to assess which combinations of nutrition interventions are most effective to prioritise for the greatest impact on child stunting.

KENYAS

Cluster RCT of hand-held devices for integrated management of acute malnutrition (IMAM) in Kenya

This evaluation sought to compare the efficiency and effectiveness of hand-held devices with a specialised mobile health application (app) to help health workers deliver integrated management of acute malnutrition (IMAM) services against the standard paper based system in health facilities in Wajir County, Kenya. This study evaluated an mHealth pilot programme funded by OFDA through World Vision, implemented by Save the Children International in Kenya. The mHealth programme was also implemented in Mali, Niger, Chad and Kenya. The study found that the app reduced the number of reporting errors by 25 per cent; provided caseload and treatment data to decision-makers within 1.3 days of collection; increased the accuracy and reliability of treatment outcome data; and improved health workers’ adherence to the IMAM treatment protocol. The study found that effectiveness is dependent on health workers being well trained and having adequate time to manage cases and ongoing software support. Next steps to address challenges include simplification of protocols, working closely with the Ministry of Health (MoH) on data management and exploring scale-up by linking with other existing health services.

• Emily Keane, Natalie Roschnik, Caroline Njeri Kimere, Joanne Chui, Regina Mbochi, Nuria Ibrahim Abdi, Hassan Mohamed, Andrew Hall. A mobile health application to support health workers treat and report on acute malnutrition in Kenya: a cluster randomised controlled trial, BMC Nutrition, in draft

• Tine Frank, Natalie Roschnik, Emily Keane and Colleen Emary (2017), A mobile ‘app’ to manage acute malnutrition. Transform Nutrition Research Brief 9, March 2017


• Natalie Roschnik, Joanne Chui, Emily Keane, Preliminary findings from a malnutrition mobile app randomised trial in Wajir, Kenya. Transform Nutrition Research Brief 14

• This is how aid saves lives video

• Emily Keane (2017) Findings from a malnutrition mobile app, randomized trial in Wajir, Kenya, presentation given at Evidence for Action in East Africa event, 8 June 2017

• Tine Frank, Emily Keane, Natalie Roschnik, Colleen Emary, Melani O’Leary, Laura Snyder, (2016) Developing a mobile health app to manage acute malnutrition: a five-country experience, Field Exchange 2016(54).

• Emily Keane, Natalie Roschnik, Joanne Chui, Ibrahim Ahmed Osman, Hassan Mohamed Osman, (2018) Evaluation of mobile...
Assessment of acute malnutrition status of under-five children using revised mid-upper arm circumference (MUAC) cut-offs.

MUAC is increasingly used as part of programmes on community-based management of Severe Acute Malnutrition (SAM). Large-scale programmes are increasingly using MUAC as a single diagnostic criteria, as it is easy to implement at the community level. A new cut-off of MUAC would help frontline workers to better screen for SAM and MAM (Moderate Acute Malnutrition). This study evaluated the use of MUAC as a simple and reliable alternative to the currently used weight-for-height (WHZ) measurement and suggest a suitable cut-off value for the identification of children suffering from acute malnutrition (both severe wasting (SAM) & moderate wasting (MAM)).


BANGLADESH

Cost-effectiveness of different combinations of direct interventions in Bangladesh in reducing childhood stunting

Ten direct interventions were identified in the evidence review in the Lancet’s 2013 series on Maternal and Child Nutrition as necessary for effective reduction of child undernutrition. Governments faced with limited resources, however, need to make choices about where to prioritise efforts in scaling up coverage of these services. This research will evaluate the effectiveness of different combinations of these interventions, in order to help define the most cost-effective approach to pursue in different contextual settings. It asks what combination of counselling (during and after pregnancy) and supplement (or absence of it) gives us the best value for money. The study was designed by the Transform Nutrition team in Bangladesh. The study continues beyond the term of Transform Nutrition.


- Sk Masum Billah, Mohd Anisul Karim (2017), The right nutrition intervention bundle in the first 1000 days for a fair start to life. August 2017, blog
Pillar/theme 2 – Nutrition-sensitive programmes and approaches

Consensus now exists that nutrition-specific interventions alone will have limited impact on stunting. This has led to an increased focus on enhancing the nutrition-sensitivity of wider sectoral actions, especially agriculture and social protection. Transform Nutrition explored how best to link social protection to direct nutrition interventions in other sectors through including behaviour change communication to deliver improved nutritional outcomes. In agriculture, we investigated how to change the mix of production of crop and livestock through agricultural programmes in such a way that they facilitate improvement in children’s diets, diet diversity and nutritional status in the first 1,000 days. We further reviewed the potential of interventions seeking to improve women’s empowerment to have positive impacts on nutrition outcomes.

- Direct and Indirect nutrition – Transform Nutrition Overview 2011
- John Hoddinott (2017), Chronic undernutrition: retrospects and prospects, presentation given at DFID London, 6 June 2017 and as the keynote address at the Annual Conference of the Center for Child Well-being and Development, University of Zurich (18 March 2017).
- Eldis key issues guide: The role of social protection and agriculture in tackling chronic undernutrition

Social protection

Social protection interventions have significant potential to impact on the basic causes of undernutrition and improve child nutrition outcomes. Transform Nutrition reviewed social protection programmes in our focal countries including insurance, cash and food transfers, and services such as maternal and child health and nutrition programmes, among others to identify those amenable to assessment of their impact on the determinants of nutrition and their impacts. Drawing on large scale evaluations, our research analysed to what extent social protection interventions in Ethiopia and Bangladesh do impact nutrition, and what it takes to generate or strengthen such impact.

ETHIOPIA

Assessing mechanisms by which synergistic effects of social protection and direct nutrition interventions can be maximized, with the aim of drawing lessons on how to maximize the nutrition-sensitivity of social protection interventions.

In Ethiopia, Transform Nutrition focused on Ethiopia’s Productive Safety Net Programme (PSNP), the largest social protection programme in sub-Saharan Africa outside of South Africa, complemented by a study assessing the joint impact of behaviour change communication and growth monitoring alongside unconditional cash transfers. These programmes were found to have no impact on the nutritional status of preschool-aged children. Child diet quality was found to be poor and most mothers studied had not had contact with health extension workers; nor received information about optimal feeding practices. These findings informed revisions of the PSNP. Future research will examine whether these led to the expected improvements in anthropometry and diets of preschool children in Ethiopia.

- John Hoddinott, Sophie Marsden (2017), Tackling child undernutrition through social protection programmes, Transform Nutrition Impact story

See also Ethiopia case study by Andrea Warren under Stories of Change, p22
Assessing mechanisms by which synergistic effects of social protection and direct nutrition interventions can be maximized, with the aim of drawing lessons on how to maximize the nutrition-sensitivity of social protection interventions.

In Bangladesh, the study specifically looked at transfer modalities, such as food, cash, and vouchers, combined with behaviour change communication (BCC) interventions that aim to improve nutrition. The evaluation showed that this well-implemented intervention improved almost all measures of household consumption, that BCC components had large significant impacts on maternal knowledge and behaviour regarding nutrition and care practices, and child diets improved. Spillover effects were found in the improvement of knowledge of neighbours outside of the intervention beneficiaries. While both cash and food transfers can be effective in improving diets of poor households, transfers alone are not sufficient to improve child nutrition. The combination of cash transfers and BCC was the only element of the intervention to improve child nutrition outcomes, with a 7.3 percentage point reduction in stunting (nearly three times the national average over the same time period). Cash transfers seem to be more cost-effective than food transfers, and can have similar or better outcomes on household and child well-being.

- Further information on the Transfer Modality Research Initiative is available on request from the study leads; Akhter Ahmed (IFPRI Bangladesh) or John Hoddinott (Cornell).
- John Hoddinott, Shalini Roy, Akhter Ahmed, Naureen Karachiwalla (2017), Nutrition behaviour change communication causes sustained effects on IYCN knowledge in two cluster-randomised trials in Bangladesh, Maternal and Child Nutrition, Aug-17
- John Hoddinott, Shalini Roy, Ishita Ahmed, Akhter Ahmed (2017), Behavior change communication activities improve infant and young child nutrition knowledge and practice of neighboring non-participants in a cluster-randomized trial in rural Bangladesh, PLOS One, Jun-17

Social protection and nutrition in India

This study examined how three major programmes (Targeted Public Distribution System-TPDS), the Midday Meal Scheme (MDMS), and the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) can be made more nutrition-sensitive. Three approaches were identified: 1) strengthening governance and operations to make programmes more responsive to nutrition outcomes (TPDS strong, MGNREGA some – focus on underlying determinants, MDMS less), 2) integrating nutrition goals and actions, 3) leveraging scale and reach of these programmes to deliver nutrition-specific interventions. In the future, including fortification in TPDS and MDMS, as well as de-worming, hand-washing training, and micronutrients in MDMS at scale could address micro-nutrient deficiencies, reduce anaemia, and possibly have positive cognitive effects. Cost estimates show that fortification and add-ons to health packages are financially much less burdensome than diversification of the food basket. Cash transfers to pregnant and lactating women through MGNREGA should be explored.

- Results from the Transfer Modality Research Initiative (TMRI), presentation given at Evidence for Action in South Asia event, 8 July 2017

See also work on behaviour change in Ethiopia among pastoralist communities under Delivering nutrition services – tools and approaches, p10.
Agriculture

Agriculture is an essential underlying determinant of nutrition being a source of food and livelihoods. Transform Nutrition research asked what are the appropriate conditions under which agricultural growth is most likely to lead to reductions in undernutrition and how can interventions that increase agricultural productivity and agricultural incomes be designed in such a way that they increase their impact on undernutrition?


ETHIOPIA

Assessing synergistic effects of agricultural growth interventions combined with nutrition interventions (primarily BCC) and their impact on dietary diversity

Using evidence from interventions designed to improve agricultural production in high potential localities in Ethiopia, Transform Nutrition research assessed the impacts of these on nutrition knowledge and child dietary diversity. Farm assets have direct dietary impacts on nutrition, as well as indirect effects via income. Cow ownership increases children’s milk consumption and children’s linear growth and reduces stunting, but this effect is less important when there is sufficient access to local market. Increased household agricultural production diversity is found to lead to significant improvements in dietary diversity of pre-school children, but again, only for those households that do not have access to food markets. Examining the impact of improving nutrition knowledge within households and its complementarity with market access in Ethiopia, research found that raising average household knowledge on nutrition has potential to improve children’s diets, to the level of WHO requirements. However, this only applies in areas with relatively good access to markets. For households that are remote from the market, nutrition knowledge improvements do not lead to these increases in children’s dietary diversity. Findings point to nutrition-sensitive agricultural interventions pushing for market integration being more effective in reducing undernutrition than those promoting production diversity.

* John Hoddinott, Derek Headey, Mekdim Dereje (EDRI) (2014) (EDR), Cows, missing milk markets and nutrition in rural Ethiopia, ESSP II Working Paper 63, IFPRI and Synopsis
* Kalle Hirvonen, John Hoddinott, Bart Minten, and David Stifel (2016), Children’s diets, nutrition knowledge, and access to markets, ESSP Working Paper 84, IFPRI, Feb 2016 and Synopsis

BANGLADESH

Assessing the role of agriculture in reducing undernutrition in Bangladesh looking at the impact of increases at rice yields

This study assessed the impact of agricultural growth, specifically increases in rice yields, in reducing chronic undernutrition over the past few decades in Bangladesh. Bangladesh’s food system evolution saw rapid growth in yields and availability of calories, but less progress in diversification of food production and consumption. Rice yields predict earlier introduction of complementary foods to young children (mostly rice), and increases their weight-for-height. It does not predict improvements in dietary diversity of children or height-for-age. Further impacts on nutrition require diversifying the food basket through demand- and supply-side interventions.

* Derek Headey and John Hoddinott (2016), Agriculture, nutrition and the green revolution in Bangladesh, Agricultural Systems, Volume 149, November 2016, Pages 122–131

KENYA

Agrobiodiversity and Dietary Diversity for Improved Nutritional Status of Mother Infant Dyads in Rongai Sub-County, Kenya

This project explored the relationship between agrobiodiversity and nutrition, identifying entry points, and barriers for diversifying farm level production and diets, and identifying suitable interventions in Rongai sub-county of Nakuru County, Kenya. Insight from this study will inform policy makers regarding ways of improving farm
Women’s empowerment

For the last 15 years, the literature linking gender and nutrition has focused on individual women’s empowerment, including the assets they hold, and their levels of knowledge and education. While interventions focused solely on women as individuals are necessary, they may not be sufficient to reduce undernutrition. This review used secondary data to assess evidence of the impact of interventions on women’s empowerment measures and nutrition outcomes. Evidence from cash transfer programmes generally shows positive impacts on women’s empowerment, but mixed impacts on long-term nutritional status for conditional programmes and the reverse for unconditional. There is little difference in terms of impact on stunting. Agricultural and microfinance interventions demonstrate mixed impacts on women’s empowerment measures. But they show little evidence of impact on nutrition outcomes.

Analyses of underlying drivers of nutrition outcomes included indicators of women’s social status and gender-disaggregated data of household indicators and generally showed that maternal education and women’s social status are positively associated with improvements in nutrition. Studies of frontline workers in India, where these roles are filled by women, considered the dynamics of power and incentives, and found empowerment of women in these contexts affects implementation of the services.

- Mara van den Bold, Agnes Quisumbing, Stuart Gillespie (2013), Women’s Empowerment and Nutrition: An Evidence Review. IFPRI Discussion paper 01294
- Mara van den Bold (2014), Women’s empowerment and nutrition: what does the evidence tell us?, Transform Nutrition Research Brief 02
- See also Derek Headey et al (2015) The Other Asian Enigma: Explaining the rapid reduction of malnutrition in Bangladesh, under Stories of Change, p22
- See also Kohli et al (2017) under Stories of Change, p22
- See also Avula et al (2014), John (2016) and Deshpande (2017) under Transforming delivery of nutrition services at community level, p7
- See also Gobu et al (2017) Behavioural Change for Improved Nutrition among Pastoralists (BCIN) under transforming delivery of nutrition services – tools and approaches, p10
- See also Cheserek et al (2017) Agrobiodiversity and dietary diversity for optimal nutrition and health workshop report, Egerton University, Kenya

Back to top
Pillar/theme 3 – Building an enabling environment

This theme outlines the evidence on the political economy of nutrition and explores a number of key aspects of how development, policy, and civil society communities can create an enabling political and institutional environment at international, country and regional levels to support undernutrition reduction. A foundational evidence review of the literature on the wider institutional, governance and political factors behind successful nutrition interventions contributed to the seminal Lancet Nutrition series in 2013 and identified key areas for research taken forward by Transform Nutrition. Further reviews on leadership, nutrition education, monitoring and surveillance, and the economic rationale for investment in nutrition reduction, underpin practical application in leadership capacity strengthening and commitment.

• Enabling Environment summary 2011
• Eldis key issues guide: Enabling environments for nutrition

The politics of reducing undernutrition – what is an enabling environment?

Transform Nutrition examined how enabling environments for nutrition can be cultivated, sustained, and translated into impact on the ground and reviewed existing literature on nutrition politics and policy to identify gaps in understanding. Nutrition governance occurs based on three factors that shape enabling environments: knowledge and evidence; politics and governance; capacity and resources. The review highlighted the importance of recognizing political incentives (across sectors and levels), building (and not wasting) political commitment and leadership at all levels, and prioritizing investment. Country experiences show that with deliberate action the undernutrition reduction rate can be accelerated. The private sector has huge potential to contribute to accelerating nutrition improvements. Political economies (narratives and framing of evidence, competing interests, incentives, capacities, resources, and ideologies of different actors with direct and indirect interests in nutrition, and resulting inequalities) are critical to understanding the basic determinants of undernutrition. Policy makers should prioritize investment in scaling up nutrition-specific interventions and maximize nutrition-sensitivity of national development initiatives/processes. To move towards action, operational research on delivery, implementation and scaling up of interventions, as well as contextual analyses are needed.

Demographic and Health Survey (DHS) data were used to investigate governance factors that contributed to reductions in child undernutrition globally. Safe water and sanitation, gender equity, women’s education, and quantity and nutritional quality of food were key drivers of stunting reductions in the past, with income growth and governance playing key facilitating roles. Improving governance and social equity-related factors are of utmost importance, with a focus on political stability in South Asia and restraint of corruption and strengthening bureaucratic effectiveness in sub-Saharan Africa. Overall, findings show that there is a need for multi-dimensional nutritional strategies that involve a wide range of nutrition-sensitive sectors. They also point to a need to invest in better integrated datasets for high-quality analysis of the balance of immediate and underlying determinants.

• Synthesis report of SUN online discussions among 6 countries, Stuart Gillespie, Dec 2012
• Lawrence Haddad (2012). How Can We Build an Enabling Political Environment to Fight Undernutrition, European Journal of Development Research, 25(1), 13-20. (Not directly funded by Transform Nutrition – but of note as strongly influenced by the Transform Nutrition enabling environment agenda (and vice versa))
Assessing and strengthening accountability and responsiveness of policy makers – measuring commitment

Transform Nutrition contributed to the development of the global Hunger and Nutrition Commitment Index – a tool to measure and monitor government commitment to nutrition. Commitment was conceptualized as a “government action (as opposed to intent) in the areas of food availability, access and utilization around the legal and policy environments and for public expenditures”. Building on the Hunger Reduction Commitment Index with its indicators and ranking of legal frameworks, policies and programmes, and government expenditures, key components of nutrition commitment were incorporated, using credible data (e.g. nutrition relevant policy, budgets and legal frameworks), and the resulting combined index was produced and disseminated. Expert surveys highlighted problems related to coherence and incentives. The study then evaluated the impact of the index on key stakeholders by testing the hypothesis that commitment to the reduction of hunger is empirically different from commitment to reducing undernutrition drawing on the primary data collated through expert surveys in Malawi, Zambia, Tanzania, Bangladesh and Nepal. Political commitment was measured against 9 components and hunger reduction commitment was found to be higher than nutrition commitment in all of the countries except Nepal. Sensitive commitment metrics such as these are required in order to play a diagnostic role for pointing to areas where investments can have the biggest impact and commitment needs to be strengthened.

Commitment to Reduce Hunger and Undernutrition in Developing Countries, IDS Evidence report 78

- Hunger and Nutrition Commitment Index, website

See also Stories of Change, p22

- Lisa Smith (TANGO) and Lawrence Haddad (2015), Reducing Child Undernutrition: Past Drivers and Priorities for the Post-MDG Era, Transform Nutrition Research Brief 05, March 2015 in English and Amharic

See also Stories of Change, p22

Strengthening accountability – monitoring and surveillance

Both chronically and acutely high levels of undernutrition go unaddressed because of the lack of timely and readily available data in the public domain and at the fingertips of decision makers. Surveillance systems for nutrition are weak in developing countries. Mobile technologies could offer potential to improve monitoring and surveillance, but there is little evidence on how best to use them. Transform Nutrition explored these issues in a review of evidence on nutrition surveillance, on the impact of mobile phone technology for nutrition surveillance and analysis of new nutrition monitoring mechanisms using mobile technologies.

Transform Nutrition has also assessed innovative tools to enhance social accountability in the provision of health and nutrition services (described in the Transforming Delivery section p8–9) and highlighted the importance of disaggregated data for decision-makers at national and subnational levels – an approach put into practice with the India Health Report (see under State of Nutrition in India p20)


Surveillance

Better surveillance of the nutrition situation is needed to support planning and policy, and to provide timely warning of shocks. Transform Nutrition research identified the challenges related to collecting nutrition surveillance data, and suggested ways to classify data collection activities and meet the need for regular and accurate data in order to ensure that commitments on nutrition can be put into practice. The focus should be on improving the credibility, consistency and granularity of data that is currently collected rather than just collecting more data. Information obtained by surveillance systems can also be used in longer term development and for advocacy and promoting accountability including in tracking of progress on international targets.

Examining why nutrition surveillance in low-income countries is so hard to sustain, the study found there exists little consensus on best methods to undertake surveillance, and cost, capacity, institutional base, product demand, and participation constraints exist. Harnessing developments in electronic technology, surveillance of obesity and overweight, the interface between national and international nutrition systems, and multisectoral activities in nutrition (e.g. SUN) could improve sustainability.

- Veronica Tuffrey (2015), Nutrition surveillance systems, their use and value, Save the Children Report, June 2015


Mobile technology

The review of the evidence base on the impact of mobile phone technology for nutrition (and other) surveillance explored the potential to improve surveillance effectiveness and influence the empowering effect of nutrition and other surveillance. The review found a lack of evidence on the impact and cost-effectiveness of mobile phone use for surveillance, especially nutrition surveillance. Mobile phones may make nutrition surveillance timelier and improve data quality but financial, technical and ethical challenges exist. A functioning healthcare system, strategic partnerships with the private sector, and government support are needed to ensure mobile phone-based surveillance is sustainable and can be scaled up. Potential to improve analysis, presentation and communication of data to stakeholders for empowering effects are untested.

The new nutrition monitoring possibilities afforded by mobile technologies were evaluated in a case study of growth monitoring and nutrition counseling in Indonesia (World Vision) for the difference they make to the capacity, accountability and responsiveness of nutrition stakeholders. The use of technology affected the timeliness, quality, accuracy and real-time responsiveness of nutrition counseling and growth monitoring.


- Inka Barnett (2014), Using mobile phones for nutrition surveillance, Transform Nutrition Research Brief 04


Assessing, monitoring and developing nutrition-relevant leadership

The need for effective nutrition leadership and national-level champions is repeatedly highlighted in the literature. Transform Nutrition sought to fill the gap in evidence of what motivates and sustains nutrition leaders. This study undertook power and network mapping analyses of current (and excluded) actors in nutrition, including groups from business, government and civil society and interviews to determine their knowledge, attitudes and practices related to undernutrition in their country. Leadership is important for advocating for and directing change. Leaders operate within fluid boundaries set by political economies of nutrition; successful leaders are able to cross boundaries and translate between sectors and disciplines. Leadership attributes in individuals and their networks can be developed by supportive actions. Building community leadership, accountability and activism is necessary to give communities a voice. Training, competency, rewards and incentives frameworks can support leaders within the nutrition workforce. To contribute to country-led efforts to transform thinking and action on nutrition, promote sharing and learning of local experiences, and highlight the importance of leadership, Transform Nutrition supported the sharing of local experiences on scaling up nutrition through recognising local leaders as nutrition champions and creating the Transform Nutrition Leaders Network. Working closely with Scaling Up Nutrition Movement and Save the Children, Transform Nutrition developed guidelines and training for strengthening capacity of nutrition champions.

- Nicholas Nisbett, Sophie Marsden, (2017) Transforming leadership in nutrition: Championing the people that lead the fight against undernutrition, Transform Nutrition Impact Story
- 2013 Nutrition Champion award winners
- Transform Nutrition Champions 2016 stories and video
- Namukolo Covic, (2017) Translating understanding of leadership challenges into action: personal experiences, presentation given at Evidence for Action in East Africa event, 8 June 2017
- Manaan Mumma (2017) Nutrition Leadership in Practice, presentation given at Evidence for Action in East Africa event, 8 June 2017
- Israel Hailu (2017) Leadership in Nutrition, presentation given at Evidence for Action in East Africa event, 8 June 2017
- Nicholas Nisbett (2017) Leadership in Nutrition, presentation given at Evidence for Action in East Africa event, 8 June 2017
- Nicholas Nisbett (2017) Leadership in Nutrition, presentation given at Evidence for Action in East Africa event, 8 June 2017
- Namukolo Covic (2016) Championing nutrition: effective leadership for action, presentation given at Micronutrient Forum Special Session on Stories of Change, 23 October 2016
- Nicholas Nisbett (2015), Understanding, enabling and building effective leadership in nutrition, Transform Nutrition Research Brief 07, Sept 2015
- Nicholas Nisbett (2015), Chapter contributions on leadership and accountability, Global Nutrition Report, Sept 2015, p72-3, p115-6
Assessing and developing key nutrition-relevant capacity

Leadership and capacity are key to creating and sustaining enabling environments for nutrition, and generating demand for nutrition-relevant knowledge. In 2014, Transform Nutrition contributed to a workshop on developing capacity of a global cadre of nutrition professionals for post-2015. The workshop highlighted the need for new knowledge and skills to address the post-2015 challenges; new ways of working with other disciplines, curriculum and credentials tailored for development needs and training in advocacy and leadership. Transform Nutrition researchers mapped the institutional knowledge capacity and informal knowledge systems in India and South Asia with a survey of existing educational initiatives for nutrition in India, particularly Public Health Nutrition (PHN) and a regional situational analysis of Master’s level academic programmes in nutrition in South Asia. The research showed that opportunities for Public Health Nutrition training were limited and Master’s level courses were found to focus too little on strategies highlighted in the Lancet series. Not one country had modules on nutrition policy or nutrition’s linkages to other sectors such as agriculture, social protection, WASH, or women’s empowerment. The education sector is important to ensure the field of nutrition is an attractive career opportunity.

Interviews with 25 public health experts and professionals working on PHN showed that PHN in India faces several challenges: a lack of professionals trained in PHN in public policy; gaps in academia in relation to research skills, practical training, and interdisciplinary curricula focus. The possibility to scale up nutrition capacity and hence the possibility to improve nutrition outcomes faces challenges in South Asia with the weakness in education provision.

The Transforming Nutrition Short Course was designed for both policy makers and practitioners, and takes participants through new ways of thinking about undernutrition and what to do about it. It is offered in annual summer sessions in IDS, Brighton for participants from any country and in India in 2014 and 2015.

- Short Course July 2012 – course outline, reflection
- Short course July 2013 – course outline, reflection
- Short course July 2014 – course outline, course report, reflection
- Participant interviews from the 2014 “Transform Nutrition” short course held at IDS, video
The economic rationale for investing in nutrition

An essential element of building commitment for nutrition is understanding the financial resources available. Policy makers and financial analysts in public and private sectors have to judge between competing demands on scarce resources. Transform Nutrition research shows that interventions that prevent malnutrition are excellent investments, as better nourished populations are more economically productive and the return on costs of interventions to reduce stunting are good. To make the case for investing in interventions to improve nutrition, Transform Nutrition analysis used the evidence on the costs of proven interventions on which there is consensus on their effectiveness and cost, to judge the ratio against modelled benefits in terms of increased income from the resulting reduction in stunting. For a set of 17 countries, the research showed that the benefit-cost ratios are greater than one in all cases, with a median of 18 (Bangladesh). Countries that want to generate and sustain broad-based wealth are likely to find that scaling up the set of proven interventions would be a good investment. Further work estimated the cost of malnutrition to African economies in terms of lost GDP. For an illustrative set of 15 African countries, meeting the 2025 World Health Assembly target for stunting will add $83 billion dollars to national incomes.

• John Hoddinott, Mark Rosegrant and Maximo Torero Paper on cost effectiveness of nutrition presented at the Copenhagen Consensus (May 2012) and published (2013), Chapter 6. Hunger and malnutrition: investments to reduce hunger and undernutrition, Global Problems, Smart Solutions, Costs and... [et al.] Karger Press

The state of nutrition in India

India’s undernutrition problem is a serious threat to child development. Accelerating action at the state level is essential to change the course of the future for India’s children. The India Health Report, PHFI’s flagship series, provides periodic assessment of health in India, with the inaugural issue focusing on nutrition. The report surveys the levels of and trends in maternal and child malnutrition in India, focusing on disparities in these outcomes across geographical regions, socio-economic classes, and demographic groups, in order to deepen policy dialogue, identify actionable areas, and ultimately improve nutritional outcomes. It also reviews the existing literature on the determinants and consequences of maternal and child malnutrition in the country. Data is presented at the state level to enable easy comparison across states and to provide policy recommendations specific to each state. Key messages in the report are that stunting, wasting and underweight rates of India’s children have declined, especially during the last decade, but still exceed levels observed in countries at similar income
levels, and the rate of improvement in nutritional status has not kept pace with India’s significant gains in economic prosperity and agricultural productivity. Economic growth cannot, by itself, reduce undernutrition and may contribute to overweight and obesity. Nutritional status and progress on reducing stunting vary markedly across India’s states requiring state-specific responses. The underlying reasons for India’s high rates of stunting and variability in progress are complex and intertwined. India ignores the problem of undernutrition and its impact on child development at its peril and risks large economic, health and social consequences for future generations. Additional contributions to the research on the nutrition context of India include a review of nutrition-related government interventions that affect the 1,000 day period, an evaluation showing nutritional supplementation for pregnant women and young children through the ICDS was associated with improved school enrollment and completion of more schooling grades when the children became adolescents, and a commentary of the very real challenges in India with regards to child undernutrition. An assessment of subnational trends in underweight between 2002 and 2011 in India showed declines due to improvements in maternal education, household assets, access to toilets, household diet quality, poverty and rural roads, but not associated with changes in immediate determinants such as immunization, diarrhoea, and breastfeeding potentially due to poor measurement of an incomplete set of available determinants.

- Kavita Chauhan (2017) Research uptake and communication: enhancing use of data for nutrition in India, presentation given at Evidence for Action in South Asia event, 8 July 2017
- Neha Raykar, Kavita Chauhan, Sophie Marsden (2017), Using data to tackle undernutrition in India, Transform Nutrition Impact Stories, July 2017
- Neha Raykar (2017) Commitments and Action on Achieving Health and Nutrition Targets of SDGs and WHA, presentation given at India Health Report Workshop in Guwahati, Assam

• Kavita Chauhan (2017) Research uptake and communication: enhancing use of data for nutrition in India, presentation given at Evidence for Action in South Asia event, 8 July 2017
• Neha Raykar, Kavita Chauhan, Sophie Marsden (2017), Using data to tackle undernutrition in India, Transform Nutrition Impact Stories, July 2017
• Neha Raykar (2017) Commitments and Action on Achieving Health and Nutrition Targets of SDGs and WHA, presentation given at India Health Report Workshop in Guwahati, Assam

---

**Using data to tackle undernutrition in India**

The India Health Report: Nutrition 2015

Launch of the India Health Report on Nutrition, December 2015

The India Health Report: Nutrition 2015 (IHR) was the first ever resource to assess state level data across a number of determinants of undernutrition in India. Launched in December 2015, the report surveyed the trends in maternal and child undernutrition in India across geographical regions, socio-economic classes and demographic groups. Here we explore the impact it had as both an advocacy tool and as a source of evidence to inform and shape policy and practice that aims to tackle undernutrition across the country.

For the last two decades India has seen rapid economic growth with significant improvements in household income, agricultural productivity and child survival rates. Child undernutrition rates have also been declining, first at a slow rate between 1992 and 2006, and then at an accelerated pace since 2006. However, India still faces a huge child undernutrition burden and is home to over 40 million stunted children and 17 million wasted children...
Stories of Change

The Stories of Change (SoC) project applies tools, methods and approaches in selected countries to better understand, engage with, influence and evaluate multi-sectoral action to reduce undernutrition. These “stories of change” examine the drivers and pathways of change over the last 10-20 years in these case study countries. There are two core methodological tracks for this work – one quantitative, aimed at statistically determining the drivers of improved nutrition, and the second, focusing on the dynamics and processes of change, drawing upon qualitative data. The studies were collected in a Special Issue of Global Food Security journal and featured in the book ‘Nourishing Millions’, which addresses nutrition-specific and nutrition-sensitive interventions, undernutrition as well as overweight and obesity, and success stories from South America to South Asia and sub-Saharan Africa. The book also addresses how ‘champions’ for nutrition arise and drive change drawing on Transform Nutrition’s work on leadership.

**Countries include: Ethiopia, Zambia, Senegal, Bangladesh, Nepal, an Indian state (Odisha)**

**Stories of change approach and conclusions**

The Stories of Change developed and applied a tool pool of concepts, methods, and approaches to measure change in nutrition-relevant policy and practice in a consistent and comparable way. Assessing these tools together allows for a holistic consideration of processes that facilitate improvements in malnutrition reduction. The rationale for Stories of Change (SoC) and the key methods and findings in each country are summarized in the overview article for the journal. Findings show that commitment, coherence, accountability, data, leadership, capacity and finance are core factors for improvements in nutrition to be sustained. These determine how change happens and can happen. At the community-level, the priority need is for basic improvements in infrastructure and livelihood opportunities. Nutrition-specific interventions, and health programmes, particularly antenatal and maternity services, as well as other initiatives focused on women and girls’ indicators have significant impacts where they are solidly implemented. Nutrition-sensitive interventions and community nutrition initiatives are also important. Drawing from across the country experiences, the components of effective action to improve nutrition include: building commitment; strengthening horizontal coherence; improving national to community vertical coherence, scale and reach; generating data and evidence; strengthening capacity; cultivating and supporting leadership and increasing volume and consistency of financing.

- See *Stories of Change in Nutrition* Special Issue and *Stories of Change* website for additional cases from Nepal, Zambia and Senegal.
- **Jody Harris, Scott Drimie, Terry Roopnaraine, Namukolo Covic** (2017) *From Coherence towards Commitment: changes and challenges in Zambia’s nutrition policy environment*, presentation given at Evidence for Action in East Africa event, 8 June 2017 and at Micronutrient Forum Special Session on Stories of Change, 23 October 2016
COUNTRIES INCLUDE: GLOBAL, ETHIOPIA, ZAMBIA, SENEGAL, BANGLADESH, NEPAL, AN INDIAN STATE (ODISHA)

Econometric analysis of underlying nutrition drivers
In Bangladesh, rapid wealth accumulation and significant gains in parental education are the two main drivers of child undernutrition reductions. Health, sanitation, and demographic factors also play important roles. In Bangladesh, India, Nepal and Pakistan increases in female education, improvements in maternal wellbeing, and improvements in sanitation are particularly important for explaining changes in height for age z-scores. Changes in household wealth, mothers’ access to antenatal care and mothers’ education are the primary drivers of nutrition improvement in all SoC countries except in Zambia, where significant increases in usage of bednets is the driving factor. Sanitation was only a factor in South Asia.

- Derek Headey, John Hoddinott, Disha Ali, Roman Tesfaye, Mekdim Dereje (2014), The Other Asian Enigma: Explaining the rapid reduction of malnutrition in Bangladesh, IFPRI Discussion paper 01358
- Derek Headey, John Hoddinott, Soelle Park (Cornell) (2016), Drivers of Nutritional Change in Four South Asian Countries: A Dynamic Observational Analysis, Maternal and Child Nutrition Volume 12, Issue Supplement S1 May 2016 Pages 210–218
- See also Smith and Haddad (2015) under Enabling Environment Politics of nutrition (p15) and Menon et al (2015) under State of nutrition in India (p21).

INDIAN STATE (ODISHA)

Examining drivers of nutrition-relevant change in the Indian state of Odisha India since 1990
The analysis of what worked to deliver improvements in most health and nutrition outcomes and immediate determinants of nutrition since 1990 in Odisha highlighted the expansion of nutrition-specific interventions and programmes, and the Public Distribution System (PDS). High level state support for and commitment to this was driven by a vision for impact, and generated success by using several delivery platforms, collaborations with committed development partners, and strengthening strategic/operational capacities and financing. Improvements in quality of services and incentives strengthened community demand for services. Gaps remain in severe acute malnutrition, complementary feeding, and iron folate supplementation during pregnancy. A future focus should therefore be on strengthening preventive actions. Progress in underlying and basic drivers of nutrition were mixed pointing to the need for investment in long-term development activities.

- Neha Kohli, Rasmii Avula, Mara van den Bold, Elisabeth Becker, Nicholas Nisbett, Lawrence Haddad, Purnima Menon (2017), What will it take to accelerate improvements in nutrition outcomes in Odisha? Learning from the past, Global Food Security, Volume 13, June 2017, pp38-48
- Commitment to child nutrition in Odisha, video
- Rasmii Avula with Neha Kohli, Purnima Menon, Lawrence Haddad, Nick Nisbett, Mara van den Bold, Elisabeth Becker (2016) Mapping nutrition change in Odisha: the role of programs, policies and politics, presentation given at Micronutrient Forum Special Session on Stories of Change, 23 October 2016
- See also the State of Nutrition in India, p21
Background
The Stories of Change (SoC) research project aims to capture experiential learning from policy makers and, mothers and children in Odisha with a survey worker.

TN_SoC_Odisha_India_FINAL.indd   1 17/10/2016   11:08

Web
partners. Using research-based evidence we aim to inspire effective action to address undernutrition. The views expressed do not necessarily

Transform Nutrition is funded by UK aid from the UK government and is a consortium of five international research and development partners. Using research-based evidence we aim to inspire effective action to address undernutrition. The views expressed do not necessarily reflect the UK Government’s official policies

Web www.transformnutrition.org Email transform@ids.ac.uk Twitter @TN_NutritionRPC