

NUTRITION EXCHANGE

South **Asia**



Improving Young Children's Diets



EDITORIAL



Carmel Dolan, NEX Co-editor and
Judith Hodge, NEX Co-editor

Welcome to the second issue of *Nutrition Exchange (NEX)* South Asia. The South Asia region continues to bear the highest burden of child malnutrition in the world, with significant implications for global progress. As with the first issue, this issue follows on from a regional conference, convened by SAARC (the South Asian Association for Regional Cooperation) and UNICEF (United Nations Children's Fund) on 'Stop Stunting: Improving Young Children's Diets in South Asia' in 2019 in Nepal. Poor complementary feeding practices are associated with high rates of child malnutrition in the South Asia region and it is vital therefore to understand how related national policies and programmes are being designed and implemented and share the lessons learned.

Through a partnership with UNICEF's Regional Office for South Asia (ROSA), we have worked closely with a range of authors to support the development of nine articles from six countries – Afghanistan, Bangladesh, Bhutan, India, Nepal and Pakistan – as well as an overview from UNICEF ROSA and a regional perspective on tackling the double burden of malnutrition. In keeping with the ethos of NEX, we prioritise the 'voice' of national-government actors as the primary authors, along with their development partners.

Each country is a unique context and these articles provide important insights into how the diets of young children are assessed, understood and addressed across diverse settings. Improving complementary feeding is not straightforward and requires taking into account an array of underlying drivers that can reduce availability of and access to adequate and quality diets, including low socioeconomic status, food insecurity, and perceptions of appropriate foods and feeding practices. It also needs the enabling policy, programme and financing environment to be effectively mobilised. A standout feature of the South Asia region is how well countries have done in increasing and maintaining high rates of breastfeeding. An enduring challenge is protecting children in the 6-23 months age range from the negative impacts of poor diets on their growth and development.

As we started work on this edition, the COVID-19 pandemic emerged and exposed the fragilities and inequities in global and local food systems. As outlined in the overview by the UNICEF regional team, the pandemic is affecting the lives and livelihoods of people across the region. Food-price increases and disruption of key services will add to the challenges already faced by households in feeding their young children. Improving young children's diets is even more critical to prevent already high levels of child malnutrition from increasing further.

As highlighted at the 2019 SAARC/UNICEF conference, it is important for multiple actors across different systems to act in tandem to improve young children's diets; particularly those engaged in food and health systems; water, sanitation and hygiene (WASH); and

social protection. The articles in this issue of *NEX South Asia* cover all these areas and their impact on complementary feeding.

Food systems lie at the heart of the solution to improving young children's diets. From **Nepal** we learn about promoting homestead food production as a means to help year-round consumption of fresh foods as a key approach to increasing the diversity and quality of diets in a large, multi-sector programme. From Punjab province in **Pakistan** comes new evidence on the role of cost of diets, food access and perceptions in shaping a multi-sector communications strategy for infant and young child feeding. Health systems provide a key delivery vehicle for different approaches to address complementary feeding. In **Bhutan** a home-fortification approach aims to reduce high levels of anaemia, while in Bihar state in **India** a home-based care approach is building the capacity of frontline workers. In **Afghanistan** a focus on complementary feeding is part of a community-based nutrition programme being scaled up across the country. Other sectors are involved, too: again from **Pakistan**, an article from Sindh province describes sub-national ownership of a programme linking WASH and nutrition to improved diets and care/feeding practices. In articles from **Bangladesh** and **Nepal** the focus is on the role of cash-based social protection systems in supporting affordable and diverse diets among poor and vulnerable families. And another article from **India** provides rich insights into the integration of complementary food supplements at scale in the country's national nutrition programme. Finally, in conversation with regional nutrition advisors from the World Health Organization (WHO), we ask what policy shifts are needed to tackle the double burden of malnutrition in the region, given rising rates of child overweight.

Looking at the rich learnings from these diverse countries reveals a strong thread running through these articles: the importance of context-specific understanding of the perceptions and realities for families and communities; the need to harness multiple systems and assess, plan and work jointly; and the need for recognition of innovations and adaptations to policy and programmes to overcome blockages along the way. Frontline workers, be they from the agriculture, health, social protection or WASH sectors or from traditional community structures, are vital contact points for families as they nurture their young children and strive to feed them nutritious and diverse foods.

It has been our privilege to work on *NEX Asia 2* and we remain passionate about the importance of hearing the voices of national and sub-national government actors and their partners as they share their learning about what works well and what challenges they need to overcome in nutrition programming and policy. To learn more about NEX, email office@enonline.net.

Carmel Dolan and Judith Hodge

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ABOUT *NUTRITION EXCHANGE*

Nutrition Exchange (NEX) is an ENN publication that contains articles on nutrition programme experiences and learning from countries around the world. Published twice per year, NEX is aimed at those working to reduce malnutrition at the national and sub-national level, including government, civil society and allied sectors concerned with nutrition. Articles written by national actors are prioritised for publication.

PARTNERSHIP BETWEEN ENN AND UNICEF

The ENN NEX Co-editors and the UNICEF Regional Office for South Asia (ROSA) have worked closely together from the outset of this publication reflecting the partnership approach we have adopted. Our vision is to deliver a high-quality publication, to enable regional actors to share their country learning on complementary feeding within the region and beyond. We would like to thank Charulatha Banerjee for her contribution to this publication and associated podcasts, available in July and August 2020.



Leveraging the power of multiple systems to improve diets and feeding practices in early life in South Asia

Zivai Murira is the Nutrition Specialist at UNICEF Regional Office for South Asia, based in Kathmandu, Nepal. **Harriet Torlesse** is the Regional Nutrition Advisor at UNICEF Regional Office for South Asia, based in Kathmandu, Nepal.

The day a baby takes his or her first bite of food is a celebrated milestone. It marks the end of dependence on a mother's breastmilk alone, and a new phase of discovery – new tastes, textures and smells. Every bite provides additional nutrients to fuel the growth and development of a child's brain and other vital organs. And every meal is an opportunity for caregivers to give loving, nurturing care.

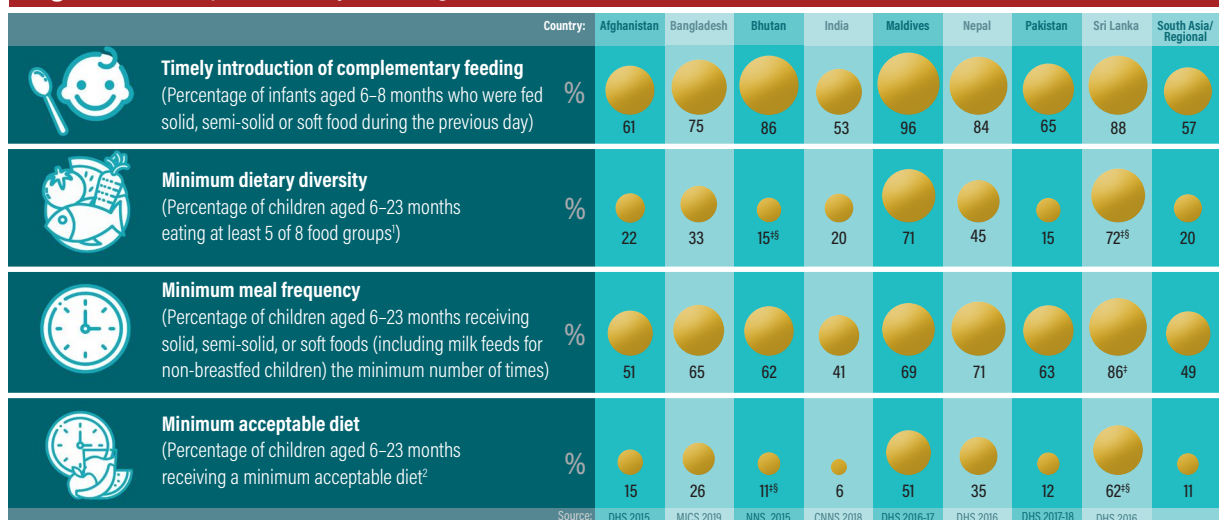
It can also be an anxious time for caregivers. How much food to give? How many times a day? Which foods are nutritious and safe? These are questions that many caregivers experience. But these issues are compounded many times over for the millions of families in the region who lack the know-how and resources needed to feed their children in the best way possible.

We know there is an immense problem with the diets of young children in South Asia because over half of the world's wasted children and 40% of the world's stunted children under the age of five years live in the region¹. While diarrhoea and other diseases also cause undernutrition, it is clear that poor diets and feeding practices play a major role. In fact, research has shown that children in South Asia are more likely to be stunted and wasted if they begin complementary foods too late, consume too few meals and lack dietary diversity².

Complementary feeding needs to start at six months of age, but 40% of infants in South Asia are not receiving these foods at age six to eight months. Added to this, an estimated 80% of children aged 6-23 months consume diets that contain less than the minimum of five recommended food groups and 60% are given too few meals per day³. The consumption rate of nutrient-dense foods is particularly low. Only 25% children aged 6-23 months are fed meat, poultry or fish, and only 45% are given any fruits or vegetables⁴. The diversity of children's diets is narrower in poorer households; a sign of the income constraints they face⁵. Continued breastfeeding is still the social norm in South Asia, and the region has higher rates at one years old (82%) and two years old (70%) than any other region in the world³. However, South Asia lags behind other regions on all other aspects of complementary feeding.

¹ UNICEF, WHO, & IBRD/WB (2020). Levels and Trends in Child Malnutrition: Key Findings of the 2019 Edition of the Joint Child Malnutrition Estimates. New York, Geneva, Washington DC.
² Torlesse, H. & Aguayo, V. M. (2018). Aiming higher for maternal and child nutrition in South Asia. *Maternal & Child Nutrition*, 14(Suppl 4) e12739. doi: 10.1111/mcn.12739.
³ UNICEF (2020a). UNICEF's expanded database on infant and young child feeding. <https://data.unicef.org/resources/dataset/infant-young-child-feeding/>
⁴ UNICEF (2019). The State of the World's Children 2019. Children, Food and Nutrition: Growing well in a changing world. UNICEF, New York.

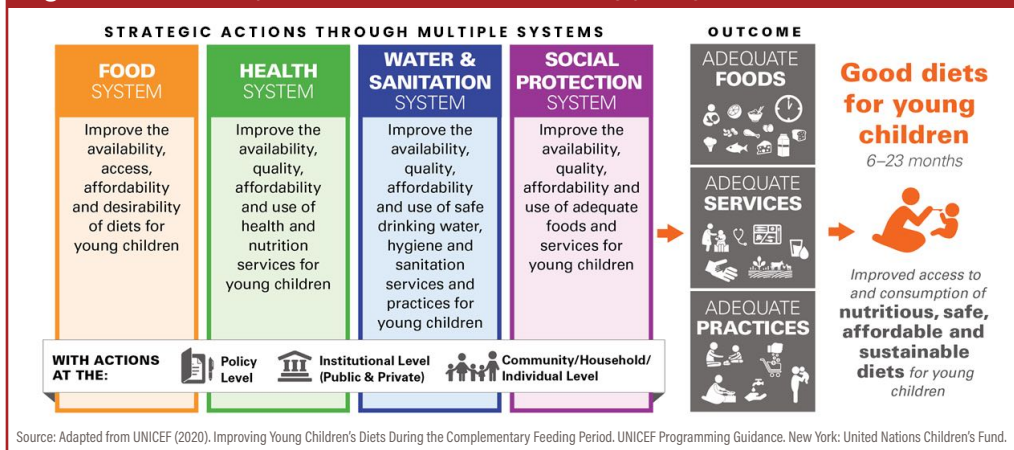
Figure 1 Complementary feeding nutrition indicators in South Asia



¹ Food groups: (1) Breastmilk; (2) grains, roots and tubers; (3) legumes and nuts; (4) dairy products (milk, infant formula, yoghurt, cheese); (5) flesh foods (e.g., meat, fish, poultry, organ meats); (6) eggs; (7) vitamin A-rich fruits and vegetables, and; (8) other fruits and vegetables
² Minimum acceptable diet is a composite indicator combining Minimum dietary diversity and Minimum meal frequency

[†] Source: UNICEF global IYCF database (<https://data.unicef.org/resources/dataset/infant-young-child-feeding/>) unless otherwise stated. The definitions provided in Table 1 apply unless otherwise stated. Children aged 6-23 months, unless otherwise stated. CF = complementary food.
[‡] Source: Survey report.
[§] For minimum dietary diversity, the previous definition of minimum dietary diversity applied (at least 4 out of 7 food groups; breastmilk not included as a food group).

Figure 2 A multi-systems framework for improving young children's diets



New challenges are also emerging. With the growing influence of the food and beverages industry in driving consumer preferences in the region, there are reports of alarming increases in the consumption of unhealthy foods and beverages in early childhood. These unhealthy diets are not only associated with an increased risk of overweight and related health problems in later life: a recent study in Nepal found that young children who frequently consume unhealthy foods and beverages are more likely to be stunted – possibly because these foods are displacing more nutritious foods from their diets⁵.

To find solutions to the challenges that families face in feeding their young children, we must better understand the drivers and determinants of poor diets and feeding practices in South Asia. These are complex and inter-related and vary considerably across and within countries. In the highlands of the Himalayas, snow can cut off communities from fresh foods for months every winter, while in urban areas, some families are turning to the convenience of unhealthy processed foods. New parents across the region are often surrounded by a cacophony of well-meaning advice on how to feed their young children, often from elder family members who may be more influenced by enduring sociocultural beliefs and taboos. The poorest families simply cannot afford to make the nutritious food choices that health workers advise them will benefit their children. And young children often lose precious nutrients to infections when foods are prepared, stored and fed under poor water, sanitary and hygiene conditions.

Our approach to these myriad problems has often been too narrow, fragmented and disconnected. For example, while the health system has led in educating and counselling caregivers on complementary foods and feeding practices, agricultural policies are too focused on grains

and give insufficient attention to crop diversification, while social safety nets are failing to provide the lifeline that many poor households need to purchase nutritious food.

We must rethink how we conceptualise, design and implement programmes in order to improve the access to and consumption of nutritious, safe, affordable and sustainable diets for children in early life. And this is needed now, more than ever. The COVID-19 pandemic has disrupted the lives and livelihoods of millions across the region, as governments strive to halt the transmission of the virus. Job and income losses, rising food prices, constrained physical access to food markets and widespread disruption of health and nutrition services mean that poor households face immense difficulties in feeding their family members, including young children.

As we work to respond to these pressing needs both during and in the aftermath of the COVID-19 pandemic, it is imperative that we use this opportunity to reimagine public policy and build stronger systems to meet children's nutrition needs in early life.

This work is already underway in South Asia. A regional conference was organised by the South Asian Association for Regional Cooperation (SAARC) and the United Nations Children's Fund (UNICEF) on 'Stop Stunting | Improving Young Children's Diets in South Asia' in September 2019 in Kathmandu, Nepal to galvanise regional and country action to accelerate efforts in improving diets and feeding practices in the region. SAARC member states agreed that no single system or stakeholder group can address all the barriers to optimal diets and feeding. Instead, the collective actions of multiple systems (notably the food, health, water and sanitation, and social protection systems) and stakeholders (government, development partners, academics and the private sector,

as well as communities, households and individuals) are required (see Figure 1).

Led by government, these systems and stakeholder groups should work together to:

1. increase the availability, access, affordability and desirability of food ('adequate food');
2. increase the availability, quality and use of services in health and nutrition, social protection, and water and sanitation ('adequate services'); and
3. improve feeding, care and hygiene practices ('adequate practices').

It is proposed that every country in the region identifies and prioritises a set of strategic actions across each key system, based on a situational analysis of the barriers, bottlenecks and enablers to achieving adequate food, services and practices to support optimal diets and feeding practices in early life. These strategic actions may vary by context and may be needed across three intervention levels: policy; institutional; and community, household and individual. These actions should be integrated into multi-sector and sector plans, with resources focused first on the most deprived geographies and population groups, and scaled up in a phased manner.

The COVID-19 pandemic and its aftermath risk undoing the progress that has been made across the region to improve nutrition. It is crucial that we build systems that are resilient to shocks so the rights of young children to adequate food and care are protected at all times, especially when they are most vulnerable. We must ensure that children do not carry the scars of poor diets and feeding practices in early childhood for the rest of their lives.

⁵ Pries, A. M., Rehman, A. M., Filteau, S., et al. (2019). Unhealthy snack food and beverage consumption is associated with lower dietary adequacy and length-for-age z-scores among 12–23-month-olds in Kathmandu Valley, Nepal. *The Journal of Nutrition*, nxz140. doi: 10.1093/jn/nxz140.



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Using an in-depth assessment of young children's diets to develop a multisectoral nutrition communications strategy in Punjab province, Pakistan

Dr Muhammad Nasir is a medical doctor and Programme Manager in the Primary and Secondary Healthcare Departments, Government of Punjab.

Eric Alain Ategbro (PhD Nutrition) is Chief, Nutrition, UNICEF, Pakistan.

Dr Saba Shuja is a medical doctor and Nutrition Officer with UNICEF, Pakistan.

Dr Wisal Khan is a medical doctor and Nutrition Specialist with UNICEF, Pakistan.

Dr Shafiq Rehman is a medical doctor and Nutrition Specialist with UNICEF, Pakistan.

Background

Pakistan's most recent National Nutrition Survey (NNS 2018) identifies worrying levels of child malnutrition. The national prevalence of stunting in children under five years old is approximately 40% and wasting prevalence is nearly 18%¹. Poor complementary feeding practices among children aged 6–23 months is reported to be one of the main causes of undernutrition, particularly stunting, in the South Asia region. Research has shown that children in South Asia are more likely to be stunted if there is delayed introduction of complementary foods, a young child's diet is low in diversity, and a child is given too few meals².

Between Pakistan's NNS in 2011 and 2018, there was a decline in three of the four complementary feeding indicators, which is likely to be due to a combination of factors: ongoing economic limitations within households, feeding and caregiving constraints and an increase in the marketing and availability of low-quality 'junk' foods. Only one in seven children (14%) aged 6–23 months receive a meal with minimum dietary diversity (at least four different food groups); one in four children (18%) receives the minimum number of meals per day; and less than one in 20 children (about 4%) are provided with complementary foods that meet the requirements of a minimum acceptable diet for children aged 6–23 months³. Although a greater proportion of children receive adequate complementary foods in urban areas, the situation is very poor in both urban and rural localities, underscoring the need for significant improvement in the diets of young children across the entire country⁴.

Filling the 'information gap' on complementary feeding in Pakistan

Pakistan's Infant and Young Child Feeding (IYCF) strategy (2016–2020) when formulated in 2015, lacked an evidenced social and behaviour change communication (SBCC) component and in particular, a good understanding of complementary feeding. This gap triggered a National Complementary Feeding Assessment (NCFA) to generate evidence around beliefs and behaviours and to better understand the enablers of and barriers to optimal feeding practices across the various provinces. The NCFA also looked at the decision-making processes in households with regards to infant and young child food choices. Added to this, IYCF counselling, while part of many nutrition programmes in Pakistan, has been low in coverage and of poor quality. Understanding the reasons for these challenges is necessary if barriers are to be overcome.

The Government of Pakistan conducted the NCFA between 2017 and 2018 to provide, for the first time, in-depth information needed to strengthen its IYCF approach. Specifically, the NCFA comprised:

- In-depth secondary analysis of data on complementary feeding practices from the Pakistan Demographic Health Survey (2013–14);
- Formative qualitative research on complementary feeding behaviours and practices; and
- Cost of Diet and Optifood Dietary Analysis³ to analyse the cost of a nutritious diet.

This article describes the findings of the NCFA and the experiences and lessons learned in strategically using this evidence to influence the development of a multisectoral nutrition communications strategy in Punjab province, Pakistan.

Key findings from the NCFA

The NCFA highlighted that affordability is the main problem in accessing nutritious foods during the complementary feeding period; notably fruits, eggs and meat, which are all very expensive. Despite affordability issues, mothers and caregivers are believed to prefer more expensive but convenient foods such as infant cereals, which are perceived to be more nutritious. Added to this, households are known to sell more nutritious foods such as eggs and milk from their own produce to obtain cash and can use this cash to purchase complementary foods. Availability of the main food items in local markets was found not to be a barrier, except in difficult geographical terrains such as mountainous regions where geographical access was constrained.

Most children aged 6–23 months are fed the same food as the rest of the family; thus

¹ National Nutrition Survey (2018) <https://www.unicef.org/pakistan/media/1951/file/Final%20Key%20Findings%20Report%202019.pdf>

² UNICEF (2020). Improving Young Children's Diets During the Complementary Feeding Period. UNICEF Programming Guidance. New York: United Nations Children's Fund.

³ Optifood is a software application that allows public health professionals to identify the nutrients people obtain from their local diets, and to formulate and test population-specific food-based recommendations to meet their nutritional needs.

family eating behaviours influence the diets of young children. The caregiver's dietary preferences also restrict the consumption of some nutritionally rich and less expensive foods, such as millet, which is widely perceived as 'bird food'. Meanwhile, the consumption of unhealthy processed foods (such as chips, papar (a local snack food), and biscuits) is common among young children, suggesting that caregivers consider these foods an acceptable component of young children's diets.

The NCFa also identified a lack of knowledge on dietary diversity among healthcare providers, who, along with grandmothers and fathers, were found to be important influencers of complementary feeding practices.

Dietary analysis

The Optifood Dietary Analysis identified vitamin A, iron, zinc, folate (for children aged 12–23 months) and calcium to be important 'problem' nutrients, along with vitamins B1, B3, B6 and B12 (for children aged 12–23 months) and folate (for children aged 6–11 months), which were lesser problem nutrients. The Optifood analysis also showed that the problem nutrients could be largely increased using food-based recommendations (e.g., increased consumption of eggs, roti and milk, as well as home-based fortification), with supplementation needed to address dietary gaps in vitamin A, iron and zinc.

Designing a context-specific communications strategy for Punjab province

Additional analysis was conducted to provide region-specific information on key barriers, enablers and influencers of feeding practices in Punjab province. The findings were used by the Multi-Sectoral Nutrition Centre (MSNC), housed in the Planning and Development Department of the Government of Punjab, to support its Multisectoral Nutrition Communications Strategy to improve complementary foods and feeding practices. This information was synthesised into priority themes for programme actions and key messages for communication approaches, with an emphasis on effective, context-specific SBCC interventions. The MSNC, in collaboration with the provincial health department and UNICEF, developed a Communication Messages booklet on nutrition for frontline workers and communities, which acts as a resource to support positive and sustained behaviour change in key nutrition practices.

Under the leadership of the provincial government stakeholders, the messages are being delivered through various communication channels, including nutrition education counselling by Lady Health Workers (LHWs)⁴

Figure 1 Results from Cost of Diet analysis



Source: Cost of Diet Key Finding Report, Pakistan

with individual mothers, caregivers and their influencers; community engagement by LHWs with mothers' groups and fathers' groups; and text messaging, websites and social media platforms, such as Facebook. The Communication Messages booklet is also used as a guiding resource by the staff working in health facilities with responsibility for IYCF counselling.

Challenges in converting evidence into action

The findings of the NCFa were well received and accepted by the provincial Department of Health and keen interest was shown by the policy makers and programme planners in using these findings to inform programming. However, translating the evidence from the NCFa into communication actions was the main challenge faced in Punjab. For example, as this was a multi-sector communications strategy, there was high demand from sectors to include a large number of communications messages that are not based on strong evidence.

A prioritisation workshop was organised with relevant stakeholders from each sector and communications experts for a consultative process to decide on which interventions and messages should be prioritised. Areas for joint implementation of activities were then identified (for example, integration of water, sanitation and hygiene (WASH) messaging on the hygienic preparation of complementary foods as part of IYCF messaging). This process resulted in the formulation of prioritised and harmonised nutrition messages focusing on feeding practices, brought together in the Communication Messages booklet.

Next steps

The qualitative findings of the NCFa will continue to play a crucial role in driving

advocacy and behaviour-change campaigns on complementary feeding, in other provinces as well as Punjab. The Punjab Multisectoral Nutrition Communications Strategy lays out a potential road map of communications activities and practices that could be adopted and adapted to create a cohesive and sustainable behaviour-change campaign across the country. The findings of the NCFa will also inform the upcoming process of revamping Pakistan's IYCF communications strategy with clear benchmarks to track the progress of communication efforts in improving the feeding practices of young children.

⁴ Lady Health Workers are Pakistan's cadre of salaried community health workers.



Infant and young child feeding counselling session in Lahore, Punjab province

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A village model farmer leads a group discussion using a vegetable calendar in Nepal

The role of nutrition-sensitive agriculture in improving diets of young children: Homestead food production in Nepal

Rojee Suwal is the Senior Manager of Agriculture and Food Security in the Suaahara II programme, Helen Keller International, Nepal.

Basu Dev Kafle is the Deputy Director General of the Department of Agriculture, Government of Nepal.

Sabnam Shivakoti is the Joint Secretary of the Ministry of Agriculture and Livestock Development, Government of Nepal.

Pooja Pandey Rana is the Deputy Chief of Party in the Suaahara II programme, Helen Keller International, Nepal.

Dr Kenda Cunningham is the Senior Technical Advisor for Integrated Nutrition and Monitoring, Evaluation and Research for Learning in the Suaahara II programme, Helen Keller International, Nepal.

Nutrition and agriculture context in Nepal

The prevalence of undernutrition among children under five years old has been decreasing over the last two decades in Nepal¹. However, levels of child undernutrition remain alarming, with 36% of children under five stunted, 27% underweight and 10% wasted². National levels also mask variation by subgroup; geographic, social and economic inequalities in undernutrition remain. In severely food-insecure households, for example, 46% of children are stunted and 35% are underweight, versus 29% stunted and 22% underweight in food-secure households².

Poor quality of diet, including micronutrient deficiencies, particularly in remote and food-insecure communities, is a key contributor to undernutrition. The typical rural Nepali household eats rice and pulses, with limited vegetables, fruits and animal-source foods. In addition to knowledge gaps regarding appropriate complementary feeding for young children, the availability of and

access to diverse, nutrient-rich foods remain a challenge for many. In children aged 6 to 23 months, only 47% consume the minimum dietary diversity of foods from at least four of seven food groups and just 36% meet the minimum acceptable diet nutrition indicator, which includes both dietary diversity and meal frequency².

In Nepal, 66% of the population is involved in agriculture as a primary livelihood³, while 52% of households are food-insecure and do not have access to food all year round². The agriculture sector has historically focused on staple crops (such as rice, maize, wheat and lentils) and high-value cash crops, rather than nutritionally rich ones.

Recognising that reductions in undernutrition require progress in multiple sectors, such as education, agriculture, health, and water, sanitation and hygiene (WASH), the Government of Nepal (GoN) adopted a Multi-Sector Nutrition Plan (MSNP) in 2012 which is now in its second five-year phase (2018–2022). Nepal's Ministry of Agriculture and

Livestock Development (MoALD) has given priority to improving agricultural systems for reducing undernutrition, in addition to poverty and hunger. Nepal's Agricultural Development Strategy (2015–2035) and Food and Nutrition Security Plan of Action have also prioritised efforts to increase access to and availability of nutrient-rich foods.

Nutrition-sensitive agriculture to improve diets

Development partners have aligned with Nepal's MSNP by funding and implementing multi-sector programmes to support the government's efforts. A United States Agency for International Development (USAID)-funded multi-sector programme, Suaahara (meaning "good nutrition"), is one such large-scale initiative that aims to

¹ Cunningham, K., Heady, D., Singh, A., Karmacharya, C., and Pandey, R., P. (2017). Maternal and Child Nutrition in Nepal: Examining drivers of progress from the mid-1990 to 2010s, Global Food Security.

² Ministry of Health, Nepal; New ERA; and ICF. 2017. Nepal Demographic and Health Survey 2016. Kathmandu, Nepal: Ministry of Health, Nepal.

³ Food and Agriculture Organization of the United Nations. (2016). Statistical Yearbook: Nepal.

improve maternal and child diets and thus reduce undernutrition in 3,353 wards in 42 of Nepal's 77 districts. Suaahara II has been implementing enhanced homestead food production (EHFP) to increase access to and consumption of diverse and nutrient-rich foods by supporting households to produce and consume nutritious foods (known as "garden-to-plate" foods) all year round.

Suaahara II has implemented EHFP interventions in about half (1,504 of the 3,353 wards) of the intervention areas, prioritising those identified as food-insecure by the government. To minimise constraints related to access to agricultural supplies, technical services and market linkages in these communities, Suaahara II selected and developed community-level extension workers, known as village model farmers (VMFs). Each VMF is a woman selected from the community, usually chosen in consultation with community-level government actors, such as the Agriculture Service Centre (ASC), because she has been identified as a progressive, high-performing farmer. Since 2012 more than 5,500 VMFs have been trained and provided with job aids and materials so that they can demonstrate and encourage nutrition-sensitive agricultural practices in the community.

In each community, households were selected if they had: (1) a resident pregnant woman or mother of at least one child under two years old (known as "1,000-day women"); and (2) at least 40–75 m² of land near the home. More than 100,000 selected households received a two-day basic EHFP training, a variety of vegetable seeds for three seasons (dry, rainy and winter) during the following year and five eight-week brooded chicks, and were linked with a VMF for further technical support.

Market linkages and integration with government systems

Homestead food production has been implemented in many countries since the early 1980s and has demonstrated some success in improving diets and reducing malnutrition⁴. Nepal's approach to EHFP has a number of unique features, including the unprecedented scale-up. EHFP now spans thousands of diverse communities, from lowland plains to remote mountains. This scale-up was gradual, progressing from 462 wards of seven highly food-insecure districts in 2012 to 1,008 wards of 33 districts from 2013 to 2015 and 34 wards of two districts

in 2016–2017, to cover all food-insecure communities in Suaahara's 42 intervention districts. As interventions are designed for the most food-insecure areas in these districts, scale-up beyond these areas has not been necessary.

Suaahara has extended the initial garden-to-plate model to incorporate a garden-to-market focus – particularly in areas where VMFs or EHFP-trained households produce a surplus that can be used for income-generation – to address the poverty barrier to adoption of optimum health and nutrition behaviours. Households are encouraged, for example, to use their newly earned income to buy nutrient-dense foods, and foods such as oil, flour, vegetables, fruits, eggs and chickens that enable the preparation of nutritious, complementary food recipes promoted by Suaahara. To enhance producers' market-related skills, some additional trainings on savings, credit, business plans and marketing were piloted.

Training for nutrition-sensitive agriculture and climate change

The programme also works closely with government stakeholders from both local wards and municipalities to federal level to build a sustainable, enabling environment for nutrition-sensitive agriculture. In collaboration with agriculture and livestock government stakeholders, Suaahara developed an intervention package, including training and community education materials. Nearly 1,800 government agriculture and livestock extension workers across the 42 target districts have been oriented on nutrition-sensitive agriculture in coordination with MoALD and trained as leaders to

deliver EHFP trainings and extension services in their communities.

In some areas, local governments are mobilising VMFs as facilitators to scale up climate-smart agricultural practices and build food systems that are resilient to food crisis and nutrition shocks. For example, kitchen waste-water management, rainwater harvesting, poly-house technology, planting drought-resilient vegetables, post-harvest management and solar drying are all activities promoted to minimise the adverse effects of climate change. Suaahara has been supporting VMF-led EHFP groups to register with the local government and in turn be eligible for government resources and ensure long-term engagement with the government for sustained investments.

Linking nutrition-sensitive and nutrition-specific activities

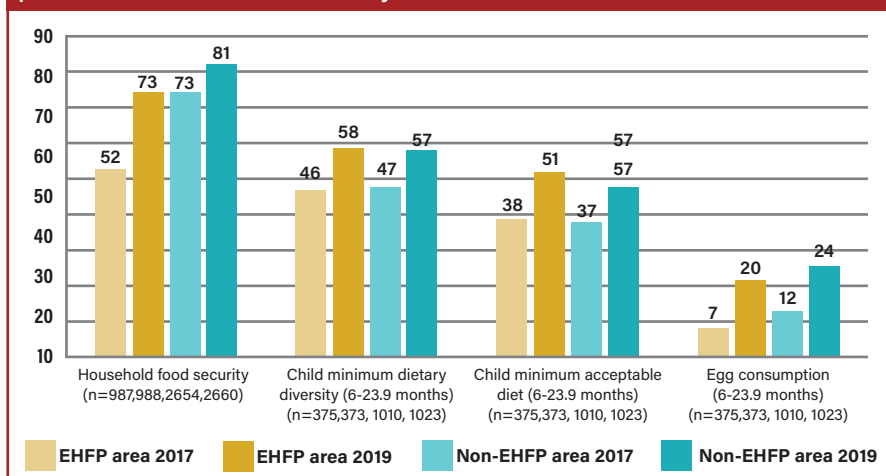
In the VMF EHFP-led groups, monthly meetings are used to talk about challenges and learnings related to agriculture and poultry rearing, as well as to encourage adoption of essential household health, nutrition and WASH behaviours; particularly food-intake behaviour, including improving child and maternal dietary diversity. VMFs not only discuss how to grow nutrient-dense vegetables and produce eggs but also how to make nutritious recipes; for example, by using pumpkin and egg in rice porridge, to reinforce the 'garden-to-plate' approach. VMFs also promote optimal complementary feeding practices, including timely introduction of complementary foods and how to make best use of locally available, diverse, nutritious foods for infants, starting at six months of age. Other strategies to improve awareness on increasing household food availability and



A village model farmer at work in her kitchen garden

⁴ Haselow, N.J., Stormer, A. and Pries, A. (2016). Evidence-based evolution of an integrated nutrition-focused agriculture approach to address the underlying determinants of stunting. *Maternal and Child Nutrition*. DOI:10.1111/mcn.1260

Figure 1 MCBP Changes in food security and young child dietary patterns in Suaahara areas by EHFP and non-EHFP communities



Source: Suaahara II Annual Surveys 2017 and 2019

accessibility include mass media (radio programmes, text messages), community events (food demonstrations, key life events) and personal communication (home visits).

To further link agriculture and nutrition, female community health volunteers (FCHVs) in EHFP wards were provided with basic EHFP training and agriculture inputs (e.g., seeds and chicks) to establish their own homestead garden and backyard poultry-rearing system. FCHVs lead monthly mothers' health-group meetings, which include discussions and counselling on appropriate infant and young child feeding; key life events to celebrate pregnancy, delivery and a child reaching six months of age; and food demonstrations to improve household nutrition and health behaviours.

Improving food security and dietary quality in EHFP

According to annual surveys in 2017 and 2019, household food security and dietary practices improved in Suaahara intervention areas. Progress in EHFP communities on these food security and dietary indicators was as great, if not slightly greater, than the overall progress in Suaahara II intervention areas, despite the fact that EHFP communities were chosen precisely because they are the more remote, food-insecure communities.

Specifically, household food security increased by 11% in Suaahara II intervention areas and by 21% in EHFP areas, versus an 8% increase in non-EHFP areas. Improvements in several infant and young child feeding indicators for children aged 6 to 23 months old were also seen between 2017 and 2019⁵. Minimum dietary diversity increased by 10% from 2017 to 2019, with a 12% increase in EHFP and a 10% increase in non-

EHFP communities. Part of this improvement in dietary diversity relates to increases in egg consumption among these children; by 13% in EHFP and 12% in non-EHFP areas. Finally, minimum acceptable diet improved by 10% between 2017 and 2019. This included a 13% increase in EHFP areas, versus 10% in non-EHFP areas (see Figure 1).

Eggs, the cheapest protein-rich food for poor families in Nepal, are not part of the traditional Nepali diet. Children under a year old are less likely to eat eggs than older children. Various factors affect egg consumption among children: lack of availability, particularly among households that are not raising chickens and do not have convenient access to markets; the perception that eggs are expensive, despite drops in prices due to recent increases in availability; lack of awareness of the nutrition and health benefits associated with egg consumption; and cultural taboos, myths and vegetarianism among some communities related to poultry-rearing, and risks of egg consumption⁶. Information promoting egg consumption and its benefits, household-level chicken ownership and increases in household income were the three major factors in facilitating egg consumption⁶.

Successes, challenges and lessons learned

Targeting communities with agriculture interventions explicitly linked to nutrition, health and WASH seems to have been an effective way of increasing household food security, maternal and child dietary diversity, and child minimum acceptable diet. However, Suaahara II has faced several challenges while implementing EHFP and targeting remote, food-insecure areas of Nepal. Qualitative programme research revealed that poverty is a major barrier for

some families, who must focus on hunger and immediate basic needs first⁶. Limited land and poor access to agricultural inputs, including water, seeds and fertiliser, create challenges for poor households to produce efficiently. Training alone would have been insufficient, particularly in these disadvantaged communities. Post-training follow-up and other technical (and sometimes material) support were necessary to enable households to adopt optimum agriculture, health, nutrition and WASH behaviours.

Moreover, collaboration is vital, particularly from government stakeholders at all levels, in order to prioritise improving access to agricultural commodities and supplies required for households to practice EHFP. For example, distribution of vegetable seeds would be more effective if water necessary for kitchen gardening was available year-round for all households. Working closely with local government to enhance its understanding and capacity on planning and implementation of nutrition-sensitive agriculture interventions seems critical to reversing the historical trend of only prioritising increased food production. Mobilising VMFs as change agents to promote the garden-to-plate model may enable local governments to improve food security and dietary diversity of households in their communities, particularly where agriculture extension services are limited.

Next steps

Scaling up evidence-based, nutrition-sensitive agriculture interventions to further improve infant and young child feeding practices across Nepal will require more advocacy and co-implementation with government at every level. Suaahara II will continue to lobby using the 'one household, one kitchen garden' campaign approach for securing food and nutrition security in coordination with local government. Investment to further develop a cadre of agriculture and livestock community extension workers (and one extension worker per village) is urgently needed to reach households in remote and disadvantaged areas of Nepal. The agricultural sector can learn lessons from Nepal's success with FCHVs and consider a similar peer-based, volunteer model to reach communities with basic services. These FCHVs could also integrate health, nutrition and WASH messages into the behaviour-change components of agriculture platforms.

⁵ United States Agency for International Development (USAID, 2020). Suaahara II Annual Survey Year 3, HKI, Chakapat, Lalitpur, Nepal.

⁶ United States Agency for International Development (USAID, 2020). Suaahara II Formative Research: Exploring Factors affecting key behaviors and ways to address them, HKI, Nepal



A mother receives packets of micronutrient powders from a health centre in Bhutan

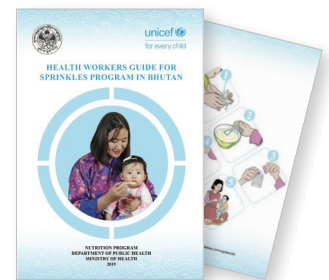
Addressing micronutrient gaps to reduce anaemia in Bhutan's young children: Early experiences in home fortification

Laigden Dzed is Deputy Chief Programme Officer in the Nutrition Programme, Ministry of Health, Bhutan.

Hari Prasad Pokhrel is a Senior Nutritionist at Gidakom Hospital, Ministry of Health, Bhutan.

Chandralal Mongar is a Health and Nutrition Officer at UNICEF Bhutan Country Office.

Loday Zangpo is a Programme Officer in the Nutrition Programme, Ministry of Health, Bhutan.



Background

Childhood malnutrition remains a persistent challenge in Bhutan, despite steady improvements over the years. Bhutan's most recent national nutrition survey (NNS 2015) reported a 4% prevalence of wasting and a 21% stunting rate in children under five years old¹. In children aged 6–59 months, over 44% were found to be anaemic¹, a prevalence level classified as a severe public health issue by the World Health Organization (WHO) and a national cause of concern. There is an urgent need to invest in interventions in early childhood to address anaemia and thereby accelerate human capital development.

The very high prevalence of anaemia in children in Bhutan suggests that micronutrients are lacking in their diets. Sub-optimal infant and young child feeding practices (IYCF) are a contributing driver of childhood anaemia². The diets of children aged 6–23 months in the country are characterised by poor dietary diversity and feeding frequency: only one in eight children (12%) are fed a minimum acceptable diet and only 17% have iron-rich foods in their diets¹.

Childhood anaemia has been identified as a severe public health issue since 2003, when the country's first national anaemia survey found 81% of children under five to

be anaemic³. This prompted an emphasis on programmes such as deworming; counselling on infant and young child feeding; and water, sanitation and hygiene (WASH) to address the problem. Although the most recent National Nutrition Survey (2015) found prevalence of anaemia in children under five had decreased to almost half the levels in 2003, it remains a significant public health issue for Bhutan and there was an urgent need to fill the gap in current interventions.

Addressing anaemia through improving young children's diets

The health system plays a critical role in delivering a range of micronutrient interventions to infants and young children. Globally, WHO recommends that either 'point-of-use' fortification of complementary foods with iron-containing micronutrient powders (MNPs) or iron supplementation in syrup form is given to infants and young children aged 6–23 months in populations where child anaemia is a serious public health problem⁴.

The Government of Bhutan, with support from UNICEF, introduced a programme in 2019 to distribute MNPs to children aged 6–23 months to address micronutrient gaps in their diets, improve feeding practices and reduce anaemia. The programme aims to

increase the proportion of children with a minimum acceptable diet from 12% to over 25% and to contribute to a reduction in the prevalence of anaemia from 44% to 26% within the next five years (by 2025)⁴.

Creating an enabling environment to introduce MNPs

To set out the country's vision, policy directions and operational plans for addressing childhood anaemia, the government established a special task force consisting of policy makers and technical experts from a broad range of stakeholders (key departments in the Ministry of Health, hospitals, academia and UNICEF). The special task force deliberated on a number of policy options to address childhood anaemia, drawing on

¹ Nutrition Programme. National Nutrition Survey (NNS). Ministry of Health; 2015.

² *Determinants of stunting, wasting, anaemia and infant & young child feeding (IYCF) in Bhutan: Secondary analysis of the national datasets from the National Nutrition Survey 2015*. Thimphu, Bhutan: Nutrition Programme, Department of Public Health, Ministry of Health; 2017.

³ Nutrition Programme. National Anaemia Survey. Ministry of Health; 2003.

⁴ *An assessment of the acceptability of point-of-use micronutrient powder in complementary foods of children aged 6-23 months from three districts of Bhutan*. Nutrition Programme. Ministry of Health, Bhutan.

global and regional evidence and the experiences of other countries. It also explored various programme-design elements needed to maximise the coverage, quality and effectiveness of interventions, such as the benefits of an integrated package of interventions that builds on the existing IYCF programme.

The task force concluded that point-of-use fortification of complementary foods with MNPs provided a comparative advantage over other supplementation options, such as iron syrup, because:

- MNPs have the potential to improve complementary feeding more holistically by encouraging the use of locally available diverse foods and improving feeding practices;
- children in Bhutan are likely to have multiple micronutrient deficiencies, which MNPs are better able to address as they contain multiple micronutrients rather than iron alone;
- according to the available literature, iron-containing MNPs have fewer iron-related side-effects, making them more acceptable to children than iron syrup.

Following the deliberations of the task force, point-of-use fortification of complementary foods with MNPs was endorsed in 2019 as one of a number of approaches to address childhood anaemia in Bhutan. In addition, longer-term and sustainable solutions are needed to address the problem, including the promotion of diverse diets for infants and young children that include a range of locally available foods.

Designing and piloting MNPs with scale-up in mind

Bhutan delivers all maternal and child health services free of charge through a single delivery platform, mother and child health clinics (MCH). These deliver services across all levels of the health system, including outreach clinics. The programme approach for MNPs integrates the powders into this existing MCH package that is delivered through health facility and community-based outreach platforms. This mode of delivery has great potential to reach children aged 6–23 months because the MCH service coverage through these platforms is reported to be more than 91%³.

Social behaviour change is a critical component of the programme. Health workers are responsible for conducting IYCF counselling sessions for mothers and caregivers. There is a strong focus on promoting locally available nutritious foods to improve the diversity of young children's diets. Educational and counselling tools and job aids, including posters, videos and brochures, have been developed to promote local recipes for complementary feeding and to provide

Distribution and composition of MNPs

Health workers distribute MNPs free of charge to all children aged 6–23 months during regular child visits to MCH clinics in health facilities and outreach clinics. Thirty sachets of MNPs are boxed as one unit and each unit is distributed to the children on the scheduled visits to the MCH clinics, which are at 6, 8, 10, 15, 18 and 21 months. The mothers or other caregivers are counselled on how to feed their child, with one sachet of MNPs every Monday, Wednesday and Friday for children aged 6–11 months and on Monday and Friday for children aged 12–24 months. This schedule was adopted to ensure that each child receives around 90 sachets of MNPs per year.

The MNPs come in a 1-gram sachet and comprise 15 different micronutrients:

Vitamin A	400 µg	Vitamin B6	0.5 mg	Vitamin D	5 µg
Vitamin B1	500 µg	Folic acid	150 µg	Vitamin E	5 mg
Vitamin B2	500 µg	Vitamin B12	0.9 µg	Niacin	6 mg
Vitamin C	30 mg	Iron	10 mg	Copper	560 µg
Selenium	17 µg	Zinc	4.1 mg	Iodine	90 µg

guidance on appropriate feeding practices to help health workers counsel mothers/caregivers on how to give MNPs to children.

Before the nationwide scale-up, a pilot study was conducted in early 2019 to test service-delivery platforms for delivering MNPs and to assess acceptability and compliance with MNPs and changes in child feeding practices. The pilot was undertaken in three health facilities (one hospital and two basic health units) in three of the poorest districts from three regions of Bhutan. After 12 weeks of the pilot, the intervention achieved a compliance rate of over 95%. In addition, there were improvements in caregiver knowledge, as well as child feeding behaviours across three main complementary feeding indicators: minimum meal frequency (increased from 78% to 89%), minimum dietary diversity (increased from 43% to 55%), and minimum adequate diet (increased from 33% to 49%)⁴.

The health workers in the pilot sites were instrumental in bringing about these positive outcomes as they were able to counsel on the use of MNPs and IYCF. The MNPs were integrated into the existing IYCF and growth-monitoring programme, which meant that the beneficiaries were automatically enrolled for MNPs when they attended for these services. Learning from the pilot study was incorporated into the programme design for scaling up.

Scaling up the programme

Based on the successful pilot, the MNP programme was formally launched by the Health Minister in September 2019 in one of the pilot districts, with a plan to scale up in a phased manner to all facilities by June 2020. To ensure health-system readiness for scale-up, a cascade training of trainers (ToT) model was developed to position trainers in different locations to support the training of MCH health workers in all health facilities across Bhutan. In addition, supplies of MNPs and associated education and counselling tools are being distributed to all health facilities.

Challenges

Programme sustainability has been recognised as one of the major challenges

to long-term implementation though the routine MCH services financed by government. Initial financial support (about USD 300,000) is being provided by UNICEF to support programme design, piloting capacity building and programme evaluation until 2023. Thereafter, MNP intervention costs are expected to be incorporated into the national budget to ensure sustainable financing. Continued high-level advocacy is being conducted to this end to ensure political commitment to financing implementation of the intervention at scale.

The COVID-19 global pandemic has had an impact on programme implementation. Although Bhutan has not had any community transmission, recommendations for physical distancing and limits on numbers allowed to attend meetings are still being enforced. In response, virtual training sessions are being conducted, especially for those health workers who were not able to attend the ToTs, and officials from the Nutrition Programme are making visits to the health facilities to supervise and ensure programme implementation.

Next steps

The programme is providing a means to address gaps in the micronutrient content of young children's diets and to simultaneously reinforce optimal IYCF practices in Bhutan. Immediate next steps are to initiate a system of continuous monitoring and supervision to ensure quality implementation. There are ongoing discussions on including key programme indicators (e.g., MNP distribution, child feeding, etc.) into the Health Management Information System, and there are ongoing plans to evaluate programme impact over the next five years to guide programming.

The MNP programme is also looking to tie in with the upcoming conditional cash-transfer scheme for women, which aims to accelerate improvements in maternal and child nutrition. Efforts are already underway to strengthen linkages with the Ministry of Education and other relevant sectors to improve food systems and to ensure availability, accessibility and utilisation of nutritious, locally available and diverse foods.



Accredited social and health advisors (ASHAs) use counselling cards on a home visit to a 14-month-old malnourished child, in Bihar

Translating the Home-Based Care for the Young Child initiative into action for young child feeding in Bihar state, India

Manoj Kumar is an Indian Administrative Service Officer, Executive Director of the State Health Society, Bihar under the Department of Health, Government of Bihar and leading the implementation of the National Health Mission.

Dr Sebanti Ghosh is Programme Director with Alive & Thrive¹, India and a public health (maternal, newborn child and adolescent health) and nutrition expert, working for over 20 years in health and development across different states of India and South Asian countries.

Dr Vijay Prakash Rai is the State Programme Officer for Child Health in the State Health Society, Bihar.

Dr Chandra Mani Singh is a professor in the department of Community and Family Medicine and Medical Superintendent at the All India Institute of Medical Sciences, Patna.

Dr Anupam Srivastava is the Senior Programme Manager, Alive & Thrive, Bihar.

Poonam Bhambri is the Senior Knowledge Management Specialist, Alive & Thrive, Bihar.

Introduction

The Indian state of Bihar has the highest percentage of stunted children under the age of five among all states, at approximately 48% – almost 10% higher than the national average of 38%². Moreover, wasting prevalence in children under five years old is a staggering 21%, second only to the neighbouring state, Jharkhand³. In addition, underlying care and feeding practices continue to be sub-optimal in Bihar, with an estimated 53% of children aged 6–23 months being exclusively breastfed for the first six months of life, and alarmingly only 7% receiving a minimally adequate diet³.

Urgent action is needed to improve

the care and feeding practices of infants and young children in India in order to achieve the targets of POSHAN Abhiyaan, India's national nutrition mission. Efforts to strengthen the implementation of national-level policies are focusing on approaches to improve the coverage, continuity, intensity and quality of essential nutrition services. Due to its high burden of malnutrition, Bihar was chosen one of the states to roll out a new initiative, Home-Based Care for the Young Child (HBYC), a joint initiative of the Ministry of Health and Family Welfare (MoHFW) and Ministry of Women and Child Development (MWCD) that seeks to improve the health, nutrition and develop-

ment of young children through home visits by community-based frontline workers. An example of translating national policy into action on the ground, HBYC is being implemented in a phased manner across the country, starting with a focus on 117 aspirational districts in various states, including

¹ The Alive & Thrive initiative, managed by FHI 360, is funded by the Bill & Melinda Gates Foundation, Irish Aid, the Tanoto Foundation and UNICEF.

² <https://globalnutritionreport.org/resources/nutrition-profiles/asia/southern-asia/india/#profile> National Family Health Survey (NFHS)-4 (2015-16).

³ Percentage of children 6-23 months who received foods from four or more food groups from seven food groups (grains/tubers/roots, legumes/nuts, flesh foods, dairy products, eggs, vitamin A-rich fruits/vegetables and other vegetables/fruits).

districts in Bihar⁴. The HBYC initiative is intended to intensify efforts to counsel caregivers on infant and young child feeding (IYCF) practices in India.

Overview of India's IYCF programme

At the national level, IYCF services are delivered through two large-scale platforms: the Integrated Child Development Services (ICDS) programme under the MWCD, with nearly two million frontline workers (Anganwadi workers); and the National Health Mission under the MoHFW, with nearly one million frontline workers (Accredited social and health activists (ASHAs)). The latter cadre of incentivised frontline workers provide services, including caregiver counselling, through home visits and community outreach programmes.

Experiences from the MoHFW-led Home-Based Newborn Care (HBNC) programme demonstrate that home visits in the first month of life by ASHAs can support mothers and caregivers to provide optimal health and nutrition care for newborns. Currently, ASHAs primarily focus on essential newborn care, including breastfeeding support, through scheduled visits during the first month of life, spread across days 3, 7, 14, 21, 28 and 42 in cases of institutional deliveries, and on days 1, 3, 7, 14, 21, 28 and 42 in home deliveries. Thereafter, ASHAs conduct follow-up visits only for the mobilisation of age-appropriate vaccinations up to 12 months of age. Contact with mothers and caregivers of children aged 6–23 months are at present limited and do not focus on providing information and support on complementary feeding.

Home-based care for the young child

As part of efforts to strengthen the Government of India's IYCF programme, Alive & Thrive (A&T) led a national consultation with the Government and development partners. A&T shared evidence from its experience in Bangladesh. IYCF interventions were successfully scaled up and achieved significant increases in dietary diversity, meal frequency and consumption of iron-rich foods by introducing between five and seven quality contacts between frontline workers and mothers, from conception to second birthday⁵. This evidence, together with learning from the HBNC programme, informed the revision of India's IYCF guidelines, which paved the way for the development of the HBYC programme.

The initiative is intended to place families at the centre of nurturing care for young

children during the first two years of life. It aims to fill the gap in contacts with mothers and caregivers by expanding the schedule of home visits by ASHAs during the crucial 3–15-month period to complement existing home visits and outreach services through Anganwadi workers. Home visits under the HBYC initiative are designed to ensure specific support and counselling to caregivers of children for exclusive breastfeeding, complementary feeding, growth monitoring, vaccination, iron-folic acid (IFA) and vitamin A supplementation, age-appropriate play and stimulation, water, sanitation and hygiene (WASH) practices, and prevention and management of common childhood illnesses, such as diarrhoea. It is envisaged that, under the HBYC, ASHAs and Anganwadi workers will work collaboratively under the supportive leadership of auxiliary nurse midwives, who are based at village-level health centres.

Generating evidence to inform HBYC programme design

In Bihar, HBYC is being piloted in 13 aspirational districts through government systems and with support from development partners including A&T, the United Nations Children's Fund (UNICEF) and the Piramal Foundation. In 2018, a baseline study was conducted in two pilot districts, Gaya and Sitamarhi, to understand the current levels of IYCF knowledge and practice among caregivers of children under two years of age; the knowledge and skills of frontline workers; and system preparedness to implement HBYC as designed⁶. Findings from the study showed that, while knowledge of breastfeeding practices was high among mothers (~80%), only 50% initiated breastfeeding within one hour and only 36% breastfed exclusively⁶. Exclusive breastfeeding declined from 47% at three months to only 21% at five months⁶. Furthermore, less than one in five children aged 6–23 months were consuming a minimum diverse diet⁶. Consumption of eggs and flesh foods (14% and 15%, respectively) was low, as was consumption of vitamin A-rich fruits and vegetables (22%); and one quarter of children consumed commercially processed snacks. Less than 10% of children aged 6–23 months received IFA syrup⁶.

Low diet diversity was primarily found to be due to a lack of awareness, and existing feeding and food-related norms and beliefs regarding what types and quantity of food a young child can eat or digest. For example, animal-source foods were avoided, watery foods such as light lentil soup were considered easily digestible and children were not fed from a separate bowl, making it difficult for caregivers to gauge a

child's food consumption.

The baseline study also examined caregiver's access to IYCF counselling. Around 80% of mothers reported being contacted at home by Anganwadi workers and ASHAs. While two out of three mothers with infants under six months of age received breastfeeding counselling, only two in five received guidance on the introduction of CF and around half of mothers with children aged 6–23 months reported receiving only general CF information. In-depth counselling by frontline workers was missing; for example, only 11% of mothers received counselling on feeding diverse nutritious foods.

Strategies and actions to optimise HBYC delivery

The baseline findings indicated the need to optimise the use of existing home visits by frontline workers while focusing on new visits under HBYC. The programme has focused on improving the content and quality of IYCF counselling, with a special focus on increasing the knowledge and skills of mothers for adoption of age-appropriate complementary feeding practices. This, in turn, has required strengthening of frontline worker knowledge and counselling skills to deliver focused messages; for example, suggesting adding eggs (where acceptable) and vitamin-A rich fruits and vegetables to enhance diet diversity in complementary feeding.

As part of capacity building, frontline worker performance has been supported by regular mentoring and review to improve programme delivery. The Government is being supported by development partners through coordinated and harmonised actions for quality implementation of HBYC. Regular updates are also being provided to NITI Aayog, India's national think tank entrusted with the task of monitoring POSHAN Abhiyaan and undertaking periodic evaluations. Recognising that there are socio-economic barriers to uptake of counselling messages, the population of Bihar is being supported through other programmes to help it overcome barriers to affordability of diverse high-quality foods.

⁴ NITI Aayog has identified 117 districts across India as aspirational districts, based on composite indicators from health and nutrition, education, agriculture and water resources, financial inclusion, skills development and basic infrastructure, and that have an impact on the Human Development Index. <https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=967&lid=587>

⁵ www.aliveandthrive.org/wp-content/uploads/2018/07/Alive-Thrive-Bangladesh-complementary-feeding-results.pdf

⁶ Baseline Study report for implementation of the HBYC initiative in two districts of Gaya and Sitamarhi in Bihar, India 2019; A&T (unpublished).

Programme ownership and roll-out

A high level of ownership of HBYC exists at the state and district level in Bihar. Progress on HBYC is tracked during the monthly review meetings held under the chairmanship of the Executive Director of the State Health Society in Bihar (SHSB) and under the district magistrate in the pilot districts.

A core implementation support group comprised of government and development partners has been constituted under the leadership of the Executive Director of SHSB to facilitate quality roll-out of the programme. Development partners have been allocated specific districts to provide technical assistance support, which includes operational planning and quality assurance of ASHA training in the districts, regular quality monitoring using a common monitoring checklist, and mentoring support to ASHAs during the home visits. The development partners are also expected to facilitate regular review meetings of the ASHAs at district and state level and drive actions based on feedback.

Supporting frontline workers

A cascade training model has been adopted, with 100 district-level trainers being trained by state-level trainers to roll out training of ASHAs on HBYC. As of February 2020, 600 batches of trainings have been conducted in the 13 districts and 4,279 out of 14,725

ASHAs; 329 out of 1,451 ASHA facilitators; and 703 out of 3,279 auxiliary nurse midwives have been trained. (No training took place between March–June due to COVID-19). Training coverage has been delayed as ASHAs are required to complete prior training modules under HBNC as a prerequisite for HBYC training. Supporting tools and materials such as job aids and mother and child protection cards are available to all districts, with support from development partners.

The SHSB in Bihar aims to strengthen and regularise the ‘triple A’ meetings (between ASHAs, Anganwadi workers and auxiliary nurse midwives) at sub-block level to increase coordinated actions between the three groups and improve coordination between health and ICDS functionaries. Baseline findings also highlighted lack of adequate supervision and support to ASHAs during home visits. To address this gap, SHSB has directed the ASHA facilitators to prioritise joint home visits with ASHAs to provide supportive supervision. Block supervisors have been advised to organise refresher training sessions for ASHAs during the monthly review meetings on topics that emerge as gaps during the monitoring visits.

Challenges and next steps

Programmatically, there are challenges in forging the desired collaboration between the ASHAs and Anganwadi workers as envisaged under the HBYC programme. This is a result of coordination challenges as MWCD is still

building on its ownership of the programme. Targeted advocacy is needed with the ICDS platform to encourage the active involvement of the Anganwadi workers to complement the role of ASHAs, and for engaging ICDS leadership to improve coordinated and harmonised delivery of IYCF services; especially counselling to families with children under two years old.

Key priorities for the HBYC programme include: effective acceleration of HBYC training of ASHAs; provision of supportive supervision and mentoring support to ASHAs for home visits, as per HBYC schedule; and establishing an institutional mechanism for regular review and monitoring for programme improvements. Coordinated efforts by the core group of development partners will continue to be critical for ensuring quality and driving improvements in programme performance through regular concurrent monitoring and targeted advocacy with the ICDS platform for active involvement of the Anganwadi workers.

Mothers and other caregivers need to be increasingly empowered to practice optimal IYCF behaviours. This HBYC initiative provides focused counselling support (with the capacity building of frontline workers) to build their knowledge, skills and confidence on complementary feeding, facilitating increased access to timely nutrition, health and WASH services, and creates an enabling environment promoting positive social norms on food and feeding for children.



Auxiliary nurse midwife, ASHA and ASHA facilitators during HBYC training in Muzaffarpur district, Bihar



Community members work together on a village nutrition action plan

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Scaling up a community-based nutrition package in Afghanistan to improve complementary feeding practices in children 6-23 months of age

Dr Mohammadullah Noorzad is the Senior Officer for the Community Based Nutrition Programme in the Public Nutrition Directorate, Ministry of Public Health, Afghanistan. He has more than 14 years' experience in health and nutrition programmes, including operationalising community-based growth monitoring and promotion.

Dr Palwasha Anwari is a Nutrition Programme Officer with UNICEF Afghanistan. She manages infant and young child feeding programmes, including community-based nutrition interventions, and has more than 10 years' experience in humanitarian and development settings.

Maureen L. Gallagher is Chief of Nutrition for UNICEF Afghanistan. She is a public health specialist with over 15 years' experience in nutrition programming in Africa and Asia.

Introduction

Infant and child mortality rates in Afghanistan are among the highest in South Asia and poor nutritional status is a significant underlying factor. Nearly two million children under five years old, about four in 10 children, are stunted and an estimated one in 10 are wasted¹. Twenty-two percent of children aged 6–23 months receive complementary food with minimum acceptable quality and frequency, which ranges from 5% to 23% in different provinces².

The Ministry of Public Health (MoPH) has been rebuilding the national health system since 2002, with an emphasis on improving access to essential health and nutrition services. The MoPH developed the Basic Package of Health Services (BPHS) in 2003 and the Essential Package of Hospital Services (EPHS) in 2005 to increase the coverage of health services at both facility and community levels. Since the implementation of BPHS and EPHS, progress in public nutrition has been limited, due to low capacity of BPHS service providers and an absence of specific guidelines.

The Government of the Islamic Republic of Afghanistan and its partners are committed to ending maternal and child malnutrition in the country and recognise the need for a comprehensive, multi-sector response mechanism with technical, financial and political support at all levels, including community level. In this context,

the Public Nutrition Directorate (PND) within the MOPH began developing a community-based nutrition package (CBNP) in 2016, with the objective of having one community nutrition package for the whole country. The process started with the review and analysis of existing programmes, materials and methodologies, as partners applied different ones. The review was followed by field visits and a subsequent analysis of lessons learned to inform the harmonisation and standardisation of the CBNP.

This article describes how the PND designed the CBNP to improve the diets and feeding practices of young children and the achievements and challenges experienced in the course of its implementation.

Community-based healthcare in Afghanistan

A cadre of voluntary community health workers (CHWs) forms the backbone of community-based healthcare in Afghanistan. The CHWs deliver basic health and nutrition services from their homes, which are recognised as health posts. These services include maternal and newborn health; child health and immunisation and public nutrition services, such as support for exclusive breastfeeding; community food demonstrations; and community-based management of acute malnutrition. Each health post is operated by a male and female pairing³ to respect culture and community norms and to assist

mobility of female CHWs in their communities. There are more than 28,000 CHWs, each responsible for a cluster of 100–150 families, covering 60–70% of communities in the country. The CHWs are mentored and supervised by community health supervisors, who are based at the nearest health facility. A health shura (committee) supports activities in the community and selects, supports and monitors CHW activities. Family health action group members serve as a support group for female CHWs and promote utilisation of health and nutrition services⁴. There are more than 4,000 family health action groups and around 1,300 community health supervisors nationwide.

The CBNP approach

The CBNP was designed and introduced in 2018 to improve access to essential nutrition services and to improve child feeding practices and diets. It builds on existing community-based healthcare platforms in Afghanistan to deliver nutrition services at community level, as an adjunct to health facility services. The package has a particular focus on children under two years old,

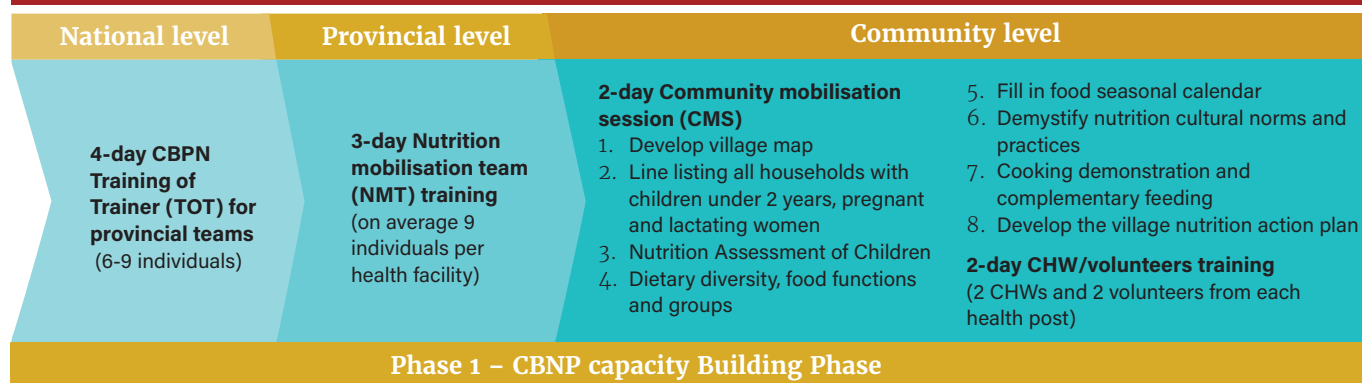
¹ <https://globalnutritionreport.org/resources/nutrition-profiles/asia/southern-asia/afghanistan/#profile>

² National Nutrition Survey (2013) Ministry of Public Health, Afghanistan.

³ This could be a husband and wife, as well as a mother and son or brother and sister.

⁴ Community-based Healthcare Strategy (2015–2020), Ministry of Public Health, Afghanistan.

Figure 1 Overview of the CBNP implementation strategy and interventions



Source: Ministry of Public Health, Afghanistan

their mothers and fathers, and other male community members who are the main decision-makers at household level.⁵

The design of the CBNP is based on a combination of the positive deviance/hearth model and other approaches being implemented in Afghanistan. The programme is initiated in a community through a two-day community mobilisation session, during which community members map their communities, listing all children under two years of age, complete seasonal food calendars and develop a village nutrition action plan (see Figure 1 – Community level). These sessions are led by nutrition mobilisation teams, usually drawn from existing community-based platforms from other sectors, recognising the importance of a multi-sector, systems-based approach for improving infant and young child feeding (IYCF) at community level⁵.

The first step in community mobilisation under the CBNP is to develop a village map to identify all households with children under two years of age and make a nutrition assessment of those children. Parents of children whose mid-upper arm circumference (MUAC) is in the ‘green zone’ are identified as role models. These parents are requested to engage with the community and share their positive child-feeding practices with other parents and demonstrate the adoption of similar practices. In terms of home visits and food-demonstration sessions, CHWs give priority to households with children in the ‘yellow’ or ‘red’ MUAC zones and facilitate learning from other mothers. As per standard protocol, children with red MUAC (below 11.5 cm) are referred to health facilities for treatment of severe acute malnutrition.

Participatory tools to improve young children’s diets

The CBNP delivers a number of focused interventions for improving young children’s

diets and feeding practices. Several participatory methodologies and tools (developed during the community mobilisation sessions) are used to support delivery of these interventions, including:

- *Seasonal food calendar tool* is used to explore and map the available foods during different seasons of the year. It is used to encourage consumption of these locally available foods based on availability across the seasons.
- *Village nutrition action plans* (see Figure 2) focus on improving the nutrition status of families; particularly those with children under two years of age. The plan is developed by community members based on the discussion and assessment of their children’s nutrition status. They are asked to identify a few critical actions to tackle and prevent malnutrition in their communities. Members of the health shura, community health supervisors and CHWs are responsible for tracking implementation of the

action plan.

- *Food demonstration sessions* teach families with children under two years old about the preparation of complementary foods by using different available food groups.

Towards the end of the two days, the communities identify two additional volunteers (a male and a female for gender balance and as key influencers for both sexes) to support CHWs in the implementation of the CBNP.

Capacity-building and implementation phases

The CBNP rollout at provincial level has two distinct phases: Phase One for capacity-building and Phase Two for implementation. Phase One comprises a series of cascading training activities, beginning with the training of provincial master trainers at the national level down to selection of a number of community volunteers to serve in nutrition mobilisation teams (see Figure 1).

Figure 2 Sample of village nutrition action plan

Problem	Action to be taken	When to be done	Who will do it	Support required
Listing of u2 and 3 to 5 year olds, pregnant and lactating women	Register all u2, 3 to 5 year olds, pregnant women and lactating women	Within one week	CHWs and Volunteers	Register (refer to annex for the format)
Monitoring of pregnant mothers	Household visits to counsel and monitor status	Weekly	Volunteers and FHAG members. CHWs to meet the women twice a month	Flip Chart, Counselling cards
Inadequate complementary feeding and caring practices	Cooking demonstration and feeding children u2 years	To be held twice/thrice a month	CHWs/Volunteers/ FHAG Members	Flip Chart, Counselling Cards, Cooking and Feeding materials
	Visits to HHs with children u2 years	Weekly	CHWs/Volunteers/ FHAG Members	
Poor HH hygiene and sanitation practices	Home visits to families with children under 2 years	Weekly	Volunteers	Flip book for counselling/hand washing
Lack of growth monitoring	Weighing every child below 2 years at a central place	Monthly (Fix Day)	CHWs/Volunteers	Community nutrition chart/ weighing scale, individual child cards, MUAC tape, register
	MUAC measurement of 3 to 5 year olds	Monthly (Fix Day)	CHWs and Volunteers	
SAM and MAM	Refer to Health Centre	Weighing Day	CHW/Volunteers	None

Source: CBNP facilitator manual, Public Nutrition Directorate, Ministry of Public Health Afghanistan, 2017

⁵ Nutrition mobilisation teams may be drawn from community-led total sanitation (CLTS) members from the water, sanitation and hygiene (WASH) sector, agricultural extension officers from agriculture/food systems, selected shura members, and resources personnel from the health system.



Discussion on growth monitoring promotion for young children

“CBNP is a successful approach as it is based on community needs. All programme materials are pictorial [which enables] me to easily understand, with limited literacy. Besides that, there are practical food demonstration sessions for mothers on feeding young children – complementary feeding. I noticed how much mothers of children under two years old happily have participated and contributed in food demonstration sessions. I observed positive changes in my village. Here, there was a common practice of not giving eggs to young children, thinking that was not good for them. Now, I see that mothers give a well-cooked egg to their young children, beside breastmilk.”

Ms. Benazir, female CHW (since 2005) from Pul-e-Khumri District, Baghlan Province

Phase Two focuses on a participatory process for the development of detailed guidelines for implementing the activities identified by communities under the village nutrition action plan, recognising the key role of CHWs in the implementation of the plan and activities.

From design to implementation: Building programme success

The initial focus has been on implementation of CNBP capacity-building in 2019 in four provinces with the worst child nutrition indicators. The initiative had reached about 2,000 health posts, around 8,000 CHWs and community volunteers, and more than 84,000 community members, both male and female, by the end of 2019. Data from the four provinces where the capacity-building phase is complete demonstrates potential effective community engagement and increased awareness of IYCF, although it is too early to measure the impact of the CNBP in improving young children’s diets and feeding practices. However, an analysis of routine health data shows that the coverage of home visits by CHWs has increased by 5–10 percentage points, while the number of growth-monitoring promotion (GMP) sessions has increased considerably (for example, by up to 90% in Takhar province), indicating increased programme reach. Both home visits and GMP sessions offer crucial opportunities for contact with caregivers and for increasing the coverage of counselling support in improving diets

and feeding practices. These results indicate that the CNBP has provided participatory tools for CHWs to increase interactions with target families to deliver nutrition education and cooking demonstrations, counselling and screening to facilitate prioritisation of actions.

Scaling up CNBP

CNBP has scaled up rapidly to 19 out of 34 provinces within two years by utilising the existing community-based healthcare platforms. For Phase One (capacity-building), an off-budget annual cost of about USD 700 to USD 900 per health post is estimated. In Phase Two (implementation), minimal financial outlay is required, with costs to be covered by service providers who have contracts with the government, if CNBP is integrated into the community package. PND and its technical partners, including UNICEF, continue efforts to mobilise resources to scale up CNBP in all remaining provinces and advocate for its integration into the health package.

Addressing challenges

A number of package delivery constraints have been noted. Findings from the process evaluation and CNBP annual reviews indicate that some critical community mobilisation activities using participatory tools, such as seasonal food calendars, food demonstration sessions and village nutrition action plans, were not implemented as per the guidelines. The CNBP was viewed as an approach focused mostly on supporting early case detection of SAM children for treatment

and care, rather than promoting preventive measures to improve diets and feeding practices. This could be attributed to the rapid scale-up of implementation, which did not enable strong community and household engagement. Also, household-level factors such as food availability and accessibility could have posed constraints on the ability of households to put into practice required behavioural changes and feeding practices, thus negatively impacting engagement with the CNBP. The package and approach are being revised to integrate recommendations for better uptake of preventive measures.

The programme also faces several coverage challenges, particularly accessibility to remote areas due to harsh terrain and climate, and ongoing insecurity. In addition, the workload of CHWs is a concern, particularly as they are volunteers and have responsibilities for delivering a broad range of health and nutrition services, such as family planning, treatment of child illnesses, tuberculosis, GMP, and others.

UNICEF supports PND in advocating with the MoPH leadership and health donor agencies, such as the World Bank, the European Commission, USAID and Canada, for incentivising CHW performance. In Afghanistan, the MoPH has contracted out health service provision to non-governmental organisations (NGOs), who are the service providers. Payment of NGOs uses a payment-for-performance (P4P) financing model, based on achievement of targets for certain identified indicators. While community nutrition activities are part of BPHS services, there are no community nutrition indicators in the P4P results-monitoring framework. This contributes to weak accountabilities; as a result, BPHS service providers do not give enough attention to implementing community nutrition services. PND and its technical partners are advocating to include at least one community nutrition indicator in the set of P4P indicators. This could help build greater accountability of delivery of community nutrition services and ensure the sustainability of the CNBP initiative.

Conclusion and next steps

The CNBP approach went to significant scale in a short period of time. Lessons learned from rolling out CNBP in more than half of Afghanistan’s provinces over the last two years and findings from the process evaluation (concluded in mid-2020) will be used to support a review of implementation strategies to inform the design of the next phase of the rollout. An endline study in 2022 will provide evidence on the impact of the CNBP on complementary feeding practices. The CNBP has much potential to improve the diets of young children, especially as the approach is evaluated and refined.



Combining WASH and nutrition activities within a multisectoral package to improve young children's diets and reduce child stunting in Sindh Province, Pakistan

Dr Sahib Jan Badar is the Programme Coordinator of the Accelerated Action Plan, Department of Health, Government of Sindh province.

Eric Alain Atego (PhD Nutrition) is Chief, Nutrition, UNICEF Pakistan.

Thewodros Mulugeta is Chief, WASH, UNICEF Pakistan.

Dr Saba Shuja is a medical doctor and Nutrition Officer with UNICEF, Pakistan.

Dr Wisal Khan is a medical doctor and Nutrition Specialist with UNICEF, Pakistan.

Ziggy Kugedera is a Knowledge Management Specialist, WASH, UNICEF Pakistan.

Dr Umar Khan is a medical doctor and Nutrition Specialist with UNICEF, Pakistan.

Introduction

The province of Sindh, located in the south-east of Pakistan, has one of the highest prevalences of stunting (45%) in children under five years old in the country. It also has considerable differences in stunting prevalence between districts, ranging from 60% in Tharparkar district to 29% in Karachi Central district¹. Moreover, 23% of children under five years old are wasted¹.

Key drivers of stunting and wasting in Sindh province include poor infant and young child feeding (IYCF) and hygiene practices, and inadequate access to improved water and sanitation facilities. Only 29% of infants aged less than six months in Sindh are exclusively breastfed and just 18% of children aged 6–23 months are fed a minimum acceptable diet². The water, sanitation and hygiene (WASH) conditions in the province are the poorest in the country. Just 36% of households have access to both improved water and sanitation facilities; fewer than half of mothers or caregivers have knowledge about safe disposal

of child faeces; and only 60% report practicing handwashing after handling a child's faeces and before feeding a child³.

Addressing these challenges requires alignment of policies and programme actions across the sectors responsible for interventions to improve IYCF practice and WASH conditions so that they support the integration of services by targeting the same communities, households and individuals at greatest risk of stunting and wasting. To this end, Sindh province was selected by the Government of Pakistan to implement the Maternal and Child Stunting Reduction Programme (MCSR, 2015–2018) in three districts with high stunting prevalence, those of Ghotki, Khairpur and Nowshero Feroz districts. This large-scale multi-sector programme was designed to improve the nutritional status of women and children across the 1,000 days between conception and a child's second birthday. Programme objectives were to strengthen the enabling environment to improve awareness of and access to nutrition services delivered by the

health system and WASH services in the target communities.

This article describes how joint WASH and IYCF interventions were first integrated in Sindh province in the MCSR between 2015–2018, then scaled up by the provincial Government of Sindh, with UNICEF support, across both the health and WASH sectors under a large-scale Accelerated Action Plan (AAP) to tackle multiple underlying causes of stunting.

Planning and implementing a multi-sector response

The MCSR was jointly planned and implemented collaboratively by the Department of Health (the Maternal Nutrition and Child Health Programme, the Nutrition Support Programme for treatment of severe acute malnutrition, and the Lady Health Worker Programme⁴) and

¹ National Nutrition Survey (2018)

² Multi-purpose ICS Sindh (2014)

³ <http://www.pbs.gov.pk/content/pakistan-social-and-living-standards-measurement>

⁴ Lady Health Workers are Pakistan's cadre of salaried community health workers.

the Planning and Development Board of the Government of Sindh.

The Provincial Nutrition Steering Committee and the District Coordination Committee provided the overall leadership for planning and implementation. These structures are now provincial multi-sector government coordination platforms that include representatives of eight sectors or line departments and civil society organisation partners.

To facilitate integration of nutrition and WASH services in the target areas, a joint WASH and nutrition action plan was developed for 2015–2018 to cover all three districts covered by the programme. This plan identified the points of integration and included joint micro-planning at district, *taluka* (sub-district) and union council level, as well as joint monitoring.

Optimising service delivery packages – health and WASH system interventions

The health system in Sindh province has delivery platforms that reach pregnant and breastfeeding women and children under two years of age at both health facility and community level. However, prior to the MCSRP, these platforms were not used effectively in the targeted districts to inform and counsel women and other caregivers on IYCF and

WASH practices. Meanwhile, the potential of WASH to support healthy growth and development was not fully realised. WASH has a critical role in ensuring access to safe food, water and clean environments in the promotion of hygiene practices, including during food preparation and the feeding of young children. These actions can help ensure that complementary foods are free of pathogens and are fed safely to the child, thereby preventing against loss of precious nutrients due to WASH-related infections.

To address these gaps, the programme developed a social and behaviour change communication (SBCC) strategy that combined community engagement, group and individual counselling and mass media approaches to inform and counsel caregivers and other influential community members on breastfeeding, complementary feeding and WASH practices. The strategy was based on formative research conducted in all three districts, and education/counselling job aids and tools were developed.

Training frontline workers to deliver WASH and nutrition

Frontline workers, including Lady Health Workers (LHWs) and Community Resource Persons (CRPs) were trained on IYCF and WASH using ‘stunting reduction’ training

modules. Training involved a mix of skills, such as technical knowledge and counselling skills, to facilitate community engagement and support groups. The LHWs and CRPs used a range of community-based platforms to inform and counsel caregivers, including mother-to-mother and father-to-father support groups. Key messages focused on what, when and how to feed children, hand-washing with soap, and safe disposal of a child’s faeces. Across all these platforms, special attention was paid to ensuring consistent messaging and the reinforcement of key messages.

Identifying common touch points

A first step in the community-based approach was a mapping exercise to identify common contact/touch points for nutrition and WASH at community and household level, so that the community was approached in an integrated manner: through individuals (LHWs and CRPs) and institutions (health facilities and schools). The programme’s outreach component was further strengthened through the formation of village-based structures (village WASH and health committees and mother-to-mother and father-to-father support groups) for sustained awareness and communication efforts. As a result, members of the community were empowered to raise their voices, and this helped in generating demand for nutrition and WASH services, as evidenced by monitoring and evaluation (M&E) of the programme, including qualitative data from interviews with community members and monitoring of SBCC. The creation of action plans to facilitate joint activities and District Coordination Committees to improve co-ordination at the district level was another bottom-up approach to strengthen synergies between nutrition and WASH.

Strengthening the WASH component

In addition to the SBCC actions on WASH behaviours that were integrated with the promotion and support of IYCF, the WASH sector focused on maintaining an adequate water supply, in terms of both quality and quantity; improving sanitation through community-based approaches for ‘total sanitation’ that seek to eliminate the practice of open defecation; and built on the capacity of service providers (mainly CRPs) to counsel on improvement in hygiene practices, such as handwashing, etc. Policies and plans such as the Sindh Government’s WASH sector master plan and the Safe Drinking Water Policy and Sanitation Policy were developed under the leadership of the provincial government, with technical support from UNICEF to underpin the programme.

FIGURE 1 Key drivers of stunting in Sindh Province



SOURCE: Child nutrition statistics - Multiple Indicator Cluster Survey (2014); WASH statistics - Pakistan Social and Living Standards Measurement (2014-15)

Box 1 Key results from final MCSRP (2015-2018) evaluation

Improved enabling environment in the provincial government to address stunting in Sindh

- ✓ WASH policies and strategies are nutrition sensitive (safe drinking and sanitation policy)
- ✓ Web-based Nutrition Management Information System and WASH information system established
- ✓ District and provincial level capacity to coordinate nutrition interventions strengthened
- ✓ M&E framework strengthened

Access to nutrition and WASH services improved by integrated service delivery

- ✓ Almost 100% of targeted pregnant, pre-pregnant women/adolescent and children supplemented with micronutrient /iron-folic acid supplementation with IYCF counselling
- ✓ Almost 100% of targeted children were screened and treated for severe acute malnutrition ✓100% of targeted communities certified as open defecation free (ODF) villages
- ✓ 100% of target population gaining access to improved water source including schools and health facilities

IYCF and WASH practices improved through integrated SBCC

- ✓ Providing IYCF counselling to mothers and caregivers with 100% reach/coverage improved key feeding practices (e.g. exclusive breastfeeding increased from 47% to 62%)
- ✓ 88% of people report handwashing with soap or ash at critical times

SOURCE: USAID- IYCF KAP Survey report

Joint reporting on WASH and nutrition

Both WASH and health/nutrition sectors had been collecting data separately in a primary data tool and then sending the data to the provincial level. The creation of an integrated database provided an opportunity for joint reporting on the main programme indicators across nutrition and WASH.

Nutrition-specific interventions (including IYCF counselling) in the MCSRP programme reached a total target population of 646,590. This included 334,443 children under two years of age, 178,370 pregnant and lactating women, and 133,777 women of reproductive age. A total target population of 800,000 people in all three districts benefited from improved sanitation and hygiene and 480,000 people benefited from sustainable water supplies.

Enhancing provincial government ownership

Since completion of the MCSRP in 2018, the Government of Sindh has continued to integrate WASH-nutrition programming into its Accelerated Action Plan (AAP) to address malnutrition in the province, and has plans to expand the coverage of multi-sectoral interventions by 2026⁶. WASH-nutrition interventions have been scaled up from the initial three districts in the MCSRP to an additional 23 AAP-targeted districts with high burdens of malnutrition. The original programme's model of creating a District Coordination Committee for WASH-nutrition interventions has now been replicated by the provincial government in all of the AAP districts. WASH-nutrition SBCC elements are

now incorporated into the revised manual for LHWs to strengthen their role in nutrition and WASH programming. An integrated database for monitoring WASH and nutrition indicators within the multisectoral M&E framework has been adopted and implemented by the Government of Sindh to promote greater monitoring and accountability.

The cost of the initial joint WASH-nutrition programme implementation between 2015–2018 was USD 20 million with funding from the United States Agency for International Development (USAID). However, since the launch of the AAP in 2018, the Government of Sindh has taken ownership and responsibility

for funding of multi-sectoral programming, ensuring sustainability of the WASH-nutrition approach as it is scaled up in the province.

Challenges and lessons learned

Collaboration between government, various sectors and civil society is crucial to the successful implementation of activities. However, identifying key implementing partners from multiple sectors and non-governmental organisations was time-consuming and took longer than originally anticipated. Lessons learned include ensuring the functioning of a coordination forum at provincial and district level prior to implementing an integrated programme.

Limited implementing-partner capacity to plan and implement multi-sector interventions and employing multiple partners also had cost implications and created coordination challenges. The under-representation of women in district-level coordination committees was a further issue, with only around 15% of them attending the meetings.

Next steps

Implementation of integrated WASH and nutrition interventions is new in Pakistan, and findings from the Sindh programme evaluation will be crucial in informing inter-provincial learning to bring out the synergistic benefits of integration. Process documentation and rigorous costing of ongoing projects in Sindh (such as the APP) are planned to inform the process of moving to a larger scale.



A practical demonstration of hygiene promotion with mothers and children in Pakistan

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⁵ MCSRP (2015-18) Final Evaluation, UNICEF Pakistan

⁶ <https://www.aap.gos.pk>



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Improving social protection programmes to support mothers and young children's diets in Bangladesh: Combining cash transfers with behaviour change

The Ministry of Women and Children Affairs, Government of Bangladesh, provided information and editorial support for this article.

Dr Md Shah Nawaz is the former Director General of the Bangladesh National Nutrition Council.

Masing Newar is the Programme Policy Officer for the World Food Programme in Bangladesh.

Colleen O'Connor is the Nutrition Officer for the World Food Programme in Bangladesh.

Background

Bangladesh has made strides in improving health and nutrition in recent decades, yet it still faces challenges in reducing undernutrition, including micronutrient malnutrition. The prevalence of stunting in children under five years old decreased from 47% in 2007 to 28% in 2019 and the country is on course to meet the global targets for both child stunting and overweight, although the prevalence of wasting is 9.8% is higher than the regional average of 8%¹.

Young children's diets and feeding practices in Bangladesh are very poor. Recent analysis found that only 28% of breastfed children and 17% of non-breastfed children aged 6–23 months achieve a minimum acceptable diet. This is mostly due to low dietary diversity and is most evident in the poorer sectors of society². Ending such wealth inequities is behind the growing focus on social protection programmes as part of a multi-system approach to improving young children's diets and feeding practices amongst the most vulnerable. The Government of Bangladesh (GoB) is also seeking to streamline social security programmes and life-cycle risks, including early childhood needs, through the National Social Security Strategy (NSSS).

This article explores the GoB's new Mother and Child Benefit Programme (MCBP) and its potential contribution to improving nutrition; in particular the diets of infants and young children and vulnerable young mothers. Comprised of two existing social safety net programmes and including new components, the MCBP seeks to address nutritional vulnerability by prioritising support to infants and young children aged 0–4 years and their mothers.

Enhancing the evidence base for action

A Fill the Nutrient Gap (FNG) analysis was conducted by the GoB's Cabinet Division with support from the World Food Programme (WFP) in 2019 to assess the barriers faced by the most vulnerable to accessing and consuming healthy and nutritious diets in Bangladesh². A lack of knowledge amongst household members on infant and young child feeding (IYCF), as well as limited decision-making power and mobility for women and adolescent girls, were found to be key barriers to achieving a minimum acceptable diet, in addition to financial barriers². It was also found that the cost of a nutritious diet in Bangladesh is over twice that of an

energy-only diet. Children from the poorest households are twice as likely to be stunted as children from the richest households³. Added to this, recent evidence showed that combining behaviour change communication (BCC) with cash transfers (CT) resulted in greater reductions in childhood stunting than CT alone in Bangladesh⁴. The findings from these key studies led to the design of new components and changes in the MCBP.

One of the policy recommendations resulting from the FNG analysis was that “transfer values for social protection need to be almost doubled to enable positive nutrition outcomes for all pregnant and lactating women and young girls”, as this

¹ Bangladesh Bureau of Statistics (BBS), 2019. *Progotir Pathay, Bangladesh Multiple Indicator Cluster Survey 2019, Key Findings*. Dhaka, Bangladesh: Bangladesh Bureau of Statistics (BBS).

² Fill the Nutrient Gap Bangladesh – Concise Report (2019). Cabinet Division, Government of Bangladesh, in collaboration with WFP.

³ James P Grant School of Public Health and National Nutrition Services. (2016). *State of food security and nutrition in Bangladesh 2015*. Dhaka, Bangladesh: James P Grant School of Public Health and National Nutrition Services.

⁴ National Institute of Population Research and Training (NIPORT), and ICF. 2019. *Bangladesh Demograph and Health Survey 2017-18: Key Indicators*. Dhaka, Bangladesh, and Rockville, Maryland, USA: NIPORT, and ICF.

can have a direct impact on the health and nutrition of young children through the life-cycle approach. Currently 13% of households in Bangladesh are unable to afford a nutritious diet, assuming optimal choices are made. Social protection programmes such as the MCBP could reduce the percentage of households unable to afford a nutritious diet by up to 50% (assuming optimal food choices). Providing micronutrient supplements or fortified rice could add to this reduction.

Early social protection programmes

Bangladesh has various social safety net programmes targeted at reducing vulnerability, poverty and inequalities for a range of population groups. The rural-based Maternal Allowance (MA) and the urban-based Lactating Mother Allowance (LMA) programmes, both under the Ministry of Women and Children Affairs (MoWCA), targeted poor pregnant women who were admitted to the programme based on set criteria⁵. The MA and LMA aimed to reduce maternal and infant mortality, increase rates of breastfeeding, and increase utilisation of delivery and prenatal care services by providing improved linkages between services, as well as BCC sessions, which were run by a resource pool of frontline staff from various ministries. The BCC sessions are reported to have encouraged greater coordination and co-operation between the different ministries involved (health, education, and women and children’s affairs) at both national and sub-national levels.



Together with a monthly cash transfer, behaviour change communication (BCC) sessions provide information on health, nutrition and child development as part of the Mother and Child Benefit Programme (MCBP).

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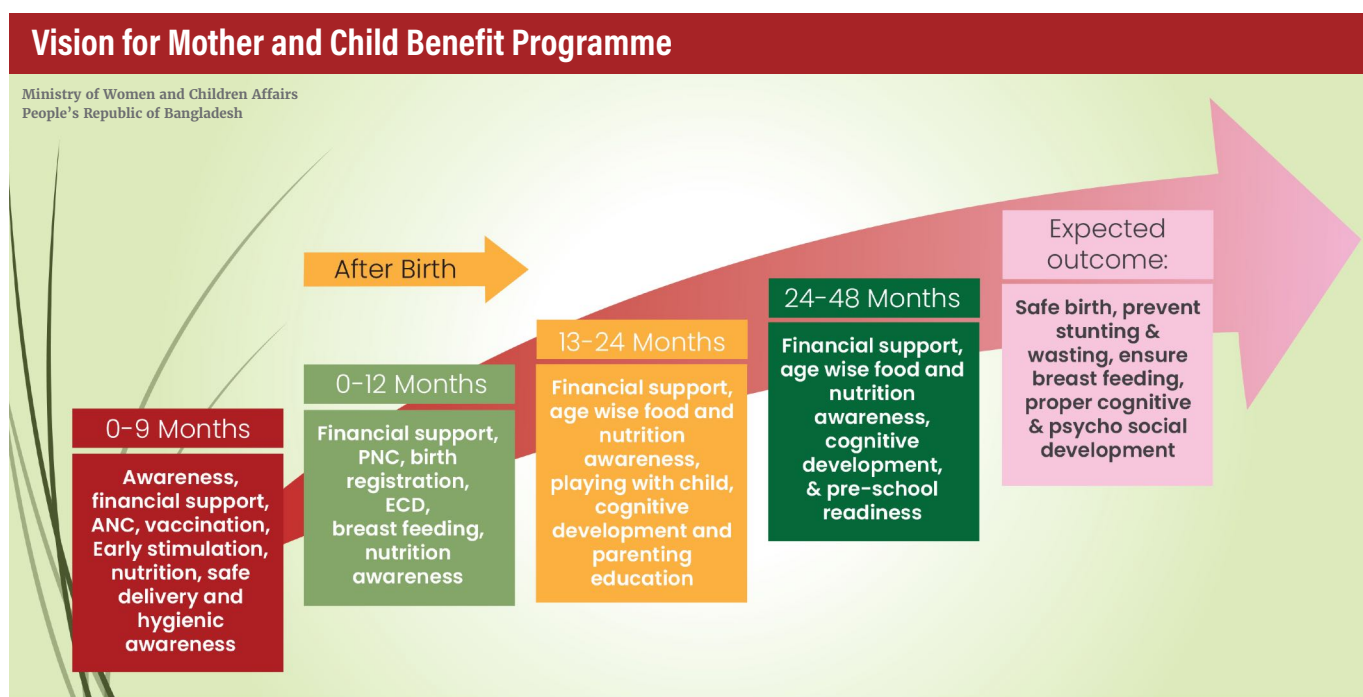
Nearly one million women were selected by MoWCA and enrolled yearly each July (the start of the financial year in Bangladesh), so only women pregnant at that time could be admitted to the programme. They received a monthly cash transfer of about USD 6 (500 Bangladeshi taka (BDT) for 24 months. The women could only participate and receive the allowance once, for either their first or second live birth.

The pregnant women directly receiving the monthly stipend were encouraged to spend it on a nutritious diet for themselves and thereby contribute to the health of their unborn child. After the child’s birth, the money was intended to cater to the nutritional requirements of the mother, then later for age-appropriate complementary foods for the child.

Moving forward with a new programme

The MCBP was introduced in July 2019 and implemented by MoWCA with technical assistance from WFP. It combines the previous MA and LMA and introduces new programme components based on the research outlined above, as well as prior programme evaluations and monitoring visits. The core components of the programmes – monthly CT and BCC – have

⁵ Akhter U. Ahmed et al (2016) in collaboration with data analysis and technical assistance International Food Policy Research Institute, WFP. Which kinds of social safety net transfers work best for the ultra poor in Bangladesh?: Operation and impacts of the transfer modality research initiative. Dhaka : International Food Policy Research Institute : World Food Programme, Bangladesh, 2016.



Source: MoWCA, Bangladesh

been retained and are accompanied now by nutrition training, improved linkages to health services and a new child benefit programme.

The MCBP aims to reach 7.5 million children 0–4 years of age by 2030 all over the country with the aim of achieving safe births; preventing stunting and wasting; and ensuring breastfeeding, optimal complementary feeding and proper cognitive and psychosocial development of young children. This will be measured through MoWCA’s monitoring and evaluation (M&E) system, as well as through the effectiveness of BCC modules and a research study to be conducted by an external international organisation.

Piloting new approaches for impact on young children’s diets

A piloted approach has been adopted in eight *upazilas* (administrative regions) in both urban and rural areas.

BCC sessions are no longer exclusively for programme participants and are now open to *all* pregnant women and mothers of young children, as well as to their immediate families/caregivers (e.g., husbands, mothers-in-law, etc.). Together with technical partners, several training modules are being developed within a comprehensive training framework to deliver age-specific information on health, nutrition and early childhood development.

Tailored messages are delivered over the course of the woman’s pregnancy until the child is four years old. The messages are delivered at BCC courtyard community sessions by government community-resource pool workers, at antenatal care visits in the health

facility, and at household visits. For example, a pregnant woman may receive information concerning which micronutrient supplements to take during pregnancy, while new mothers get messages emphasising the importance of breastfeeding and complementary feeding. Once the child has reached six months of age, new messages will be disseminated on age-specific quantities and frequency of complementary feeding, in addition to messages on continued breastfeeding. Further supporting messages on hygiene and responsive feeding are also shared.

Increasing programme access

MCBP has been further improved through the use of a digital self-enrolment process. An eligible woman can now self-enrol on a rolling basis by going to her Union Data Centre (in rural areas) or her municipality office (in urban areas), and so no longer has to wait until each July. Once her data is put into the digital system, it is linked to the Government-to-Person (G2P) payment system, which enables payments to be made on a monthly basis to the individual’s account, effective immediately⁶. The mother can begin using the CT for nutritious diets immediately. Research indicates that, by receiving regular small monetary transfers, a household is more likely to invest in better diet, rather than in a large purchase of assets or investments, as is the case when a lump-sum payment is received⁵. The monthly transfer value is currently about USD 9 (800 BDT).

Challenges and lessons learned

While the new programme has addressed

many shortcomings of its forerunners, some challenges persist in its early stages. The MCBP’s digital information system is not integrated with other digital systems, such as those run by the Ministry of Health, which collects children’s health information from birth onward. The Union Data Centres where women enrol are often located far from where the women live and lack reliable electricity and connectivity, necessary for enrolment. This can result in multiple trips to centres for the women, which can be costly as well as physically demanding.

Moreover, the centres are currently independent operators and are not held accountable for the accuracy of their data inputs, often resulting in incorrect data entry. As a result, a high number of CTs have bounced back due to incorrect or mismatching information. While the first transfers functioned well, subsequent transfers faced operational challenges and were delayed.

CTs are not always spent only on food, but also on health, education, farming and business investments, as well as debt repayment. The assumption that small and regular CTs will lead to better diets is challenged, given the low decision-making authority of women in Bangladesh.

The next steps for the MCBP pilots include establishing a comprehensive M&E framework and a formal grievance mechanism, as per the recommendations of a review, before the programme is rolled out nationwide.

⁶ Although the MA and LMA projects were designed to transfer the allowance monthly, in reality it was done quarterly and, in some cases, annually.



Women attending a behaviour change communication session on nutrition as part of the Mother and Child Benefit Programme (MCBP)

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A mother belonging to the socially marginalised Dalit community receives the child cash grant on behalf of her young daughter

Addressing inequities in nutrition outcomes in Nepal: Integrating an unconditional child cash grant and infant and young child feeding programme

Kedar Raj Parajuli is Chief, Nutrition Section, Family Welfare Division, Department of Health Services, Ministry of Health and Population, Government of Nepal.

Karan Courtney Haag is Chief, Nutrition Section, UNICEF Country Office, Nepal.

Anirudra Sharma is a Nutrition Specialist, UNICEF Country Office, Nepal.

Thakur Dhakal is a Social Policy Specialist, UNICEF Country Office, Nepal.

Sanjay Rijal is the Monitoring and Evaluation Officer, UNICEF Country Office, Nepal.

Introduction

Childhood stunting remains a major development challenge in Nepal, with 36% of young children affected¹. Geographic and socioeconomic inequities persist, with children living in the mid and far-west hills and mountain areas in Karnali Pradesh and Sudurpashchim Pradesh provinces and those from poorer households and socially excluded caste and ethnic groups worse off. Sub-optimal infant and young child feeding (IYCF) practices are a contributing factor to the high stunting rates and other forms of child malnutrition in the country, with the diets of 55% of children aged 6–23 months failing to meet the minimum dietary diversity nutrition indicator¹.

Significant financial barriers affect the ability of poor households to afford optimal diets in Nepal². For example, children from households in the poorest wealth quintile have a greater likelihood of not consuming legumes, dairy products or flesh foods³. While poverty in Nepal has declined, an estimated 22% of the population still live below the poverty line and children under 10 years old constitute the poorest age sub-group⁴. Poverty lessens the ability of poor households to withstand shocks associated with natural hazards such as earthquakes, droughts and flooding, which worsen food security and reduce household nutrition resilience. Added to this, the country's exposure to periodic global crises, such as the 2008 global financial and food price crises and the 2020 COVID-19 pandemic, further erodes the ability of chronically poor households to afford nutritious foods, compounding nutritional vulnerabilities. Evidence from a recent rapid assessment of the socioeconomic impacts of the COVID-19 pandemic in Nepal revealed that, among 20–25% of respondents, children were

experiencing changes in dietary intake, such as reduced number of meals per day, less dietary diversity and reduced amounts of food consumed at mealtimes⁵.

Addressing poverty

The Government of Nepal (GoN) has a range of policies and programmes that address poverty, vulnerability, exclusion and malnutrition across the life cycle and among vulnerable and disadvantaged groups. Nepal's Multi-Sector Nutrition Plan (MSNP) (2013–2017; 2018–2022) is a key policy instrument for multi-sector action to improve maternal and child nutrition, including health-system actions to improve IYCF; food-system actions to increase the availability and consumption of safe and nutritious foods; and increasing access to social protection interventions, such as child grants targeting households with children under the age of five.

Recognising the influence of social and behavioural determinants on child feeding and care practices, as well as the financial drivers, the GoN linked its social protection scheme aimed at young children with an existing IYCF programme. This article describes the lessons learned from the implementation of this joint approach and what is known about its impact.

Origins of an integrated initiative

In the wake of the 2008 global financial and food crisis, the GoN expanded its targeted social protection policies and programmes by introducing a social assistance allowance in the form of an unconditional social transfer, the child cash grant, in 2009/2010. The grant was targeted at all households with children under five years old in the geographically and economically isolated and chronically food-insecure Karnali zone and other districts that had low human-

development index scores, and children from the Dalit caste across the country. Both target groups had high levels of child stunting.

The policy and standard setting of the child grant is administered by the Department of National Identification and Civil Registration under the Ministry of Home Affairs. Eligible households with up to two children under the age of five per primary caregiver receive a monthly cash grant allowance of NPR 200 (approximately USD 1.60), which is disbursed every four months. In addition, these households should also receive social and behavioural change communication (SBCC) interventions delivered by the Ministry of Health and Population, including counselling on IYCF practices and other key behaviours related to child nutrition, such as hygiene and sanitation, early stimulation, and utilisation of primary healthcare and nutrition services. The SBCC interventions are delivered by facility-based health workers and female community health volunteers (FCHVs) using a combination of approaches, including advocacy, interpersonal counselling, community mobilisation and mass communication.

Development partners provided technical and financial support to the GoN for initiating the child cash grant/IYCF programme in five districts of Karnali zone. The Reducing Malnutrition through Social Protection project, a partnership between the Asian Development Bank and UNICEF, was implemented between 2011–2016.

Coordination mechanisms for joint programming

Inter-ministerial coordination mechanisms through district development committees

¹ Ministry of Health, Nepal; New ERA; and ICF. (2017). Nepal DHS 2016.

² Biehl et al (2016). What Does It Cost to Improve Household Diets in Nepal? Food and Nutrition Bulletin 37 (3): 247–60

³ Baek, Y. & Chitekwe, S. (2019). Sociodemographic Factors Associated with Inadequate Food Group Consumption and Dietary Diversity among Infants and Young Children in Nepal. PLOS ONE 14 (3): e0213610.

⁴ Ministry of Finance, Nepal. (2018). https://mof.gov.np/uploads/document/file/compiled%20economic%20Survey%20english%207-25_2019111101758.pdf

⁵ UNICEF Social and Economic Impact Survey (June 2020).

(DDCs) and village development committees (VDCs) were put in place in these districts to facilitate policy coherence and coordination of implementation across involved ministries and development partners. District-level orientations, in which the secretaries of 127 VDCs participated, were organised at the beginning of the project to orient district stakeholders on the project objective and to draft the implementation plan. Review meetings were organised after one year of implementation in all five districts. Since 2017, district-level committees have been replaced with local government coordination and planning committees. The MSNP-II nutrition and food security steering committees were established in the local governments within each of the five districts and continue to play an important role in coordinating different sectors and ministries, and lead the process of planning and budgeting for MSNP-II.

Building capacity for SBCC

To strengthen the SBCC component, capacities had to be built up across the health system for delivery of the programme interventions, including training and supervision of frontline workers, and for information monitoring and management. A total of 848 health workers and 2,309 FCHVs were trained on IYCF counselling between 2012–2015 and conducted mothers' group sessions, including food demonstrations, to reach about 36,386 mothers and caregivers. Partnerships were established with local and community radio stations to raise awareness, mobilise communities and reinforce priority IYCF and care behaviours and practices. In addition to routine government monitoring, a three-wave household monitoring survey system was put in place to track progress and evaluate whether the priority actions and interventions were leading to improvements in child nutrition and to generating learning to inform the scale-up.

Evaluating programme impact

A number of studies and evaluations have assessed the impact of the child cash grant/IYCF programme on IYCF practices and child nutrition since it was set up. A 2013 survey showed that 83% of households reported receiving the child grant allowance at some point, while 78% had received the allowance in the preceding 12 months⁶. The midline survey also indicated that coverage of the grant was significantly lower among children aged under 12 months, mainly due to the annual registration process. This finding was taken into account and the registration process was revised, making it ongoing rather than once per year.

Most households reported using the grant to purchase nutritious foods for their children that they had learned about during food demonstrations given by FCHVs on preparing traditional complementary foods using locally available foods. Parental literacy rates affected the way in which the grant was

used, with households with literate mothers more likely to purchase nutritious foods than those with illiterate mothers.

The 2013 survey also found improved rates for several IYCF practices in comparison to the baseline 2009/2010 rates. For example, the proportion of children who were introduced to complementary food at six months of age increased significantly from 24% at baseline to 43%⁶. In addition, there were increases in the proportion of children receiving the recommended minimum meal frequency (47% to 91%) and minimum dietary diversity (17% to 27%)⁶.

More recently, an evaluation of the impact of the child grant and IYCF interventions on child nutritional status over the period 2009–2015 found that child nutritional status improved, with reductions in stunting (a decrease of 9%) and wasting (a decrease of 5%), as well as improvements in water, sanitation and hygiene outcomes; care and health-seeking behaviours; and food availability⁷.

Scaling up the programme

Between 2009–2018, approximately 562,000 children under five years old in the Karnali zone and Dalit children nationally (about 20% children under five years old in the country) have benefited from the programme. Scale-up has evolved over several phases. In 2016 the government scaled up the child grant in three additional districts, following evidence of impact, and in 2018 the grant was expanded to a further six districts. UNICEF provided technical support to initiate identification and registration of eligible children and oriented about 1,500 local government officials in those districts. From September 2016, the size of the child cash grant allowance was increased to NPR 400 (about USD 3.50) per month.

The enabling environment for universalising the child grant has also been strengthened. The 2018 Social Security Act formalises the government's cash transfer programmes as legal entitlements. In line with the draft national Social Protection Framework, the government has developed a long-term expansion plan to expand the grant geographically in a phased manner for universal coverage across the whole country. The 15th National Development Plan (2014–2019) aims to achieve universal coverage within the plan period. The child cash grant is tax-financed and analysis shows that the expansion plan is within the government's fiscal capacity. MSNP II (2018–2022) also carries the ambition to increase the number of local governments providing child grants to children under five years old from 203 (2018 baseline) to 372 by 2022.

Lessons learned

Several design and implementation bottlenecks have affected the delivery of the programme and its impact on children's diets and nutritional status.

First, there were limitations in the size, frequency and coverage of the cash transfer. For many households, the size of the cash transfer (initially NPR 200 per month per child, which was subsequently increased to NPR 400) was likely too small to impact on dietary diversity; to optimise impact the size of the transfer needed to be equivalent to at least 20% of household expenditure⁷. The 2013 IYCF/Cash Grant survey revealed that the majority (79%) of households received the cash transfers just once in the last year and only 2% of households received the expected transfer three times a year⁶. Furthermore, coverage of the grant was lower among infants under 12 months of age (who are highly vulnerable to malnutrition); it is thought that, as birth registration is a prerequisite for the grant, delays in birth registration deprive households with qualifying infants from timely access to the allowances. This challenge is being addressed by raising awareness among target households of the need to register births promptly after delivery.

Second, the quality of individual and group IYCF counselling provided by FCHVs remained weak, diminishing the potential impacts of the cash transfers. To address this, FCHVs have been retrained on interpersonal communication and counselling skills. Access to health and nutrition services is also a challenge in the mid and far-west hills and mountain areas owing to the difficult terrain and poor road transportation networks; efforts to strengthen community-based delivery systems are contributing to improved access in these areas.

Another important lesson learned is Nepal's experience in making the child cash grant responsive to shocks. During the 2015 earthquake response an increase in the size of the cash transfer and the expansion of the targeting to all under-five children in the affected districts increased the resilience of households. The earthquake response piggy-backed the existing child cash grant, whereby a one-off 'top up' of 4,000 NPR per child was added to regular payments. These top-up payments were stopped after the response.

Based on this experience, expanding coverage of the child cash grant in response to the COVID-19 pandemic could help buffer the impacts of the economic fallout on young children's diets and their nutritional status. To this end, and despite losses in government revenue as a result of the pandemic, the GoN has announced an allocation of NPR 3.76 billion in the 2020/21 annual budget for scaling up the child cash grant to an additional 11 districts, which will reach approximately 400,000 children under the age of five.

⁶ Ministry of Health, Nepal; UNICEF, Nepal; ADB. (2014). A Cross-section Study on the Relations between Child Nutrition and Social Protection Measures in Karnali

⁷ Renzaho et al. The impact of unconditional child cash grant on child malnutrition and its immediate and underlying causes in five districts of the Karnali Zone, Nepal <https://doi.org/10.1186/s13690-019-0352-2> According



A breastfeeding mother in Narharpur Block, Chhattisgarh, receives take-home rations prepared by women from self-help groups

Integrating complementary food supplements at scale into national nutrition programmes: Insights from India

Purnima Menon is a senior researcher with the International Food Policy Research Institute's South Asia Regional Office in India.

Shariqah Yunus Khan is a medical doctor and public health practitioner managing the nutrition portfolio with the World Food Programme, India Country Office.

Rajan Sankar is with The India Nutrition Initiative (TINI) of the Tata Trusts, India.

Background

Every year 27 million babies are born in India. At any time, there is a cohort of over 50 million children under two years old. Good nutrition during the first two years helps to build bodies, brains and immunity for every child; yet, survey after survey tells us there is a real crisis in how babies across India are fed, especially around complementary feeding. Indeed, as recently as 2018, barely a tenth of Indian babies received a minimally adequate diet.

Feeding babies well is no small task. Multiple times a day, every day, parents and caregivers must prepare, feed and clean their infants – adding up to an estimated 5,000 feeding moments in the first two years of life. Parents and caregivers need information, time, resources, skills and support to undertake what is a massive caregiving task over these first two years of a child's life.

Public programmes implemented by frontline health workers and medical professionals typically offer parents advice and information, with research finding varying degrees of impact. Programmes to provide breastfeeding and complementary feeding information and support to families are a common feature of public policy across South Asia. However, few countries in the region also offer families with young children specially formulated complementary food (CF) supplements – fortified cereals, cereal-pulse mixes, eggs – to support infant feeding. Evidence suggests that, in food-insecure populations, either food or cash should be provided to families to support infant feeding¹. India and Sri Lanka are two of the countries in South Asia that include public provisioning of complementary foods in their nutrition programmes at national scale.

India's Integrated Child Development Services (ICDS) programme

India's flagship nutrition programme, the ICDS programme, is the world's largest community-based nutrition programme focusing on pregnant and lactating women and children under six years of age. Fuelled by the work of over 1.4 million Anganwadi workers, the programme provides a range of services at community-based centres (Anganwadi centres). These services include food supplementation, provided either as take-home food rations or as hot cooked meals, depending on the programme client. Other services provided include growth monitoring, behaviour change communication activities through community-based events at the centres, and home visits by the workers for nutrition counselling, as well as linkages and referrals within the health system.

The programme began in 1972 as a pilot and today is a nationwide programme that has scaled up tremendously in the last 15 years, following a legal act that linked ICDS with the right to food and a range of programme and policy efforts related to nutrition². It has been challenging to assess the impact of ICDS on nutrition outcomes, but evidence suggests that programme expansions and coverage have contributed to declines in stunting in several states. As of 2016, use of the programme is still highly variable across states; however, in some, close to 90% of the population use the programme services.

Provision of CF supplements

India's experiences with scaling up the provision of CF supplements in the ICDS programme over the last 10–15 years offer lessons on a range of issues, including com-

position, production models, governance, financing, and reach and uptake. Based on recent reviews^{3,4} and a range of stakeholder discussions, we explore each of these briefly below:

- **Composition.** Food supplements in the ICDS programme were initially formulated to close calorie and protein gaps and updates to the composition have been incremental over the years. Composition guidance has not separately examined the needs of children 6–24 months of age versus those of children above two years of age. Today, with updated scientific evidence on nutritional needs of infants during the period of complementary food supplementation, it is time for India to review and revise composition guidance. In addition to updating guidance on the needs of infants, composition guidance needs to consider the high levels of sugar in the current composition; the average energy contribution from sugar is about 23% of total calories. Additional composition guidance also needs to consider the role of quality protein; milk/milk powder is included in the formulation of only about 25% of products for young children. Some states in India have explored the inclusion of eggs, along with cereal-based complementary food supplements, thus improving the quality of protein in the supplementary foods.
- **Production models.** Across India, a range of production models for complementary food supplements have been explored. Partial financing for the programme is provided by the central government to states, which contribute their own funding and adopt their own models of

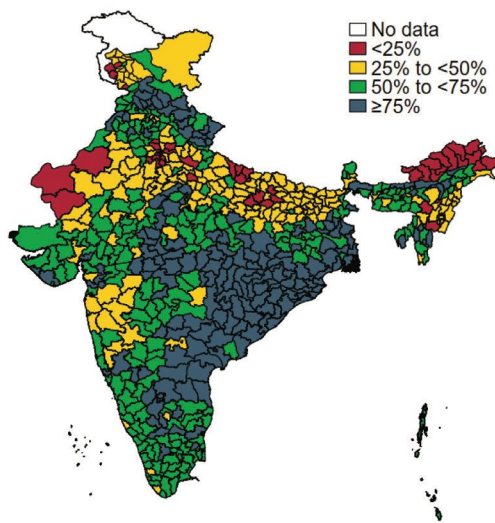
¹ Bhutta et al. (2008). What works? Interventions for maternal and child undernutrition and survival. *The Lancet*, 371(9610), 417–440.

² Chakrabarti et al. (2019). India's Integrated Child Development Services programme; equity and extent of coverage in 2006 and 2016. *Bulletin of the World Health Organization*, 97(4), 270.

³ Vaid et al. (2018). A review of the Integrated Child Development Services' Supplementary Nutrition Programme for Infants and Young Children: Take home ration for children. *POSHAN Research Note*. Intl Food Policy Res Inst.

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Proportion of children (6-35 months) who received food supplements, by district, 2016



Source: NFHS-4 (2015-16)

Top 10 districts (%)	
Baoudh (OR)	97.7
Kandhamal (OR)	96.6
Subarnapur (OR)	96.3
Jagatsinghapur (OR)	96.2
Nayagarh (OR)	95.7
Bargarh (OR)	95.2
Balangir (OR)	94.2
Kendrapara (OR)	93.8
Champhai (MZ)	93.7
Gadchiroli (MH)	93.4

Bottom 10 districts (%)	
Dibang Valley (AR)	3.2
West Siang (AR)	4.1
West Kameng (AR)	6.9
Upper Siang (AR)	7.1
East Kameng (AR)	7.3
East (DL)	7.7
New Delhi (DL)	8.1
North East (DL)	8.2
Palwal (HR)	9.4
Balrampur (UP)	10.1

Recommendations for improving the CF supplements

What does the evidence and experience to date imply for how India and other countries in the region should consider the role of CF supplements in their national nutrition programmes?

First, in food-insecure populations, and especially in the context of the food insecurity that is anticipated as a result of the ongoing COVID-19 pandemic, complementary food supplements can play an important role in supporting parents with infant feeding. Indeed, studies suggest that appropriately formulated food supplements or high-nutrient-quality foods such as eggs, contribute critical nutrients without displacing breastmilk. Countries that aim to integrate these into national programmes should certainly explore whether client populations need additional food supplements to support infant feeding. Cash transfers could be explored as well, with the caveat that evidence across the region is still mixed.

Second, even as countries consider adding CF supplements to the programmes, or consider updating their policies and programmes, attention is needed to issues of nutritional composition and to the range of programmatic, governance and financial arrangements that affect programme reach. These affect the translation of policy guidance and intent into actual food supplements in the hands of client populations and therefore need as much, if not more, care and attention.

Third, food supplements are certainly not enough; efforts to strengthen the integration of food supplements with ongoing behaviour change communications and/or counselling elements of the programme are vital to help families use the supplements appropriately, ensuring that they do not displace breastmilk or other family foods.

Finally, a continuous learning agenda that builds on ground-up research and listens to client populations is central to ensure that food supplements meet nutritional needs and food safety standards and are culturally acceptable. Families with young children bring valuable insights on programmatic features regarding the taste and acceptability of the supplements and on their integration into the diets of their infants. Listening to the parents of young children across India – and, indeed, all of South Asia – is important to ensure that the millions of dollars that go into nutrition programmes will drive impact.

⁵ Saxena, N. C., & Srivastava, N. (2009). ICDS in India: policy, design and delivery issues. *IDS Bulletin*, 40(4), 45-52.
⁶ Chakrabarti et al. (2017). Achieving the 2025 World Health Assembly targets for nutrition in India: What will it cost? (Vol. 2). *Intl Food Policy Res Inst*.
⁷ Avula et al. (2018). District-level coverage of interventions in the ICDS scheme during pregnancy, lactation and early childhood in India: Insights from the National Family Health Survey-4 (No. 4). IFPRI.

production of the food supplements. In some states, these are produced by state-run production companies; in others, they are produced by women's self-help groups, who receive contracts from the states; in yet others, frontline health workers receive cash to their bank accounts and procure and produce the food supplements. Each model has its pros and cons. The choice of the production model is ultimately made at the state-level.

- **Governance.** On governance, a range of insights are available on how the production models have played out. Lack of accountability mechanisms, corruption at multiple levels and poor food safety are concerns that have been documented⁵. All these seem to be prevalent in both centralised and decentralised self-help group models. Efforts to improve accountability, regardless of the production model, must therefore be a central component of strengthening the quality and reach of the supplements. Similarly, mechanisms to test and ensure quality of supplements are highly variable across states, but these must be a key part of the overall governance mechanism.
- **Financing.** A key consideration is available domestic and development partner financing to cover all the costs of producing and delivering the food supplements to the last mile. In the ICDS programme, a majority of the national budgets for the nutrition programme go towards the food supplements, yet there are shortfalls that stem from either financial allocation gaps or fund-utilisation gaps at the state level⁶.
- **Reach and uptake.** Research indicates that, regardless of the production model, the overall reach of the food supplements is highly variable, ranging from barely 3% in some districts to over 95% in others in 2016⁷. A critical insight from research on

the reach of the supplements is that reach is generally higher in the poorer, but not the poorest, quintiles than among the upper quintiles. This could be due to placement bias; i.e., because the ICDS programme expanded into poorer geographic areas. It could also be due to selection bias at the household level: families who felt a need for additional nutritional or food support accessed the programme more. In either case, the higher coverage in these groups implies a felt need for the programme. Unfortunately, research on coverage also shows that states with the largest number of undernourished children in India, Uttar Pradesh and Bihar, are also those where the largest number of children are missed by the programme. Coverage is lowest in these states and much more effort is needed to increase the reach of the programme and use of the food supplements.

Missing evidence

Unfortunately, a missing piece of evidence in the context of India's programmes is how client populations perceive the food supplements and the programme, and how they integrate the food supplements into the daily diets of their infants. Little is known about whether client populations value the food supplements, whether they fit their cultural norms of what infants should consume, whether they feel they are safe to feed their infants and, last but not least, whether they can easily integrate a publicly provided food supplement into their daily routines. Contrast this with the availability of evidence from Mexico's nutrition programme, which successfully integrated high-quality food supplements and behaviour change into the programme through careful research that listened to client populations.



Consuming unhealthy processed foods during the complementary feeding period can contribute to both overweight and undernutrition

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The double burden of malnutrition among young children in South Asia: Policy and programme options

An interview with **Dr Angela de Silva**, the Regional Adviser, Nutrition and Health for Development, WHO Regional Office for South-East Asia and **Dr Ayoub Al Jawalhdeh**, the Regional Adviser, Nutrition, WHO Regional Office for the Eastern Mediterranean.

1. What is the current nutrition situation regarding overweight among young children in the region?

The levels of overweight in young children under five years of age in South Asia are not high compared to other regions, but the upward trend is significant and worrying. Generally, the overweight prevalence is higher in children aged 0–23 months than those aged 24–59 months.

As shown in Table 1, there are disparities in the prevalence of child overweight between countries in the region. The prevalence of overweight in children aged 0–23 months is highest in Afghanistan (5.3%) and the Maldives (4.5%), and is below 3% in India, Nepal, Pakistan and Sri Lanka. The key point is that, although prevalence rates are low compared to wasting and stunting, they are substantial in terms of numbers and the trend is upward. Other factors to note are that overweight prevalence is higher in urban settings and that there is generally no difference between boys and girls. Overweight is more common in higher socioeconomic groups, which is different to the situation in high-income countries, although we are beginning to see overweight emerging among the lowest income groups, too.

2. Can you share any examples of countries in the region that have policies or programmes to protect the diets of young children and promote healthy eating?

All countries in South Asia have infant and young child feeding (IYCF) policies or strategies that promote healthy complementary feeding in children aged 6–23 months and, although they are not specifically targeting child overweight, they focus on optimal feeding practices (breastfeeding and complementary feeding). The food-based dietary guidelines or national IYCF guidelines of most countries (Afghanistan, Bangladesh, India, Maldives, Nepal, Pakistan, Sri Lanka) are based on WHO

(World Health Organization) global guidance, which is being updated, and cover the life cycle, including the 6–23 months age group. In terms of legislative protection, commercially manufactured complementary foods are covered in Bangladesh, Maldives, Sri Lanka and India, with each country covering different age groups.

3. What are the most effective policy options that countries could consider, in terms of creating systems that promote healthy diets in early childhood?

A key point to remember for South Asia, where the predominant burden is undernutrition, is

Table 1 Prevalence of overweight in young children in South Asia

Countries	0-23 months (%)	24-59 months (%)
Afghanistan (Health Survey 2018)	5.3	2.7
Bangladesh (MICS 2018)	3.2	1.9
Bhutan (NNS 2015)	3.9*	
India (CNNS 2018)	2.9	1.5
Nepal (DHS 2016)	2.3	0.5
Maldives (DHS 2016-18)	4.5	4.0
Pakistan (DHS 2017-18)	2.5	3.0
Sri Lanka (DHS 2016)	2.5	1.6

*Disaggregated data not available



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that we need to ensure that policy options promote an optimal diet for young children that covers *all* aspects of malnutrition. Some existing interventions could be expanded so that they address both undernutrition and overweight within one programme package – the so-called ‘double-duty’ actions. Double-duty actions include interventions, programmes and policies that have the potential to simultaneously reduce the risk or burden of both undernutrition (including wasting, stunting and micronutrient deficiency) and overweight, obesity and diet-related, non-communicable diseases (including type 2 diabetes and cardiovascular disease). WHO’s essential nutrition actions and the recommendation of the Commission on Ending Childhood Obesity suggest a number of policy interventions that countries could implement to more effectively address undernutrition and overweight simultaneously. These include:

- Legislation and regulatory actions to tackle issues of unhealthy commercial complementary foods and set nutrient targets and standards for sugars and fats (including trans-fatty acids elimination);
- Enforcement of the International Code of Marketing of Breastmilk Substitutes, including addressing inappropriate promotion of foods and beverages to young children;
- Programmatic actions to encourage breastfeeding and adequate complementary feeding and prevent micronutrient deficiencies;
- Develop food standards for government food-supplementation programmes that target specific recipients, rather than blanket programmes;
- Promote physical activity for young children;
- Increase community awareness of the importance of healthy feeding and risk of overweight as, to date, the messaging in South Asia has focused on undernutrition and communities are often unaware of the

problem. There are cultural connotations of ‘chubby’ being seen as healthy.

Each country will need to allocate additional resources, develop capacity, address coverage and quality of current programmes, and prioritise the ‘menu’ of actions according to its specific realities.

4. What do you see as the main challenges to addressing the double burden in South Asia? How can these barriers be overcome?

Governance: To date, the policy focus in countries has been on different forms of undernutrition, since they are more prevalent and can increase in the countries experiencing protracted crises (such as conflict and civil unrest, as seen in Afghanistan and Pakistan). However, policymakers need to understand the common drivers of all forms of malnutrition. Extensive advocacy is key to utilising data and information that also take account of commercial food products.

Health systems: These are mainly responsible for programme delivery for IYCF and can be constrained in many countries in terms of resources, capacity and monitoring. Fragile health systems are resource-scarce, often with low coverage of interventions and having to deal with competing priorities.

Poor convergence between systems (food; health; water, sanitation and hygiene (WASH); and social protection systems):

In this situation, bringing in the dimension of overweight adds another layer of complexity. Despite efforts to set up multi-sector platforms for coordinated actions to address undernutrition in young children, the reality is that there is often little coordination in evidence on the ground. Merely adding overweight to such platforms is unlikely to be successful unless there is a review of the performance of multi-sector platforms in each country and rectification of existing constraints, so that policy

and programme convergence is addressed systematically.

Development and adoption of guidelines, legislation and regulatory frameworks:

There is a lack of guidance and legislation. Where they do exist, poor enforcement and monitoring is a concern; as seen, for example, in the implementation of the Code (and subsequent resolutions), including inappropriate promotion of unhealthy foods and beverages for young children.

Community empowerment: Communities have so far heard about stunting and wasting; adding another dimension has to be done with appropriate communications and messaging that address social norms of ‘chubby babies’.

5. What are the plans for next steps on this agenda at a regional level?

Specific directions and actions have been identified in the *Strategic Action Plan to reduce the double burden of malnutrition in South-East Asia (2016–2025)* and endorsed by all member countries¹. Member states in the Eastern Mediterranean (which includes Afghanistan and Pakistan) have also supported a new nutrition framework (2020–2030) that includes actions to address overweight/obesity².

Health-system strengthening to increase access to primary care is being supported by WHO. The actions relating to young children’s diets and nutritional situation are:

- At a regional level, conduct a policy and programme mapping to assess the current situation of the double burden as baseline information, including maternal care and older children. Countries can then be supported to examine their situation and address gaps in their policies, infant and young child feeding strategies, guidelines and programmes.
- Support prioritisation of actions for feeding of children aged 6–23 months.
- At a regional level, we also need to better identify indicators that can measure a healthy diet. The current indicators need to be supplemented.
- Context-specific research is also needed on overweight in the 6–23 months age group in terms of specific drivers and dietary counselling messaging. To support young children’s diets, we have initiated a nutrient-profiling activity whereby the nutrient content of commercial complementary foods is assessed and countries can be supported to move towards healthier snacks and commercial complementary foods.

¹ www.who.int/docs/default-source/searo/india/health-topic-pdf/strategic-action-plan-to-reduce-the-double-burden-of-malnutrition-in-sar-2016-2025.pdf?sfvrsn=a73ab5d1_2

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FAO & WHO (2019). *Standard for Processed Cereal-Based Foods for Infants and Young Children*. Rome: Food and Agriculture Organization of the United Nations and World Health Organization. Available online [here](#)

Programme tools

UNICEF First Foods for Young Children – Video Series on Complementary Feeding

This contains two very useful video series for training frontline workers and for interacting with mothers and caregivers. They are available here:

- Videos for mothers and caregivers:
• www.unicef.org/nutrition/102823_102859.html
- Videos for frontline workers:
• www.unicef.org/nutrition/102823_102862.html



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Community based infant and young child feeding resources

Developed in 2013, this infant and young child feeding (IYCF) counselling package includes a useful IYCF digital image bank on counselling topics related to nutrition, hygiene and health; and in particular contains counselling materials from Nepal and India www.unicef.org/nutrition/index_58362.html

Regional reports

Stop Stunting/Improving Young Children's Diets in South Asia regional conference report (2019). Available online [here](#)

Held in Kathmandu, Nepal on 17-19 September 2019, this conference brought together the member states of the South Asian Association for Regional Cooperation (SAARC) to discuss and agree on actions to accelerate improvements in the diets and feeding practices of young children in South Asia. This issue of NEX was developed as a follow-up to this conference in order to explore country approaches to complementary feeding in more detail.

Published literatures

Maternal and Child Nutrition (2017) Special Issue: First Foods: Improving Diets in Early Childhood Volume 13, Issue S2

onlinelibrary.wiley.com/toc/17408709/2017/13/S2

This publication provides a series of informative papers covering many aspects of complementary feeding, with a particular focus on the South Asia region. These include: why improving the diets of young children is so important; global and regional estimates of feeding practices; issues around consumption of commercially produced snack foods and sugar-sweetened beverages in urban Asia; an analysis of complementary feeding practices in South Asia; and a look at the evidence for harnessing private-sector expertise to improve complementary feeding.

COVID-19 resources

Joint UN Statement on nutrition and COVID-19 in Asia and the Pacific.

www.unicef.org/rosa/press-releases/joint-statement-nutrition-context-covid-19-pandemic-asia-and-pacific

Infant and young child feeding in the context of COVID-19

www.unicef.org/media/68281/file/IYCF-Programming-COVID19-Brief.pdf

IYCF counselling package in the context of COVID-19

www.advancingnutrition.org/news-events/2020/04/24/infant-and-young-child-feeding-recommendations-when-covid-19-suspected-or



ENN

2nd Floor, Marlborough House, 69 High Street,
Kidlington, Oxfordshire, OX5 2DN

Tel: +44 (0)1865 372340 Email: office@enonline.net

Charity registration no: 1115156. Company registration no: 4889844

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